

TOWN OF FORT FRANCES

Operations and Facilities Executive Committee

AGENDA - November 7, 2018, 8:30 AM

MEETING - Civic Centre Council Chambers

Session #013

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1. <u>Call to Order</u>	
2. <u>Disclosure of pecuniary interest and the general nature thereof</u>	
3. <u>Approval of Previous Committee Minutes</u>	
3.1 Minutes from the previous meeting on October 4, 2018.	2 - 3
4. <u>Non-agenda Items</u>	
5. <u>Items Referred from Council</u>	
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5.2 Letter from Cynthia Donald - Re: Bike Path Signs	7 - 8
6. <u>New Business</u>	
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8. <u>Adjourn / Next Meeting Date</u>	

TOWN OF FORT FRANCES

MINUTES

SESSION NO. #012

October 4, 2018

The meeting of Operations & Facilities Executive Committee of the Town of Fort Frances was held in the Civic Centre on October 4, 2018 from 8:30 a.m. to 10:00 a.m.

PRESENT: Ken Perry, June Caul, Doug Brown and Travis Rob.

ALSO PRESENT: Tara Allaire (8:30 a.m. to 9:00 a.m.)

1. Call to Order

The meeting was called to order at 8:38 a.m.

2. Disclosure of pecuniary interest and the general nature thereof

None

3. Approval of Previous Committee Minutes

3.1 Minutes from the previous meeting on September 19, 2018 - the minutes were approved as amended.

4. Non-agenda Items

4.1 Whitefish Bay First Nations Landfill

5. Items Referred from Council

5.1 Request from the Municipality of Emo for Recycling Services - the administration report was approved as presented. (Tara Allaire present from 8:30 a.m. to 9:00 a.m.)

5.2 Whitefish Bay First Nation Landfill Request - a verbal update on conversation with MOECC.

6. New Business

6.1 Award of Tender 18-OF-08 - Heavy Duty Tandem Drive Articulated Grader - the administration report was approved as presented.

6.2 Changes to the Minimum Maintenance Standards - Staffing Requirements - the administration report was approved as recommended.

7. Information

- 7.1 Tonnage at the Landfill Site - updated September 25, 2018 - the Landfill statistics were reviewed and will be forwarded to Council as information only. No further action required.

8. Adjourn / Next Meeting Date

The meeting adjourned at 10:00 a.m.

Executive Committee Chair

T. Rob, Manager of Operations & Facilities

November 7, 2018

Report To: Mayor and Council

From: Travis Rob, Manager of Operations and Facilities

RE: Letter Dated September 28, 2018 from the Sleepy Owl – Lane Condition

At the October 9 meeting of Council, a letter was received and referred to the Operations and Facilities Executive Committee from The Sleepy Owl (formally the Makabi Inn) regarding the condition of the lane behind their property.

This lane is an asphalt lane, which most in the downtown core are, suffers from poor drainage and likely improper granular base and sub base. In addition, this lane, as were most, has seen localized excavations for both Tbaytel and Union Gas (Link Line) service and main installations most patched. The east most portion of this lane has deteriorated to gravel and is graded as most of our lanes are. West of the Shoppers building the lane is asphalt with numerous potholes, monitored and maintained through the year by the Town. The lane west of the Sleepy Owl was rehabilitated during the construction of the Portage Avenue Parking Lot and is overall in good condition. There is a low spot near the south east corner of the Post Office property which retains water. This area was scheduled to be repaired this year in concert with repairs to the catch basins throughout the Portage Avenue Municipal Parking lot. All of this work was postponed when the Operations and Facilities Division learned of the redevelopment of 335 Scott Street as there would have to be storm sewer work that would have to be part of that work and it was the perfect opportunity to complete all of the work concurrently to minimize disruption. The additional work would, of course, be at the cost of the Town. The required extension of the storm sewer in the alley includes an additional catchbasin manhole and approximately 20m of 300mm diameter storm sewer piping.

The Town will work with developers to provide services to private properties within construction tenders when working within the development area. The Town will assist in reducing costs to the developer in the provision of services through the roadway construction work. In the case of this lane, there is not current plan to undertake a full rehabilitation of this area in the near future. The deficiencies west of The Sleepy Owl are still planned to be repaired as part of the service installation works required for the demolition of 335 Scott Street.

It is the recommendation of the Operations and Facilities Executive Committee to receive the request from The Sleepy Owl and that no further action be taken.

Respectfully Submitted



Travis Rob, P.Eng

<p>Council approval of this report will agree to the recommendation of the Operations and Facilities Executive Committee to receive the request from The Sleepy Owl and that no further action be taken.</p>

Manager of Operations and Facilities

Wade Friesen
The Sleepy Owl Downtown
325 Scott St
Fort Frances, On
P9A 1H1

September 28, 2018

Dear Town Council,

Since buying our hotel in February (formerly known as The Makabi Inn), our team has been constantly thinking of ways to improve our business and market our hotel to travelers. We do this not only for the direct business, but also because we believe that our town should be a destination spot.

We recently invested in a 2 ½ minute commercial that showcases our town in a beautiful way.
In short we believe in Fort Frances and think it has a lot of potential to offer travelers.

We have also have done: moderate landscaping (hoping to do more in a later phase), upgrade our internet service, offer free breakfast to guests, and discussions in getting more involved with the community events/causes.

One of the first things we did, was buy the building next to ours, for the purpose of creating a better parking situation for our guests. As you know, the parking in town, (and specifically in our parking lot) is really congested. During our fully occupied nights, it wouldn't be uncommon to see lots of vehicles parked on Scott St. We are hoping to eliminate some of this burden for the town as well as provide a better service to our guests.

We have already went through the process of finding a contractor, and paying for having the demolition plans made up to do this.

The problem we are running into now, is what to do with our water drainage, once the building of 335 Scott St is removed. Currently the water is pumping out of the back of the building into the alleyway on top of the pavement and running west to the nearest grate. (See attached photos on next page). This is acceptable under current code. However, as soon as the building comes down this will be out of compliance with newest standards from what I've been told.

I was just at the last town council meeting where a new law was voted in for the hotels in town to charge an extra 4% to our guests. It was stated that the purpose of this was for town improvement and to ultimately bring in more tourists and therefore more revenue into our hotels.

If that is the will of the council then I purpose the following:

By the looks of it, the alleyway between Church St and Scott St on the 300 block needs upgrading done sooner than later. It is full of pot holes and bumps and needs fresh paving.

The drainage plan required, as part of my demolition project, requires that the alley behind the hotel be dug up in order to install pipe, and then covered back up and paved. This was estimated around \$20,000 from 2 different contractors. I am already paying a separate contractor to dig and lay pipe from the middle of my property to the alleyway. Why wouldn't we work together and improve that area. My suggestion, the town fixes and repaves the road from at least midpoint (behind RBC) to the post office parking lot. And during that renovation project, I can pay to have my water pipe installed from the drainage point to the designated point in the alleyway. We can work together and really improve our town, as well as travelers impression of our downtown core.

Let's meet and discuss this further.



Wade Friesen, The Sleepy Owl
(807) 275 5683
themakabiinn@gmail.com





November 7, 2018

Report To: Mayor and Council

From: Travis Rob, Manager of Operations and Facilities

RE: Letter from Cynthia Donald RE: Bike Path Signs

At the October 9, 2018 meeting of Council, a letter regarding the installation of additional signs along the asphalt path adjacent to the roadway along Front Street and Colonization Road East from Victoria Avenue to Calder Drive.

This path is not a true bike path as defined in the Ontario Traffic Manual Book 18 – Cycling Facilities as the path is narrower than the minimum allowable width of a two-way raised cycle track. Therefore, the signage required for a cycle track is not a requirement, in addition we can not sign the path as if it is a bike path as it does not meet the requirements and this action could open the Town to liability should an incident happen. The Highway Traffic Act prohibits cyclists from utilizing sidewalks and given that the asphalt path along this road segment does not constitute a bicycle path it has to be considered as a sidewalk.

Currently there are signs on the walking path, primarily on the phase one portion, asking users of bicycles to move off of the walking path to allow the use of the wider path for pedestrians, strollers, etc. Similar signs could be installed along the asphalt path to ask pedestrians to utilize the walking path, however if the asphalt path is not for pedestrians but can not be called a bike path, what is its use?

It is the recommendation of the Operations and Facilities Executive Committee to receive Mrs. Donald's request and that no further action be taken.

Respectfully Submitted



Travis Rob, P.Eng

<p>Council approval of this report will agree to the recommendation of the Operations and Facilities Executive Committee to receive Mrs. Donald's request and that no further action be taken.</p>

Manager of Operations and Facilities

First Name: Cynthia
Last Name: Donald
Address: 1117 5th St. E

1. Can we have a few signs up regarding the bike path? Apparently many people feel like they don't have to yield to bikers when they are on the bike path. Also, if you come up behind a walker who is listening to music on the bike path then you have no choice but to go around them sometimes trying to avoid trees and benches. If you are more on the Senior side of life then this can be a little daunting. I'm sure a few signs up would help.

November 7, 2018

Report To: Mayor and Council

From: Travis Rob, Manager of Operations and Facilities

RE: Asset Management Levels of Service Report

As part of the Town's asset management program update Roadmap Project, an evaluation of the current levels of service metric has been completed. Attached to this report you will find our Level of Service Report outlining the data that will be captured to evaluate the levels of service for the Town's core assets and the outline that will be utilized across the remaining Town Assets.

Before the level of service that the Town will provide can be set, a baseline of the current operations needs to be outlined; the metrics that will be used to monitor the Town's levels of service across their asset classes need to be established. Upon the establishment of the metrics, the Town then has to start to gather the background data to establish a baseline to allow for council to establish what level will be provided to the residents based on the current trends. It is suggested that at the very least two years worth of data is gathered to establish a level of service moving forward.

In the report there are some items, highlighted in green, which are required by the Asset Management Regulation, O. Reg. 588/17, to be reported on even though some do not apply to the Town assets. This level of service report can be seen as a guidance document to assist the Town moving forward establishing the levels of service framework for all of our asset classes and setting the level of service. In the recommendation section, the next steps are detailed including timelines as set out in O.Reg. 588/17 to ensure that the Town continues to progress their asset management program forward and remains compliant with this regulation.

There is not requirement for Council to act on anything contained in this report. At this time The Operations and Facilities Division Asset Management Coordinator is compiling historical data to be utilized as baseline data in the future establishment of the Town's Levels of Service.

Respectfully Submitted



Travis Rob, P.Eng

Council approval of this report is not required, the report is provided for information

Manager of Operations and Facilities

Levels of Service Report



Report by: PSD
Authored by: Matthew Smith and Mai Abdou
August 2018

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Introduction

Levels of Service – Introduction

The primary responsibility of a municipality is to ensure that they are providing adequate and sustainable services to their community. This outcome should be supported by organizational objectives, mission statements, and official plans that outline the rationale for these activities.

To ensure that organizational objectives align with expected service outcomes, it is necessary to develop a process for the systematic measurement, monitoring and evaluation of an organization's level of service. A level of service (LOS) can be defined as the user-focused outcome of an asset's performance. Simply put, a level of service is a measure of how well a municipality provides for its citizens in a cost-effective and efficient manner.

Managing levels of service involves balancing three key factors: cost, performance and risk. Any decision to increase or decrease the provided levels of service will have an impact on each factor. Increasing a level of service will lead to higher costs but would lead to a decrease in risk and an increase in asset performance. For example, improving the rideability of your roads is a level of service increase, but comes with an added cost to the tax-payer. Conversely, a decrease in level of service will mean lower costs but an increase in risk and a decrease in asset performance. For example, decreasing the level of service of your parks by not making them accessible or up-to-code will save you money but will also affect the quality of life for your residents. As a result, managing your levels of service is about understanding the trade-offs involved and aligning cost, performance and risk with both your organizational objectives and the desires of community stakeholders.



PSD Roadmap: Workshop



On August 22nd, 2018 PSD facilitated a workshop with the Town of Fort Frances staff to develop a customized levels of service framework. The initial presentation and discussion illustrated the importance of levels of service in an asset management program and the role that it should play in decision-making moving forward. Second, the workshop focused on developing meaningful level of service statements, technical and customer levels of service that take into consideration the availability of data and the ability of these indicators to provide actionable data.

The workshop concluded with an interview of Town staff on the various internal and external factors and trends that may affect their ability to provide expected levels of service in the future. The results of this interview are summarized in the Section titled **Factors Impacting Levels of Service in Fort Frances**.

Fort Frances Attendees:

Travis Rob, Operations and Facilities Manager

Dawn Galusha, Deputy Treasurer

Crystal Tan, Asset Management Plan Coordinator

Trish Law, GIS Expert

PSD Attendees:

Matthew Smith, Asset Management Research Analyst

Mai Abdou, Asset Management Consultant

Developing a Level of Service Framework

How to Measure Levels of Service

Performance measurement is a key component of the effective management of levels of service; it allows you to analyze how well you are meeting the needs and expectations of your stakeholders and identify where there are gaps that need to be addressed. Developing realistic levels of service using meaningful key performance indicators (KPIs) is instrumental in managing citizen expectations, identifying areas requiring higher investments, driving organizational performance, and securing the highest value for money from public assets.

To facilitate this process, it is useful to develop a framework for tracking and evaluating the levels of service. This requires the translation of organizational objectives and expected service outcomes into key performance indicators that reflect evolving demand on infrastructure, the organization's fiscal capacity, and stakeholder input. Using a centralized database that houses levels of service alongside the KPIs that measure/assess the achievement of those LOS will enable the Town to better collect and scrutinize the current performance of their assets. In addition, the Town will be able to establish target levels of service that reflect the fiscal capabilities of the municipality, its corporate and strategic goals, and changes in demographics that may place additional demand on service areas.

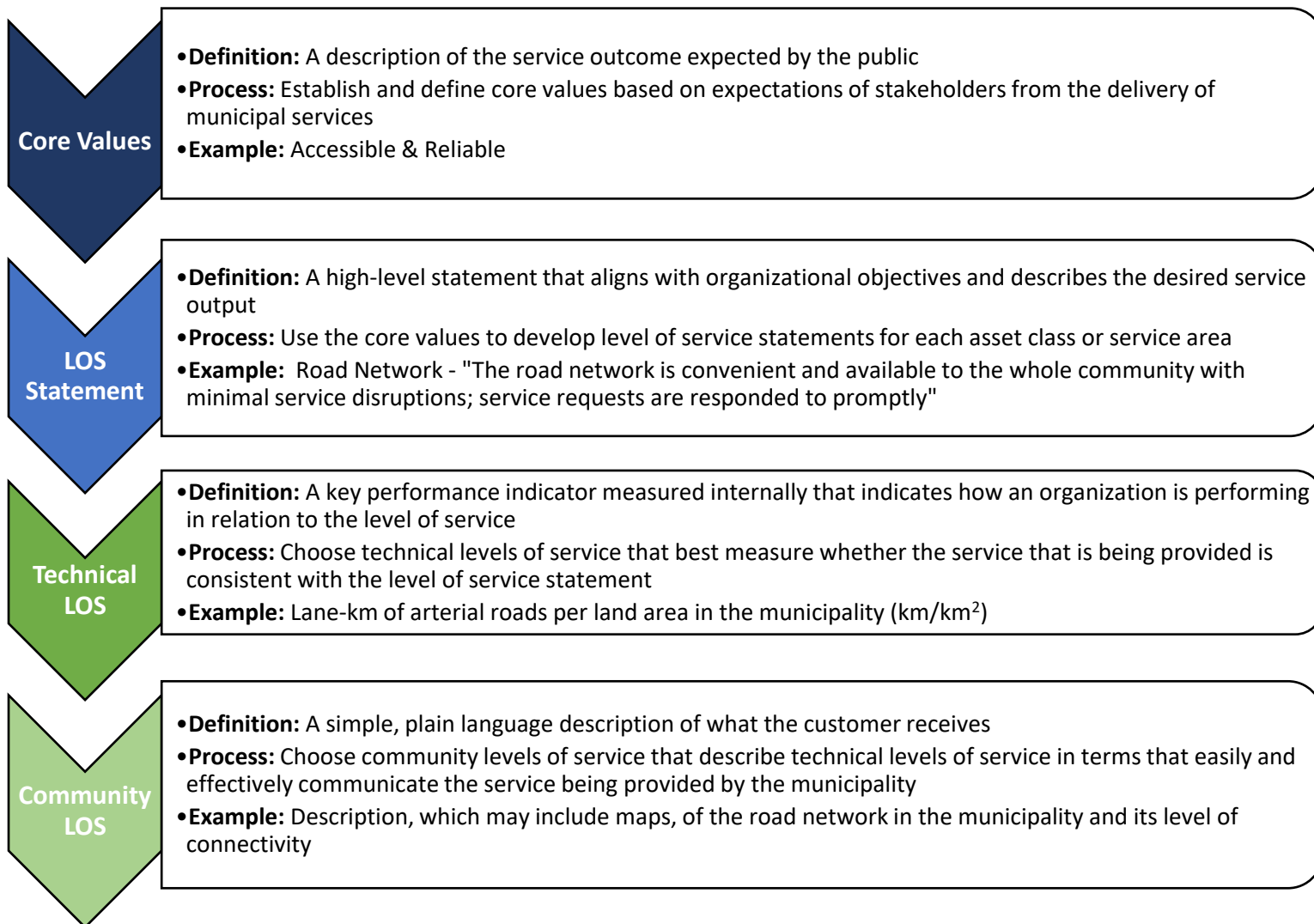
Core Values

As a guide to developing and measuring levels of service, it is useful to understand what the public values in the provision of municipal services. The following table provides an overview of the values that the municipality should strive to accommodate when delivering services to the public:

Value	Description
Accessible	Services are available and accessible for customers who require them.
Reliable	Services are provided with minimal service disruption and are available to customers in line with needs and expectations.
Safe	Services are delivered such that they minimize health, safety and security risks.
Regulatory	Services meet regulatory requirements of all levels of government.
Affordable	Services are delivered at an affordable cost for both the organization and customer.
Sustainable	Services are designed to be used efficiently and long-term plans are in place to ensure that they are available to all customers into the future.

Developing a Level of Service Framework

The following graphic provides a simple guide to develop a Level of Service Framework in four steps. Each stage includes a definition, process, and example.



High-level Service Indicators

While technical levels of service provide a detailed quantifiable measure of how well the Town is providing services to the community, they may not always represent the true level of service being provided. When analyzing levels of service, the municipality should consider both the overall cost, risk and performance being provided (high-level service indicators) as well as more detailed and specific service metrics (technical levels of service) that will be further explained within the Level of Service Framework section to come.

Measuring and evaluating levels of service is a matter of finding a balance between the three key indicators: cost, performance and risk. Within this framework these indicators are measured according to the following criteria:

Indicator	Metric	Measurement
Cost	Annual Reinvestment Rate	$\frac{\text{Annual Capital Expenditures}}{\text{Total Asset Class Replacement Value}} \times 100$
	Target Reinvestment Rate	$\frac{\text{Annual Capital Requirement}}{\text{Total Asset Class Replacement Value}} \times 100$
Performance	Overall Condition	% of assets in very good, good, fair, poor and very poor condition
Risk	Overall Risk Distribution	% of assets in very low, low, moderate, high and very high state of risk

The following infographic provides an example of how this data can be integrated into the Town's Level of Service Framework and is not indicative of current data on the Town's Road Network. As Fort Frances develops its next Asset Management Plan, these high-level service indicators should be updated accordingly for more accurate, realistic reporting and analysis. Finally, these three indicators can be analyzed to determine an overall level of service trend over the next 10+ years. Each asset class is given a projection of either increasing, sustained or decreasing levels of service. The value of this visualization is to aid municipalities in understanding the trajectory that their assets are taking due to their maintained condition and performance, and where best to allocate money to bridge the current and target reinvestment rates and improve the level of service trend of said assets.

	Annual Reinvestment Rate	Condition	Risk	LOS Trend																														
Road Network	<p>Annual Asset Class Reinvestment Rate</p> <table><thead><tr><th>Category</th><th>Rate</th></tr></thead><tbody><tr><td>Current Reinvestment Rate</td><td>2.21%</td></tr><tr><td>Target Reinvestment Rate</td><td>3.87%</td></tr></tbody></table>	Category	Rate	Current Reinvestment Rate	2.21%	Target Reinvestment Rate	3.87%	<table><thead><tr><th>Condition</th><th>Percentage</th></tr></thead><tbody><tr><td>Very Good</td><td>17%</td></tr><tr><td>Good</td><td>46%</td></tr><tr><td>Fair</td><td>11%</td></tr><tr><td>Poor</td><td>4%</td></tr><tr><td>Very Poor</td><td>21%</td></tr></tbody></table>	Condition	Percentage	Very Good	17%	Good	46%	Fair	11%	Poor	4%	Very Poor	21%	<table><thead><tr><th>Risk Level</th><th>Percentage</th></tr></thead><tbody><tr><td>Very High</td><td>2%</td></tr><tr><td>High</td><td>6%</td></tr><tr><td>Moderate</td><td>36%</td></tr><tr><td>Low</td><td>43%</td></tr><tr><td>Very Low</td><td>13%</td></tr></tbody></table>	Risk Level	Percentage	Very High	2%	High	6%	Moderate	36%	Low	43%	Very Low	13%	
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Fort Frances's Level of Service Framework

As part of PSD's Roadmap, the Town worked alongside PSD staff to develop a centralized database for tracking and evaluating provided levels of service. The following tables outline the Town's customized levels of service framework. Levels of service should be tracked annually for all asset classes. Regular evaluation will allow the Town to identify service deficiencies and develop asset management strategies to adequately address them and create realistic and achievable target levels of service. Technical and Community Levels of Service that are now required to be measured as part of Ontario Regulation 588/17 have been highlighted in green.



Water System			
Core Value	Level of Service Statement	Community Level of Service	Technical Level of Service
Accessible & Reliable	A reliable water supply is provided with minimal service disruptions; system failures and service requests are responded to promptly; water connections are available and accessible to all properties within the public water network	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal water system	% of properties connected to the municipal water system
		Description, which may include maps, of the user groups or areas of the municipality that have fire flow	% of properties where fire flow is available
		Description of boil-water advisories and service interruptions	# of connection-days per year due to water main breaks compared to the total number of properties connected to the municipal water system
Safe & Regulatory	Safe drinking water is supplied to all Fort Frances customers by Operations and Facilities Division; legislative and regulatory requirements are promptly complied with to maintain the Drinking Water Quality Management System; processes and procedures are modified according to Safe Drinking Water Act to improve operations and customer satisfaction	Description of customer satisfaction with water quality	# of connection-days per year where a boil water advisory notice is in place compared to the total number of properties connected to the municipal water system
			# of water quality customer complaints
Affordable	Water services are affordable, and infrastructure is managed cost-effectively for the expected level of service	What is the bi-monthly residential water bill?	(Annual residential water bill / average household income) * 100
			O&M Cost (includes treatment and distribution)/ pipe km length
Sustainable	A Drinking Water Quality Management System is established and regularly reviewed for continuous improvement; equipment and infrastructure is upgraded to reflect necessary improvements to meet expectations and population forecasts	When was the last time that the Town's DWQMS was reviewed?	% of the water system that is in good or very good condition
			% of the water system that is in poor or very poor condition
			DWQMS reviewed annually

Wastewater System			
Core Value	Level of Service Statement	Community Level of Service	Technical Level of Service
Accessible & Reliable	Reliable wastewater service is provided with minimal service disruptions; system failures and service requests are responded to promptly; sanitary connections are available and accessible to all properties within the public sewer network	Description, which may include maps, of the user groups or areas of the municipality that are connected to the municipal wastewater system	% of properties connected to the municipal wastewater system
			% of sanitary mains flushed annually
			# of sanitary sewer main backups
Safe & Regulatory	Wastewater is managed to minimize risk/hazard to public health; full compliance with all regulatory requirements is achieved	Description of how combined sewers in the municipal wastewater system are designed with overflow structures in place which allow overflow during storm events to prevent backups into homes	# of events per year where combined sewer flow in the municipal wastewater system exceeds system capacity compared to the total number of properties connected to the municipal wastewater system
		Description of the frequency and volume of overflows in combined sewers in the municipal wastewater system that occur in habitable areas or beaches	
		Description of how stormwater can get into sanitary sewers in the municipal wastewater system, causing sewage to overflow into streets or backup into homes	# of connection-days per year due to wastewater backups compared to the total number of properties connected to the municipal wastewater system
		Description of how sanitary sewers in the municipal wastewater system are designed to be resilient to avoid sewage overflow into streets or backup into homes	
		Description of the effluent that is discharged from sewage treatment plants in the municipal wastewater system	# of effluent violations per year due to wastewater discharge compared to total number of properties connected to the municipal wastewater system

Affordable	Wastewater services are affordable, and infrastructure is managed cost-effectively	What is the amount of the bi-monthly residential sewer bill?	(Average annual residential sewer bill / average household income) * 100
			O&M Cost (includes treatment and collection) / km pipe length
Sustainable	Wastewater resources are used efficiently, and long-term plans are in place for the sustainability of wastewater treatment and infrastructure	When was the last time that the AMP was reviewed?	% of the wastewater system that is in good or very good condition
			% of the wastewater system that is in poor or very poor condition
			AMP reviewed annually

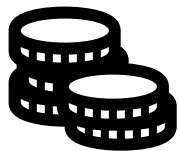
Stormwater System			
Core Value	Level of Service Statement	Community Level of Service	Technical Level of Service
Accessible & Reliable	Stormwater system is reliable and provided with minimal service disruptions; service requests are responded to promptly within the municipal stormwater network	Description, which may include map, of the user groups or areas of the municipality that are protected from flooding, including the extent of protection provided by the municipal stormwater management system	# of customer complaints of surface flooding due to storm events
			% of storm sewer mains inspected
			% of catch basins cleaned
Safe & Regulatory	Stormwater system protects property and people from the impacts of flooding and minimizes exposure to risk	What level of storm intensity is the municipal stormwater network designed to handle (e.g. 1 in 5-year)?	% of properties in municipality resilient to a 100-year storm
			% of the municipal stormwater management system resilient to a 5-year storm
Affordable	Stormwater system is affordable and managed cost-effectively for the expected level of service	What is the O&M cost to maintain the stormwater network / household?	O&M Cost / km of storm sewer and urban ditches
Sustainable	Stormwater assets are managed efficiently, and long-term plans are in place for the sustainability of stormwater infrastructure	When was the last time that the AMP was reviewed?	% of the stormwater system that is in good or very good condition
			% of the stormwater system that is in poor or very poor condition
			AMP reviewed annually

Road Network			
Core Value	Level of Service Statement	Community Level of Service	Technical Level of Service
Accessible & Reliable	The road network is convenient and accessible to the whole community with minimal service disruptions; service requests are responded to promptly	Description, which may include maps, of the road network in the municipality and its level of connectivity	Lane-km of arterial roads (MMS classes 1 and 2) per land area in the municipality (km/km ²)
			Lane-km of collector roads (MMS classes 3 and 4) per land area in the municipality (km/km ²)
			Lane-km of local roads (MMS classes 5 and 6) per land area in the municipality (km/km ²)
Safe & Regulatory	The road network meets all minimum maintenance standards	Description of minimum maintenance standards for road network (road surfaces and sidewalks)	# of customer complaints related to the road network
			# of customer complaints related to the sidewalk network
Affordable	The road network is managed cost-effectively for the expected level of service	What is the O&M cost to maintain the road network per household?	O&M costs for paved roads / lane-km (excluding winter control)
			O&M costs for unpaved roads / lane-km (excluding winter control)
			Winter control costs / lane-km
Sustainable	Long-term plans are in place for the sustainability of the road network	When was the last time the AMP was reviewed?	AMP reviewed annually
		Description or images that illustrate the different levels of road class pavement condition	% of the road network that is in good or very good condition
			% of the road network that is in poor or very poor condition
			Average pavement condition index for paved roads in the municipality
			Average surface condition for unpaved roads in the municipality

Bridges & Culverts			
Core Value	Level of Service Statement	Community Level of Service	Technical Level of Service
Accessible & Reliable	Bridge structures provide reliable access to the road network for vehicles and/or pedestrians	Description of the traffic that is supported by municipal bridges (e.g. heavy transport vehicles, motor vehicles, emergency vehicles, pedestrians, cyclists)	% of bridges in the municipality with loading or dimensional restrictions
			# of unplanned bridge closures
Safe & Regulatory	Bridges structures provide safe vehicular and/or pedestrian passage, and all structures are fully compliant with regulatory requirements	Description of the OSIM inspection process	% of bridges inspected every two years
Affordable	Bridges structures are managed cost-effectively for the expected level of service	What is the O&M cost to maintain bridges per household?	O&M costs for bridges / household
Sustainable	Long-term plans are in place for the sustainability of all bridge structures	When was the last time the AMP was reviewed?	AMP reviewed annually
		Description or images of the condition of bridges and how this would affect use of the bridges	Average bridge condition index value for bridges in the municipality

Factors Impacting Levels of Service in Fort Frances

The provision of desired levels of service is not simply a matter of proper asset management. There is a wide range of internal and external factors that may impact the ability of a municipality to provide reliable public services. As part of the Level of Service Workshop, PSD interviewed Town staff to gain greater insight into the challenges and opportunities facing the municipality now and into the future. The following sections summarize the results of this interview:



Fiscal Capacity

Maintaining municipal infrastructure and providing desired levels of service requires the allocation of adequate financial resources. Fiscal capacity and budget constraints are a constant concern for staff across all departments attempting to manage the maintenance and rehabilitation of municipal infrastructure. While there is a keen understanding of the benefits of a proactive approach to managing the lifecycle of infrastructure assets, there is often not enough funding to engage in more proactive maintenance, rehabilitation and replacement activities leading most municipalities to take a reactive approach to managing their assets. Managing the infrastructure deficit and aligning the current reinvestment rates to the target reinvestment rates is a key concern, not only for the Town of Fort Frances, but for all municipalities. Moreover, with the advent of social media, residents have become more scrutinizing of their Town's infrastructure in comparison to neighbouring towns and have developed high unattainable expectations. With a lack of adequate funding available to complete all required capital and operating activities, it is critical that Town staff develop and support a network-wide risk assessment framework to prioritize infrastructure projects and ensure that limited funds are dispersed effectively to achieve the greatest benefit to the community and manage their growing expectations.

Municipalities typically have few means at their disposal to raise adequate and sustainable funding to meet operational and capital requirements. As a result, they are heavily dependent on both provincial and federal grant programs to maintain and replace municipal infrastructure. Any fluctuations in annual grant funding secured can have a dramatic impact on provided services. Staff have noted that their complete reliance on grant funding, especially for underfunded assets such as roads, storm sewers, and bridges is a major vulnerability; the Town will be applying for OCIF top-up funding for their roads as they are in a worse condition than their underground infrastructure. They also noted that due to delayed responses with the FCM grant applications, they were unable to complete projects such as the zoom-camera program in time. Nevertheless, staff attempt to apply for as many available grant funding programs as possible, and in the absence of reliable grant funding programs, the Town will have to explore how existing revenue sources can be leveraged to ensure that existing municipal infrastructure is adequately maintained.



Aging Infrastructure

The condition and performance of municipal infrastructure assets directly correlates to the quality of services a municipality can deliver to its residents. Aging and deteriorating assets increasingly remain in service past their estimated service lives due to a lack of fiscal capacity to replace or rehabilitate as needed. Staff expressed particular concern about the current state of underground infrastructure with water and wastewater assets being in poor condition. Due to age and deterioration, there is concern that a significant portion of this infrastructure will need to be replaced soon and that planning will be required to ensure that adequate funding is allocated to address these needs. Typically, Council is less inclined to see these types of projects as particularly attractive which may further contribute to their continued underfunding. In addition to underground infrastructure, there is also concern about the current condition of buildings and community facilities since these assets are dealt with on a primarily reactive measure. Additional capital investment may be required in order to meet both the existing desires of citizens and as a tool to attract population growth and economic activity.



Climate Change and Weather Events

Forecasting for infrastructure needs based on climate change remains an imprecise science. However, broader environmental and weather patterns have a clear and direct impact on the reliability of critical infrastructure services. As such, it is important that the impacts of weather events on municipal infrastructure are accounted for in the development of asset management strategies. In recent years, the town of Fort Frances has experienced a higher rate of extreme rainfall causing damage to core infrastructure. These events have in turn placed more pressure on the operational mitigation and maintenance of assets; thereby allocating less funding and resources for capital projects. In the future, collecting climate change and weather data will allow the Town to set up mitigation plans and allocate the proper funding to fortify their systems from often unpredictable environmental events thereby shifting from a reactive to a proactive approach.



Demographic Change and Expected Growth

Municipal demographics can also serve as an infrastructure demand driver, and as a result, can change how a municipality decides to allocate its resources. Population growth is also a significant demand driver for existing assets and may require the municipality to construct new infrastructure to parallel community expectations. The Town has experienced a decline in population forecasts, and therefore, has yet to implement any growth strategies to deal with capacity issues or infrastructure usage. However, Staff had indicated that the Town has a majority aging community which will affect the types of services the Town and Council prioritize such as snow removal/winter management and accessibility of sidewalks and roads. Over time, growth projections should be accounted for in short-, medium- and long-term capital projections to better identify the costs associated with population growth.



Community Expectations

The general public will often have their own opinions about how a public service should be delivered. Municipal staff are tasked with balancing requests from the public with the reality of available funding to provide the best service possible at the lowest total cost. This can be a difficult task as there is often a significant gap between expectations and reality. Town staff remarked that there has been a noticeable increase in service expectations in recent years, in line with the advent of social media. This has been particularly noteworthy for snow removal, parks and recreation programming and facilities. Managing these expectations can be a tricky task, but it can also be made easier through the development of a level of service framework and the use of community and technical levels of service to better communicate the scope and resources required to provide adequate services to the community. Overall, no noticeable changes have been recognized across the different services that the Town offers, except for a decrease in water usage with the loss of a major industrial customer.



Organizational Change and Capacity

Managing municipal assets and delivering public services requires adequate organizational capacity. The availability of staff to facilitate these projects is a concern for many municipalities. Succession planning has become one of the key challenges that an aging municipal workforce faces as senior staff progress towards possible retirement. The loss of knowledge and experience that accompanies staff departures can have a dramatic impact on the ability of an organization to continue operations and provide services to the level that's previously been expected.

In recent years the Town has experienced a high rate of turnover at both the senior and middle management level, with most management positions seeing turnover in the past five years. This issue is not confined to management as many of the Town's operators are also new and are not yet subject matter experts with a keen grasp on the condition of the assets. As managers and operational staff leave the organization it is critical that the knowledge and experience of these employees is preserved and/or transferred to existing staff who can take on these roles and ensure that levels of service are managed consistently and effectively. This is extremely critical considering the recent changes to the Minimum Maintenance Standards (MMS) that will affect how operators maintain some of the assets and services that the Town offers. Fortunately, staff remarked that there are succession planning strategies in place and that the Town's middle management team is full of young, capable individuals.

Recommendations/Next Steps

Operationalizing Levels of Service

Establishing a holistic and realistic level of service framework for all core and non-core infrastructure assets is arguably the most impactful part of the AMP process because it dictates the kind of lifecycle management and financial strategy that a municipality should employ. The Town's main priority is to develop and evaluate current levels of service that pertain to their assets. Once evaluated, these LOS metrics act as indicators or thresholds by which the municipality can gauge how well it is maintaining its assets and keeping its residents satisfied. Upon setting those thresholds, the Town should then look at the proposed levels of service that it wants to target. The Town can choose to maintain, increase, or decrease their level of service deliverable based on informed and calculated decisions that involve different stakeholders and that incorporate a prioritization technique, risk matrix, and financial forecast.

A simple example of this procedure is as follows: if upon the evaluation of the Town's road network, only 30% of roads are found to be in a Good to Very Good condition, then the Town may propose an increase in the level of service to 50%; this decision to increase the roads level of service, however, can come at the cost of allocating less funding to other assets and will alter the kind of lifecycle activities performed on the roads network. Municipalities, then, must have a clear understanding of what they are able to afford and provide to their citizens in terms of expected levels of service, and how best to prioritize and allocate their limited funding to achieve those deliverables.

Recommendations

The impact of each recommendation, and the effort to complete it, are identified at a high-level. This is based on an understanding of the Town's current state of asset management practice, organizational capacity, and financial condition. Both impact and effort can be classified as high, medium, or low. Where impact is high, and effort is low or medium, this represents a relatively quick win for Fort Frances staff and Council in advancing the Town's asset management program. Where impact is high, and effort is also high, delivering on these recommendations will likely require a long-term approach with dedicated staff and financial resources. Using this matrix, the Town can prioritize efforts to implement recommendations more effectively and efficiently. Depending on how the Town decides its staff and financial resources are best prioritized, some, all, or none of these recommendations may implemented, in whole or in part.

Recommendations	Estimated Impact and Effort	Timeline for Completion
Measure current levels of service for core infrastructure assets <ul style="list-style-type: none"> • Include roads, bridges & culverts, water, sewer, storm as defined in O. Reg. 588/17 • Include the mandated metrics identified in Table 1-5 of O. Reg. 588/17 • Include current data from at most two years prior to the AMP completion 	Impact: High Effort: Medium	July 1, 2021
Measure current levels of service for all core and non-core infrastructure assets <ul style="list-style-type: none"> • Include requirements above to encompass all municipal infrastructure asset categories as outlined in O. Reg. 588/17 • Include current data from at most two years prior to the AMP completion • Consider adopting relevant reporting metrics like those outlined in the National Water and Wastewater Benchmarking Initiative (stormwater), Canada Infrastructure Report Card (all infrastructure), and Municipal Benchmarking Network Canada (all infrastructure) 	Impact: High Effort: Medium	July 1, 2023
Communicate current levels of service to the public and engage in public consultation to tackle growing service expectations and priorities <ul style="list-style-type: none"> • Implement public engagement process to align proposed levels of service with community expectations • Communicate effects of level of service changes on the cost, risk, and performance of associated assets 	Impact: Medium Effort: Medium	Continuous once measured
Identify and measure proposed levels of service for all core and non-core infrastructure assets <ul style="list-style-type: none"> • Include proposed levels of service for each of the 10 years following the year of AMP completion • Identify risks associated with proposed levels of service on long term sustainability of municipality and ability to afford them 	Impact: High Effort: Medium	July 1, 2024

Recommendations	Estimated Impact and Effort	Timeline for Completion
<p>Evaluate levels of service on an annual basis and adjust proposed levels of service in collaboration with Council in an effort to balance community expectations with cost, risk and performance</p> <ul style="list-style-type: none"> Identify and engage defined stakeholders, roles, responsibilities and timelines for completion Consider further institutionalizing through a formal Levels of Service policy 	<p>Impact: High</p> <p>Effort: Low to Medium</p>	<p>Annually after July 1, 2024</p>
<p>Provide adequate human resources to meet asset management requirements</p> <ul style="list-style-type: none"> Evaluate Town's existing capacity and identify resources required to meet O. Reg. 588/17 	<p>Impact: High</p> <p>Effort: Medium</p>	<p>Continuous</p>

November 7, 2018

Report To: Mayor and Council

From: Travis Rob, Manager of Operations and Facilities

RE: 2018 Update to the Town's Winter Maintenance Policy

With the changes to the Minimum Maintenance Standards (MMS) which came into effect May 2018, the Operations and Facilities Division undertook a review and update of their winter maintenance policy. Annually the Town reviews this policy to ensure relevance and address any regulatory changes. With the changes to the minimum maintenance standards, the updates this year are to ensure continued compliance through the 2019 winter season.

The changes to the plan are highlighted throughout the document for clarity. The following summarize the changes:

1. Updated wording to reflect the requirement to have the sidewalks cleared within 48 hours of a 3" snowfall.
2. Updated wording to reflect the need to address icy sidewalks within 48 hours of becoming aware.
3. Updated protocol for the declaration of a 'Significant Weather Event' as outlined in the regulation.
4. Updated routing for the sidewalk machines to improve efficiency

With the changes to the MMS and the change to the operations for the 2018/2019 winter season, the amended protocols will be tested out. If we determine that additional changes need to be tried through the winter season, we will undertake those changes and capture any required amendment to the policy prior to the next winter season.

It is the recommendation of the Operations and Facilities Executive Committee that the amended Winter Maintenance policy be approved, compiled and made available on the Town's website.

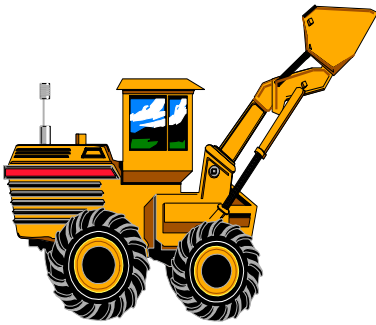
Respectfully Submitted



Travis Rob, P.Eng

Council approval of this report will agree to the recommendation of the Operations and Facilities Executive Committee that the amended Winter Maintenance policy be approved, compiled and made available on the Town's website.

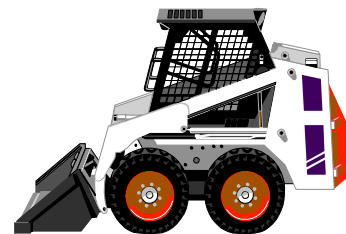
Manager of Operations and Facilities



TOWN OF FORT FRANCES OPERATIONS AND FACILITIES DIVISION

WINTER CONTROL OPERATIONS POLICY

Revised October 18, 1993
Revised October 19, 1999
Revised December 11, 2006
Revised January 18, 2008
Revised November 19, 2008
Revised December 8, 2009
Revised November 29, 2010
Revised November 13, 2018



WINTER CONTROL OPERATIONS POLICY

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SECTION 1.00 - INTRODUCTION

- 1.01** The following Winter Control Operations Policy is intended to provide a guideline for the orderly and efficient control of snow and ice in the Town of Fort Frances. The primary objective of this policy is to provide for an acceptable level of service at an acceptable cost while meeting the Minimum Maintenance Standards, Ontario Regulation 239/02.

With this policy the residents of the Town of Fort Frances will be provided with consistent and uniform standards, which will enable them to predict winter operations.

Daily priorities will be set to meet the provisions of this policy, thus enabling the Operations and Facilities Division to measure complaints.

This policy supercedes all previous policies, written or otherwise, with regard to snow and ice control. Constructive suggestions for additions, modifications or the adoption of new policies and procedures for this policy are encouraged from every employee or any other Division affected by this policy.

This policy is subject to change at the discretion of the Manager of Operations and Facilities, the Transportation Superintendent or Mayor and Council.

- 1.02** Minimum Maintenance Standards, Ontario Regulation 239/02 - this regulation went into affect on November 1st, 2002 and has seen numerous revisions since that time. Basically, these minimum maintenance standards were developed to reduce liabilities to Municipalities and to ensure residents of Ontario receive a minimum level of maintenance on municipal roadways.

Municipal services that are the same as the minimum maintenance standards or achieve a service level better than what is prescribed by the minimum maintenance standards, can be used as a defence by the municipality in the event of a liability claim.

There are 16 standards where 5 of them are related to winter control activities – snow accumulation and icy roadways and sidewalks. There are no standards in regard to snow removal.

- 1.03** The Winter Control Season will be in affect from October 15th to April 15th.

SECTION 2.00 - SCOPE OF WORK

2.01 Area of Responsibility

The Operations and Facilities Division is responsible for the winter maintenance on all roads, lanes, sidewalks and municipal parking lots within the boundaries of the Corporation of the Town of Fort Frances.

Included is 162 lane-km of roadway, 42 km of sidewalks and six (6) town owned parking lots.

2.02 Equipment

The Operations and Facilities Division has at its disposal two (2) town owned graders, one (1) sander, one (1) combination plow/sander truck, two (2) sidewalk blowers (with sand spreading equipment), one (1) full size blower, two (2) loaders, (both equipped with snow bucket or plow), two (2) tandem trucks and one (1) single axle dump truck with plow.

In addition the Airport has one (1) loader (with snow bucket), one (1) full size blower, one (1) single axel dump truck with sander, plow and wing and Parks and Cemeteries has one (1) backhoe loader to supplement operations in the event of a major occurrence.

Town owned equipment will be supplemented by contract operated equipment and trucks on an as required basis.

2.03 Manpower

The Operations and Facilities Division has an available winter maintenance staff consisting of one (1) working foreman, one (1) leadhand, four (4) equipment operators, two (2) truck drivers, five (5) labourers, and three (3) seasonal Labourers. The four (4) water distribution operators will also be included in the winter maintenance scheduling. In an emergency situation additional staff would be available to assist from other areas of the department i.e. mechanical, stores and engineering.

When the "snow season" arrives, this staffing provides for coverage for two (2) shifts, five (5) days a week. There will be a 7:30 a.m. to 4:00 p.m. day shift and a 10:00 p.m. to 6:00 a.m. night shift from Monday to Friday. During the period from 4:00 p.m. to 10:00 p.m. and 6:00 a.m. to 7:30 a.m. and weekends manpower is on a voluntary basis. Emergency calls are covered through an on-call person 24 hours a day, 7 days a week. During an emergency situation if the on-call person is unsuccessful in getting sufficient crews to respond he/she shall consult with the Manager of Operations & Facilities or Transportation Superintendent regarding the use of contracted equipment.

2.04 Night Shift Schedule for “Snow Season”

Prior to the “*snow season*” a night shift schedule will be made up of employees who volunteer to be on nights through the “*snow season*” supplemented with a rotation of all employees qualified to drive truck and/or operate equipment. The night shift will consist of six (6) employees, one (1) working foreman, three (3) operators and two (2) truck drivers. Working foreman will participate in operating equipment and/or truck driving on the night shift.

The night shift will be implemented when at the discretion of the Manager of Operations & Facilities and Transportation Superintendent there is sufficient amounts of snow to justify taking six (6) employees from the day shift and that work in progress can be completed with this reduction in staff.

2.05 Staff Training

Qualified employees will be given the opportunity to train on equipment when the work schedule permits such training. An ideal time for training on some of the larger equipment is on the night shift in areas where there is little or no traffic. Employees will be given the opportunity to train under the guidance of experienced operators. This will build a more versatile workforce for future operations.

2.06 Parking Regulations and Enforcement

Parking restrictions and regulations (i.e. calendar parking, parking prohibited, etc.) have been placed on town streets and will be strictly enforced to allow snow plowing/removal operations to proceed unimpeded.

The Town’s By-law Enforcement Officers will publicize the appropriate calendar parking by-law. Calendar parking shall be deemed to be a twenty-four (24) hour period commencing at nine (9) o’clock in the forenoon and after such time the day shall be deemed odd or even depending on the calendar designation of such day of commencement of the said twenty-four (24) hour period.

2.07 Enforcement Policy

The By-law Enforcement Officers and O.P.P. members in support of the Fort Frances Operations and Facilities Division completing snow removal in town will adhere to the following policy.

- By-Law Enforcement Officers will complete enforcement of parking by-laws during weekdays. Operations and Facilities Division will contact By-Law direct for support in ticketing violators and removing illegally parked vehicles.
- Enforcement of parking by-laws after hours will be completed by O.P.P. Officers. Operations and Facilities Division will contact the O.P.P. Telecommunications Unit who will dispatch officers to attend and ticket vehicles in areas requiring snow removal. Operations and Facilities Division will arrange for any necessary towing. The 200 block of Scott Street no parking begins after 0300 hours, which is consistent with business

hours of Gartch's Pub.

- Notification will be made to the O.P.P. by Operations and Facilities Division of specific nights when snow will be removed in the core downtown area. Officers will conduct enforcement of the parking by-law in these areas. This will assist Operations and Facilities Division who will have vehicles interfering with snow removal towed away at the owner's expense.
- Enforcement of the by-law in the 200 block of Scott Street will be delayed until 0300 hours consistent with traffic control by-law.
- O.P.P. members will notify the "on-call" Operations and Facilities Division member 275-9754 between 2300 – 0700 hours when snow accumulation reaches 5cm.
- When contacting the Police or By-Law – information needed is: location of vehicle and license plate number.

Contact Numbers:

By-Law: 275-9651

O.P.P. Kenora: 1-888-310-1122

O.P.P. Town: 274-3322

Tow Truck Numbers:

Bett Will: 274-5977

North Auto: 274-7243

SECTION 3.00 - SNOWPLOWING

3.01 Roads

All roads in the Town of Fort Frances will be plowed in accordance with the attached snowplowing priorities plan (see Appendix A).

Road Classifications

Based on the Average Annual Daily Traffic (number of motor vehicles versus the Posted or Statutory Speed Limit (kilometres per hour), there are Class 3, Class 4, Class 5 and Class 6 roads in the Town of Fort Frances boundaries.

Plowing of 'Class 3' roads will have a completion time of 12 hours after the snow has reached a depth of 8 centimetres.

Plowing of 'Class 4' roads will have a completion time of 16 hours after the snow has reached a depth of 8 centimetres.

Plowing of 'Class 5' roads will have a completion time of 24 hours after the snow has reached a depth of 10 centimetres.

There is no standard for 'Class 6' roads in the minimum maintenance standards and therefore they will be plowed after all Class 3, 4 and 5 roads have been completed.

All stipulated timelines for snow clearing can be delayed by the declaration of "Significant Weather Event" as outlined in Section 7. Upon the termination of the declaration, the above stipulated timelines would begin to apply.

* There is a map in Appendix M with all road classifications in the Town of Fort Frances for the Minimum Maintenance Standards.

Priority One (Class 3 & Class 4 Roads) - Priority one roads include Kings Highway 11/71, Highway 602, Second Street East, Scott Street, Ambulance/Hospital Route, Schools, Rainycrest, Emergency Evacuation Route and the Downtown Area.

All snowplowing equipment will have a map of the priority route for that particular piece of equipment as well as a list in order of its priorities.

Equipment operators have been asked to follow the list of priorities as close as possible to deliver a consistent level of service.

Priority Two (Class 5 & Class 6 Roads) - The Town of Fort Frances is divided into eight (8) areas with the Downtown Priority #1 area being the dividing line between east and west. The Canadian National Railway is the dividing line for the north areas. These areas are then divided by priority.

Basically, after the Priority One routes are complete one (1) grader plows east and the other west starting from the Downtown Area and plowing outwards. The plow truck does the north areas when completing its priority route.

The individual in charge (whether it be the Superintendent, Foreman or Standby Person) are to use their own discretion depending upon manpower, equipment, and amount of snowfall to determine the time of day the plows go out.

It is not practical to snowplow the Downtown Business area during regular business hours (8:00 a.m. to 10:00 p.m.).

It is suggested to standardize the level of winter control maintenance in the downtown business area (see Appendix D of the Winter Operations Policy) in order to meet the minimum maintenance standards for municipal roadways, that the following guidelines have been proposed;

- Apply winter control sand/salt mixture during regular business hours.
- Snowplowing will occur immediately before or after regular business hours, where the snow is pushed or winged to the outside edges of the roadway in accordance with Ontario Regulation 239/02.
- Snow removal will take place according to the policy in Section 4:00.

The ideal situation would have the plow truck (Unit #125) leave the Shop and go west to the start of the four laner's on King's Highway at Pit Road #1 as outlined in Appendix I. It would start plowing east down the centre of the four laner's to Central Avenue then up to Scott Street and down the centre of Scott Street to Colonization Road East and continue plowing the centre of Colonization Road East to the Overpass. The plow truck would then plow the centre of Second Street from Colonization Road East to Central Avenue. The plow truck would then do all of Front Street and then proceed to its priority route in the North End.

The graders (Unit #205 and #207) would leave the Shop and go east down Fifth Street to Portage Avenue then south to Scott Street.

Grader #205 would go east and plow Scott Street, then Colonization Road East over the

Overpass to the east town limits. #205 would then plow Second Street from Colonization Road East to Central Avenue as outlined in Appendix H.

Grader #207 would go west and plow the highway to the west town limits back to Central Avenue and then Highway 602 to Oakwood Road as outlined in Appendix G.

Both graders would then complete the Downtown area.

When the Downtown area is complete Grader #207 will go west and Grader #205 will go east to their next respective priority.

The Cat IT38B loader (#317) will plow the lanes and parking lots in the Downtown area as outlined in Appendix F.

The Cat 930H loader (#318) will do cul-de-sacs and dead-ends according to priority list as outlined in Appendix E. We will alternate between the east list and west list on a monthly basis, as to which gets done first.

October -	East
November -	West
December -	East
January -	West
February -	East
March -	West

Plowing of the roads should be completed in 24 hours. Some Class 6 roads may have a longer completion time. Once the snow plows have advanced far enough ahead, send sander out.

Sidewalk plowing is to be done on a priority basis as shown in Appendix J. The first priority will ensure sidewalks are plowed on both sides of the Underpass and then Portage Avenue to the Civic Centre, then Church Street to Victoria Avenue and Victoria Avenue to Scott Street.

One sidewalk plow will then plow the north side of Scott Street to Colonization Road East and then the north side of Second Street East to Central Avenue then complete the Downtown Priority #1 area. The Second plow will start plowing on Third Street West to King's Highway out to Wal-Mart. Then plow the south side of Highway 602 from Biddeson Avenue to Keating Avenue and then proceed to complete the west end. After the west end is complete, the second plow will move to area #2 north of the CNR.

Loaders will plow lanes from the Downtown area outwards when their priority lists are

done.

All lanes will be plowed in 48 – 60 hours and all sidewalks will be plowed in 48 hrs. In the event of a declaration of a “Significant Weather Event” as outlined in Section 7, sidewalks will be plowed within 48 hours of the advertised end of the event.

In the case of a winter weather event on a weekend or holiday it is the responsibility of the on-call person to call in a crew to plow the roads according to the priorities set out in the policy.

See Section 7.00 for more information on the declaration of a “Significant Weather Event”.

SECTION 4.00 - SNOW REMOVAL

4.01 General

Snow removal, at the discretion of the Manager of Operations and Facilities or Transportation Superintendent, will commence approximately 48 hours after a storm or as soon as plowing is complete. The following is the list of snow removal areas in order of priority:

1. Downtown snow removal area
2. The overpass and underpass
3. Municipal parking lots (when necessary)
4. Businesses and churches and halls outside Downtown area
5. Fire hydrants
6. Intersections
7. Lane entrances
8. Priority routes
9. Residential streets

4.02 Downtown Snow Removal Area

Once snow plowing operations are completed for the entire Town or once resources are available and there is a need to remove the snow (approximately 24-inch high banks of snow) the snow will be removed in the Downtown area. Snow removal services will only occur after regular business hours on Scott Street and Mowat Avenue, where side streets and other parts of Downtown area can be removed at any time.

Also, the task of removing the snow is at the discretion of either the Operations & Facilities Division Manager or the Transportation Superintendent. As a result, it is understood that snow removal services will take place prior to the Christmas parade event regardless of the size of the snow banks.

4.03 The Overpass and Underpass

All snow, to the guardrail on the east side of the Overpass on Colonization Road East will be removed, as warranted, at the discretion of the Manager of Operations and Facilities or Transportation Superintendent.

All snow in the underpass on Portage Avenue from Third Street East to Fifth Street East will be removed from concrete retaining wall to concrete retaining wall, as warranted, at the discretion of the Manager of Operations and Facilities or Transportation Superintendent.

4.04 Municipal Parking Lots

The Operations and Facilities Division is responsible for the removal of snow on the following parking lots:

- A) Municipal Lot on Portage Avenue
- B) Municipal Lot on Veteran Avenue
- C) Municipal Lot on Scott Street
- D) Civic Centre
- E) Arena/Library
- F) Municipal Parking Lot behind St. Mary's Church

All snow will be removed from these lots within seven days of a snowfall or series of snowfalls resulting in a total accumulation of 100mm of snow.

4.05 Businesses, Churches and Halls

The Operations and Facilities Division will, at the discretion of the Transportation Superintendent, remove snow from the boulevards fronting businesses, churches and halls located away from the downtown snow removal area.

All Businesses zoned commercial will receive this service. All Churches and Halls will receive this service.

4.06 Fire Hydrants

The Operations and Facilities Division will keep all hydrants free of snow banks and easily visible and accessible, as soon as possible after snow plowing and removal as outlined above is completed and manpower is available.

All hydrants outside the Downtown snow removal area have had hydrant markers installed to increase visibility for snow removal purposes and for the Fire Department to locate the hydrants.

4.07 Intersections

The Operations and Facilities Division will remove snow banks at all intersections to improve the sight lines for all motorists. Removal will be at the discretion of the Manager of Operations and Facilities or Transportation Superintendent and all snow will be removed for a distance of 15m from the intersecting face of curb.

4.08 Lane Entrances

As necessitated by conditions, all snow piles at lane entrances/exits will be removed to improve the sight lines for all motorists. Piles of snow will be removed at the discretion of the Manager of Operations and Facilities or Transportation Superintendent.

4.09 Priority Routes

Multi-lane priority routes will have all traffic lanes restored as soon as possible following completion of plowing. Snow removal to the gutter line and on boulevards will be carried out, at the discretion of the Manager of Operations and Facilities or

Transportation Superintendent, when traffic lanes cannot be maintained and snow storage on the road allowance is not available.

4.10 Residential Streets

Snow removal on residential streets will take place only in extreme conditions and at the discretion of the Manager of Operations and Facilities or Transportation Superintendent. Snow removal will be carried out when two (2) traffic lanes cannot be maintained and snow storage on the road allowance is not available.

4.11 Snow Dumps

The Operations and Facilities Division has established and will maintain three (3) snow dumps. The primary snow dump is located west of McIlrvine Road north of Eighth Street. The secondary snow dumps are located at:

- a) the north side of the 600 block of Sixth Street West
- b) the south side of Seventh Street in the Industrial area.

SECTION 5.00 - SANDING / SALTING

5.01 General

Sanding/salting when required should normally follow after plowing operations. As a general rule, if the pavement is dry and the snow is not packing or sticking - do not sand.

Salt applied to snow forms a brine mixture. This reduces the possibility of the snow sticking to or packing on the pavement. It also prevents ice build-up and allows the plow to remove the snow easier. Salt, assisted by sun, traffic and warmer daytime temperatures, is also used as a melting agent to eliminate icy conditions. As the temperature gets lower, the effectiveness of the salt decreases until it becomes ineffective. Normally, salt should not be applied when the temperature is below - 12 C. However, in the presence of sun and heavy traffic volume, which creates a higher road surface temperature salt can be effective down to a temperature of - 18C.

The Operations and Facilities Division uses a salt/sand mixture of 20% salt and all references to salting/sanding operations refer to this particular mixture of 'sweetened' sand.

5.02 Roads

The minimum maintenance standard for treating icy roadway is:

- a) To deploy resources to treat an icy roadway as soon as practical after becoming aware that the roadway is icy; and
- b) To treat the icy roadway within the time set out for that class of highway, after becoming aware that the roadway is icy.

Class 3 roads must be treated within eight (8) hours.

Class 4 roads must be treated within twelve (12) hours.

Class 5 roads must be treated within sixteen (16) hours.

Class 6 roads will be treated as soon as practical during regular hours of work.

In the initial stages of a storm, sand/salt mixtures will be used to maintain road surfaces until snow accumulation warrants the use of snow plowing equipment. Continuous sanding/salting generally shall be carried out only during freezing rain or general icy conditions caused by failure of other treatments. A supply of straight salt will be kept on hand for extreme icy conditions. In the event of a declaration of a "Significant Weather Event" as outlined in Section 7, icy roadways will be addressed within the

above stipulated timelines from the advertised end of the event.

5.03 Lanes

The Operations and Facilities Division will not sand/salt any lanes. Under extreme icy conditions the department will sand/salt lane approaches in the Downtown area only.

5.04 Sidewalks

The minimum maintenance standard for treating icy sidewalks is:

- c) To deploy resources to treat an icy sidewalk as soon as practical after becoming aware that the sidewalk is icy; and
- d) To treat the icy sidewalk within forty eight (48) hours after becoming aware that the sidewalk is icy.

In the event of a declaration of a “Significant Weather Event” as outlined in Section 7, icy sidewalks will be addressed within the above stipulated timelines from the advertised end of the event. No pure salt will be used on the sidewalks.

5.05 Parking Lots

The Operations and Facilities Division will sand/salt municipal parking lots under extreme icy conditions at the discretion of the Manager of Operations and Facilities or Transportation Superintendent.

SECTION 6.00 - ADVERTISING

6.01 General

The Operations Division will have the following advertisement published in the local paper early in the winter season. (The last two Wednesdays in October).

SNOW AND ICE CONTROL QUALITY STANDARDS FOR THE FORT FRANCES OPERATIONS AND FACILITIES DIVISION

Roadway Clearing:

The maximum allowable snow accumulation for commencing snow clearing operations on priority one roads (Highways, Fire Route, Ambulance/Hospital Route, Schools, Rainycrest, Emergency Evacuation Route, and Truck Route) is eight (8) cm. All priority one roads will be brought up to satisfactory standards before work will begin on residential streets. Priority one roads will have a target completion of 12 hours for Class 3 roads and 16 hours for Class 4 roads, after eight (8) cm of snowfall.

Sidewalk Clearing:

Sidewalk clearing operations begin at the end of each snowfall or series of snowfalls resulting in a total accumulation of eight (8) cm. Sidewalks will be addressed such that accumulation will be less than eight (8) cm within 48 hours from the end of the snowfall event.

Lane Clearing:

Normal lane clearing operations begin at the end of each snowfall or series of snowfalls resulting in a total accumulation of eight (8) cm. This operation is usually delayed allowing road clearing to be well underway to prevent blocking of sidewalk and lane entrances.

Snow Removal:

Snow removal is done as required. In some cases, it is casted (blown) onto abutting town property if there is sufficient unencumbered land to accommodate the windrow. If not is loaded and trucked to the snow dump. All snow in the downtown snow removal area is trucked.

Traction Improvement:

Priority one roads will receive priority treatment. The level of service on all roads will generally be such that vehicular traffic has sufficient traction to operate. Particular attention will be paid to intersections and inclines. Sand is applied to sidewalks as required.

Parking Regulations:

Parking regulations will be strictly enforced at all times. In the event of snow removal operations temporary “No Parking” signs will be posted, and all street parking will be prohibited in the affected areas.

Significant Weather Event

In the event of a significant weather event, a declaration will be advertised from the Operations and Facilities Division prior to the start of the event. The end of the event will also be advertised by the Operations and Facilities Division. All stipulated timelines for addressing roadways and sidewalks will commence starting at the advertised ending of the event.

For more information about Winter Operations call Milt Strachan, Transportation Superintendent at: 807-274-9893

SECTION 7.00 - DECLARATION OF A SIGNIFICANT WEATHER EVENT

7.01 Introduction

Should, through alert from Environment Canada, a threat for either snow or ice accumulation such that a danger will be posed to users of sidewalks and roadways within the Town of Fort Frances be forecast, it will be the responsibility of the Operations and Facilities Division Manager or Transportation Superintendent, at their discretion, to declare a “Significant Weather Event” to alert the residents of the Town and District to the potential risk.

The declaration of a “Significant Weather Event” may trigger the need to engage the Municipal Emergency Control Group (MECG). The engagement of the MECG shall be in accordance with the Town of Fort Frances Emergency Plan.

7.02 Declaration Procedures

Should it be determined that a declaration is required, the following methods will be used to alert the appropriate parties of the start of the declared event and the end of the declared event.

1. The Town of Fort Frances Facebook and Twitter pages
2. The Local Radio Station, 93.1 The Border
Randy Thoms – Ph: 274-5341 Cell: 276-0832 email: news@931theborder.ca
Darell Plummer – Ph: 807-468-3181 Cell: 807-466-1246 email: plummer.darell@radioabl.ca
3. The Local News Paper, Fort Frances Times
Duane Hicks – Ph: 274-5373 email: dhicks@fortfrances.com
4. The Local OPP Information Officer
Comm Centre – Ph: 1-888-310-1122
5. The Town of Fort Frances Fire Chief/CEMC
Tyler Moffitt – Ph: 274-9841 Cell: 807-271-0766 email: tmoffitt@fortfrances.ca

Other means to get the appropriate messaging can be used in addition to these listed at the discretion of the Operations and Facilities Division Manager or Transportation Superintendent.

7.03 Declaration Wording

The Town of Fort Frances will use common wording and style for the information release surrounding a potential Significant Weather Event as would be for any other media communication. Appendix L contains the press release as well as the Facebook and Twitter messages to be utilized in the declaration of the start and end of a significant weather event.

SECTION 8.00 - APPENDICES

Appendix A	-	Snow Plowing Priorities Plan
Appendix B	-	East Snow Plowing Areas
Appendix C	-	West Snow Plowing Areas
Appendix D	-	Downtown Snow Removal Area
Appendix E	-	Loader (Unit #318) Snow Plowing Priority List
Appendix F	-	Loader (Unit #317) Snow Plowing Priority List
Appendix G	-	Champion Grader (Unit #207) Snow Plowing Priority List
Appendix H	-	Champion Grader (Unit #205) Snow Plowing Priority List
Appendix I	-	Plow Truck (Unit #115) Snow Plowing Priority List
Appendix J	-	Sidewalk Plow (Unit #305) Snow Plowing Priority List
Appendix K	-	Maintenance Crew Sidewalk Snow Clearing & Deicing Priority List
Appendix L	-	Declaration of a Significant Weather Event Press Releases
Appendix M	-	Map of all roadway classes

Appendix E

LOADER (UNIT #318) SNOW PLOWING PRIORITY LIST

ROADS-CUL-DE-SACS/DEAD ENDS

Alternate between the east and west list on a monthly basis, as to which gets done first.

October	-	East
November	-	West
December	-	East
January	-	West
February	-	East
March	-	West

EAST END:

1. McKenzie Avenue at C.N.R.
2. Victoria Avenue at C.N.R.
3. Armit Avenue at C.N.R.
4. Crowe Avenue at C.N.R.
5. Russell Bay
6. Baeker Bay
7. Frenette Avenue (North of Kaitlyn Drive)
8. Erin Crescent
9. Patcin Avenue (North of Kaitlyn Drive)
10. Strachan Place
11. Woodward Street (Lane off Bayview Avenue)
12. Church Street (East of Butler Avenue)
13. Nelson Street (East of Butler Avenue)

WEST END:

1. Fourth Street (West of Wright Avenue)
2. Holmes Avenue (North of Third Street West)
3. Keating Avenue (North of third Street West)
4. Flinders Avenue (South of First Street West)
5. Webster Avenue (South of Highway)
6. Riverview Drive (East of Elm Avenue)
7. Riverview Drive (West of Keating Avenue)

8. Thompson Street (West of Keating Avenue)
9. McIrvine Road (South of River Road)
10. Old Shambles Road
11. Kerr Place
12. Kirsti Place
13. Armstrong Place
14. Lyndy Place North

LANES:

Start plowing lanes in priority area #2 West from the Downtown #1 priority area outward. When area #2 West is complete go to area #3 West and then to area #4 West. When the West is complete go to area #2 North and plow lanes east of Portage Avenue and then plow the lane on the 200 Block between Fifth Street West and Elizabeth Street.

Appendix F

LOADER (UNIT #317) SNOW PLOWING PRIORITY LIST

DOWNTOWN – PARKING LOTS AND LANES

1. Municipal Lot on 400 Block of Portage Avenue
2. Municipal Lot on 300 Block of Veteran Avenue
3. Municipal Lot on 100 Block of Scott Street
4. Municipal Parking Lot on 300 Block of Nelson Street behind St. Mary's Church
5. Civic Centre Parking Lots behind OPP Garage and Fire Department (Transportation Superintendent will call both OPP Detachment and Fire Department to make arrangements to have vehicles moved. A time will be arranged for plowing and vehicles must be removed from parking lots before plowing takes place.)
6. Plow all lanes on 100 Block, 200 Block and 300 Block of Scott Street
7. Plow remaining lanes in the Downtown #1 priority area

When the Downtown Area is completed continue plowing lanes in priority #2 East from the Downtown #1 Area outwards.

When priority area #2 East is completed continue plowing lanes in priority area #3 East until completed.

Appendix G

JOHN DEERE GRADER (UNIT #207) SNOW PLOWING PRIORITY LIST

1. Leave the Shop and go east on Fifth Street to Portage Avenue, turn right and plow south to Scott Street. Turn right and plow all of Scott Street from Portage to Central Avenue, then Central Avenue from Scott Street to Third Street West.
2. Plow the north side of Third Street West and King's Highway from Central Avenue to Oakwood Road and then the south side back to Central Avenue.
3. Plow Highway 602 out to Oakwood Road and then back to King's Highway.
4. Plow the Downtown area until completed.
5. When the Downtown priority #1 area is complete 207 will start plowing area #2 West from the Downtown area outwards then go to area #3 West and then area #4 West.
6. When all the roads in the west have been completed 207 will go to area #3 East and plow until Town is completed.

Appendix H

CHAMPION GRADER (UNIT #205) SNOW PLOWING PRIORITY LIST

1. Leave the Shop and go east on Fifth Street to Portage Avenue turn right and go south to Scott Street. Turn left on Scott Street and plow to Butler Avenue. Plow Butler Avenue past the entrances to the Ambulance Building so that they have plowed access to Scott Street and then continue plowing eastward on Scott Street to Colonization Road East.
2. Plow Colonization Road East to Overpass and continue on Mill Road (Highway) to the east town limits and back to Scott Street.
3. Plow all of Second Street from Colonization Road East to Central Avenue.
4. Grader #205 will then go to the Downtown area until it is completed.
5. When the Downtown priority #1 area is completed 205 will then plow Frenette Avenue from Scott Street to Fifth Street, Fifth Street from Frenette Avenue to Williams Avenue and Williams Avenue from Fifth Street to Second Street for access to the Arena and Schools in the east end of Town.
6. Grader #205 will then plow priority area #2 from the Downtown priority #1 area outwards, then go to area #3 east until the Town is completed.

Appendix I

PLOW TRUCK (UNIT #125) SNOW PLOWING PRIORITY LIST

1. Leave the Shop and go west to the start of the four laner's on King's Highway at Pit Road
#1. Start plowing east down the centre of the four laner's to Central Avenue then up to Scott Street and down the centre of Scott to Colonization Road East and continue plowing the centre of Colonization Road East to the Overpass.
2. Plow the centre of Second Street from Colonization Road East to Central Avenue.
3. Plow all of Front Street from Victoria Avenue to the corner of Colonization Road East and Scott Street.
4. The plow truck would then begin at the south side of the Underpass and plow the North end priority route.
5. When North priority route is complete plow area #2 North until complete.
6. Plow area #3 North until complete.

Appendix J

SIDEWALK PLOW (UNIT #305) SNOW PLOWING PRIORITY LIST

1. Leave Shop and go east on Fifth Street. Plow sidewalk on Fifth Street to Portage then through the Underpass on the west side of Portage Avenue up to Second Street East and then plow the east side of Portage Avenue from Third Street East to the Civic Centre, then plow the north side of Church to Victoria Avenue and the west side of Victoria Avenue back to Scott Street.
2. Plow the north side of Scott Street from Victoria Avenue to Colonization Road East. Then do north side of Second Street from Colonization Road East to Crowe Avenue and plow the east side of Crowe Avenue from Second Street to Fifth Street and then the west side of Crowe Avenue from Fifth Street to Fourth Street, then go to Armit Avenue and plow the east side from Fourth Street to Second Street. Return to Crowe Avenue and plow the north side of Second Street from Crowe Avenue to Central Avenue.
3. Plow south side of Highway 602 from Biddeson Avenue to Keating Avenue.
4. Plow the Downtown Priority #1 area.
5. Plow area #2 East, #2 West, #3 West, #3 East and #2 North in that order.
6. There is no standard for sidewalks in the Minimum Maintenance Standards and therefore plowing of sidewalks on weekends will not normally occur. The exception to this will be when plowing of sidewalks has fallen behind due to equipment repairs or in the case of a large accumulation of snow 15 cm (6 inches) or greater.

Appendix K

MAINTENANCE CREW SIDEWALK SNOW CLEARING & DEICING PRIORITY LIST

1. The first area of response in the morning after snow accumulation will be to remove snow from sidewalks at the Civic Centre and then the walkway between the parking lots behind the Fire Hall and OPP Garage. Sidewalks will be cleared to all exits behind the OPP building and a one (1) metre path will be cleared behind the OPP Garage doors to prevent ice build-up. Salt or Ice Melt will be applied to these sidewalks as required.
2. The west sidewalk at the Underpass on Portage Avenue will be plowed with the walk behind snowblower.
3. The Downtown corners will have any windrows left from plowing and snow removed. Salted Sand or Ice Melt will be applied to these corners as required.
4. The Museum sidewalk and Rainy Lake Square site and sidewalk will have snow removed and Ice Melt will be applied as required, by Parks crew.
5. Ice build up will be removed from the Underpass and Overpass when required. Salted Sand or Ice Melt will be applied to these areas when required.

Appendix L

The following wording will be utilized on social media to declare a significant weather event. The wording will be posted on the Town's Facebook and Twitter accounts.

Facebook

The Town of Fort Frances at __:__ on _____, 201__ is declaring the start of a significant weather event. During this time, we are asking residents to limit their use of roadways and sidewalks within the Town of Fort Frances for the safety of the public. Please continue to monitor Facebook and 93.1 The Border for updates.

The Town of Fort Frances at __:__ on _____, 201__ is declaring the end of the significant weather event. We want to thank residents for their cooperation as crews worked to clean up from this event.

Twitter

The Town of Fort Frances at __:__ on _____, 201__ is declaring the start of a significant weather event. Please limit your use of sidewalks and roadways for the safety of the public.

The Town of Fort Frances at __:__ on _____, 201__ is declaring the end of the significant weather event. Thank you for your cooperation with clean-up efforts.



FOR IMMEDIATE RELEASE

October 11, 2018

FROM: Town of Fort Frances Operations and Facilities Division

Declaration of Significant Weather Event

The Town of Fort Frances Operations and Facilities Division, through winter weather monitoring activities, is following a system that could bring a winter weather storm to the Town of Fort Frances that could pose a risk to the users of the roadways and sidewalks within the Town of Fort Frances. The Operations and Facilities will continue to proactively manage this significant weather event and will continue to do so to ensure the public, properties and critical infrastructure are all protected during this event.

This significant weather event declaration comes in to effect at __:__ on _____, 201_. The Town of Fort Frances will declare the ending of this event at such time as the municipality deems it is suitable to do so. During this time, we are asking residents to limit their use of roadways and sidewalks within the Town of Fort Frances for the safety of the public.

We would like to remind the public to stay clear of work areas to allow Town crews to address accumulation on the roadways and sidewalks. Also, please remember calendar parking is in effect and if possible to remove vehicles from roadways to aid in work efforts. This will ensure the safety of the public and Town crews.

We recommend that the public continue to monitor 93.1 The Border for updates. Also, residents can call the Operations and Facilities Division Office at 274-9893 with any questions or concerns. This declaration is in accordance with Ontario Regulation 239/02 as amended.

-30-

Contact:

Travis Rob, Manager of Operations and Facilities
Town of Fort Frances.
(807) 274-9893

trob@fortfrances.ca



FOR IMMEDIATE RELEASE

October 11, 2018

FROM: Town of Fort Frances Operations and Facilities Division

Declaration of Significant Weather Event

The Town of Fort Frances Operations and Facilities Division, at __:__ on _____, 201__ declared a significant weather event.

At __:__ on _____, 201__ The Town of Fort Frances declares the end of the significant weather event.

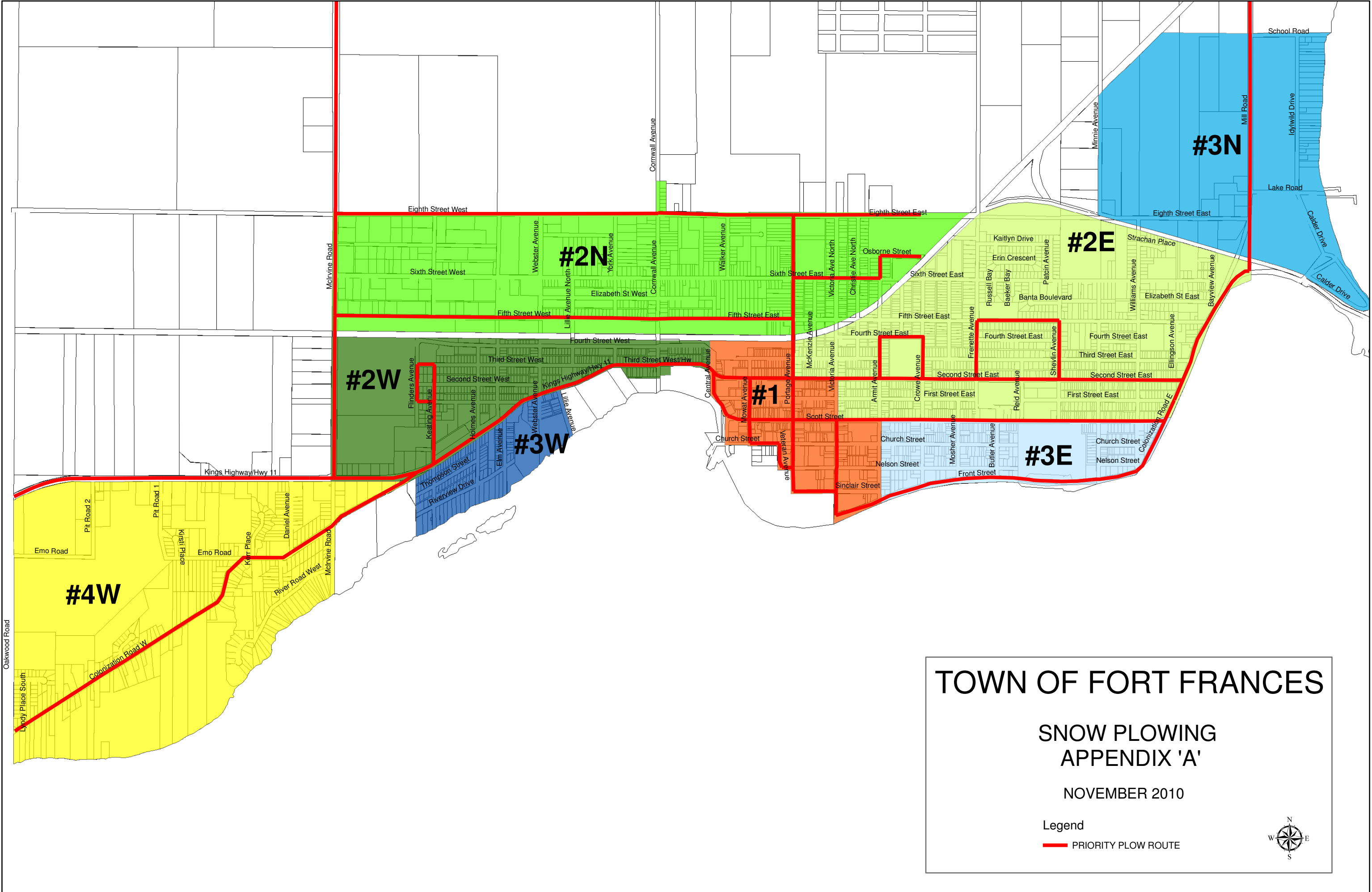
We would like to thank the residents for working with the Operations and Facilities Division staff to ensure public safety while crews worked to clean up from this weather event.

This declaration is in accordance with Ontario Regulation 239/02 as amended.

-30-

Contact:

Travis Rob, Manager of Operations and Facilities
Town of Fort Frances.
(807) 274-9893
trob@fortfrances.ca



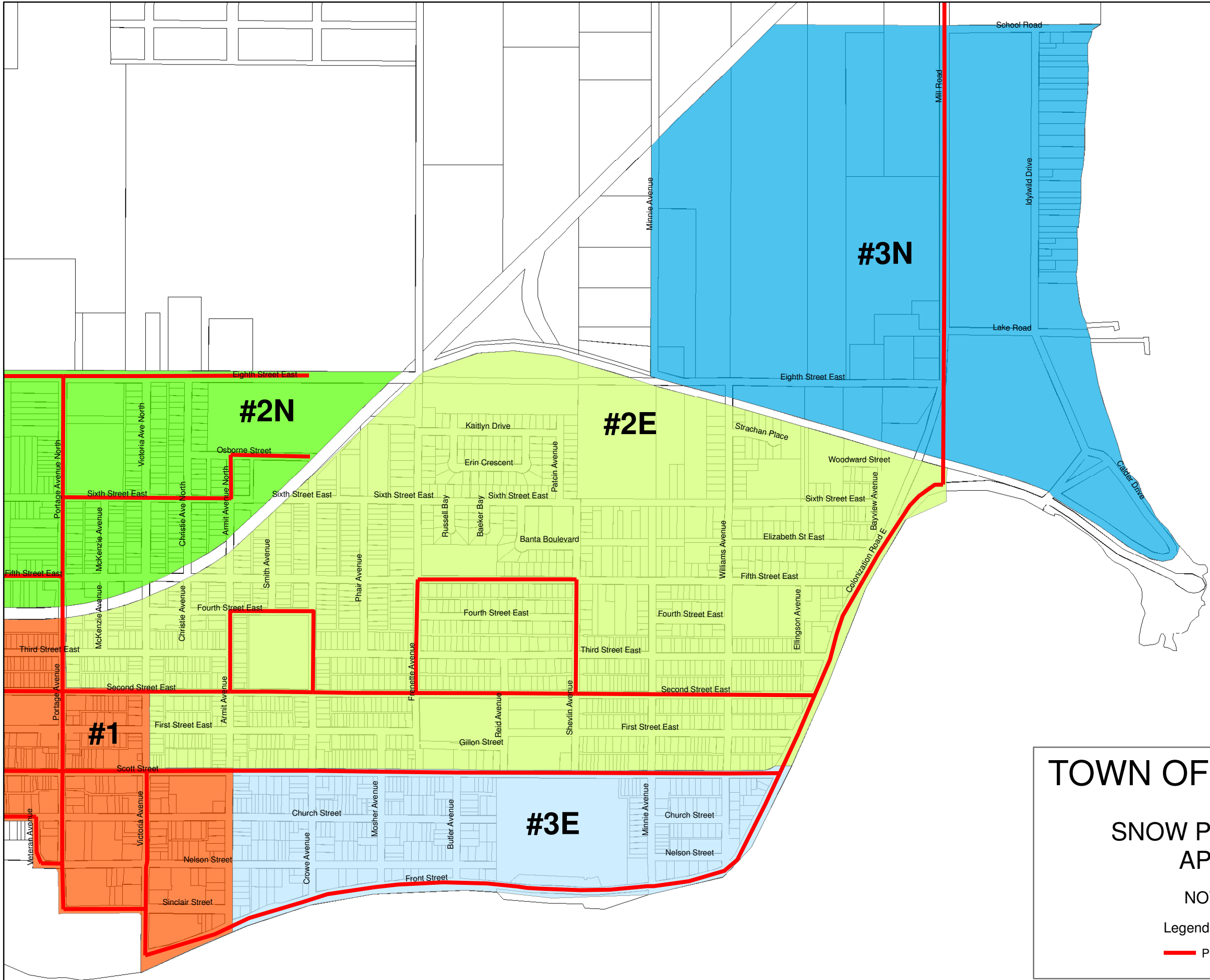
TOWN OF FORT FRANCES

SNOW PLOWING
APPENDIX 'A'

NOVEMBER 2010

Legend

PRIORITY FLOW ROUTE



TOWN OF FORT FRANCES

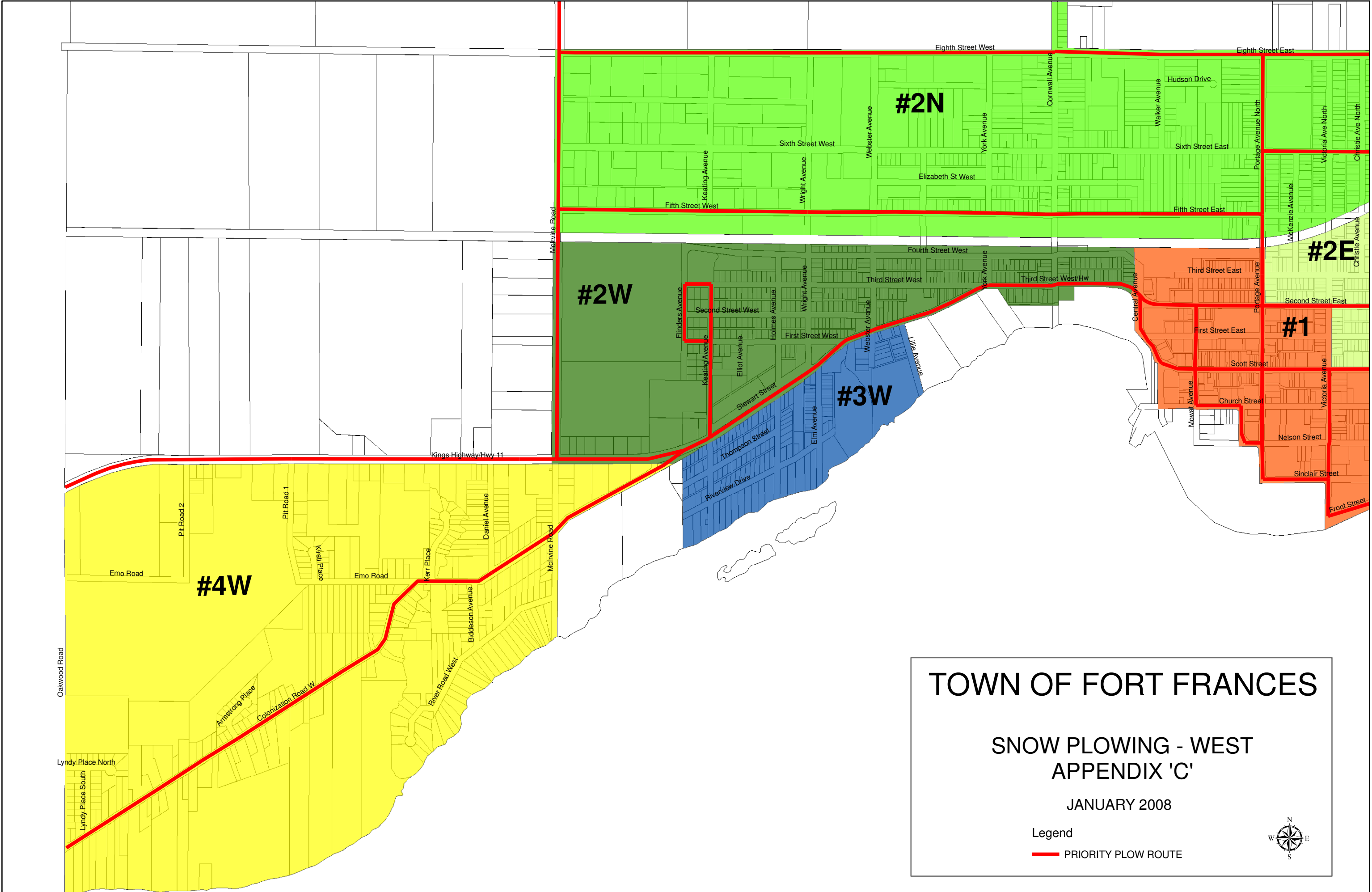
SNOW PLOWING - EAST

APPENDIX 'B'

NOVEMBER 2010

Legend

— PRIORITY PLOW ROUTE



TOWN OF FORT FRANCES

SNOW PLOWING - WEST APPENDIX 'C'

JANUARY 2008

Legend
— PRIORITY PLOW ROUTE



Third Street West/Hw

Central Avenue

Movat Avenue

Portage Avenue

Second Street East

First Street East

Scott Street

Amit Avenue

Church Street

Veteran Avenue

Nelson Street

Croze Avenue

Sinclair Street

Front Street

Victoria Avenue

TOWN OF FORT FRANCES

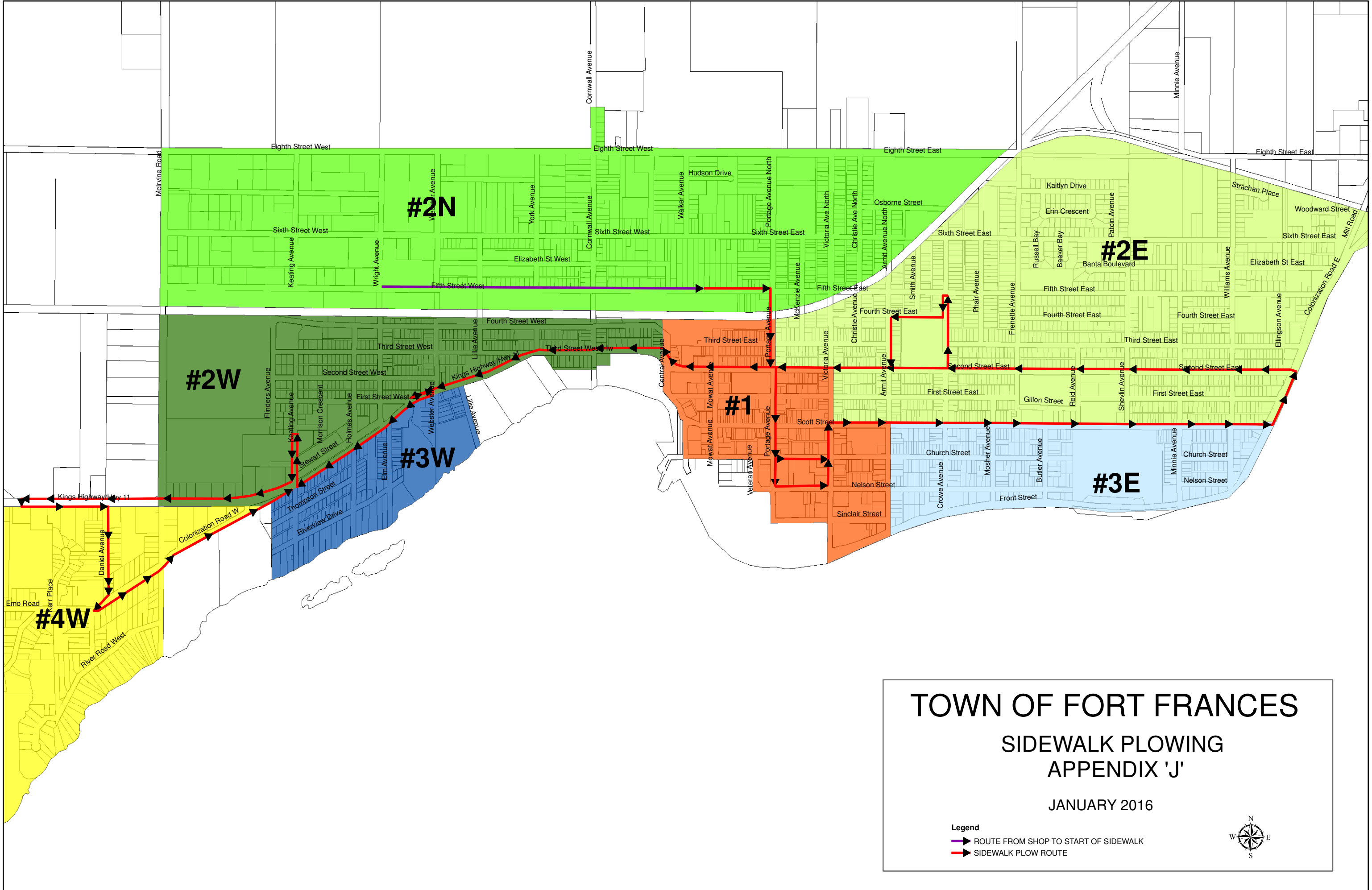
SNOW REMOVAL - DOWNTOWN AREA APPENDIX 'D'

JANUARY 2008

Legend

 SNOW REMOVAL





October 12, 2018

Report To: Mayor & Council

From: Travis Rob, Manager of Operations & Facilities

SUBJECT: September 2018 Drinking Water Systems Monthly Summary Report

Please find attached the September 2018 Summary Report on the drinking water systems, prepared by Randy White, Senior WTP Operator.

Your Administration recommends that Operations & Facilities Executive Committee accept the September 2018 report as presented.

Respectfully submitted,
Operations & Facilities Division

Travis Rob, P. Eng.
Manager of Operations & Facilities

Council approval of this report will accept the September 2018 report prior to it being made available to the general public.

c.c. – Craig Miller, Environmental & Facilities Supt.
Randy White, Senior WTP Operator

03CouncilwaterreportMarch 2015

September 2018

**Monthly Summary Report
Water Systems**

**Prepared by: Randy White, ORO
Senior Water Treatment Plant Operator**

Dated: October 16, 2018

1) **Introduction:**

This report contains the major maintenance activities and operational events that occurred during the month of August 2018 at the Water Treatment Plant - Water Works # 220000978 and the Airport Groundwater Well Water Works No. 849N7DGE0 (Precedes Airport Groundwater Well Water Works No. 26002736). This information report has been prepared for Council to better understand how the water systems they own and operate are maintained on a monthly basis. Also, this report will assist Council as Directors of the Corporation in exercising its obligation to meet a reasonable Standard of Care as outlined in Section 19 of the Safe Drinking Water Act.

A NEW drinking water system at the Airport was put into service August 01, 2017. The system is classified as a Small Drinking Water System, System No. 849N7DGE0 which falls under the requirements of Ontario Regulation 319/08 – Small Drinking Water Systems. The old drinking water system, Airport Groundwater Well Water Works # 26002736 has been decommissioned.

2) **Flow Data:**

Water Treatment Plant: See attached spreadsheet.

Airport Groundwater Well :

Estimated Daily Usage 0.198 m3

Estimated August Usage 6.1 m3

3) **Microbiological (Health Related) Water Analysis - Main Water System No. 220000978:**

Water Treatment Plant (treated): 4 samples taken no adverse results

Water Treatment Plant (raw): 4 samples taken no adverse results

Water Distribution System: 16 samples taken where 25% of samples were tested for heterotrophic plate count (HPC) - no adverse results.

We take microbiological samples on a weekly basis, which includes 1 raw sample, 1 treated sample and 4 distribution samples. The 4 distribution samples are taken at different locations throughout the distribution system.

Water distribution samples taken at the following locations:

- | | | | |
|-----------------------|-----------------------|---------------------|--------------|
| 1. 1111 First St. E. | 2. 1104 Church St | 3. 901 Wright Ave. | 4. W. Tower |
| 5. 740 Scott St. | 6. 1036 Victoria Ave. | 7. 901 Wright Ave. | 8. W. Tower |
| 9. 740 Scott St. | 10. 320 Portage Ave. | 11. 901 Wright Ave. | 12. W. Tower |
| 13. 1111 First St. E. | 14. 1104 Church St. | 15. 740 Scott St. | 16. W. Tower |

4) Microbiological (Health Related) Water Analysis - Airport Groundwater Well No. 849N7DGE0:

New drinking water system put on line August 01, 2017. No treatment required as the Airport groundwater tested negative for bacteria.

The Airport drinking water system is to be sampled and tested for bacteria once every three (3) months in accordance with Section 25 – Microbiological Sampling and Testing of the Small Drinking Water Systems Regulation, O. Reg. 319/08.

Water distribution sample taken April 10, 2018 – no adverse results.

5) Free Available Chlorine Residual (FAC) - Main Water System No. 220000978:

FAC residuals are taken at a minimum daily at both the Water Treatment Plant and within the Water Distribution System.

6) Free Available Chlorine Residual (FAC) - Airport Groundwater Well System No. 849N7DGE0:

New drinking water system put on line August 01, 2017. No treatment required as the Airport groundwater well tested negative for bacteria.

7) Maintenance Activities at the WTP:

Sept 6th - calibrated distribution chlorine analyzer
Took grab samples off the filters

Sept 7th - cleaned all 4 check valves on the poly unit
Cleaned top and bottom tanks on the poly unit

Sept 25th - annual load test done on generator

Sept 26th - greased clarifier chains and gears and bearings
Calibrated distribution chlorine analyzer
Took grab samples off the filters

Sept 27th - Lakeside Controls here doing computer upgrade

Sept 28th - cleaned top and bottom tanks on the poly unit
Cleaned all 4 check valves on the poly unit
Lakeside Controls here doing computer upgrade

8) **Water Complaints:**

- Poor Pressure – 0 complaints.
- Water quality – 0 complaints.

9) **Other Miscellaneous Information:**

Sept 4th - routine micro sample collection
Water main repair samples – 500 Nelson – 1st Street

Sept 8th - water main repair samples – 500 Nelson – 2nd set

Sept 10th - took quarterly samples at the Plant and Tower
Took T.S.S. samples off filter #4
Took micro samples at Sunny Cove
Routine micro sample collection

Sept 11th - water main tie ins – 1st set

Sept 12th - water main tie ins – 2nd set

Sept 17th - took Landfill Site Well Samples
Routine micro sample collection

Sept 19th - lead sampling program

Sept 24th - routine micro sample collection
Service repair sample

Sept 25th - lead sampling program

Sept 26th - lead sampling program
New main and temp main samples – 1st set

Sept 27th - lead sampling program
New main samples – 2nd set

10) In order to acknowledge that all levels of responsibility within the Corporation of the Town of Fort Frances have received and reviewed this monthly report, it is necessary to sign-off in the appropriate location below:

- Randy White, ORO, Senior WTP Operator: _____
- Craig Miller, Environmental Superintendent: _____
- Travis Rob, Manager of Operations & Facilities: _____
- Doug Brown, CAO: _____
- Paul Ryan, Chair O& F Exec Committee: _____
- Roy Avis, Mayor: _____
- June Caul, Councillor: _____
- John Albanese, Councillor: _____
- Wendy Brunetta, Councillor: _____
- Doug Kitowski, Councillor: _____
- Ken Perry, Councillor: _____

Note: Once all signatures have been obtained, the report will be distributed and made available to the public. If you have any questions, please feel free to contact myself or Randy White, Senior WTP Operator at 274-2325.

Flow Data	SEPTEMBER	Units	2016		2017		2018	
			Day of the Month		Day of the Month		Day of the Month	
Total Raw Water	m^3			169150		188500		183370
Raw Maximum Day	m^3		Saturday 03rd	5890	Saturday 02nd	6840	Saturday 02nd	6640
Raw Minimum Day	m^3		Tuesday 06th	5450	Monday 25th	5430	Monday 25th	5200
Raw Average Daily Consumption	m^3			5640		6280		6110
Total Treated Water	m^3			104260		107620		104130
Treated Water Maximim Day Consumption	m^3		Friday 02nd	4560	Tuesday 12th	4430	Tuesday 12th	4590
Treated Water Mininim Day Consumption	m^3		Friday 30th	3060	Friday 04th	3100	Friday 04th	3120
Treated Water Average Day Consumption	m^3			3480		3590		3470
Daily Average Per Household Consumption Rate	m^3			0.92		0.95		0.92
* Daily Average Per Person Consumption Rate	m^3			0.44		0.45		0.43
Monthly Averages - Operating Parameters WTP:								
FAC Residual - Treated Water	mg/L			2.27		2.24		2.26
Total Chlorine Residual - Treated Water	mg/L			2.48		2.45		2.47
Aluminum Sulphate - Raw Water	mg/L			35.0		35.0		35.0
Aluminum Sulphate - Treated Water Residual	mg/L			0.02		0.03		0.02
Fluoride - Treated Water	mg/L			0.64		0.57		0.66
Soda Ash - Raw Water	mg/L			35.0		35.0		35.0
PH - Adjusted	mg/L			7.15		7.26		6.96
Temperature	C			18.9		17.7		17.7
Quantity of Chemical Used:								
Aluminum Sulphate	kg			5920.3		6597.5		6418
Polyelectrolyte	kg			75		75		87.5
Chlorine Gas	kg			845		934		870
Soda Ash - Used for PH Adjustment	kg			5920.3		6597.5		6418
Fluoride	kg			524		602		646

* The Canadian Average is 450 Litres (0.45 m^3) per day.

* Population is 7986

* Number of Households is 3783

Operating Data		Units	MAC	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Total
		or Range																																
Flow rates	Raw Water	10 ³ M3	17	6.21	6.63	6.45	6.41	6.32	6.64	6.37	6.43	6.58	6.20	6.61	6.45	6.46	6.45	6.56	6.46	6.09	6.51	6.36	5.96	5.68	5.53	5.61	5.61	5.45	5.65	5.55	6.20	5.72	5.63	183.37
	Peak Instantaneous - Raw Water	L/s	n/a	76.50	76.56	75.48	75.39	75.32	75.26	75.22	75.23	75.28	75.08	75.20	75.03	75.23	75.23	75.20	75.11	74.71	74.86	74.68	74.62	65.36	65.26	64.40	65.41	64.96	64.91	64.98	n/a	66.69	65.44	2089.58
	Treated Water	10 ³ M3	17	3.21	3.24	3.15	3.40	3.61	3.71	3.49	3.88	3.42	3.83	3.31	4.68	3.63	3.43	3.42	3.43	3.34	3.56	3.39	3.25	3.56	3.12	3.39	3.78	3.25	3.42	3.44	3.14	3.49	3.25	104.13
	Peak Instantaneous - Treated Water	L/s	n/a	82.02	80.26	79.44	80.28	84.97	89.95	86.73	90.81	81.46	81.72	81.02	90.53	83.29	81.96	81.49	81.45	83.94	82.30	81.38	81.34	80.59	82.21	81.40	80.82	80.16	81.87	81.75	n/a	81.64	79.46	2396.02
Backwash Water		10 ³ M3	n/a	0.237	0.000	0.283	0.271	0.000	0.000	0.241	0.280	0.268	0.233	0.282	0.268	0.241	0.286	0.266	0.231	0.279	0.266	0.234	0.283	0.270	0.246	0.280	0.270	0.246	0.282	0.000	0.000	0.261	0.233	6.537
Fluoride Information																																		
Fluoride Residual - Treated Water		mg/l	0.5 to 0.8	0.63	0.63	0.63	0.64	0.63	0.64	0.64	0.64	0.65	0.64	0.65	0.65	0.65	0.67	0.66	0.66	0.69	0.69	0.69	0.69	0.68	0.67	0.67	0.67	0.66	0.66	0.66	0.67	0.67	0.66	19.74
Turbidity Information																																		
Raw Water	Raw Water	NTU	n/a	1.88	1.89	1.73	1.80	1.90	1.71	1.87	1.69	1.72	1.87	1.82	1.77	1.72	1.83	1.85	1.75	1.71	1.68	1.75	1.84	1.79	1.75	1.90	1.93	1.87	1.82	1.79	1.66	1.62	1.76	53.67
	Settled Water	NTU	n/a	0.09	0.10	0.10	0.11	0.10	0.12	0.13	0.12	0.11	0.10	0.10	0.10	0.11	0.10	0.09	0.12	0.11	0.11	0.10	0.10	0.10	0.11	0.10	0.11	0.10	0.10	0.11	0.10	0.10	3.16	
	Treated Water	NTU	1	0.05	0.05	0.05	0.04	0.06	0.06	0.06	0.07	0.06	0.06	0.05	0.06	0.05	0.05	0.04	0.08	0.08	0.06	0.06	0.07	0.06	0.06	0.05	0.05	0.08	0.08	0.08	0.05	0.05	0.04	1.68
Other Operating Parameters																																		
pH - Treated Water		no units	6.5 to 8.5	6.87	6.85	6.87	6.87	6.91	6.97	7.01	7.00	7.09	7.04	6.99	6.91	6.97	6.90	7.01	7.00	6.99	6.93	6.99	6.91	6.93	6.99	7.01	6.94	7.00	6.99	6.99	7.04	6.96	6.92	208.65
pH - Settled Water		no units	n/a	6.11	6.07	6.09	6.08	6.11	6.06	6.09	6.06	6.09	6.07	6.07	6.13	6.24	6.07	6.25	6.22	6.10	6.11	6.09	6.06	6.07	6.06	6.10	6.10	6.04	6.08	6.10	6.14	6.10	6.08	183.02
FAC - Treated Water		mg/l	n/a	7.03	7.03	7.03	7.06	7.09	7.13	7.09	7.07	7.06	7.08	7.21	7.18	7.23	7.15	7.07	7.08	7.11	7.13	7.06	7.11	7.18	7.18	7.19	7.17	7.15	7.11	7.19	7.08	7.11	7.09	213.45
Total Chlorine Residual Treated		mg/l	0.3 to 7	2.36	2.38	2.38	2.38	2.48	2.42	2.24	2.26	2.19	2.12	2.22	2.19	2.24	2.19	2.09	2.13	2.09	2.15	2.14	2.15	2.18	2.28	2.28	2.36	2.40	2.42	2.30	2.19	2.34	2.32	67.87
Temperature		C	15	20.0	21.0	20.0	20.0	20.0	20.0	19.0	20.0	20.0	20.0	19.0	19.0	19.0	20.0	20.0	20.0	20.0	19.0	18.0	19.0	18.0	17.0	11.0	14.0	15.0	15.0	14.0	13.0	13.0	532.0	
Fluoride used (Total Daily Consumption)		kg	n/a	22.0	23.0	22.0	22.0	21.0	22.0	21.0	23.0	22.0	21.0	23.0	22.0	21.0	20.0	23.0	26.0	22.0	25.0	23.0	21.0	20.0	19.0	21.0	21.0	20.0	20.0	20.0	21.0	20.0	20.0	646.0
Chlorine used (Total Daily Consumption)		kg	n/a	32.0	35.0	34.0	34.0	32.0	29.0	30.0	31.0	31.0	29.0	30.0	31.0	30.0	30.0	31.0	31.0	28.0	31.0	29.0	26.0	27.0	26.0	26.0	25.0	25.0	27.0	25.0	22.0	26.0	26.0	870.0
Soda Ash - Dosage		kg	n/a	217.4	232.1	226.8	224.4	221.2	232.4	223.0	226.1	230.3	217.0	231.4	225.6	226.1	225.8	229.6	226.1	213.2	227.9	222.3	194.5	198.8	193.6	196.4	196.4	190.8	197.8	194.3	182.0	200.2	197.1	6418.0
Alum residual - (Total Daily Consumption)		mg/l	n/a	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	1050.0	
Alum residual - Dosage		mg/l	n/a	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	1050.0	
Alum residual - Treated Water		mg/l	0.1	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.01	0.03	0.01	0.01	0.01	0.01	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	87.5
Poly bags added (25 kg bags)		kg	0.1	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.01	0.03	0.01	0.01	0.01	0.01	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	87.5

September 19, 2018

Town of Fort Frances
320 Portage Avenue
Fort Frances Ontario
P9A 3M5

Attention: Mr. Craig Miller
Environmental and Facilities Superintendent

Dear Craig:

**Re: Fort Frances Wastewater Treatment Facility
August 2018 Monthly Report**

As per the operating agreement, the attached document is the August 2018 monthly report for the Fort Frances Wastewater Treatment Facility.

The report highlights the influent and effluent quality and the process parameters. Additionally, the routine operation and maintenance activities conducted by the operators are summarized.

If you have any questions regarding this report do not hesitate to contact Mr. Larry Wachter – Sr. Operations Manager.

Yours truly,



Kelly Cunningham
Team Lead

For Larry Wachter
Sr. Operations Manager

**The Corporation of the Town of Fort Frances
Wastewater Treatment Plant
(Sewage Plant)
August 2018 Monthly Operations Report**

INTRODUCTION

In accordance with the Agreement between the Ontario Clean Water Agency (Operating Authority) and the Town of Fort Frances, the Fort Frances Sewage Treatment Plant is required to prepare a monthly report. This document covers the reporting month of August 2018; the facility performance report summarizes important information regarding the quality of the effluent, wastewater, analytical test results, maintenance operations, and relevant activities of the WWTP.

DESCRIPTION OF WORKS

Capacity of Works	9000 m ³ /day (average flow)
Service Area	Town of Fort Frances and Couchiching Reserve
Service Population	9000
Effluent Receiver	Rainy River
Major Process	Secondary treatment facility complete with a phosphorus removal system; ultra violet disinfection; aerobic sludge stabilization and dewatering

The Fort Frances Sewage Treatment Plant operates under *Environmental Compliance Approval Number 6786-A44PWG*. The ECA outlines the terms and conditions, and the report captures these terms and conditions in the following sections.

LABORATORY

ALS Laboratory Group – Thunder Bay is contracted to conduct the required analytical tests of the influent (raw) and effluent samples; weekly requirement.

AUGUST 2018 EFFLUENT QUALITY

<i>Parameters</i>	<i>Monthly Actual Concentration mg/L</i>	<i>Compliance Criteria Concentration mg/L</i>	<i>Performance Objective Concentration mg/L</i>	<i>Monthly Actual Loading, kg/d</i>	<i>Compliance Criteria Loading kg/d</i>	<i>Performance Objective Loading kg/d</i>
CBOD ₅	2.0 mg/L	25 mg/L	15 mg/L	10.6 kg/d	225 kg/d	135 kg/d
Total Suspended Solids	3.0 mg/L	25 mg/L	15 mg/L	15.6 kg/d	225 kg/d	135 kg/d
Total Phosphorus	0.16 mg/L	1.0 mg/L	0.9 mg/L	0.81 kg/d	9 kg/d	8.1 kg/d
Total Nitrogen Nitrate Nitrogen	9.06 mg/L 7.38 mg/L					
Total Cl ₂ Residual		<0.01 mg/L (when in use)				
E-Coli		16.4 count/100 ml (geometric mean)		200 count/100ml (geometric mean)		E-coli not to exceed 150 organisms/100ml (monthly geometric mean density)
pH				pH range 7.3 to 8.0; average pH was 7.8		
Temperature degrees C				Temperatures ranged from 16.5 to 18.0 C; average temperature of effluent was 17.2 C		

Compliance criteria are mandatory requirements of the ECA and performance objectives are a goal to be achieved using best reasonable efforts.

WASTEWATER LIQUID PROCESS

The average daily flow for August was 5068.6 m³/day. This represents 56% of the design average flow. Total treated flow for the month was 157126 m³.

The Fort Frances WWTP met all effluent compliance criteria for the parameters listed above and additionally was well within the recommended more stringent monthly performance objective levels as outlined in the Environmental Compliance Approval.

**The Town of Fort Frances accepted an additional 218.2 m³ of sewage from the New Gold mine site into the collection system in August. Lab analyses have not been provided.

INVENTORY

Chemical	End of Month Status	Units
Hypochlorite	1140 +/- @ 8.0% + 2 x 205 L @ 12%	Liters
Alum	18.4 +/- @ 60 %	Cubic meters
Polymer	2 x 205 L drums	Liters

MAINTENANCE

The operators performed the routine operations and maintenance at the treatment plant and pumping stations. The activities are highlighted as follows and a summary will be included:

Treatment Plant:

- Alternated lead/lag pumps
- Adjusted fluidizing water to head cell and grit snail as needed
- Greased all blowers
- Regular cleaning of head works EW basket strainer
- Greased Grit Snail and lubricated drive chain
- Monthly inspection of spiral screen access hatch, removed wrapped debris
- Weekly manifold wash on the Fournier press
- Drained and inspected teacup
- Greased Flocculator shaft
- Shear pin was replaced longitudinal drive 2
- Replaced both battery terminals on the John Deere tractor
- New belts were installed both head works exhaust fans
- Both automatic sampler fridges were defrosted
- SPI repaired Drager gas detector

Pump Stations:

- Ran gensets
- Changed seal water strainers
- A fuel line problem on the genset at Fifth Street was identified and repaired
- Airlocked pumps at Fifth street were remedied
- Pulled and cleaned pumps 1 and 2 at Central Avenue lift station

PROCESS AND OPTIMIZATION ISSUES

A Fournier press technician visited the plant August 1st and 2nd to give us some suggestions for optimization. He recommends a water heater be installed for polymer dilution water and that the sludge be tested in colder weather for SVI and filaments that could potentially impede drainage.

SLUDGE SUMMARY

Asselin Storage and Transportation Limited hauled a calculated total of 58.7 m³ (6 bins) of thickened digested sludge to the Town of Fort Frances landfill site. Dennis Robinson limited hauled a calculated total of 59.9 m³ (6 bins) of thickened digested sludge to the Town of Fort Frances landfill site. The hauled sludge averaged 17.5 % TS for the month but slump test results from the landfill have not been provided.

COMPLAINTS

There were no complaints during the report period.

BYPASS/OVERFLOW REPORT(S)

There were no bypass events during the month.

COMMENTS

Plant power consumption for the month was 660 (x 180 multiplier) kWh.

A Fournier press technician visited the plant August 1st and 2nd to give us some suggestions for optimization. He recommends a water heater be installed for polymer dilution water and that the sludge be tested in colder weather for SVI and filaments that could potentially impede drainage.

REPORTS

ALS – Environmental Analytical Reports (on-file at plant)
Fort Frances WPCP Equipment Run Time Report (on-file at plant)
Bypass Report (on-file at plant as per occurrence)
Incident Report (on-file at plant as per occurrence)

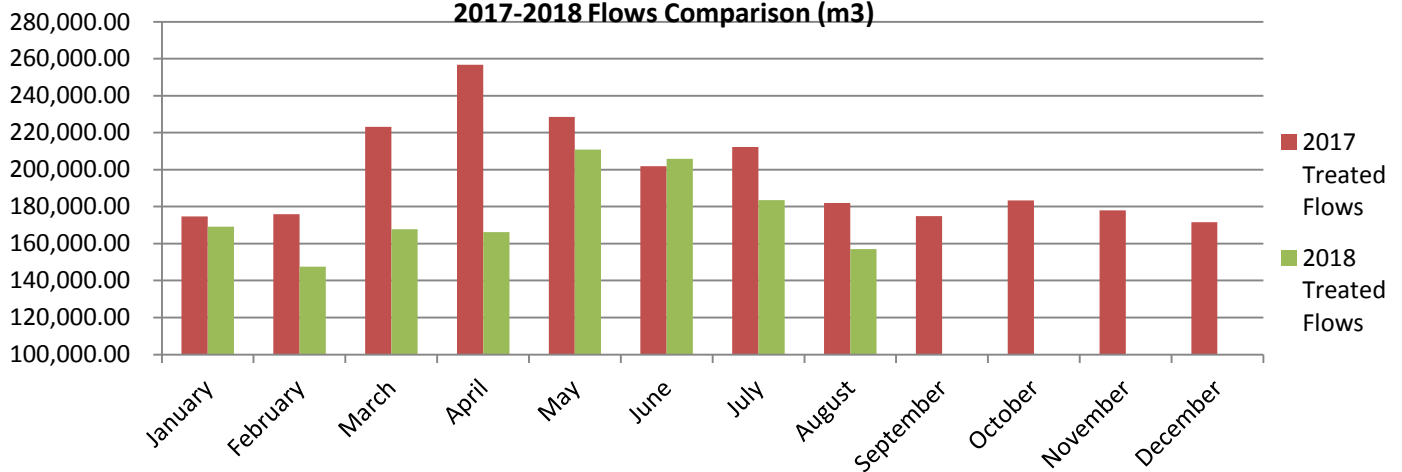
Month	Sewage Flows Year 2018					Usage	Calculated	Sludge	Removal Efficiency	
	Avg. Day	Max Day	Total	Total	Total	% Plant	Volume	Bins	CBOD5 0.969118032	
	Flow	Flow	Treated	ByPass	Volume	Capacity	Hauled	Hauled	Suspended Solids 0.963068632	
	m3	m3	Volume ML	Volume ML	ML		M3		Total Phosphorus 0.938040346	
January	5458.1	5955	169201		169201	61%	128.9	13		
February	5267.8	5685	147497		147497	59%	108.3	11		
March	5409.9	6024	167707		167707	60%	95.0	9		
April	5543.1	6269	166292		166292	62%	105.7	11		
May	6804.3	13977	210932		210932	76%	129.7	12		
June	6860.6	10382	205818	1410	205818	76%	125.3	13		
July	5918.2	8623	183465		183465	66%	124.7	12		
August	5068.6	6250	157126		157126	56%	118.6	12		
September						0%				
October						0%				
November						0%				
December						0%				
Sum				1410	1408038		936.2	93		
Average	5791		176005		176005	64%	117.0	11.6		
Max		13977	210932		210932			13		
C of A	9000	18000								

	BOD5/CBOD5			Suspended Solids			Total Phosphorus			Nitrogen		E. Coli
	Avg. Raw	Avg. Eff.	Avg. Load	Avg. Raw	Avg. Eff.	Avg. Load	Avg. Raw	Avg. Eff.	Avg. Load	Avg. Raw	Avg. Eff.	Geo Mean
Month	BOD	CBOD	CBOD	S.S	S.S	S.S	T.P	T.P	T.P	TKN	Total N	Counts
	(mg/L)	(mg/L)	(kg/day)	(mg/L)	(mg/L)	(kg/day)	(mg/L)	(mg/L)	(kg/day)	(mg/L)	(mg/L)	/100ml
January	102.6	3.3	18.1	155.8	6.4	34.8	2.64	0.22	1.19	19.4	8.1	69.5
February	112.0	2.5	13.0	157.2	6.2	32.5	2.82	0.17	0.87	21.8	11.1	14.1
March	104.5	3.1	16.7	156.5	7.6	41.4	2.73	0.16	0.86	19.1	12.6	14.1
April	103.6	5.1	28.1	167.2	5.9	32.7	2.79	0.16	0.86	19.3	13.1	32.8
May	79.8	2.6	15.9	154.9	8.2	56.3	2.50	0.20	1.36	17.2	10.9	67.7
June	64.3	3.0	22.3	138.8	6.5	46.5	2.02	0.14	0.97	14.6	8.7	21.7
July	84.4	2.0	11.1	150.2	2.8	17.1	2.34	0.08	0.46	17.7	8.3	7.3
August	113.0	2.0	10.6	181.2	3.0	15.6	2.98	0.16	0.81	22.0	9.06	16.4
September												
October												
November												
December												
Average	95.5	3.0	17.0	157.7	5.8	34.6	2.6	0.16	0.92	18.9	10.2	30.5
Max	113	5.1	28.1	181.2	8.2	56.3	3.0	0.22	1.36	22	13.1	69.5
C of A		25	225		25	225		1.0	9.0	200	6.0	200

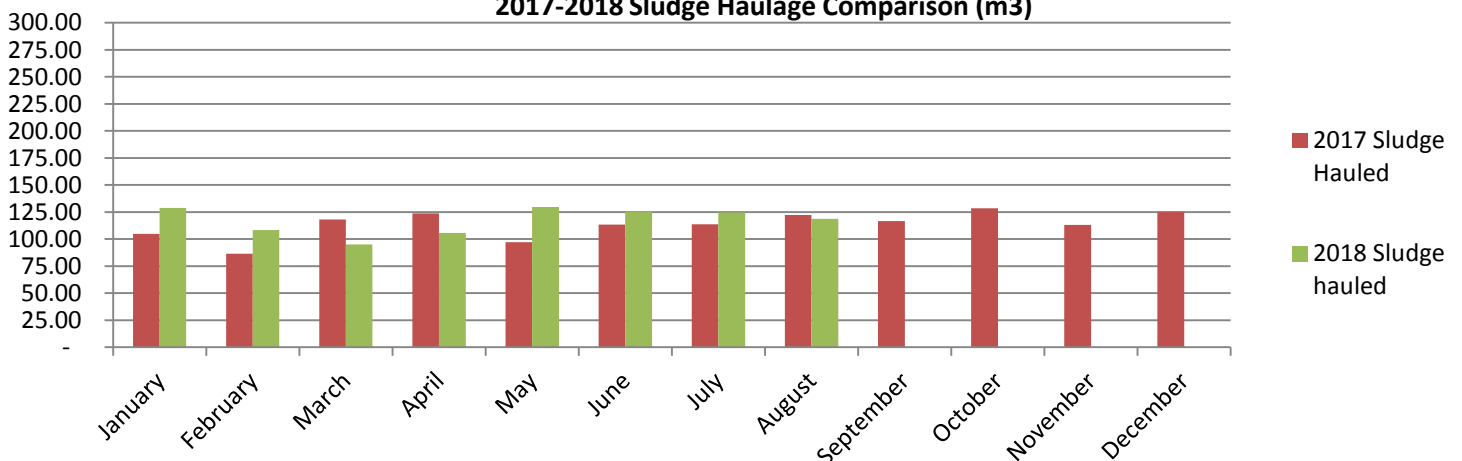
2017-2018 Comparison Chart

Month	2017 Treated Sewage	2018 Treated Sewage	% Variance 2017 to 2018	2017 Hauled Sludge	2018 Hauled Sludge	% Variance 2017 to 2018
	m3	m3	m3	m3 (calculated)	m3 (calculated)	m3
January	174,745.00	169,201.00	-3%	104.90	128.90	23%
February	175,956.00	147,497.00	-19%	86.50	108.30	25%
March	223,183.00	167,707.00	-33%	118.10	95.00	-20%
April	256,759.00	166,292.00	-54%	123.70	105.70	-15%
May	228,551.00	210,932.00	-8%	97.20	129.70	33%
June	201,914.00	205,818.00	2%	113.50	125.30	10%
July	212,264.00	183,465.00	-16%	113.80	124.70	10%
August	181,956.00	157,126.00	-16%	122.20	118.60	-3%
September	174,796.00			116.50		
October	183,450.00			128.50		
November	177,999.00			113.10		
December	171,598.00			125.10		
Totals	2,363,171.00	1,408,038.00	-68%	1,363.10	936.20	-31%

2017-2018 Flows Comparison (m3)



2017-2018 Sludge Haulage Comparison (m3)



Workorder Summary Report

Report Start Date: Aug 1, 2018 12:00 AM

Report End Date: Aug 31, 2018 11:59 PM

Location: 1103*

Work Order Type: ADMIN,CALL,CAP,CORR,EMER,OPER,PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
893406	0000227376	PANEL ALARM/DIALER	1103, Fort Frances WPCP, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 1103	COMP	8/1/18 12:00 AM	8/30/18 10:00 AM	8/30/18 11:00 AM	Dialer Test -We vtest daily.
893410			1103, Fort Frances WPCP	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Gensets Inspection/Functional Tests (1m) 1103	COMP	8/1/18 12:00 AM	8/24/18 02:50 PM	8/24/18 02:50 PM	Diesel Gensets Inspection/Functional Tests (1m) 1103 -Exercised gensets at Central Avenue and White Pine lift stations on August 21st but Fifth Street genset failed. Troubleshooting at end of day with Town mechanic confirmed no fuel getting to genset (2 hours OT). Mechanic returned next morning to test fuel pump and was able to run genset from jerry can. We then removed fuel line from the tank, blew it out, shortened it and replaced foot valve. Another leak was found in a flexible line while priming fuel lines. Replaced this flexible line on August 23rd and ran under load for 2 hours with no issues.
893426			1103, Fort Frances WPCP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 1103	COMP	8/1/18 12:00 AM	8/31/18 08:00 AM	8/31/18 12:51 PM	Monthly H&S -Paper Copy at the plant.
893437			1103, Fort Frances WPCP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 1103	COMP	8/1/18 12:00 AM	9/9/18 10:49 AM	9/9/18 10:49 AM	
893442			1103, Fort Frances WPCP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 1103	COMP	8/1/18 12:00 AM	9/3/18 09:14 AM	9/3/18 09:14 AM	Monthly Review -Still waiting on three lab results to be input from lab.
893816			1103, Fort Frances WPCP	PM	Inspection	1	MONTHS	Blowers/Motors Inspection/Service (1m/3m) 1103	COMP	8/1/18 12:00 AM	8/29/18 01:00 PM	8/29/18 02:00 PM	Monthly Blowers -I greased all blowers & checked air filters.
893824	0000246402	CENTRIFUGE GS2-2-1 TEACUP/GRIT SNAIL	1103, Fort Frances WPCP, Process, Primary Treatment, Primary Sludge Degritting	PM	Inspection	1	MONTHS	Teacup Centrifuge Inspection/Service (1m/3m/1y) 1103	COMP	8/1/18 12:00 AM	8/31/18 11:30 AM	8/31/18 12:30 PM	Teacup -I removed the lid and inspected to find no debris, I then hosed the unit and returned to service.

Workorder Summary Report

Report Start Date: Aug 1, 2018 12:00 AM

Report End Date: Aug 31, 2018 11:59 PM

Location: 1103*

Work Order Type: ADMIN,CALL,CAP,CORR,EMER,OPER,PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
898533	0000246436	PANEL CONTROL PCL	1103, Boundary Pumping Station, Facility	CALL	Refurbish/ Replace/Repair	0		1103 Boundary Road Fire alarm call in	COMP		8/15/18 04:25 AM	8/15/18 06:30 AM	1103 Boundary Road Fire alarm call in -At 0425 I was called by the auto dialer for a Boundary Road fire alarm. I called Communique Action and drove to the plant. There were several alarms on the screen for Boundary Road that had all come in at the same time, one of which was a PLC fault. All alarms acknowledged and reset so I went to the station to confirm that all was well. The station was operating as it should, no fire issue and have to say that a PLC fault was the cause of alarms and the call in. I called Communique Action and continued my work day.
899734	0000129887	SWITCH TRANSFER CL2 EMERGENCY	1103, Fort Frances WPCP, Facility, Power Distribution	CALL	Refurbish/ Replace/Repair	0		Plant Power Failure 1103	COMP		8/27/18 01:40 AM	8/27/18 05:40 AM	Plant Power Failure Alarm -I drove into the facility and all was dark and the phase loss protection had been tripped. After resetting the phase loss I brought the plant back online piece by piece until all was restored. I then reset the phase loss equipment and monitored for 30 minutes.
899863	0000227421	PUMP CENT VERTICAL NON CLOG SEWAGE P1 FIFTH ST	1103, 5th St. Pumping Station, Process	CALL	Refurbish/ Replace/Repair	0		Fifth Street High Level 1103	COMP		8/27/18 07:49 PM	8/27/18 07:56 PM	Fifth High Level -I arrived at the lift station to find all three pumps to be airlocked. After I un airlocked the pumps they pumped normal and I then returned to the plant and monitored.

October 17, 2018,

Town of Fort Frances
320 Portage Avenue
Fort Frances Ontario
P9A 3M5

Attention: Mr. Craig Miller
Environmental and Facilities Superintendent

Dear Craig:

**Re: Fort Frances Wastewater Treatment Facility
September 2018 Monthly Report**

As per the operating agreement, the attached document is the September 2018 monthly report for the Fort Frances Wastewater Treatment Facility.

The report highlights the influent and effluent quality and the process parameters. Additionally, the routine operation and maintenance activities conducted by the operators are summarized.

If you have any questions regarding this report do not hesitate to contact Mr. Larry Wachter – Sr. Operations Manager.

Yours truly,



Kelly Cunningham
Team Lead

For Larry Wachter
Sr. Operations Manager

**The Corporation of the Town of Fort Frances
Wastewater Treatment Plant
(Sewage Plant)
September 2018 Monthly Operations Report**

INTRODUCTION

In accordance with the Agreement between the Ontario Clean Water Agency (Operating Authority) and the Town of Fort Frances, the Fort Frances Sewage Treatment Plant is required to prepare a monthly report. This document covers the reporting month of September 2018; the facility performance report summarizes important information regarding the quality of the effluent, wastewater, analytical test results, maintenance operations, and relevant activities of the WWTP.

DESCRIPTION OF WORKS

Capacity of Works	9000 m ³ /day (average flow)
Service Area	Town of Fort Frances and Couchiching Reserve
Service Population	9000
Effluent Receiver	Rainy River
Major Process	Secondary treatment facility complete with a phosphorus removal system; ultra violet disinfection; aerobic sludge stabilization and dewatering

The Fort Frances Sewage Treatment Plant operates under *Environmental Compliance Approval Number 6786-A44PWG*. The ECA outlines the terms and conditions, and the report captures these terms and conditions in the following sections.

LABORATORY

ALS Laboratory Group – Thunder Bay is contracted to conduct the required analytical tests of the influent (raw) and effluent samples; weekly requirement.

SEPTEMBER 2018 EFFLUENT QUALITY

<i>Parameters</i>	<i>Monthly Actual Concentration mg/L</i>	<i>Compliance Criteria Concentration mg/L</i>	<i>Performance Objective Concentration mg/L</i>	<i>Monthly Actual Loading, kg/d</i>	<i>Compliance Criteria Loading kg/d</i>	<i>Performance Objective Loading kg/d</i>
CBOD ₅	2.3 mg/L	25 mg/L	15 mg/L	13.2 kg/d	225 kg/d	135 kg/d
Total Suspended Solids	3.7 mg/L	25 mg/L	15 mg/L	20.4 kg/d	225 kg/d	135 kg/d
Total Phosphorus	0.13 mg/L	1.0 mg/L	0.9 mg/L	0.74 kg/d	9 kg/d	8.1 kg/d
Total Nitrogen Nitrate Nitrogen	7.62 mg/L 5.87 mg/L					
Total Cl ₂ Residual		<0.01 mg/L (when in use)				
E-Coli		6.7 count/100 ml (geometric mean)		200 count/100ml (geometric mean)		E-coli not to exceed 150 organisms/100ml (monthly geometric mean density)
pH			pH range 7.6 to 7.9; average pH was 7.8			
Temperature degrees C			Temperatures ranged from 16.5 to 17.5 C; average temperature of effluent was 17.2 C			

Compliance criteria are mandatory requirements of the ECA and performance objectives are a goal to be achieved using best reasonable efforts.

WASTEWATER LIQUID PROCESS

The average daily flow for September was 5652.2 m³/day. This represents 63% of the design average flow. Total treated flow for the month was 169565 m³.

The Fort Frances WWTP met all effluent compliance criteria for the parameters listed above and additionally was well within the recommended more stringent monthly performance objective levels as outlined in the Environmental Compliance Approval.

**The Town of Fort Frances accepted an additional 163.2 m³ of sewage from the New Gold mine site into the collection system in September. Lab analyses have not been provided.

MAINTENANCE

The operators performed the routine operations and maintenance at the treatment plant and pumping stations. The activities are highlighted as follows and a summary will be included:

Treatment Plant:

- Alternated lead/lag pumps
- Adjusted fluidizing water to head cell and grit snail as needed
- Greased all blowers
- Regular cleaning of head works EW basket strainer
- Greased Grit Snail and lubricated drive chain
- Monthly inspection of spiral screen access hatch, removed wrapped debris
- Weekly manifold wash on the Fournier press
- Drained and inspected teacup
- Replaced the second main building sump pump
- Shear pin was replaced longitudinal drive 1
- Replaced battery on the John Deere tractor
- Replaced bulbs and acid washed sleeves UV Bank3
- Cleaned DO probes
- Greased bearings and replaced filters air handlers
- New UPS was installed for Head Works CP-2
- The clarifiers were drained and inspected. Removed 1 link clarifier 1 and none clarifier 2

Pump Stations:

- Ran gensets
- Changed seal water strainers
- Wajax load bank tested all gensets. Report to follow.
- A PLC power supply failure at Central Avenue lift station was diagnosed and remedied

PROCESS AND OPTIMIZATION ISSUES

Ongoing pumping issues with the LMI polymer pumps have made it necessary to delay trials of alternate polymer samples. A screw pump is being looked at as a replacement.

SLUDGE SUMMARY

Dennis Robinson Limited hauled a calculated total of 106.5 m³ (12 bins) of thickened digested sludge to the Town of Fort Frances landfill site. The hauled sludge averaged 17.1 % TS for the month but slump test results from the landfill have not been provided.

COMPLAINTS

There were no complaints during the report period.

BYPASS/OVERFLOW REPORT(S)

There were no bypass events during the month.

COMMENTS

Plant power consumption for the month was 650 (x 180 multiplier) kWh.
The Delta V SCADA system was upgraded by Lakeside Controls.
Annul fire extinguisher inspection completed.

REPORTS

ALS – Environmental Analytical Reports (on-file at plant)
Fort Frances WPCP Equipment Run Time Report (on-file at plant)
Bypass Report (on-file at plant as per occurrence)
Incident Report (on-file at plant as per occurrence)

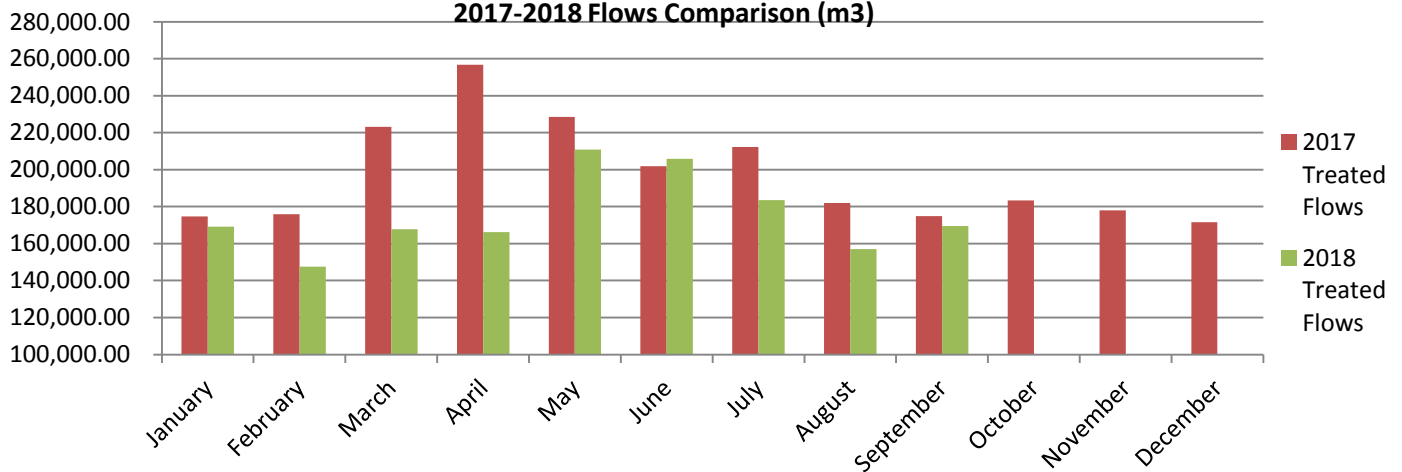
Month	Sewage Flows Year 2018					Usage	Calculated	Sludge	Removal Efficiency	
	Avg. Day	Max Day	Total	Total	Total	% Plant	Volume	Bins	CBOD5 0.970467503	
	Flow	Flow	Treated	ByPass	Volume	Capacity	Hauled	Hauled	Suspended Solids 0.964967266	
	m3	m3	Volume ML	Volume ML	ML		M3		Total Phosphorus 0.941054379	
January	5458.1	5955	169201		169201	61%	128.9	13		
February	5267.8	5685	147497		147497	59%	108.3	11		
March	5409.9	6024	167707		167707	60%	95.0	9		
April	5543.1	6269	166292		166292	62%	105.7	11		
May	6804.3	13977	210932		210932	76%	129.7	12		
June	6860.6	10382	205818	1410	205818	76%	125.3	13		
July	5918.2	8623	183465		183465	66%	124.7	12		
August	5068.6	6250	157126		157126	56%	118.6	12		
September	5652.2	8044	169565		169565	63%	106.5	10		
October						0%				
November						0%				
December						0%				
Sum				1410	1577603		1042.7	103		
Average	5776		175289		175289	64%	115.9	11.4		
Max		13977	210932		210932			13		
C of A	9000	18000								

	BOD5/CBOD5			Suspended Solids			Total Phosphorus			Nitrogen		E. Coli
	Avg. Raw	Avg. Eff.	Avg. Load	Avg. Raw	Avg. Eff.	Avg. Load	Avg. Raw	Avg. Eff.	Avg. Load	Avg. Raw	Avg. Eff.	Geo Mean
Month	BOD	CBOD	CBOD	S.S	S.S	S.S	T.P	T.P	T.P	TKN	Total N	Counts
	(mg/L)	(mg/L)	(kg/day)	(mg/L)	(mg/L)	(kg/day)	(mg/L)	(mg/L)	(kg/day)	(mg/L)	(mg/L)	/100ml
January	102.6	3.3	18.1	155.8	6.4	34.8	2.64	0.22	1.19	19.4	8.1	69.5
February	112.0	2.5	13.0	157.2	6.2	32.5	2.82	0.17	0.87	21.8	11.1	14.1
March	104.5	3.1	16.7	156.5	7.6	41.4	2.73	0.16	0.86	19.1	12.6	14.1
April	103.6	5.1	28.1	167.2	5.9	32.7	2.79	0.16	0.86	19.3	13.1	32.8
May	79.8	2.6	15.9	154.9	8.2	56.3	2.50	0.20	1.36	17.2	10.9	67.7
June	64.3	3.0	22.3	138.8	6.5	46.5	2.02	0.14	0.97	14.6	8.7	21.7
July	84.4	2.0	11.1	150.2	2.8	17.1	2.34	0.08	0.46	17.7	8.3	7.3
August	113.0	2.0	10.6	181.2	3.0	15.6	2.98	0.16	0.81	22.0	9.06	16.4
September	112.8	2.3	13.2	174.0	3.7	20.4	3.27	0.13	0.74	21.5	7.62	6.7
October												
November												
December												
Average	97.4	2.9	16.6	159.5	5.6	33.0	2.7	0.16	0.90	19.2	9.9	27.8
Max	113	5.1	28.1	181.2	8.2	56.3	3.3	0.22	1.36	22	13.1	69.5
C of A		25	225		25	225		1.0	9.0	200	6.0	200

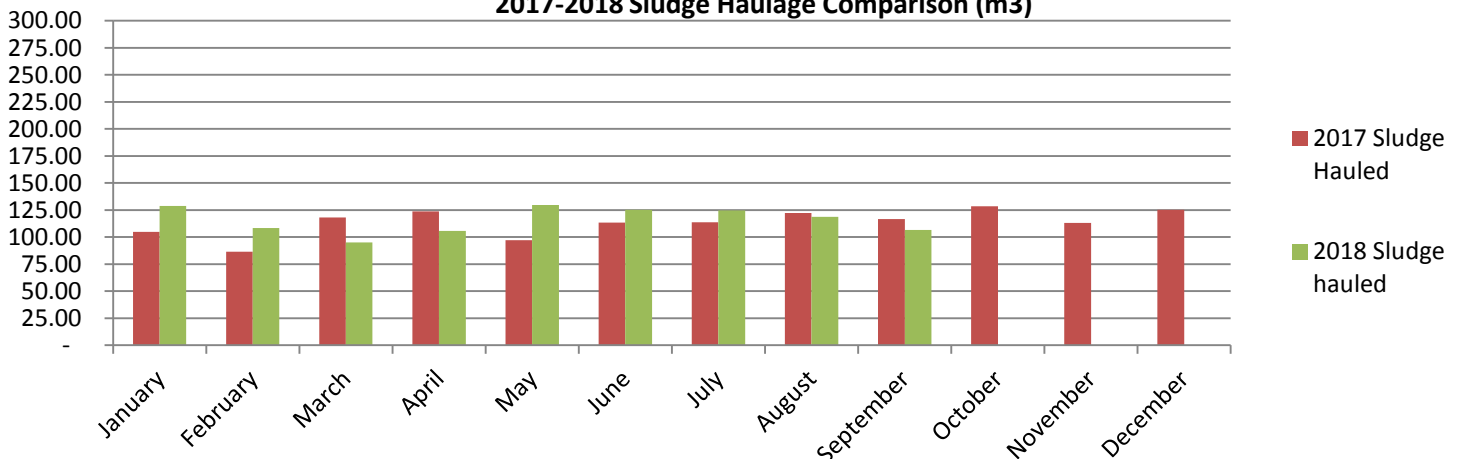
2017-2018 Comparison Chart

Month	2017 Treated Sewage	2018 Treated Sewage	% Variance 2017 to 2018	2017 Hauled Sludge	2018 Hauled Sludge	% Variance 2017 to 2018
	m3	m3	m3	m3 (calculated)	m3 (calculated)	m3
January	174,745.00	169,201.00	-3%	104.90	128.90	23%
February	175,956.00	147,497.00	-19%	86.50	108.30	25%
March	223,183.00	167,707.00	-33%	118.10	95.00	-20%
April	256,759.00	166,292.00	-54%	123.70	105.70	-15%
May	228,551.00	210,932.00	-8%	97.20	129.70	33%
June	201,914.00	205,818.00	2%	113.50	125.30	10%
July	212,264.00	183,465.00	-16%	113.80	124.70	10%
August	181,956.00	157,126.00	-16%	122.20	118.60	-3%
September	174,796.00	169,565.00	-3%	116.50	106.50	-9%
October	183,450.00			128.50		
November	177,999.00			113.10		
December	171,598.00			125.10		
Totals	2,363,171.00	1,577,603.00	-50%	1,363.10	1,042.70	-24%

2017-2018 Flows Comparison (m3)



2017-2018 Sludge Haulage Comparison (m3)



Workorder Summary Report

Report Start Date: Jan 0, 2 12:00 AM

Report End Date: Sep 30, 2018 11:59 PM

Location: 1103*

Work Order Type: ADMIN,CALL,CAP,CORR,EMER,OPER,PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
934042	0000227376	PANEL ALARM/DIALER	1103, Fort Frances WPCP, Process, Process Control & Monitoring	PM	Inspection	1	MONTHS	Critical Alarm/Dialer Testing (1m) 1103	COMP	9/1/18 12:00 AM	9/29/18 10:00 AM	9/29/18 11:00 AM	Daily Dialer Test -We test everyday.
934046			1103, Fort Frances WPCP	PM	Refurbish/Replace/Repair	1	MONTHS	Diesel Gensets Inspection/Functional Tests (1m) 1103	COMP	9/1/18 12:00 AM	9/18/18 09:15 AM	9/18/18 10:15 AM	Monthly Run -Exercised all gensets 1 hour under load.
934072			1103, Fort Frances WPCP	PM	Health and Safety	1	MONTHS	Health And Safety Inspection (1m) 1103	COMP	9/1/18 12:00 AM	9/29/18 07:00 AM	9/29/18 08:00 AM	Monthly Insp. -Paper copy at plant.
934083			1103, Fort Frances WPCP	PM	Inspection	1	MONTHS	TPM Inspection/Maintenance (1m) 1103	COMP	9/1/18 12:00 AM	10/9/18 06:14 AM	10/9/18 06:14 AM	
934088			1103, Fort Frances WPCP	OPER	Health and Safety	1	YEARS	WHMIS/MSDS/NSF Review And Update (1y) 1103	COMP	9/1/18 12:00 AM	9/14/18 08:15 AM	9/14/18 08:15 AM	
934095			1103, Fort Frances WPCP	OPER	Compliance	1	MONTHS	WISKI Review (1m) 1103	COMP	9/1/18 12:00 AM	10/9/18 06:15 AM	10/9/18 06:15 AM	WISKI Review -Reviewed Wiski on Sept 7th and data was missing for the August 14th and 21st samples even though the August 27th data was there. Notified manager and PCTs that there could be an issue. Wiski entry and review -Entered data for September. Data from 2 August ALS weekly samples are still not in Wiski , PCTs are checking on the problem.
934443			1103, Fort Frances WPCP	PM	Inspection	1	MONTHS	Blowers/Motors Inspection/Service (1m/3m) 1103	COMP	9/1/18 12:00 AM	9/28/18 12:30 PM	9/28/18 01:30 PM	Blower Maint. -I greased all 5 blowers.
934473			1103, Fort Frances WPCP	PM	Refurbish/Replace/Repair	3	MONTHS	Clarifiers Inspection/Service (3m) 1103	COMP	9/1/18 12:00 AM	9/14/18 08:18 AM	9/14/18 08:18 AM	-Completed during annual inspection/service Sept 11,12
935017			1103, Fort Frances WPCP	PM	Inspection	6	MONTHS	UV Reactors Clean/Inspect/Bulb Replacements (6m) 1103	COMP	9/1/18 12:00 AM	9/25/18 06:54 AM	9/25/18 06:54 AM	UV Cleaning/Bulb Change -Hosed and broom swept all UV banks then completed a bulb change on UV bank C.

Workorder Summary Report

Report Start Date: Jan 0, 2 12:00 AM

Report End Date: Sep 30, 2018 11:59 PM

Location: 1103*

Work Order Type: ADMIN,CALL,CAP,CORR,EMER,OPER,PM

Work Order Class:

				WorkOrder		PM Schedule		Workorder Details					
WO #	Asset ID	Asset Description	Location Description	Type	Class	FEQ	Units	Work Order Description	Status	Schedule Start	Actual Start	Actual Finsh	WorkLog Detail
941352			1103, Fort Frances WPCP	CALL	Refurbish/ Replace/Repair	0		Plant Power Failure 1103	COMP		9/26/18 12:50 AM	9/26/18 02:30 AM	-I was called by the auto dialer at 0050 hours for a plant power failure alarm. I called Communique Action and drove to the wastewater plant. Arriving at 0125, I reset the phase loss protection in both buildings and restored line power to the plant. Alarms and faults were then acknowledged on SCADA and all equipment restarted. Monitored process and was ready to go home by 0230 hours, closed ticket.

Aircraft Landings 2018
As of November 5,2018

Month	Bearskin Flights			Bearskin- Passengers			Government			Private			Med-I-vacs			International			Commercial			Totals			Variance
	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018	2017	2016	2018-2017
January	68	76	70	198	308	261	0	0	1	3	2	3	55	42	30	2	4	3	73	48	36	201	143	177	58
February	66	80	69	187	334	233	0	1	1	2	1	1	57	32	35	3	0	1	56	39	49	184	156	155	28
March	73	90	69	249	336	199	0	10	0	5	4	17	43	50	34	6	14	3	57	51	55	184	178	192	6
1/4 Total	207	246	208	634	978	693	0	11	2	10	7	21	155	124	99	11	18	7	186	138	140	569	477	524	92
April	77	67	81	270	289	288	0	0	7	7	18	8	42	40	47	6	4	3	42	41	40	174	186	201	-12
May	77	87	88	276	389	309	4	8	4	19	8	9	35	50	37	28	0	32	54	54	59	217	229	259	-12
June	68	82	76	219	324	273	4	10	0	24	16	30	36	38	38	70	14	77	49	63	52	251	273	328	-22
1/2 Total	429	482	453	1399	1980	1563	8	29	13	60	49	68	268	252	221	115	36	119	331	296	291	1211	1165	1312	46
July	74	70	72	228	224	221	10	3	2	40	26	48	38	52	51	79	76	66	41	54	47	282	286	324	-4
August	69	82	84	219	292	256	6	4	6	41	27	42	41	46	66	65	80	71	44	50	53	266	322	313	-56
September	66	79	78	197	267	277	29	7	1	33	14	15	44	40	40	45	42	45	37	39	51	254	230	249	24
3/4 Total	638	713	687	2043	2763	2317	53	43	22	174	116	173	391	390	378	304	234	301	453	439	442	2013	2003	2198	10
October	68	72	85	254	255	357	5	6	2	18	16	10	37	44	41	8	18	18	43	42	47	179	203	214	-24
November		71	72		281	328		0	3		2	20		28	28		0	7		40	38	0	168	146	-168
December		62	64		199	231		0	0		2	0		36	29		0	0		40	29	0	122	139	-122
Total	706	918	908	2297	3498	3233	58	49	27	192	136	203	428	498	476	312	252	326	496	561	556	2192	2496	2697	-304

Fort Frances Airport - Page 2/2 - Fuel Sales - As of November 5, 2018																			
Fuel Sales Recap - 2018									2018	2017	2016	2015	2014	2013	2012	2011	2010	9 year	Variance
Month	100LL		Jet Trk		Jet Cab		Month	Year	per	per	per	per	per	per	per	per	per	Average	per month
	Liters	Total	Liters	Total	Liters	Total	Total	Total	month	month	month	month	month	month	month	month	month	2018 to 2009	month
January	269	269	16,228	16,228	100	100	16,597	16,597	16,597	25,675	7,528	8,692	11,543	7,216	10,252	7,308	10,971	12,177	-9,078
February	363	632	15,923	32,151	0	100	16,286	32,883	16,286	12,503	11,904	11,231	12,304	6,197	6,918	3,687	5,782	9,995	3,783
March	226	858	9,572	41,723	0	100	9,798	42,681	9,798	21,928	13,255	17,795	10,508	12,077	9,329	10,390	15,539	13,023	-12,130
April	391	1,249	10,007	51,730	0	100	10,398	53,079	10,398	13,102	8,592	13,219	8,377	4,453	8,251	5,294	24,825	10,719	-2,704
May	2,919	4,168	21,920	73,650	0	100	24,839	77,918	24,839	21,362	24,681	16,161	29,753	18,350	21,891	19,790	25,375	22,624	3,477
June	3,138	7,306	27,675	101,325	0	100	30,813	108,731	30,813	27,380	26,015	45,698	30,789	22,786	23,537	25,723	27,768	28,290	3,433
July	4,329	11,635	19,132	120,457	0	100	23,461	132,192	23,461	24,642	29,002	28,150	14,441	19,232	32,650	19,124	30,455	24,608	-1,181
August	4,795	16,430	25,635	146,092	0	100	30,430	162,622	30,430	23,029	21,119	36,638	20,450	20,075	30,783	21,467	33,139	26,538	7,401
September	4,796	21,226	20,395	166,487	0	100	25,191	187,813	25,191	13,489	21,325	24,238	21,837	18,005	19,431	22,511	23,363	20,833	11,702
October	1,206	22,432	9,563	176,050	0	100	10,769	198,582	10,769	16,604	30,655	8,216	15,472	13,109	11,325	13,677	15,033	15,616	-5,835
November		22,432		176,050		100	0	198,582	0	9,924	22,349	11,616	7,238	6,398	8,170	6,785	17,747	10,098	-9,924
December		22,432		176,050		100	0	198,582	0	6,560	13,797	7,592	6,849	2,028	8,179	2,446	7,641	6,269	-6,560
Total	22,432		176,050		100		198,582			216,198	230,222	229,246	189,561	149,926	190,716	158,202	237,638	200,790	-17616
								Jan. to Oct.	198,582	199,714	194,076	210,038	175,474	141,500	174,367	148,971	212,250	184,423	1,132

Lowest month in last 9 years
Highest month in last 9 years
Highest month
lowest month

Sewer & Water Data for 2018

up-dated November 5, 2018

Month	Days per month	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018-2017	2018-2017	2018	2018
		Total	daily	Couch.	Couch.	Couch.	Total	daily	Couch.	Couch.	Couch.	Diff	Diff	Difference	Infiltration
		Sewage	Sewage	Sewage	Sewage	Sewage	Treated	Treated	2 Water	2 Water	Water	Treated	Wastewater	STP-WTP	daily average
		STP	STP	Meters	Meters	%	WTP	WTP	Meters	Meters	%	WTP	STP		
		cu. meters monthly	cu. meters daily	cu. meters monthly	cu. meters daily		cu. meters monthly	cu. meters daily	cu. meters monthly	cu. meters daily					
January	31	169201	5458.10	10220	329.68	6.04%	119180	3844.5	8275	266.9	6.94%	4630.0	-5544.0	50021.0	1613.6
February	28	147497	5267.75	8365	298.75	5.67%	107410	3836.1	8275	295.5	7.70%	3730.0	-27459.0	40087.0	1431.7
March	31	167707	5409.90	10261	331.00	6.12%	124800	4025.8	8260	266.5	6.62%	11240.0	-55476.0	42907.0	1384.1
April	30	166292	5543.07	11686	389.53	7.03%	115850	3861.7	8260	275.3	7.13%	7520.0	-90467.0	50442.0	1681.4
May	31	210932	6804.26	12612	406.84	5.98%	112970	3644.2	9385	302.7	8.31%	-4020.0	-17619.0	97962.0	3160.1
June	30	205818	6860.60	13578	452.60	6.60%	119760	3992.0	9385	312.8	7.84%	5550.0	3904.0	86058.0	2868.6
July	31	183465	5918.23	13310	429.35	7.25%	125810	4058.4	10700	345.2	8.50%	-490.0	-28799.0	57655.0	1859.8
August	31	157126	5068.58	11054	356.58	7.04%	132730	4281.6	10700	345.2	8.06%	9310.0	-24830.0	24396.0	787.0
September	30	169565	5652.17		0.00	0.00%	104130	3471.0		0.0	0.00%	-3490.0	-5231.0	65435.0	2181.2
October	31		0.00		0.00	#DIV/0!		0.0		0.0	#DIV/0!	-109480.0	-183450.0	0.0	0.0
November	30		0.00		0.00	#DIV/0!		0.0		0.0	#DIV/0!	-102850.0	-177999.0	0.0	0.0
December	31		0.00		0.00	#DIV/0!		0.0		0.0	#DIV/0!	-105970.0	-171598.0	0.0	0.0
Total	365	1577603		91086			1062640.0		73240.0			-305100.0	-886975.0	514963.0	1410.9
Monthly Average		175289.2	4331.89	11385.75	249.53		118071.1	2917.9	9155.0	200.8		-23693.3	-65380.7	42913.6	1413.9