

# Information Report



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To County of Wellington Social Services Committee

From Stephen Dewar, Chief and General Manager, Guelph-Wellington Paramedic Service

Date November 8, 2023

Subject Update on Response Times in Wellington County

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## Executive Summary

### Purpose of Report

To provide an update to the Committee on response times in the Wellington County Townships, measured as average and 90th percentile times to calls identified in the 911 process as potentially life or limb-threatening.

### Report

Guelph Wellington Paramedic Service's performance is measured in part by its response times to emergency calls, reported through a Provincially mandated Response Time Performance Plan. Response times to emergency calls are an important indicator for Paramedic Services. Patient outcomes can be directly related to those times, and overall community satisfaction and perception of the service delivered can also be affected by the time it takes for an ambulance to arrive at the scene of an emergency.

The service's performance in 2022, as measured by that plan, was reported to the Committee in September of 2023. The RTPP measures the response time of the service as a whole including the mix of urban and rural areas, where rural areas often involve longer response times because of distances between calls. The report is less helpful in determining performance in a subsection of the response area.

In an attempt to provide a clear picture of responses in the Wellington County Townships, performance can be measured and compared to past performance by calculating the average and 90<sup>th</sup> percentile response times to code 4 (life-threatening or limb-threatening, lights and sirens) responses.

The average response time provides a reasonable expectation of the approximate response time for paramedics, and the measurement changes more rapidly in response to changes implemented by the service. The 90<sup>th</sup> percentile response time is a proxy for the longest response time. It is a standardized performance testing metric that measures the longest response time but eliminates the highest 10%, from the perspective that those calls will likely have a related circumstance such as a wrong address given or a patient that could not initially be found.

Note that this data does not include responses to calls that are categorized as 'Code 3' calls – described as urgent but not life-threatening and no lights and sirens are used. An example of a Code 3 call would be for a patient with ongoing abdominal pain in a long-term care facility.

These findings can be compared year-over-year, but are difficult to compare to performance by other paramedic services in other areas. Other municipalities do not publish these measures, and the performance would be dependent on a comparable geography, road infrastructure, distance from a hospital, and distance from an urban area.

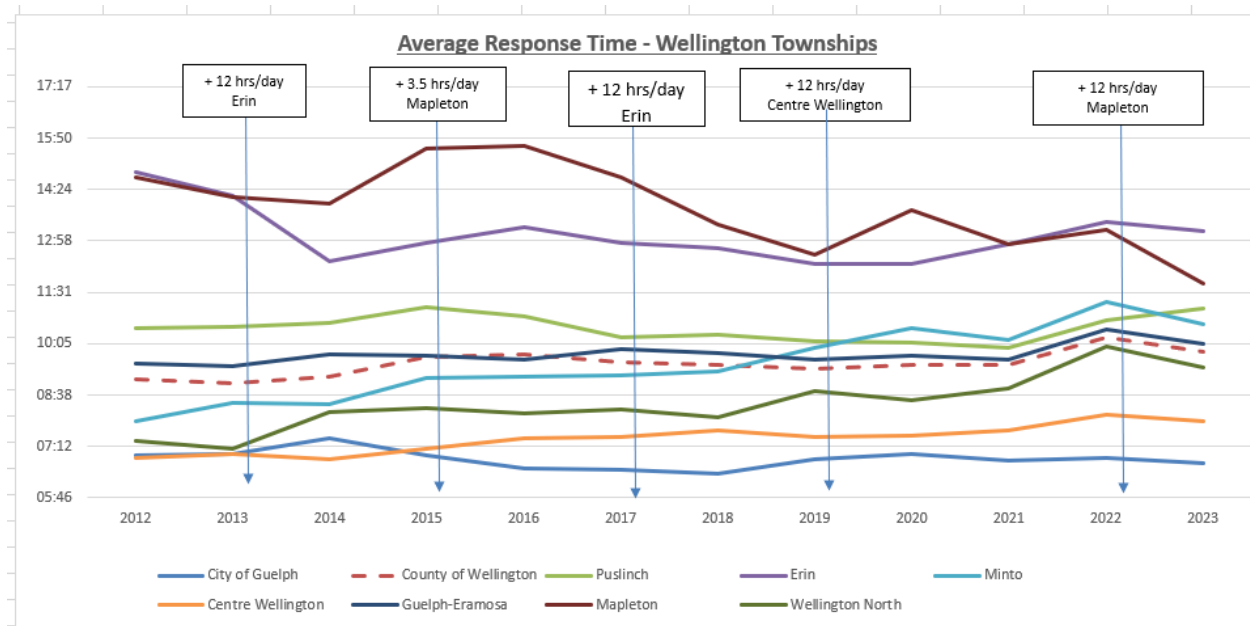
The full data report is attached as **Addendum 1**. The data and the trends illustrate issues that the service and the City have been attempting to address for several years. The longest response times, both average and 90<sup>th</sup>, occur in the townships of Erin and Mapleton. Mapleton is challenging to service within rapid response times because of the large geographic area and low annual call volume. Erin Township is also a large area with a lower call volume and a greater distance from any hospital so all patients transported from the area remove paramedic resources from that area.

Guelph Wellington Paramedic Service has made several changes and added staffing hours over the past several years, as approved by Guelph City Council, to improve the response times overall and specifically in Erin and Mapleton.

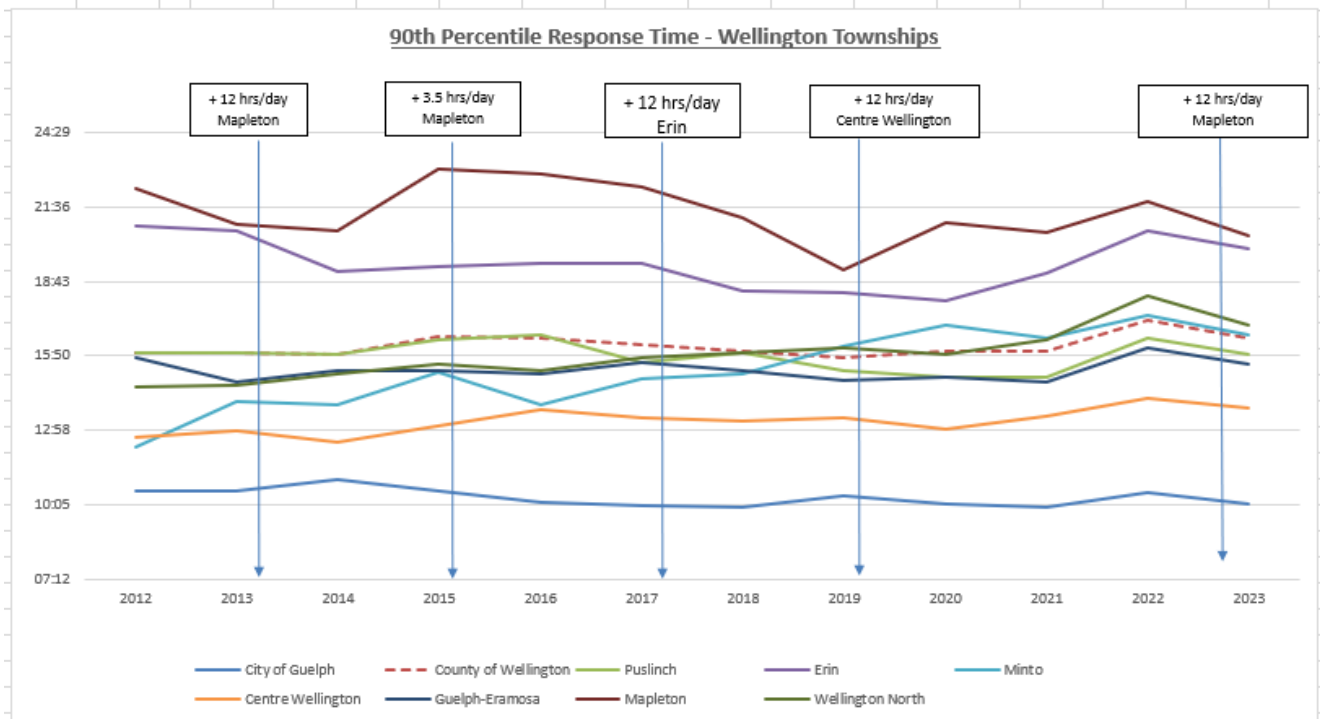
Enhancements have included an increase of 12 hours per day of ambulance staffing in Erin in 2013, an increase of 3.5 hours per day to staffing at the Mapleton area in 2015, an additional 12 hours per day of staffing in Erin in 2017 to allow 24-hour staffing per day, an additional 12 hours per day of staffing in Centre Wellington in 2019 and 12 hours per day of staffing to Mapleton in 2022 to allow 24-hour per day staffing. There were additional staffing enhancements in the City of Guelph in 2018, 2020 and 2021, which have an indirect impact on allowing other ambulances in rural areas to stay in the rural areas. Similarly changes to staffing in a township impacts the coverage and response times of neighbouring townships.

Changes to the paramedic service deployment plan have also been implemented to attempt to improve equity of coverage. The deployment plan calls for the movement of ambulances when calls occur in other areas. For example, where the ambulances stationed in Centre Wellington are engaged in calls and not available, and an ambulance is available in Erin, the available ambulance would be moved from Erin to Centre Wellington. The reasoning behind this deployment plan is that there are approximately 2,000 calls per year in Centre Wellington compared to 650 calls per year in Erin so the next call is more likely to occur in Centre Wellington. Changes to deployment plans have been trialed in a limited fashion or tested through computer modelling because of the potential for unintended consequences.

The enhancements and changes to deployment plans are depicted in the chart below:



The 90<sup>th</sup> percentile response time is less responsive to implemented enhancements and changes, as these responses tend to occur during busy periods when fewer ambulances are available.



It should be noted that the enhancements added to the service were recommended based on the need to address increasing call volumes and complexity of calls. Hospital offload delays and other pressures have resulted in the service not meeting its overall targets. The increased response times can be seen in the overall County results as well.

### Response Time Targets

The response time targets for Guelph Wellington Paramedic Service are set by the City of Guelph Council annually, as required by Provincial legislation. Those targets are set for the coverage area as a whole, including Wellington County. Attempting to achieve those targets requires the service to look at improvements in all regions of the coverage area.

### Paramedic Stations

A consultant’s report from 2016 recommended, in addition to staffing enhancements, the relocation of paramedic stations as a strategy that could directly and significantly reduce response times. Changes consistent with that recommendation have not yet been implemented.

In addition to those station recommendations, the City of Guelph has recently completed a needs assessment of paramedic stations in the City of Guelph and the County of Wellington. That assessment determined that there are many deficiencies in amenities and space available to paramedic staff, and that replacement of most of the paramedic stations is required. The improvement in space and amenities can be expected to have an indirect positive impact on paramedic response times.

## **Summary**

Paramedic response times in more rural, lower call volume areas tend to be longer than in urban areas. The City of Guelph, through Guelph Wellington Paramedic Service, continues to monitor and make efforts to improve response times across the coverage area to provide the best service possible to the residents of the City and County of Wellington.

## **Respectfully Submitted by:**



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## Addendum 1 – Full Average and 90<sup>th</sup> Percentile Data

GUELPH WELLINGTON PARAMEDIC SERVICE CODE 4 RESPONSE TIME TRENDS: 2017-2023													
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 Jan-
Combined	Number of Code 4 calls	10,131	10,674	11,305	12,755	14,037	15,728	16,111	16,626	15,506	17,264	18,045	11,079
	Average Response Time	<b>07:24</b>	<b>07:10</b>	<b>07:39</b>	<b>07:22</b>	<b>07:23</b>	<b>07:11</b>	<b>07:02</b>	<b>07:02</b>	<b>07:28</b>	<b>07:39</b>	<b>08:08</b>	<b>07:49</b>
	90th %tile	<b>12:16</b>	<b>12:10</b>	<b>12:28</b>	<b>12:14</b>	<b>12:22</b>	<b>12:53</b>	<b>12:27</b>	<b>12:07</b>	<b>12:29</b>	<b>12:36</b>	<b>14:00</b>	<b>13:18</b>
City of Guelph	Number of Code 4 calls	6,664	6,996	7,312	8,193	9,015	10,188	10,237	10,749	9,843	11,052	11,251	7,110
	Average Response Time	06:58	06:59	07:25	06:57	06:36	06:32	06:27	06:51	07:00	06:49	06:53	06:43
	90th %tile	10:38	10:37	11:05	10:36	10:09	10:01	09:58	10:24	10:08	10:00	10:32	10:06
County of Wellington	Number of Code 4 calls	3,467	3,678	3,993	4,562	5,022	5,540	5,874	5,877	5,663	6,212	6,794	3,969
	Average Response Time	<b>09:05</b>	<b>08:59</b>	<b>09:09</b>	<b>09:42</b>	<b>09:47</b>	<b>09:34</b>	<b>09:29</b>	<b>09:23</b>	<b>09:30</b>	<b>09:28</b>	<b>10:15</b>	<b>09:52</b>
	90th %tile	<b>15:58</b>	<b>15:57</b>	<b>15:55</b>	<b>16:35</b>	<b>16:33</b>	<b>16:16</b>	<b>16:03</b>	<b>15:48</b>	<b>16:00</b>	<b>16:00</b>	<b>17:14</b>	<b>16:30</b>
Puslinch	Number of Code 4 calls	529	521	635	620	701	724	814	812	647	781	839	535
	Average Response Time	10:31	10:32	10:39	11:07	10:51	10:15	10:20	10:08	10:06	09:58	10:43	11:03
	90th %tile	15:56	15:57	15:52	16:28	16:40	15:36	15:57	15:15	15:00	15:00	16:32	15:54
Erin	Number of Code 4 calls	278	269	313	555	656	645	663	645	682	598	643	332
	Average Response Time	14:53	14:14	12:23	12:54	13:21	12:54	12:45	12:18	12:18	12:52	13:29	13:13
	90th %tile	20:52	20:42	19:05	19:16	19:25	19:27	18:20	18:17	18:00	19:01	20:42	19:58
Minto	Number of Code 4 calls	362	466	433	473	472	531	559	596	582	629	672	389
	Average Response Time	07:54	08:25	08:22	09:08	09:10	09:11	09:18	09:57	10:30	10:10	11:14	10:37
	90th %tile	12:17	14:05	13:58	15:11	13:56	14:56	15:09	16:11	17:00	16:33	17:24	16:40
Centre Wellington	Number of Code 4 calls	1,044	1,076	1,125	1,220	1,366	1,616	1,690	1,836	1,785	1,985	2,057	1,251
	Average Response Time	06:52	07:00	06:50	07:07	07:25	07:28	07:39	07:28	07:30	07:39	08:06	07:55
	90th %tile	12:41	12:58	12:30	13:07	13:46	13:28	13:20	13:25	13:00	13:31	14:11	13:50
Guelph-Eramosa	Number of Code 4 calls	505	539	590	790	846	899	997	897	851	995	1,193	619
	Average Response Time	09:32	09:26	09:46	09:44	09:37	09:56	09:48	09:38	09:44	09:37	10:28	10:04
	90th %tile	15:46	14:50	15:17	15:15	15:08	15:35	15:17	14:53	15:00	14:49	16:07	15:30
Mapleton	Number of Code 4 calls	195	204	255	274	295	318	309	308	305	334	413	263
	Average Response Time	14:44	14:11	14:00	15:32	15:38	14:44	13:24	12:35	13:49	12:52	13:16	11:46
	90th %tile	22:17	20:57	20:40	23:04	22:52	22:23	21:11	19:09	21:00	20:38	21:49	20:28
Wellington North	Number of Code 4 calls	554	603	642	630	686	807	842	783	811	890	977	580
	Average Response Time	07:22	07:08	08:10	08:16	08:07	08:15	08:02	08:45	08:29	08:49	09:59	09:25
	90th %tile	14:38	14:41	15:08	15:31	15:16	15:47	15:59	16:07	15:52	16:29	18:10	17:00

Source: ADDS, MOH Data Warehouse.

Criteria: Dispatched priority = 4, Overall priority = 4, Valid T2\_Notified, Valid T4\_ArrivedScene, PickupUpperTier=37, 0 < T2T4 < 7200 secs.