

**Manitoulin-Sudbury DSB Paramedic Services Urgent and Emergent  
Call Volume Report**



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## Project Background

The Manitoulin-Sudbury DSB is interested in analyzing total paramedic calls from 2017 to 2020 using a UTM grid of 1km in size. The goal is to identify call distribution throughout the Manitoulin-Sudbury DSB catchment area and whether paramedic stations are located where they are needed to address these calls. A driving distance analysis was conducted to show approximate driving distance (in minutes) from a paramedic station to a call's UTM grid center point. This report also covers how different CTAS types, and their response time targets were being met. Results are shown below as well as in PDF maps which have been sent separately.

## Data Quality Notes

It should be noted that a UTM grid of 1km in size was used in the analysis and all distances calculated to a call from a paramedic station is based off of a call's UTM center point. Driving distances (in minutes) are based off of road speed limits. The time range looked at were calls from 2017 to 2020, combined. Additionally, call data was filtered to only include:

- a) priority 3 and 4 calls
- b) "CACC ID" 950, 951, and 952
- c) unique IDs from "MasterIncidentNumber"
- d) unique IDs based off of "UnitCancelReason".

## Methods Used

ArcMap has a tool called "Service Areas" which helps identify which areas are covered under a certain driving distance. This tool is useful for identifying, for example, which areas fall within 30-minutes of a paramedic station along with how many calls were within that driving distance.

## Calls Rostered from the Hagar Station

The following tables show driving distances (in minutes) for calls that were rostered from the Hagar Station. The first part shows driving distances based off of the current Hagar Station location. The other two sections show the same calls but how the driving distances would change if the Hagar station was moved to Markstay or St.-Charles.

### Hagar Station

Table 1 shows that 84.8% of calls rostered from the Hagar station were within 30-minutes of the Hagar station.

Table 1: Driving Distance, in Minutes, from the Hagar Station to Calls Rostered from the Hagar Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	171	9.3%
5 to 10 min	751	41.0%
10 to 15 min	276	15.1%
15 to 20 min	164	9.0%
20 to 25 min	48	2.6%
25 to 30 min	143	7.8%
30 to 45 min	176	9.6%
45 to 60 min	76	4.1%
Over 60 min / no roads within 1km	27	1.5%
<b>Total Calls</b>	<b>1,832</b>	

Table 2 shows the summary statistics for driving distances from the Hagar station to calls rostered from the Hagar station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 2: Driving Distance Summary, in Minutes, from the Hagar Station to Calls Rostered from the Hagar Station, 2017 to 2020

	Distance in Minutes
Total Calls	1,827
Minimum distance	0.27
Maximum distance	157.78
Average distance	15.74

## Markstay

Table 3 shows that 78.1% of calls rostered from the Hagar station would be within 30-minutes of Markstay if a station was located here.

Table 3: Driving Distance, in Minutes, from Markstay to Calls Rostered from the Hagar Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	168	9.2%
5 to 10 min	234	12.8%
10 to 15 min	186	10.2%
15 to 20 min	629	34.3%
20 to 25 min	126	6.9%
25 to 30 min	88	4.8%
30 to 45 min	235	12.8%
45 to 60 min	126	6.9%
Over 60 min / no roads within 1km	40	2.2%
<b>Total Calls</b>	<b>1,832</b>	

Table 4 shows the summary statistics for driving distances from the Markstay station to calls rostered from the Hagar station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 4: Driving Distance Summary, in Minutes, from Markstay to Calls Rostered from the Hagar Station, 2017 to 2020

	Distance in Minutes
Total Calls	1,827
Minimum distance	0.79
Maximum distance	151.68
Average distance	20.22

## St.-Charles

Table 5 shows that 79.6% of calls rostered from the Hagar station would be within 30-minutes of St.-Charles if a station was located here.

*Table 5: Driving Distance, in Minutes, from St.-Charles to Calls Rostered from the Hagar Station, 2017 to 2020*

<b>Driving distance</b>	<b>#</b>	<b>%</b>
0 to 5 min	422	23.0%
5 to 10 min	194	10.6%
10 to 15 min	259	14.1%
15 to 20 min	265	14.5%
20 to 25 min	258	14.1%
25 to 30 min	60	3.3%
30 to 45 min	271	14.8%
45 to 60 min	88	4.8%
Over 60 min / no roads within 1km	15	0.8%
<b>Total Calls</b>	<b>1,832</b>	

Table 6 shows the summary statistics for driving distances from the St.-Charles station to calls rostered from the Hagar station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

*Table 6: Driving Distance Summary, in Minutes, from St.-Charles to Calls Rostered from the Hagar Station, 2017 to 2020*

	<b>Distance in Minutes</b>
Total Calls	1,827
Minimum distance	0.62
Maximum distance	165.48
Average distance	17.17

## Calls Rostered from the Noëlville Station

Table 7 shows that 79.7% of calls rostered from the Noëlville station were within 30-minutes of the Noëlville station.

Table 7: Driving Distance, in Minutes, from Noëlville to Calls Rostered from the Noëlville Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	418	22.9%
5 to 10 min	141	7.7%
10 to 15 min	190	10.4%
15 to 20 min	307	16.8%
20 to 25 min	199	10.9%
25 to 30 min	202	11.1%
30 to 45 min	249	13.6%
45 to 60 min	91	5.0%
Over 60 min / no roads within 1km	31	1.7%
<b>Total Calls</b>	<b>1,828</b>	

Table 8 shows the summary statistics for driving distances from the Noëlville station to calls rostered from the Noëlville station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 8: Driving Distance Summary, in Minutes, from Noëlville to Calls Rostered from the Noëlville Station, 2017 to 2020

	Distance in Minutes
Total Calls	1,825
Minimum distance	0
Maximum distance	172.16
Average distance	17.07

## Calls Rostered from the Killarney Station

Table 9 shows that 67.4% of calls rostered from the Killarney station were within 30-minutes of the Killarney station.

Table 9: Driving Distance, in Minutes, from Killarney to Calls Rostered from the Killarney Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	63	19.9%
5 to 10 min	6	1.9%
10 to 15 min	2	0.6%
15 to 20 min	1	0.3%
20 to 25 min	140	44.3%
25 to 30 min	1	0.3%
30 to 45 min	58	18.4%
45 to 60 min	5	1.6%
Over 60 min / no roads within 1km	40	12.7%
<b>Total Calls</b>	<b>316</b>	

Table 10 shows the summary statistics for driving distances from the Killarney station to calls rostered from the Killarney station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 10: Driving Distance Summary, in Minutes, from Killarney to Calls Rostered from the Killarney Station, 2017 to 2020

	Distance in Minutes
Total Calls	315
Minimum distance	0.5
Maximum distance	199.46
Average distance	14.27



## Calls Rostered from the Espanola Station

Table 11 shows that 88.6% of calls rostered from the Espanola station were within 30-minutes of the Espanola station.

Table 11: Driving Distance, in Minutes, from Espanola to Calls Rostered from the Espanola Station, 2017 to 2020

Calls within driving distance (UTM centre point)	#	%
0 to 5 min	2,088	68.9%
5 to 10 min	87	2.9%
10 to 15 min	225	7.4%
15 to 20 min	137	4.5%
20 to 25 min	110	3.6%
25 to 30 min	40	1.3%
30 to 45 min	207	6.8%
45 to 60 min	69	2.3%
Over 60 min	69	2.3%
<b>Total Calls</b>	<b>3,032</b>	

Table 12 shows the summary statistics for driving distances from the Espanola station to calls rostered from the Espanola station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 12: Driving Distance Summary, in Minutes, from Espanola to Calls Rostered from the Espanola Station, 2017 to 2020

	Distance in Minutes
Total Calls	3,030
Minimum distance	1.01
Maximum distance	107.26
Average distance	9.44

## Calls Rostered from the Massey Station

Table 13 shows that 94.5% of calls rostered from the Massey station were within 30-minutes of the Massey station.

Table 13: Driving Distance, in Minutes, from Massey to Calls Rostered from the Massey Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	499	18.9%
5 to 10 min	219	8.3%
10 to 15 min	442	16.8%
15 to 20 min	820	31.1%
20 to 25 min	396	15.0%
25 to 30 min	114	4.3%
30 to 45 min	99	3.8%
45 to 60 min	23	0.9%
Over 60 min / no roads within 1km	23	0.9%
<b>Total Calls</b>	<b>2,635</b>	

Table 14 shows the summary statistics for driving distances from the Massey station to calls rostered from the Massey station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 14: Driving Distance Summary, in Minutes, from Massey to Calls Rostered from the Massey Station, 2017 to 2020

	Distance in Minutes
Total Calls	2,633
Minimum distance	1.04
Maximum distance	236.28
Average distance	14.16

## Calls Rostered from the Chapleau Station

Table 15 shows that 91.3% of calls rostered from the Chapleau station were within 30-minutes of the Chapleau station.

Table 15: Driving Distance, in Minutes, from Chapleau to Calls Rostered from the Chapleau Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	508	65.1%
5 to 10 min	175	22.4%
10 to 15 min	12	1.5%
15 to 20 min	14	1.8%
20 to 25 min	-	0.0%
25 to 30 min	3	0.4%
30 to 45 min	9	1.2%
45 to 60 min	26	3.3%
Over 60 min / no roads within 1km	33	4.2%
<b>Total Calls</b>	<b>780</b>	

Table 16 shows the summary statistics for driving distances from the Chapleau station to calls rostered from the Chapleau station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 16: Driving Distance Summary, in Minutes, from Chapleau to Calls Rostered from the Chapleau Station, 2017 to 2020

	Distance in Minutes
Total Calls	778
Minimum distance	0.43
Maximum distance	215.17
Average distance	8.66

## Calls Rostered from the Foleyet Station

Table 17 shows that 45.0% of calls rostered from the Foleyet station were within 30-minutes of the Foleyet station.

Table 17: Driving Distance, in Minutes, from Foleyet to Calls Rostered from the Foleyet Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	89	33.1%
5 to 10 min	10	3.7%
10 to 15 min	5	1.9%
15 to 20 min	4	1.5%
20 to 25 min	6	2.2%
25 to 30 min	7	2.6%
30 to 45 min	21	7.8%
45 to 60 min	55	20.4%
Over 60 min / no roads within 1km	72	26.8%
<b>Total Calls</b>	<b>269</b>	

Table 18 shows the summary statistics for driving distances from the Foleyet station to calls rostered from the Foleyet station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 18: Driving Distance Summary, in Minutes, from Foleyet to Calls Rostered from the Foleyet Station, 2017 to 2020

	Distance in Minutes
Total Calls	255
Minimum distance	1.23
Maximum distance	181.84
Average distance	28.13

## Calls Rostered from the Gogama Station

Table 19 shows that 31.3% of calls rostered from the Gogama station were within 30-minutes of the Gogama station.

Table 19: Driving Distance, in Minutes, from Gogama to Calls Rostered from the Gogama Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	164	20.6%
5 to 10 min	1	0.1%
10 to 15 min	33	4.1%
15 to 20 min	10	1.3%
20 to 25 min	37	4.6%
25 to 30 min	7	0.9%
30 to 45 min	240	30.2%
45 to 60 min	50	6.3%
Over 60 min / no roads within 1km	254	31.9%
<b>Total Calls</b>	<b>796</b>	

Table 20 shows the summary statistics for driving distances from the Gogama station to calls rostered from the Gogama station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 20: Driving Distance Summary, in Minutes, from Gogama to Calls Rostered from the Gogama Station, 2017 to 2020

	Distance in Minutes
Total Calls	786
Minimum distance	0.2
Maximum distance	204.46
Average distance	24.55

## Calls Rostered from the Gore Bay Station

Table 21 shows that 76.3% of calls rostered from the Gore Bay station were within 30-minutes of the Gore Bay station.

Table 21: Driving Distance, in Minutes, from Gore Bay to Calls Rostered from the Gore Bay Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	524	43.1%
5 to 10 min	93	7.6%
10 to 15 min	91	7.5%
15 to 20 min	105	8.6%
20 to 25 min	40	3.3%
25 to 30 min	76	6.2%
30 to 45 min	185	15.2%
45 to 60 min	83	6.8%
Over 60 min / no roads within 1km	20	1.6%
<b>Total Calls</b>	<b>1,217</b>	

Table 22 shows the summary statistics for driving distances from the Gore Bay station to calls rostered from the Gore Bay station. Total calls shown are not the true total, they are all calls that were within 5 km of the road network.

Table 22: Driving Distance Summary, in Minutes, from Gore Bay to Calls Rostered from the Gore Bay Station, 2017 to 2020

	Distance in Minutes
Total Calls	1,217
Minimum distance	0.86
Maximum distance	138.49
Average distance	16.02

## Calls Rostered from the Little Current Station

Table 23 shows that 82.2% of calls rostered from the Little Current station were within 30-minutes of the Little Current station.

Table 23: Driving Distance, in Minutes, from Little Current to Calls Rostered from the Little Current Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	1,498	55.9%
5 to 10 min	185	6.9%
10 to 15 min	209	7.8%
15 to 20 min	182	6.8%
20 to 25 min	87	3.2%
25 to 30 min	41	1.5%
30 to 45 min	385	14.4%
45 to 60 min	33	1.2%
Over 60 min / no roads within 1km	60	2.2%
<b>Total Calls</b>	<b>2,680</b>	

Table 24 shows the summary statistics for driving distances from the Little Current station to calls rostered from the Little Current station. All calls were within 5 km of a road network.

Table 24: Driving Distance Summary, in Minutes, from Little Current to Calls Rostered from the Little Current Station, 2017 to 2020

	Distance in Minutes
Total Calls	2,680
Minimum distance	0.38
Maximum distance	97.41
Average distance	11.55

## Calls Rostered from the Mindemoya Station

Table 25 shows that 83.3% of calls rostered from the Mindemoya station were within 30-minutes of the Mindemoya station.

Table 25: Driving Distance, in Minutes, from Mindemoya to Calls Rostered from the Mindemoya Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	844	34.8%
5 to 10 min	745	30.7%
10 to 15 min	195	8.0%
15 to 20 min	114	4.7%
20 to 25 min	62	2.6%
25 to 30 min	58	2.4%
30 to 45 min	276	11.4%
45 to 60 min	65	2.7%
Over 60 min / no roads within 1km	64	2.6%
<b>Total Calls</b>	<b>2,423</b>	

Table 26 shows the summary statistics for driving distances from the Mindemoya station to calls rostered from the Mindemoya station. All calls were within 5 km of a road network.

Table 26: Driving Distance Summary, in Minutes, from Mindemoya to Calls Rostered from the Mindemoya Station, 2017 to 2020

	Distance in Minutes
Total Calls	2,423
Minimum distance	0.2
Maximum distance	159.8
Average distance	12.99



## Calls Rostered from the Wikwemikong Station

Table 27 shows that 93.4% of calls rostered from the Wikwemikong station were within 30-minutes of the Wikwemikong station.

Table 27: Driving Distance, in Minutes, from Wikwemikong to Calls Rostered from the Wikwemikong Station, 2017 to 2020

Driving distance	#	%
0 to 5 min	2,254	53.8%
5 to 10 min	1,005	24.0%
10 to 15 min	287	6.8%
15 to 20 min	130	3.1%
20 to 25 min	119	2.8%
25 to 30 min	120	2.9%
30 to 45 min	240	5.7%
45 to 60 min	21	0.5%
Over 60 min / no roads within 1km	17	0.4%
<b>Total Calls</b>	<b>4,193</b>	

Table 28 shows the summary statistics for driving distances from the Wikwemikong station to calls rostered from the Wikwemikong station. All calls were within 5 km of a road network.

Table 28: Driving Distance Summary, in Minutes, from Wikwemikong to Calls Rostered from the Wikwemikong Station, 2017 to 2020

	Distance in Minutes
Total Calls	4,193
Minimum distance	0.58
Maximum distance	139.76
Average distance	6.35

## Summary: Calls Rostered from All Stations

Table 29 provides a summary from all the “Calls Rostered from...” sections above for easier comparison between the 12 stations in the Manitoulin-Sudbury DSB. For example, Espanola had 3,032 calls rostered to their station from 2017 to 2020. 88.6% of those calls were within 30 minutes of the Espanola station while 11.4% of them were over 30 minutes away. The Espanola station had an average driving distance of 9.44 minutes.

Table 29: Summary of Calls Rostered from their Station, 2017 to 2020

Station Location	Total Calls Rostered from:	Driving Distance: Under 30 min	Driving Distance: Over 30 min	Average Distance in Minutes
Hagar	1,832	84.8%	15.2%	15.74
Noëlville	1,828	79.7%	20.3%	17.07
Killarney	316	67.4%	32.6%	14.27
Espanola	3,032	88.6%	11.4%	9.44
Massey	2,635	94.5%	5.5%	14.16
Chapleau	780	91.3%	8.7%	8.66
Foleyet	269	45.0%	55.0%	28.13
Gogama	796	31.7%	68.3%	24.55
Gore Bay	1,217	76.3%	23.7%	16.02
Little Current	2,680	82.2%	17.8%	11.55
Mindemoya	2,423	83.3%	16.7%	12.99
Wikwemikong	4,193	93.4%	6.6%	6.35

## Driving Distances by CTAS Type

This section observes paramedic calls from 2017 to 2020 by CTAS type and their response time targets (driving distance in minutes). CTAS types were based off of the CTAS\_P1 column from the data received. Driving distances for each CTAS type was determined using the 2019 Response Time Standard (Plan in Minutes) seen in Figure 1.<sup>1</sup> The Response Time Standard also includes performance targets (Plan in Percentage); for example, CTAS 1 calls should see 30% of calls responded to within 8 minutes. Note, SCA is the same thing as a CTAS value of 0.

Figure 1: 2019 Response Time Standard, Manitoulin-Sudbury DSB

Patient Type	Plan in Minutes	Plan in Percentage	Performance in Percentage
CTAS 1	8	30%	30.50%
CTAS 2	15	65%	72.70%
CTAS 3	20	80%	78.00%
CTAS 4	25	85%	85.60%
CTAS 5	25	85%	86.30%
SCA	6	30%	38.50%

It is important to remember that driving distances are based off of going from a station to a call using the call's UTM grid number (a center point in a 1km grid). Only calls that were rostered from one of the 12 Manitoulin-Sudbury DSB stations were analyzed. Driving distances, in minutes, are based on road speed limits.

<sup>1</sup> Ontario, Ministry of Health. (2021). Emergency Health Services, Land Ambulance Program. Retrieved from: [https://www.health.gov.on.ca/en/pro/programs/emergency\\_health/land/responsetime.aspx](https://www.health.gov.on.ca/en/pro/programs/emergency_health/land/responsetime.aspx)

## Driving Distances for CTAS 0 Calls

Based on the 2019 Response Time Standards, CTAS 0 calls have a response time target of 6 minutes with a performance target that sees 30% of calls are addressed within 6 minutes.

Table 30 shows the total number and percentage of CTAS 0 calls rostered to each of the 12 stations in the Manitoulin-Sudbury DSB catchment area between 2017 and 2020. For example, the Espanola station had 37 CTAS 0 calls rostered from their station, accounting for 21.4% of the 173 total CTAS 0 calls.

Table 30: Total CTAS 0 calls made by Rostered Station, 2017 to 2020

Station Location	CTAS 0 Calls Covered	
	#	%
Espanola	37	21.4%
Chapleau	15	8.7%
Foleyet	2	1.2%
Gogama	9	5.2%
Gore Bay	13	7.5%
Hagar	12	6.9%
Killarney	5	2.9%
Little Current	17	9.8%
Massey	17	9.8%
Mindemoya	21	12.1%
Noëlville	16	9.2%
Wiwemikong	9	5.2%
<b>Total Calls</b>	<b>173</b>	

Table 31 shows that of the 173 total CTAS 0 calls made from 2017 to 2020, 71 (or 41.0%) were within 6 minutes of their rostered station while 102 (or 59%) were over 6 minutes away. When looking at the Manitoulin-Sudbury DSB stations as a whole, the performance target where at least 30% of calls are addressed within 6 minutes is being fulfilled. When looking at individual stations, Foleyet, Hagar, Mindemoya, and Noëlville had less than 30% of CTAS 0 calls within 6 minutes of their station.

Table 31: Total CTAS 0 calls made by Rostered Station and within 6 minutes of Station, 2017 to 2020

Station Location	Total CTAS 0 calls	Calls within 6 min		Calls over 6 min away	
		#	%	#	%
Espanola	37	19	51.4%	18	48.6%
Chapleau	15	13	86.7%	2	13.3%
Foleyet	2	0	0.0%	2	100.0%
Gogama	9	3	33.3%	6	66.7%
Gore Bay	13	7	53.8%	6	46.2%
Hagar	12	2	16.7%	10	83.3%
Killarney	5	3	60.0%	2	40.0%
Little Current	17	11	64.7%	6	35.3%
Massey	17	6	35.3%	11	64.7%
Mindemoya	21	1	4.8%	20	95.2%
Noëlville	16	2	12.5%	14	87.5%
Wiwemikong	9	4	44.4%	5	55.6%
<b>Total Calls</b>	<b>173</b>	<b>71</b>	<b>41.0%</b>	<b>102</b>	<b>59.0%</b>

## Driving Distances for CTAS 1 Calls

Based on 2019 Response Time Standards, CTAS 1 calls have a response time target of 8 minutes with a performance target that sees 30% of calls are addressed within 8 minutes.

Table 32 shows the total number and percentage of CTAS 1 calls rostered to each of the 12 stations in the Manitoulin-Sudbury DSB catchment area between 2017 and 2020. For example, the Espanola station had 43 CTAS 1 calls rostered from their station, accounting for 15.5% of the 277 CTAS 1 calls.

Table 32: Total CTAS 1 Calls made by Rostered Station, 2017 to 2020

Station Location	CTAS 1 Calls Covered	
	#	%
Espanola	43	15.5%
Chapleau	3	1.1%
Foleyet	4	1.4%
Gogama	4	1.4%
Gore Bay	23	8.3%
Hagar	28	10.1%
Killarney	7	2.5%
Little Current	28	10.1%
Massey	42	15.2%
Mindemoya	37	13.4%
Noëlville	29	10.5%
Wikwemikong	29	10.5%
<b>Total Calls</b>	<b>277</b>	

Table 33 shows that of the 277 CTAS 1 calls made between 2017 and 2020, 119 (or 43%) were within 8 minutes of their rostered station while 158 (or 57%) were over 8 minutes away. When looking at the Manitoulin-Sudbury DSB stations as a whole, the performance target where at least 30% of calls are addressed within 8 minutes is being fulfilled. When looking at individual stations, Foleyet, Gogama, Hagar, and Massey had less than 30% of CTAS 1 calls within 8 minutes of their station.

Table 33: Total CTAS 1 calls made by Rostered Station and within 8 minutes of Station, 2017 to 2020

Station Location	Total CTAS 1 calls	Calls within 8 min		Calls over 8 min away	
		#	%	#	%
Espanola	43	26	60.5%	17	39.5%
Chapleau	3	2	66.7%	1	33.3%
Foleyet	4	0	0.0%	4	100.0%
Gogama	4	0	0.0%	4	100.0%
Gore Bay	23	10	43.5%	13	56.5%
Hagar	28	6	21.4%	22	78.6%
Killarney	7	5	71.4%	2	28.6%
Little Current	28	14	50.0%	14	50.0%
Massey	42	9	21.4%	33	78.6%
Mindemoya	37	17	45.9%	20	54.1%
Noëlville	29	10	34.5%	19	65.5%
Wikwemikong	29	20	69.0%	9	31.0%
<b>Total Calls</b>	<b>277</b>	<b>119</b>	<b>43.0%</b>	<b>158</b>	<b>57.0%</b>

## Driving Distances for CTAS 2 Calls

Based on 2019 Response Time Standards, CTAS 2 calls have a response time target of 15 minutes with a performance target that sees 65% of calls are addressed within 15 minutes.

Table 34 shows the total number and percentage of CTAS 2 calls rostered to each of the 12 stations in the Manitoulin-Sudbury DSB catchment area between 2017 and 2020. For example, the Espanola station had 342 CTAS 2 calls rostered from their station, accounting for 12.9% of the 2,656 CTAS 2 calls.

Table 34: Total CTAS 2 calls made by Rostered Station, 2017 to 2020

Station Location	CTAS 2 Calls Covered	
	#	%
Espanola	342	12.9%
Chapleau	64	2.4%
Foleyet	21	0.8%
Gogama	115	4.3%
Gore Bay	264	9.9%
Hagar	237	8.9%
Killarney	42	1.6%
Little Current	186	7.0%
Massey	384	14.5%
Mindemoya	273	10.3%
Noëlville	250	9.4%
Wiwemikong	478	18.0%
<b>Total Calls</b>	<b>2,656</b>	

Table 35 shows that of the 2,656 CTAS 2 calls made between 2017 and 2020, 1,815 (or 68.3%) were within 15 minutes of their rostered station while 841 (or 31.7%) were over 15 minutes away. When looking at the Manitoulin-Sudbury DSB stations as a whole, the performance target where at least 65% of calls are addressed within 15 minutes is being fulfilled. When looking at individual stations, Foleyet, Gogama, Gore Bay, Massey, and Noëlville had less than 65% of CTAS 2 within 15 minutes of their station.

Table 35: Total CTAS 2 calls made by Rostered Station and within 15 minutes of Station, 2017 to 2020

Station Location	Total CTAS 2 calls	Calls within 15 min		Calls over 15 min away	
		#	%	#	%
Espanola	342	248	72.5%	94	27.5%
Chapleau	64	54	84.4%	10	15.6%
Foleyet	21	9	42.9%	12	57.1%
Gogama	115	43	37.4%	72	62.6%
Gore Bay	264	171	64.8%	93	35.2%
Hagar	237	155	65.4%	82	34.6%
Killarney	42	30	71.4%	12	28.6%
Little Current	186	126	67.7%	60	32.3%
Massey	384	241	62.8%	143	37.2%
Mindemoya	273	186	68.1%	87	31.9%
Noëlville	250	134	53.6%	116	46.4%
Wiwemikong	478	418	87.4%	60	12.6%
<b>Total Calls</b>	<b>2,656</b>	<b>1,815</b>	<b>68.3%</b>	<b>841</b>	<b>31.7%</b>

## Driving Distances for CTAS 3 Calls

Based on 2019 Response Time Standards, CTAS 3 calls have a response time target of 20 minutes with a performance target that sees 80% of calls are addressed within 20 minutes.

Table 36 shows the total number and percentage of CTAS 3 calls rostered to each of the 12 stations in the Manitoulin-Sudbury DSB catchment area between 2017 and 2020. For example, the Espanola station had 925 CTAS 3 calls rostered from their station, accounting for 11.6% of the 7,964 CTAS 3 calls.

Table 36: Total CTAS 3 calls made by Rostered Station, 2017 to 2020

Station Location	CTAS 3 Calls Covered	
	#	%
Espanola	925	11.6%
Chapleau	226	2.8%
Foleyet	88	1.1%
Gogama	310	3.9%
Gore Bay	500	6.3%
Hagar	668	8.4%
Killarney	144	1.8%
Little Current	778	9.8%
Massey	1,189	14.9%
Mindemoya	773	9.7%
Noëlville	686	8.6%
Wiwemikong	1,677	21.1%
<b>Total Calls</b>	<b>7,964</b>	

Table 37 shows that of the 7,964 CTAS 3 calls made between 2017 and 2020, 6,371 (or 80%) were within 20 minutes of their rostered station while 1,593 (or 20%) were over 20 minutes away. When looking at the Manitoulin-Sudbury DSB stations as a whole, the performance target where at least 80% of calls are addressed within 20 minutes is being fulfilled. When looking at individual stations, Foleyet, Gogama, Gore Bay, Little Current, Mindemoya, and Noëlville had less than 80% of CTAS 3 calls within 20 minutes of their station.

Table 37: Total CTAS 3 calls made by Rostered Station and within 20 minutes of Station, 2017 to 2020

Station Location	Total CTAS 3 calls	Calls within 20 min		Calls over 20 min away	
		#	%	#	%
Espanola	925	752	81.3%	173	18.7%
Chapleau	226	201	88.9%	25	11.1%
Foleyet	88	52	59.1%	36	40.9%
Gogama	310	110	35.5%	200	64.5%
Gore Bay	500	363	72.6%	137	27.4%
Hagar	668	535	80.1%	133	19.9%
Killarney	144	125	86.8%	19	13.2%
Little Current	778	587	75.4%	191	24.6%
Massey	1,189	997	83.9%	192	16.1%
Mindemoya	773	604	78.1%	169	21.9%
Noëlville	686	496	72.3%	190	27.7%
Wiwemikong	1,677	1,549	92.4%	128	7.6%
<b>Total Calls</b>	<b>7,964</b>	<b>6,371</b>	<b>80.0%</b>	<b>1,593</b>	<b>20.0%</b>

## Driving Distances for CTAS 4 Calls

Based on 2019 response time standards, CTAS 4 calls have a response time target of 25 minutes with a performance target that sees 85% of calls are addressed within 25 minutes.

Table 38 shows the total number and percentage of CTAS 4 calls rostered to each of the 12 stations in the Manitoulin-Sudbury DSB catchment area between 2017 and 2020. For example, the Espanola station had 515 CTAS 4 calls rostered from their station, accounting for 10.4% of the 4,971 CTAS 4 calls.

Table 38: Total CTAS 4 calls made by Rostered Station, 2017 to 2020

Station Location	CTAS 4 Calls Covered	
	#	%
Espanola	515	10.4%
Chapleau	133	2.7%
Foleyet	42	0.8%
Gogama	188	3.8%
Gore Bay	254	5.1%
Hagar	359	7.2%
Killarney	75	1.5%
Little Current	579	11.6%
Massey	505	10.2%
Mindemoya	459	9.2%
Noëlville	465	9.4%
Wiwemikong	1,397	28.1%
<b>Total Calls</b>	<b>4,971</b>	

Table 39 shows that of the 4,971 CTAS 4 calls made between 2017 and 2020, 4,307 (or 86.6%) were within 25 minutes of their rostered station while 664 (or 13.4%) were over 25 minutes away. When looking at the Manitoulin-Sudbury DSB stations as a whole, the performance target where at least 85% of calls are addressed within 25 minutes is being fulfilled. When looking at individual stations, Foleyet, Gogama, Gore Bay, Hagar, Killarney, Little Current, Mindemoya, and Noëlville had less than 85% of CTAS 4 calls within 25 minutes of their station.

Table 39: Total CTAS 4 calls made by Rostered Station and within 25 minutes of Station, 2017 to 2020

Station Location	Total CTAS 4 calls	Calls within 25 min		Calls over 25 min away	
		#	%	#	%
Espanola	515	450	87.4%	65	12.6%
Chapleau	133	130	97.7%	3	2.3%
Foleyet	42	29	69.0%	13	31.0%
Gogama	188	156	83.0%	32	17.0%
Gore Bay	254	186	73.2%	68	26.8%
Hagar	359	279	77.7%	80	22.3%
Killarney	75	59	78.7%	16	21.3%
Little Current	579	448	77.4%	131	22.6%
Massey	505	490	97.0%	15	3.0%
Mindemoya	459	376	81.9%	83	18.1%
Noëlville	465	356	76.6%	109	23.4%
Wiwemikong	1,397	1,348	96.5%	49	3.5%
<b>Total Calls</b>	<b>4,971</b>	<b>4,307</b>	<b>86.6%</b>	<b>664</b>	<b>13.4%</b>



## Driving Distances for CTAS 5 Calls

Based on 2019 Response Time Standards, CTAS 5 calls have a response time target of 25 minutes with a performance target that sees 85% of calls are addressed within 25 minutes.

Table 40 shows the total number and percentage of CTAS 5 calls rostered to each of the 12 stations in the Manitoulin-Sudbury DSB catchment area between 2017 and 2020. For example, the Espanola station had 154 CTAS 5 calls rostered from their station, accounting for 14.6% of the 1,055 CTAS 5 calls.

Table 40: Total CTAS 5 calls made by Rostered Station, 2017 to 2020

Station Location	CTAS 5 Calls Covered	
	#	%
Espanola	154	14.6%
Chapleau	71	6.7%
Foleyet	3	0.3%
Gogama	24	2.3%
Gore Bay	32	3.0%
Hagar	122	11.6%
Killarney	16	1.5%
Little Current	101	9.6%
Massey	129	12.2%
Mindemoya	60	5.7%
Noëlville	111	10.5%
Wikwemikong	232	22.0%
<b>Total Calls</b>	<b>1,055</b>	

Table 41 shows that of the 1,055 CTAS 5 calls made between 2017 and 2020, 951 (or 90.1%) were within 25 minutes of their rostered station while 104 (or 9.9%) were over 25 minutes away. When looking at the Manitoulin-Sudbury DSB stations as a whole, the performance target where at least 85% of calls are addressed within 25 minutes is being fulfilled. When looking at individual stations, Foleyet, Gogama, Gore Bay, Killarney, Little Current, and Noëlville had less than 85% of CTAS 5 calls within 25 minutes of their station.

Table 41: Total CTAS 5 calls made by Rostered Station and within 25 minutes of Station, 2017 to 2020

Station Location	Total CTAS 5 calls	Calls within 25 min		Calls over 25 min away	
		#	%	#	%
Espanola	154	140	90.9%	14	9.1%
Chapleau	71	70	98.6%	1	1.4%
Foleyet	3	1	33.3%	2	66.7%
Gogama	24	18	75.0%	6	25.0%
Gore Bay	32	24	75.0%	8	25.0%
Hagar	122	107	87.7%	15	12.3%
Killarney	16	13	81.3%	3	18.8%
Little Current	101	79	78.2%	22	21.8%
Massey	129	128	99.2%	1	0.8%
Mindemoya	60	53	88.3%	7	11.7%
Noëlville	111	89	80.2%	22	19.8%
Wikwemikong	232	229	98.7%	3	1.3%
<b>Total Calls</b>	<b>1,055</b>	<b>951</b>	<b>90.1%</b>	<b>104</b>	<b>9.9%</b>

## Call Coverage Breakdown

### Call Coverage Based on Total Calls Rostered

Table 42 shows the total number and percent of calls that were rostered to each of the stations in the Manitoulin-Sudbury area between 2017 and 2020. Wikwemikong (4,193 calls) and Espanola (3,032 calls) had the most calls rostered to their station between 2017 and 2020. Foleyet (269 calls) and Killarney (316 calls) had the lowest total calls rostered to their stations between 2017 and 2020.

Table 42: Total Calls Rostered to each Station in the Manitoulin-Sudbury DSB, 2017 to 2020

Station Location	# of Calls Rostered	% of Calls Rostered
Hagar	1,832	8.3%
Noëlville	1,828	8.3%
Killarney	316	1.4%
Espanola	3,032	13.8%
Massey	2,635	12.0%
Chapleau	780	3.5%
Foleyet	269	1.2%
Gogama	796	3.6%
Gore Bay	1,217	5.5%
Little Current	2,680	12.2%
Mindemoya	2,423	11.0%
Wikwemikong	4,193	19.1%
<b>Total</b>	<b>22,001</b>	-

### Call Coverage Based on CTAS Target Times

An analysis was done to see how many calls a station could cover when accounting for CTAS target times. Table 43 shows total call coverage (2017 to 2020), when CTAS target times are considered, for each of the 12 current Manitoulin-Sudbury stations. When CTAS target times are considered, the 12 stations can cover a total of 19,701 calls (out of 22,001 calls). Wikwemikong (4,272 calls) and Espanola (2,948) have the highest call coverage when CTAS target times are considered, while Foleyet (180 calls) and Killarney (261 calls) have the lowest call coverage. Although Killarney has one of the lowest call coverages, it was still selected as one of the most optimal station locations to cover calls based on CTAS target times (see Error! Reference source not found.).

Table 43: Current 12 Stations' Coverage, CTAS Times Considered, 2017-2020

Station Location	# of Calls Covered	% of Calls Covered
Chapleau	737	3.7%
Espanola	2,948	15.0%
Foleyet	180	0.9%
Gogama	436	2.2%
Gore Bay	905	4.6%
Hagar	1,523	7.7%
Killarney	261	1.3%
Little Current	2,510	12.7%
Massey	2,271	11.5%
Mindemoya	2,228	11.3%
Noëlville	1,430	7.3%
Wikwemikong	4,272	21.7%
<b>Total Calls Covered</b>	<b>19,701</b>	-