



# The St. Helens Council Permit Scheme for Road and Street Activities

Annual Report 08 – 2019 / 20





*St Helens Permit Scheme,  
Annual Report 08, 2019-20*

Contents:		Page
Chapter 1	INTRODUCTION .....	1
Chapter 2	SCHEME OBJECTIVES .....	3
Chapter 3	PERMIT APPLICATIONS .....	5
Chapter 4	KPI MONITORING.....	13
Chapter 5	STAFFING & RESOURCE.....	20
Chapter 6	CONCLUSIONS .....	23
Appendix A	PERMIT APPLICATIONS 2019-20	
A.1	All works permits	
A.2	Highway authority works permits	
A.3	Utility works permits	
Appendix B	PROMOTER DURATION ANALYSIS	
Appendix C	SCHEME BENEFITS	



# 1 INTRODUCTION

## 1.1 Background

1.1.1 St Helens Council (SHC) has been operating a Street Works Permit Scheme since April 2012. The Scheme operates as the St Helens Council Permit Scheme for Road and Street Activities.

1.1.2 The statutory 12-month Annual Review and report to DfT was completed in 2013 following the first full 12 months of operating the Permit Scheme, '*St Helens Council Annual Report 01, 2012-13*'.

1.1.3 The purpose of the 12-month Annual review was to;

- Demonstrate a reduction in the duration of works.
- Demonstrate a reduction in the number of Permit applications (through an increase in collaborative working).
- Report the monitored Key Performance Indicators (KPI 1, KPI 2, KPI 3 & KPI 7).
- Re-evaluate the Cost Benefit Assessment to show an economic return on the investment.
- Report the annual scheme benefit to all road users.

1.1.4 The introduction of the Permit Scheme reduced the average duration of works by 20% and reduced the calculated cost of delays encountered at traffic management by 33%. The calculated Scheme benefit was 4 times greater than value for money threshold required by the Department for Transport (DfT).

1.1.5 At the end of each subsequent year, further reviews have been carried out and reported. This is a lower level review to monitor key performance indicators and identify and report any significant changes year on year.

1.1.6 The performance of the Scheme in subsequent years shows slight variation in the average duration, but generally shows the benefits to be maintained around the level achieved in year 1.

## 1.2 Year 8 review

1.2.1 The Council plan to undertake this review annually. This report presents the year 8 review, '*St Helens Council Annual Report 08, 2019-20*'.

1.2.2 The objectives of the year 8 review are to;

- Review the scheme against the stated scheme objectives.
- Report the total number of Permit applications.
- Evaluate key performance measures (e.g. average duration of works, number by works category/traffic management type, etc.) and identify any significant changes from year 1 and the previous year.
- Report the monitored Key Performance Indicators (KPI 1, KPI 2, KPI 3 & KPI 7).
- Review the staff resource required to process applications in year 8.



### **1.3 Report Structure**

1.3.1 Following the eight anniversary of the Permit Scheme in April 2020, GK-TC has been commissioned to undertake a detailed review of the operation during year 8 and to determine whether benefits achieved in the first four have been maintained.

1.3.2 The following chapters present the results of the review with respect to:

- Scheme objectives
- Duration of works
- Key Performance Indicators
- Staffing & resources



## 2 OBJECTIVES

### 2.1 Scheme Objectives

2.1.1 The specific objectives as set out in the 'The St Helens Council Permit Scheme for Road and Street Activities' scheme document are:

- reduce occupation of the highway to benefit all road users;
- obtain greater control of all activities on the public highway;
- minimise/avoid/manage delays to all road users;
- enhance co-ordination of all activities on the highway;
- achieve an improvement in air quality;
- enhance safety of all road users at road and street activities;
- reduce potential incidents/accidents at road activities;
- improve public perception of managing road activities;
- enhance reliability of journey times;
- enhance journey experience;
- reduce long-term damage to the highway asset;
- encourage collaborative activities between all activity promoters;
- enhance reliability of activities taking place at a particular time, especially on the strategic road network;
- promote best practices across St Helens;
- promote common activity practices across the region to ensure ease of operation for activity promoters;
- enhanced cross-boundary co-operation;
- demonstrate parity for all activity promoters;
- reduce instances of customer complaints regarding road and street activities;
- reduce the impact of noise on residents by having greater control of timing of activities.

2.1.2 Many of these objectives are subjective in nature, but where they can be objectively evaluated, the annual review will report on the impact towards achieving the stated objectives, for example;

- The reduction in occupancy of the highway to benefit all road users by reducing works duration (Chapter 3)
- Minimise/avoid/manage delays to all road users by reducing works duration and providing more effective control of the appropriate traffic management practices (Chapter 3)
- Demonstrating parity for all activity promoters by presenting approval and refusal rates for all applications (Chapter 4)



2.1.3 Others will require to be evaluated over several years of the scheme to identify changes and progress towards the objective, for example;

- Demonstrate a year on year increase in collaborative working between works promoters
- Enhancing reliability of activities taking place at a particular time, especially on the strategic road network
- Reducing long-term damage to the highway asset
- Enhancing safety of all road users at road and street activities



### 3 PERMIT APPLICATIONS

#### 3.1 Methodology

3.1.1 Data sources available for this review are:

- Permit Scheme work stops notices, April 2019 - March 2020
- Previous year Permit Scheme work stops notices, April 2012 - March 2019

3.1.2 This review assesses the year on year change in the number of Permit applications and to monitor the key performance indicators. The purpose of the review is to identify any significant changes from the performance in year 1 and the previous year 7. Any large changes will be investigated in more detail and the potential impact on the Scheme performance and value will be considered.

3.1.3 The intention is to carry out a review annually and benchmark the Scheme performance against the first year of operation each time. The key metrics are also compared with the previous year, to monitor changes and avoid a small creeping increase going unnoticed for several years.

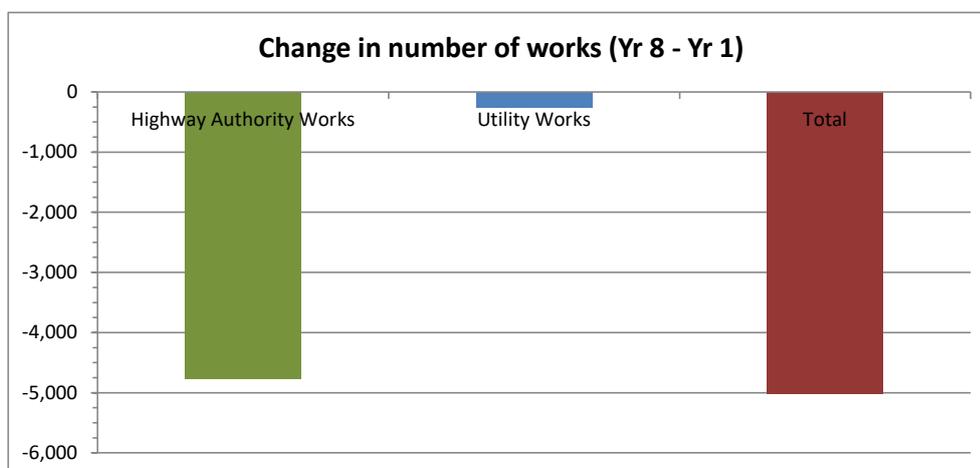
#### 3.2 All works

3.2.1 The following series of charts and tables present a comparison of the year 8 2019-20 data and the year 1 and 7 data, 2012-13 and 2018-19.

3.2.2 The total number of Permit applications and a breakdown by highway authority and utility company is shown in Table 1 and the accompanying chart.

**Table 1 Number of Permit applications**

PROMOTER TYPE	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)
Highway Authority Works	10,281	6,382	5,519	-4,762
Utility Works	4,050	4,491	3,789	-261
<b>Total</b>	<b>14,331</b>	<b>10,873</b>	<b>9,308</b>	<b>-5,023</b>

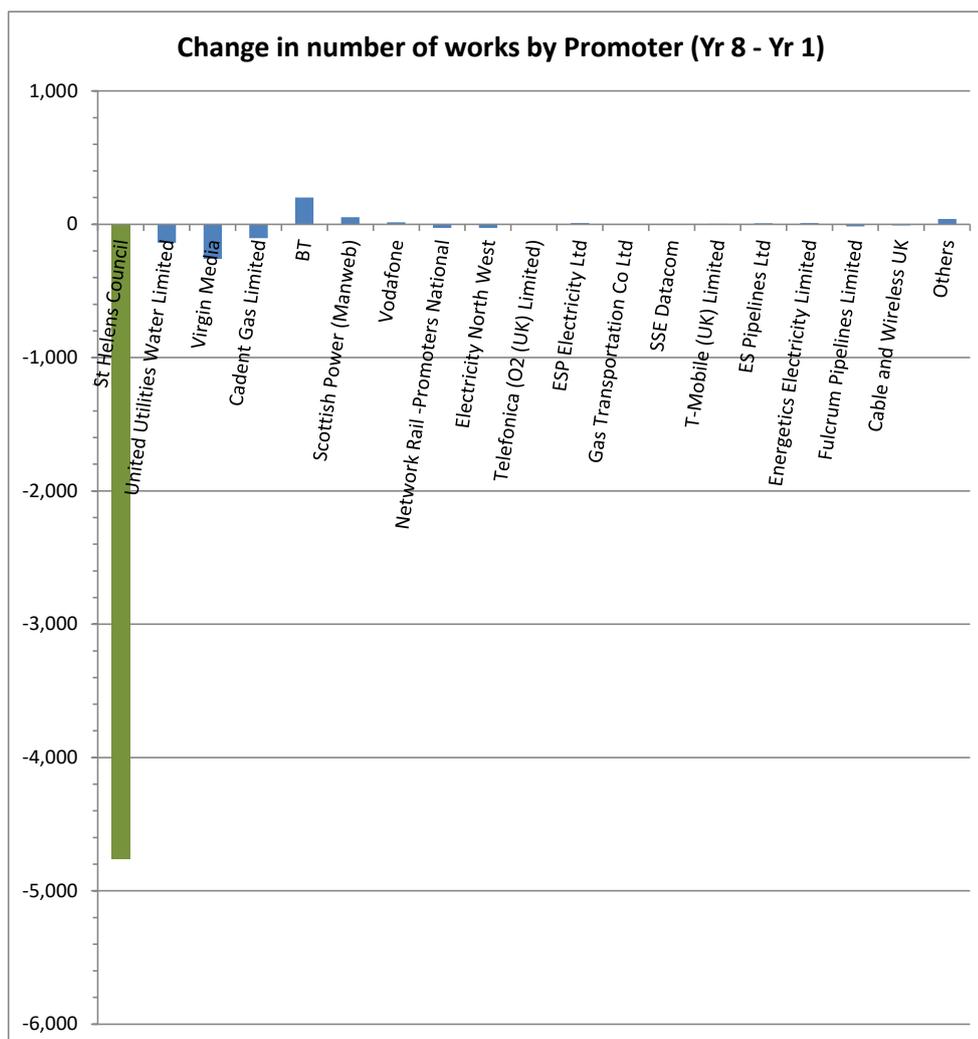




- 3.2.3 The number of works permitted has steadily reduced over the 8-year life of the scheme, from a high in year 1 of 14,331 permits completed to 9,308 in year 8. Highway authority permits have reduced by a factor of 2, but still account for more than 50% of all permits granted.
- 3.2.4 Utility works completed have generally ranged between 4,000 and 4,800 in each year. However, the number of works completed in year 8 is the lowest recorded at 3,789. This is approximately 7% lower than the number recorded in year 1 of the scheme.
- 3.2.5 The change in number of Permit applications by works promoter is presented in Table 2 and the accompanying chart.

**Table 2 Change by works promoter**

PROMOTER	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)
St Helens Council	10,281	6,382	5,519	-4,762
United Utilities Water Limited	1,622	1,752	1,484	-138
Virgin Media	652	862	392	-260
Cadent Gas Limited	640	512	536	-104
BT	367	588	568	201
Scottish Power (Manweb)	474	517	528	54
Vodafone	3	7	17	14
Network Rail -Promoters National	39	16	11	-28
Electricity North West	208	178	180	-28
Telefonica (O2 (UK) Limited)	5	4		-5
ESP Electricity Ltd		12	10	10
Gas Transportation Co Ltd	2	8	4	2
SSE Datacom	6		1	-5
T-Mobile (UK) Limited		4	4	4
ES Pipelines Ltd	2	17	10	8
Energetics Electricity Limited	2	4	11	9
Fulcrum Pipelines Limited	19	5	4	-15
Cable and Wireless UK	9			-9
Others		5	39	39
<b>Total</b>	<b>14,331</b>	<b>10,873</b>	<b>9,318</b>	<b>-5,013</b>

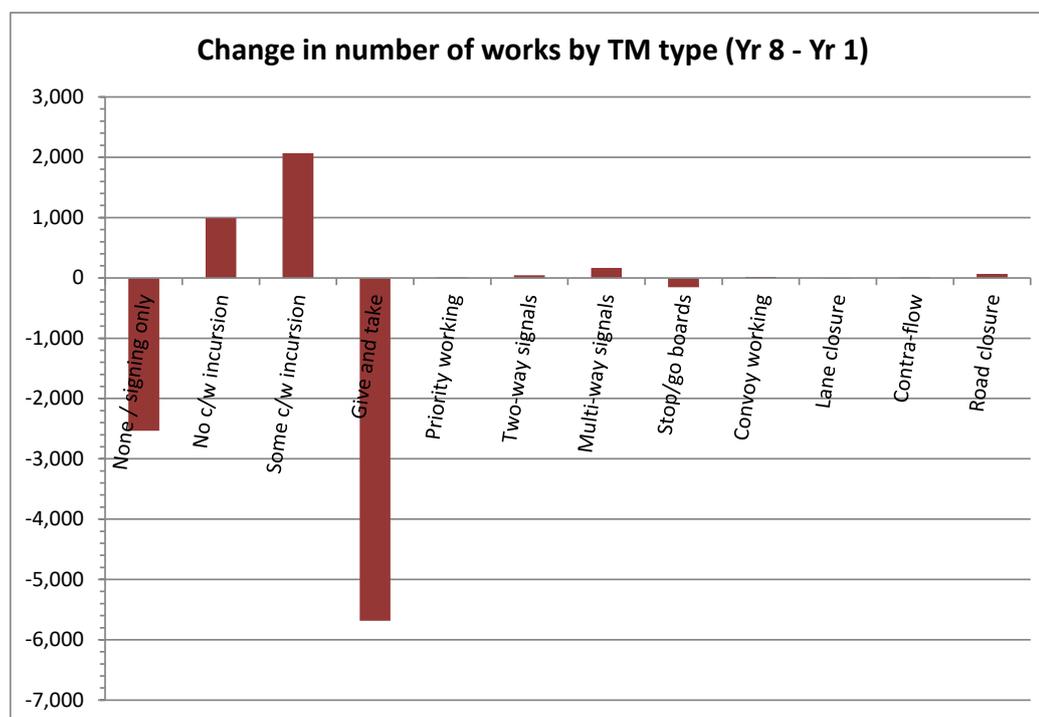


- 3.2.6 The biggest change is the near 50% reduction in highway works completed. The other changes are not significant and largely reflect the year on year variations evident in previous years.
- 3.2.7 Notable changes from year 7 are 470 fewer works completed by Virgin Media and 268 fewer works completed by United Utilities Water Limited. The former has returned to expected levels from a high of 1,304 works in year 6. The latter only accounts for a variation of 15% from the previous year.
- 3.2.8 The summary analysis in this section is presented for works closed by all works promoters. A more detailed analysis is presented in Appendix A for all works, separately for highway authority works and utility company works.
- 3.2.9 Table 3 and the accompanying chart presents a comparison of the change in number of all works applications by traffic management type.



**Table 3 Number of applications by traffic management type**

TRAFFIC MANAGEMENT TYPE	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)
None / signing only	2,535			-2,535
No c/w incursion		1,325	992	992
Some c/w incursion		2,297	2,066	2,066
Give and take	10,855	6,241	5,170	-5,685
Priority working	4	8	11	7
Two-way signals	320	368	365	45
Multi-way signals	148	284	315	167
Stop/go boards	230	61	73	-157
Convoy working	2	7	17	15
Lane closure	143	108	131	-12
Contra-flow	2	8	9	7
Road closure	92	166	159	67
Blank				
<b>Total</b>	<b>14,331</b>	<b>10,873</b>	<b>9,308</b>	<b>-5,023</b>

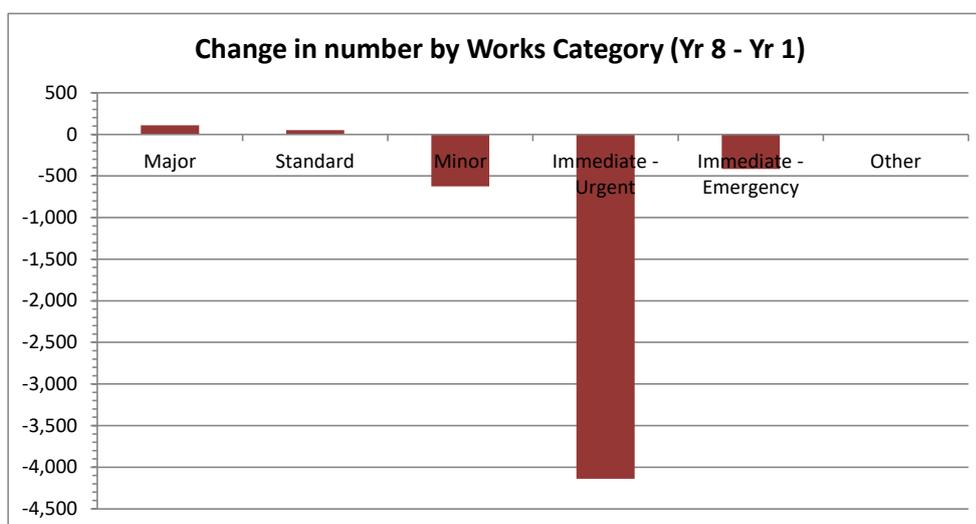


- 3.2.10 The large change to no and some carriageway incursion is a result of the change to the EToN6 system in 2013.
- 3.2.11 The reduction in number of works completed in year 8 is generally spread across the no carriageway incursion, come incursion and give & take traffic management types; 330 fewer, 230 fewer and 1,070 fewer than the previous year, respectively.
- 3.2.12 Works operating under active traffic control – temporary signals, stop/go boards lane closures and road closures – are largely unchanged from the previous year.
- 3.2.13 The total number of Permit applications by Works Category is shown in Table 4 and the accompanying chart.



**Table 4 Applications by works category**

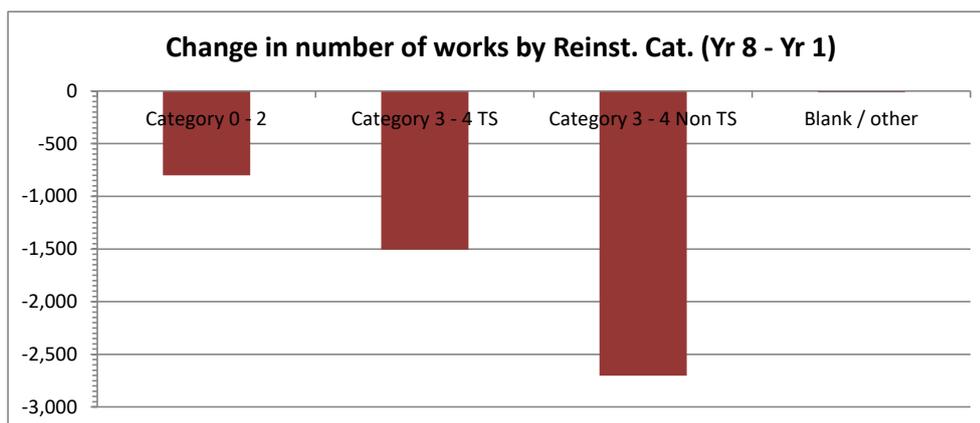
WORKS STOPPED	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)
Major	254	329	362	108
Standard	616	577	666	50
Minor	2,801	2,839	2,175	-626
Immediate - Urgent	10,045	6,870	5,907	-4,138
Immediate - Emergency	615	258	198	-417
Other				
<b>Total</b>	<b>14,331</b>	<b>10,873</b>	<b>9,308</b>	<b>-5,023</b>



- 3.2.14 Major and standard works have increased from the previous year, despite a large reduction in the overall number of works. Highway Major works have increased by around 50. Major works completed by utility works promoters have increased by 62 compared with year 1 but are 16 lower than the previous year.
- 3.2.15 The majority of the reduction in works is accounted for by a 4,553 reduction in the number of Immediate – Urgent highway works.
- 3.2.16 The total number of Permit applications by reinstatement category type is shown in Table 5 and the accompanying chart.

**Table 5 Number by reinstatement category type**

REINSTATEMENT CATEGORY	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)
Category 0 - 2	3,598	3,032	2,796	-802
Category 3 - 4 TS	3,890	2,824	2,385	-1,505
Category 3 - 4 Non TS	6,755	4,900	4,053	-2,702
Blank / other	88	117	74	-14
<b>All works</b>	<b>14,331</b>	<b>10,873</b>	<b>9,308</b>	<b>-5,023</b>



3.2.17 The rate of change since year 7 is generally spread across each reinstatement category proportionately.

3.2.18 Table 6 shows a comparison of the average works duration for all works.

**Table 6 Average works duration**

DURATION	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)
Average duration (days)	2.6	2.7	2.7	0.1
<b>Total number of days worked</b>	<b>37,841</b>	<b>28,830</b>	<b>25,449</b>	<b>-12,392</b>

3.2.19 The overall average duration of 2.7 days is only a small increase from year 1 and the same as the previous three years. There were 12,392 fewer days worked compared with year 1 – a 12% reduction overall due to the reduction in number of works recorded.

3.2.20 Average duration for highway works is unchanged from the previous year, at 2.0 days and maintains the reduction from 2.3 days in year 1.

3.2.21 Utility works average duration has increased to 3.8 days from 3.5 days in years 6 and 7 and from 3.4 days in year 1.

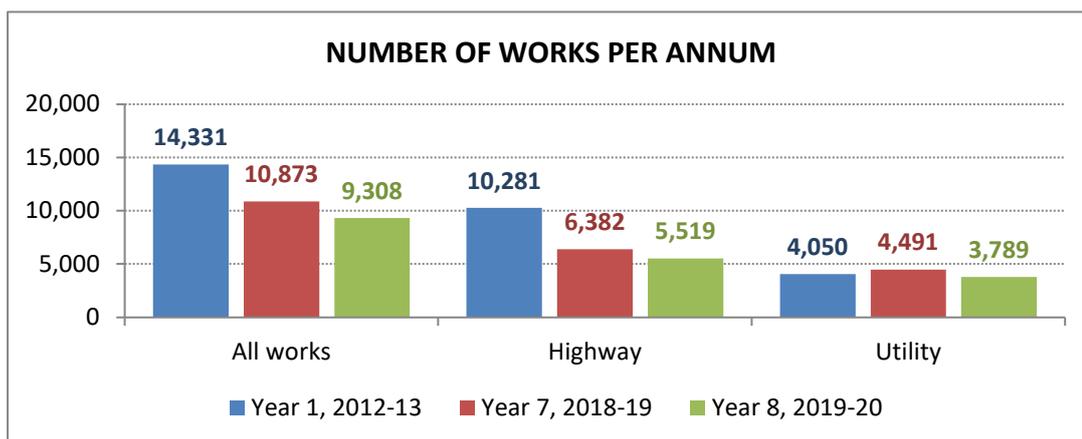
3.2.22 This due in part to an increase in the number of higher duration Major and Standard works. However, the average duration of Minor works has increased from 1.7 days in year 1 to 1.9 days in year 8.

***Recommendation Yr 9 - 01: Review estimated durations for Minor works by utility works promoters and consider duration challenges if appropriate.***

3.2.23 A detailed analysis of the average duration of works by traffic management type and works category is shown in Appendix B for the 7 principal works promoters.

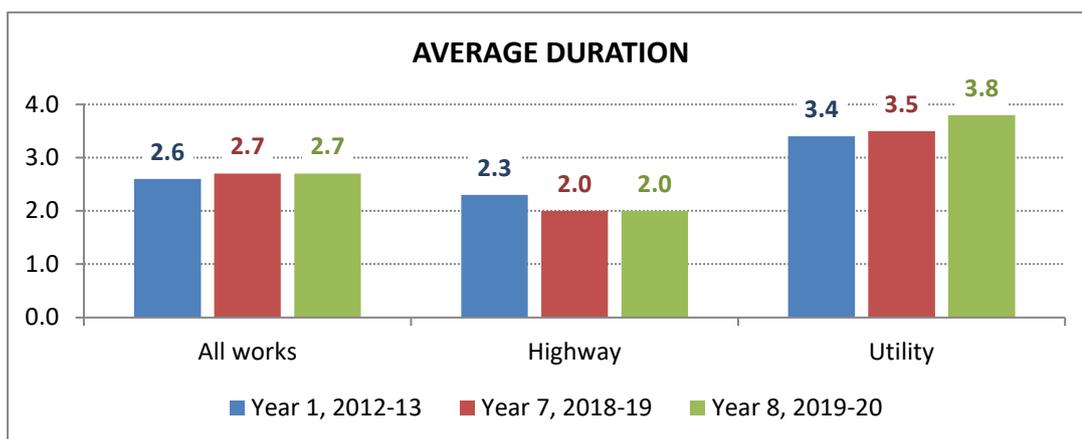
### 3.3 Scheme Benefits

3.3.1 Figure 1 presents the number of works per annum during the first full year of operation of the Permit Scheme and during years 7 and 8.



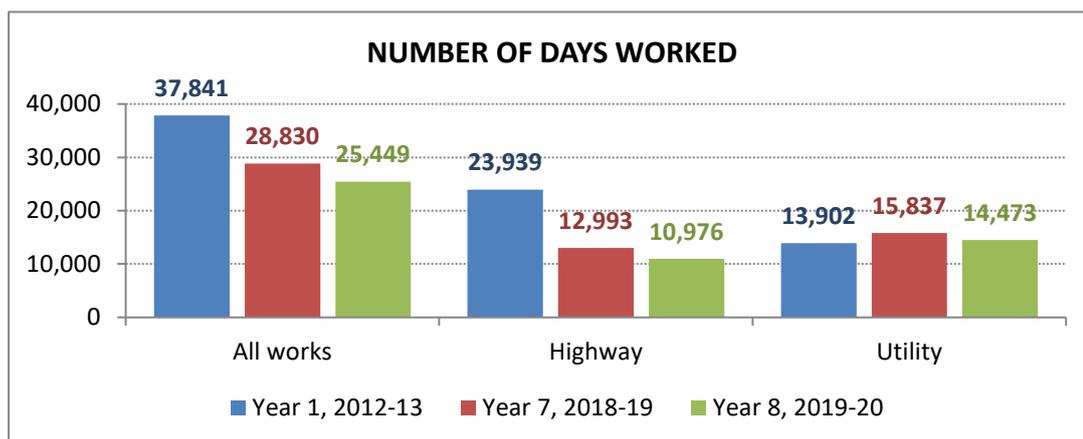
**Figure 1 Number of works completed annually**

- 3.3.2 The reduction in number of works across the network is significant at 35% compared with year 1 and 14% compared with year 7.
- 3.3.3 Utility works are at the lowest level recorded since the introduction of the Permit Scheme.
- 3.3.4 A comparison of the average duration of works completed is presented in Figure 2.



**Figure 2 Average duration of completed works**

- 3.3.5 Average durations have been relatively consistent year on year, however, the average duration for utility works has increased in year 8, due in part to an increase in the number of higher duration Major and Standard works.
- 3.3.6 The total occupancy of the network (total number of days worked in any year) is compared in Figure 3.



**Figure 3 Number of days worked per annum**

- 3.3.7 The total number of days worked has reduced by 33% since year 1 due to a 35% reduction in the number of works recorded. The overall scheme benefit evident in year 8 is largely unchanged from that reported in year 1.
- 3.3.8 The reduction in number of highway and utility works has resulted in a corresponding reduction in the number of days worked for both.
- 3.3.9 Any further benefit from the scheme would need to be achieved by driving down the duration of the high volume of Minor and Immediate works through duration challenges.

### 3.4 Conclusions

- 3.4.1 The number of works permitted has steadily reduced over the 8-year life of the scheme, from a high in year 1 of 14,331 permits completed to 9,308 in year 8. Highway authority permits have reduced by a factor of 2, but still account for more than 50% of all permits granted.
- 3.4.2 Notable changes from year 7 are 470 fewer works completed by Virgin Media and 268 fewer works completed by United Utilities Water Limited. The former has returned to expected levels from a high of 1,304 works in year 6. The latter only accounts for a variation of 15% from the previous year.
- 3.4.3 The overall average duration of 2.7 days is only a small increase from year 1 and the same as the previous three years. There were 12,392 fewer days worked compared with year 1 – a 12% reduction overall due to the reduction in number of works recorded.
- 3.4.4 Average duration for highway works is unchanged from the previous year, at 2.0 days and maintains the reduction from 2.3 days in year 1. Utility works average duration has increased to 3.8 days from 3.5 days in years 6 and 7 and from 3.4 days in year 1.
- 3.4.5 The benefits achieved in year 1 of the Permit Scheme have been maintained through to year 8.



## 4 KPI MONITORING

### 4.1 Introduction

4.1.1 The four Key Performance Indicators committed for inclusion in the annual review are;

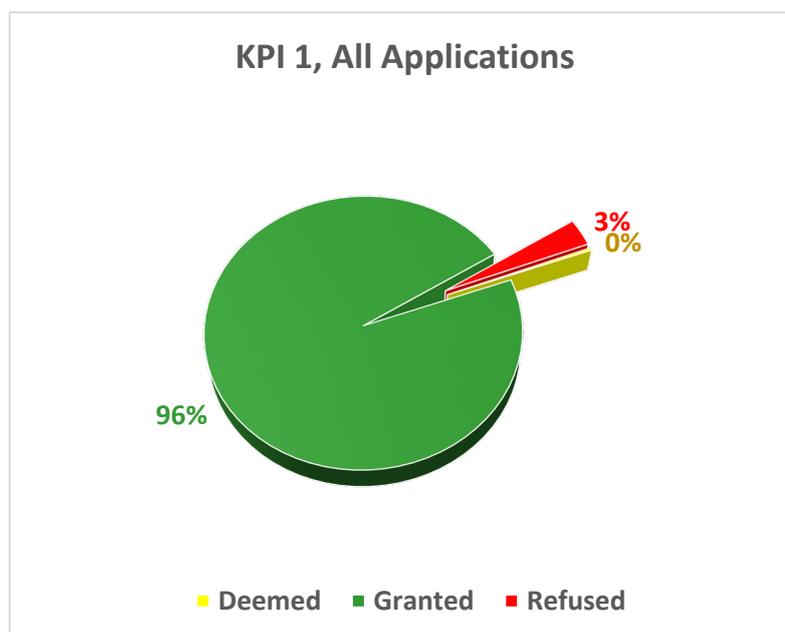
- **KPI 1**, the number of Permit and Permit Variation applications received, and a breakdown of the number granted and refused
- **KPI 2**, the number of conditions applied by condition type
- **KPI 3**, the number of approved Permit variations (extensions)
- **KPI 7**, the number of inspections carried out to monitor conditions

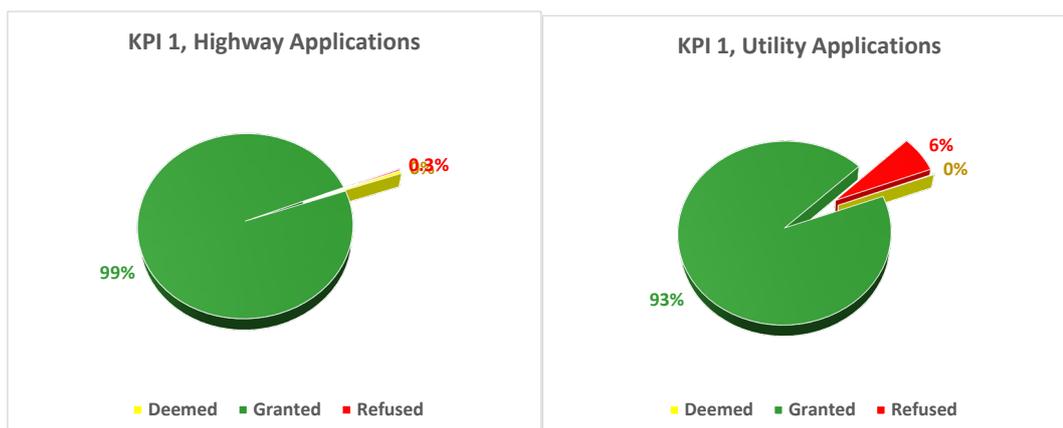
4.1.2 The above data should be presented separately for highway authority and utility company applications to demonstrate parity in the application of the Scheme.

### 4.2 KPI review

4.2.1 The following figure shows the number and proportion of Permit and Permit Variation applications received and refused (KPI 1).

4.2.2 KPI 1 – The number of all permit and permit variation applications by statutory undertakers refused remained at 6% in year 8. The proportion of all applications refused also remained unchanged, at 3% compared with the previous year.





**Figure 4: KPI 1, Permit and Variation Applications**

- 4.2.3 392 of the applications refused were submitted by utility works promoters.
- 4.2.4 17 applications for highway works were refused; a refusal rate of 0.3%. The refusal rate for highway applications is lower as the department sits together in the same office, so liaise closely before applications are submitted.
- 4.2.5 Table 7 shows the number of permits granted, deemed and refused for highway authority and public utility works promoters.

**Table 7 KPI 1 Permit and Variation Applications**

Promoter	Granted	Deemed	Refused	% Refused
Highway authority	6,555	30	17	0.3%
Utility	5,640	7	392	6.5%
<b>ALL</b>	<b>12,195</b>	<b>37</b>	<b>409</b>	<b>3.2%</b>

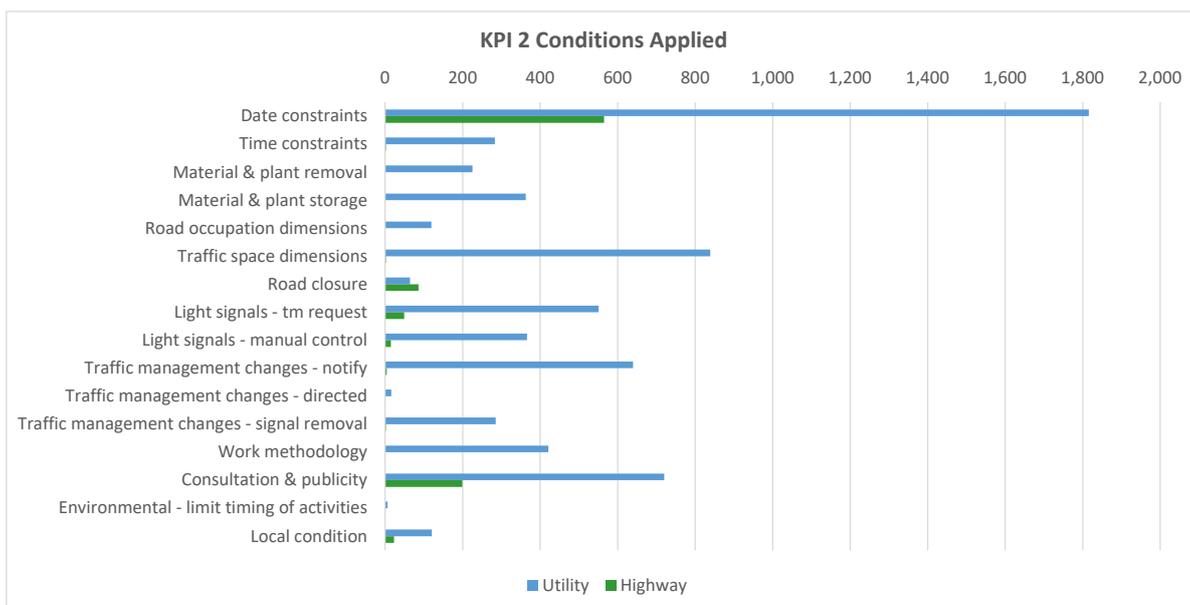
- 4.2.6 With regards to KPI 1, the high amount of granted permits does not reflect the actual amount of work involved by St Helens permit coordinators, as they only refuse permits where the activity promoters fail to update the permit. Permit modification requests are issued in the first instance to avoid permit refusals.
- 4.2.7 If this process was not applied by the permit authority, then there would have been a much higher percentage of refused permits.
- 4.2.8 KPI 2 – number of permit conditions applied by conditions type; Table 8 shows the total number of each standard condition applied to highway authority and public utility works promoters.



**Table 8 KPI 2 Number and Type of Conditions Applied**

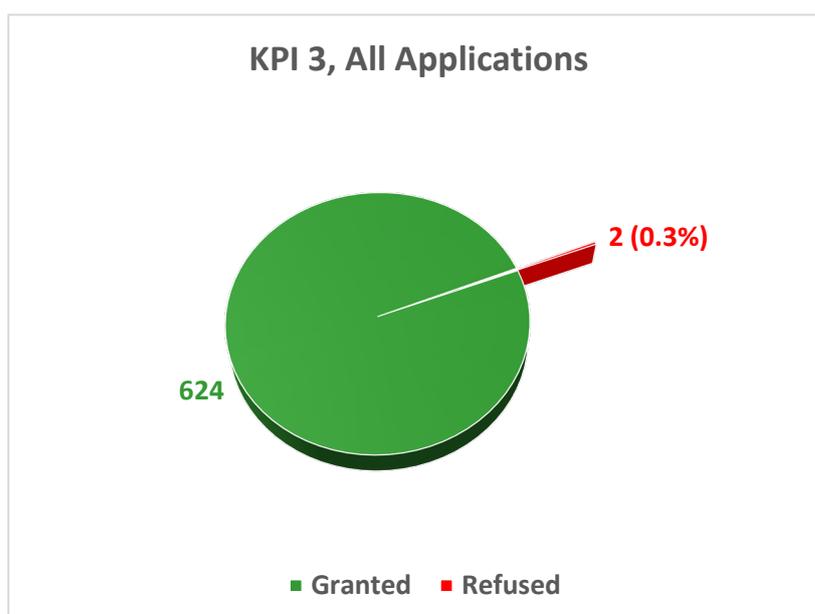
Condition	Condition Description	Utility	Highway	All
NCT02a	Date constraints	1,816	565	2,381
NCT02b	Time constraints	283	2	285
NCT04a	Material & plant removal	225	0	225
NCT04b	Material & plant storage	363	0	363
NCT05a	Road occupation dimensions	119	0	119
NCT06a	Traffic space dimensions	839	2	841
NCT07a	Road closure	64	86	150
NCT08a	Light signals - tm request	551	49	600
NCT08b	Light signals - manual control	366	15	381
NCT09a	Traffic management changes - notify	640	4	644
NCT09b	Traffic management changes - directed	16	0	16
NCT09c	Traffic management changes - signal removal	285	2	287
NCT10a	Work methodology	421	0	421
NCT11b	Consultation & publicity	720	199	919
NCT12a	Environmental - limit timing of activities	6	0	6
NCT13	Local condition	120	23	143
	<b>TOTAL</b>	<b>6,834</b>	<b>947</b>	<b>7,781</b>

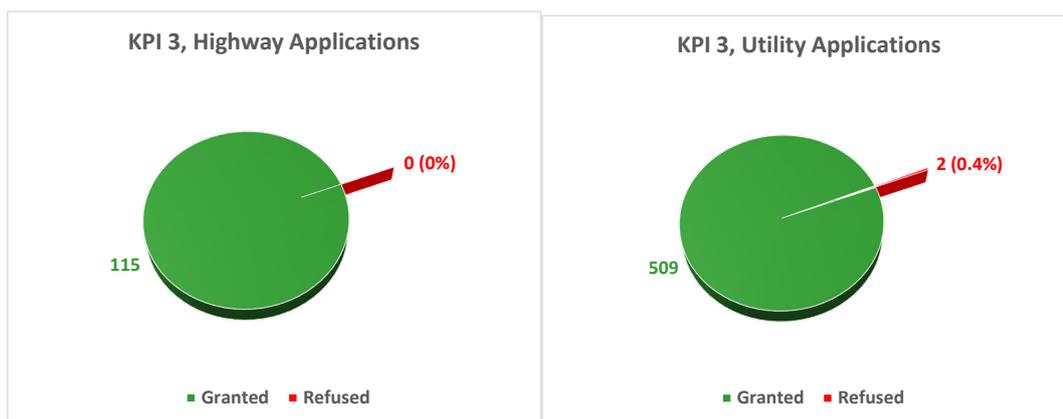
- 4.2.9 The number of conditions applied in year 8 are higher than those attached in previous years, despite a reduction in the number of permit applications.
- 4.2.10 88% of all permit conditions are applied by public utility works promoters, compared with 94% in year 4. This is a result of an increase in the number of conditions applied to highway works; increasing from 440 in year 7 to 947.
- 4.2.11 The conditions are evenly spread across most condition types, other than a large number of condition NCT02a date constraints and NCT06a traffic space dimensions being selected.
- 4.2.12 Conditions applied to highway works generally relate to date constraints, road closures, temporary traffic signals and consultation/publicity.
- 4.2.13 The number applied by condition type are shown in Figure 5. The blue bars show public utility permits and green show highway authority permits.



**Figure 5: KPI 2, Conditions Applied**

- 4.2.14 KPI 3 - The following charts show the number of extensions granted and refused, for all promoters and for statutory undertakers only (KPI 3).
- 4.2.15 Year 8 saw a large increase in the number of permit extension requests; up from 386 in year 7 to 626 in year 8. This is a result of a large increase in the number of extension requests submitted by statutory undertakes, from 268 in year 7 to 511 last year.
- 4.2.16 In general, permit extension requests are not refused, but are granted and any requests that are not deemed to be acceptable are duration challenged back to the original duration.
- 4.2.17 Last year only 2 extension requests were refused (0.3%) compared with 7 requests (2%) refused in year 7. Both were submitted by statutory undertakers. This change is not thought to be significant.





**Figure 6: KPI 3, Permit Extensions**

4.2.18 KPI 7 - the Number of Inspections carried out to monitor conditions.

4.2.19 Table 9 shows the number of inspections carried out to monitor permit conditions.

**Table 9 Permit Inspections**

Permit Condition Inspections	Passed	Non-Compliant	Abortive	Number of Inspections	Fail %
Highway authority	33	4	0	37	11%
Utility	366	75	0	441	17%
<b>ALL</b>	<b>399</b>	<b>79</b>	<b>0</b>	<b>478</b>	<b>17%</b>

4.2.20 The number of permit inspections recorded has increased significantly compared with previous years, from 81 in year 7 to 478 in year 8.

4.2.21 The failure rate has reduced, from 47% of to 17% last year. This supports the view that not all passed inspections were being recorded in year 6.

4.2.22 78 Fixed Penalty Notices for a breach of permit conditions were given during the course of the year; 17 for working without a permit (19(1)) and 61 for a breach of permit conditions (20(1)).

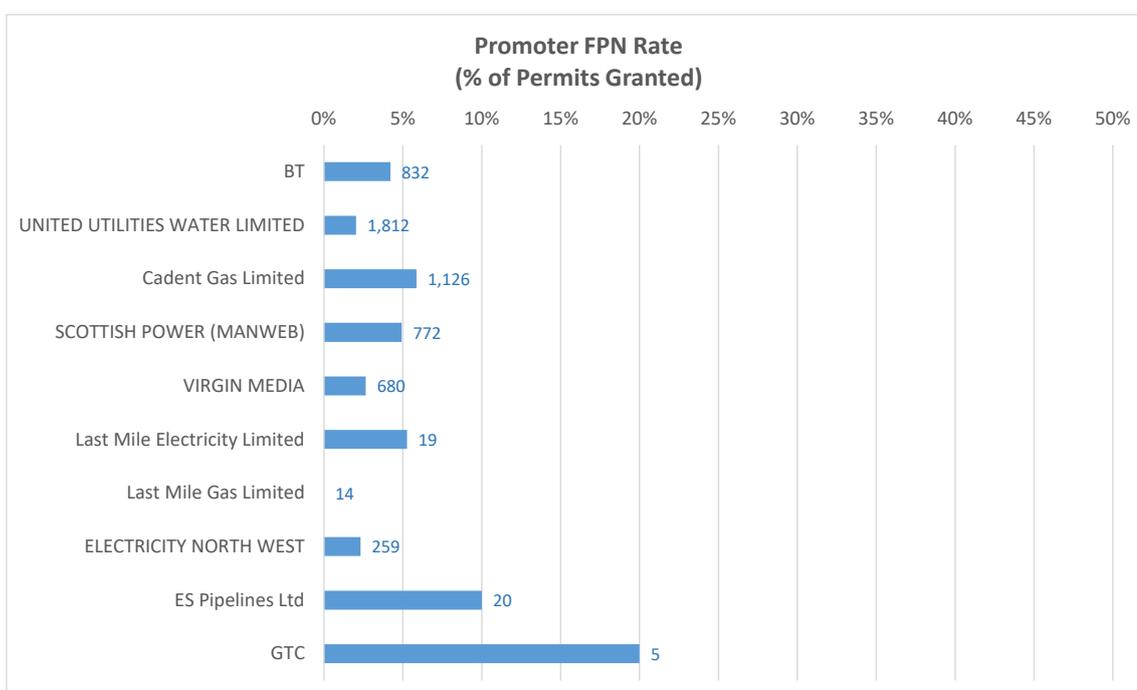
4.2.23 This is a slight increase on 66 FPN given in year 7.

4.2.24 The number of fixed penalty notices given by type are shown in Figure 7.



**Figure 7: KPI 7, FPN Given**

4.2.25 The FPN rate for each works promoter is shown in Figure 8. The number shown alongside each bar is the number of permits granted.



**Figure 8: KPI 7, Promoter FPN Rate**

4.2.26 The issue rate for FPN is generally below 10% for promoters, other than GTC where the 20% rate is skewed by 1 FPN being given for only 5 permits granted.

4.2.27 The number of recorded permit inspections has reduced significantly year on year, from a high of 1,085 in year 2 to 81 in year 7.



4.2.28 Table 10 shows the number of inspections carried out in each year since the introduction of the Permit Scheme in 2012.

**Table 10 Permit Inspections – Annual Comparison**

Permit Condition Inspections	Passed	Non-Compliant	Abortive	Number of Inspections	Fail %
YEAR 1	838	237	0	1,075	22%
YEAR 2	831	253	1	1,085	23%
YEAR 3	451	144	1	596	24%
YEAR 4	N/A	N/A	N/A	N/A	
YEAR 5	188	139	0	327	43%
YEAR 6	143	90	0	233	39%
YEAR 7	51	38	0	89	43%
YEAR 8	399	79	0	478	17%

4.2.29 A change in how permit inspections were carried out and recorded last year shows a significant increase in the number recorded.

### **4.3 Conclusions**

- 4.3.1 The analysis demonstrates that only a small proportion of permit and permit variation applications are refused.
- 4.3.2 The number of all permit and permit variation applications by statutory undertakers refused remained at 6% in year 8. The proportion of all applications refused also remained unchanged, at 3% compared with the previous year.
- 4.3.3 Year 8 saw a large increase in the number of permit extension requests; up from 386 in year 7 to 626 in year 8. This is a result of a large increase in the number of extension requests submitted by statutory undertakes, from 268 in year 7 to 511 last year.
- 4.3.4 Last year only 2 extension requests were refused (0.3%) compared with 7 requests (2%) refused in year 7. Both were submitted by statutory undertakers. This change is not thought to be significant.
- 4.3.5 78 Fixed Penalty Notices for a breach of permit conditions were given during the course of the year; 17 for working without a permit (19(1)) and 61 for a breach of permit conditions (20(1)). This is a slight increase on 66 FPN given in year 7.



## 5 STAFFING & RESOURCE

### 5.1 Summary

- 5.1.1 The DfT Fees Matrix used to estimate staff numbers and set the permit fee charges for the original CBA business case, has been re-run with the actual number of permit applications granted in year 8, to determine whether the staff numbers forecast in the business case are still appropriate.
- 5.1.2 Overall, the number of works completed in year 8 is lower than originally forecast, at 9,308 compared with 14,209 forecast in 2010 and 14,331 works completed in the first year of the scheme.
- 5.1.3 Utility works have been relatively consistent, varying by +/- 10% from an average of 4,400 works in the first 8 years of the scheme. Highway works have reduced from 10,281 in the first year to 5,519 in year 8.
- 5.1.4 The ratio of highway : utility works has changed from 72:28 to 59:41 in later years.
- 5.1.5 The assessment is based on the following inputs:
  - 3,789 works completed by public utility works promoters (4,050 in 2010 CBA)
  - 5,519 works completed by highway authority promoters (10,281 in 2010 CBA)
  - Permit variation applications at 20% Major works, 10% Standard works and 5% others – an average of 6.2% variations overall

### 5.2 Staff Resource

- 5.2.1 The DfT Fees Matrix calculates the number of staff required to process the granted permit applications.
- 5.2.2 The original business case assessment carried out for the Cost Benefit Assessment forecast the number of staff required to process the estimated number of permit applications at 9.0 full time equivalent (FTE) staff (Table 10).

**Table 10 CBA business case forecast, 2010-11**

PERSONNEL LEVEL	All Works	Utilities
Street Works Officer	4.1	1.2
Street Works Co-ordinator	3.5	1.0
Traffic Manager	1.4	0.4
<b>Total employees</b>	<b>8.99</b>	<b>2.56</b>

- 5.2.3 The high number of staff required was due to the large number of highway works applications anticipated. 2.5 FTE staff were calculated to be required to process utility applications.
- 5.2.4 Using the actual number of utility and highway authority permit applications recorded in year 8, the same Fees Matrix spreadsheet calculates the total number of FTE staff requirement at 5.9 (Table 11).



**Table 11 Year 8 staff resource, 2019-20**

PERSONNEL LEVEL	All Works	Utilities
Street Works Officer	2.6	1.1
Street Works Co-ordinator	2.3	1.0
Traffic Manager	1.0	0.4
<b>Total employees</b>	<b>5.87</b>	<b>2.51</b>

- 5.2.5 The number of staff required to process utility permits is the same – at 2.5 FTE. This calculation has been relatively stable over the duration of the scheme.
- 5.2.6 The requirement for staff to process highway applications has reduced by 3.1 FTE over the first 8 years of the scheme. This has been a relatively steady year on year reduction in staff numbers from year 3 of the scheme.
- 5.2.7 The cost to process utility applications has been relatively stable across the first years; although it should be noted that the original Fees Matrix used does not include for changes in staff salaries and National Insurance and pension costs or changes in overheads.
- 5.2.8 The reduction in staff resource required to process highway permit applications will be reflected in a lower overall cost to the Council to operate the full scheme.

**5.3 Fee Income**

- 5.3.1 Using the same Fees Matrix spreadsheet, the projected fee income for the actual number of permit applications processed in year 8 is £651,625.
- 5.3.2 This broken down to £557,194 for permit applications and £94,431 for the additional fees charged for permit variations.
- 5.3.3 The permit fees charged in all years includes a surcharge to cover the utilities’ share of the allowable operational costs. This surcharge recovered £19,499 in year 8 and is approximately 8% of the total annual income.

**Table 12 Year 8 Calculated fee income, 2019-20**

	NUMBER OF PERSONNEL	SCHEME COST	TOTAL FEE INCOME
All works, highway authority & utilities;	5.87	£555,225	
Utilities works only;	2.51		£235,913
- Income from initial permit applications only			£228,233
- Income from Permit Variations			£9,505
- Including to cover utilities share of allowable overheads			(£19,499)



- 5.3.4 It should be noted that the above calculation is based on the staff structure, salaries and other staff costs at the time the business case was developed before the introduction of the scheme in 2012.
- 5.3.5 A full review of permit fees charged and costs to process permit applications will take account of any changes in staff costs and overheads.
- 5.3.6 It is the Council's intention to carry out a full review of permit fee income and costs during year 9 2020-21.



## 6 CONCLUSIONS

### 6.1 Summary

- 6.1.1 St Helens Council (SHC) has been operating a Street Works Permit Scheme since April 2012. The Scheme operates as the St Helens (October 2015) Permit Scheme (MAPS). An approved Common Scheme currently operated by SHC only.
- 6.1.2 The statutory 12-month Annual Review and report to DfT was completed in 2013 following the first full 12 months of operating the Permit Scheme, '*St Helens Council Annual Report 01, 2012-13*'.
- 6.1.3 The purpose of the 12-month Annual review was to;
- Demonstrate a reduction in the duration of works.
  - Demonstrate a reduction in the number of Permit applications (through an increase in collaborative working).
  - Report the monitored Key Performance Indicators (KPI 1, KPI 2, KPI 3 & KPI 7).
  - Re-evaluate the Cost Benefit Assessment to show an economic return on the investment.
  - Report the annual scheme benefit to all road users.
- 6.1.4 The introduction of the Permit Scheme reduced the average duration of works by 20% and reduced the calculated cost of delays encountered at traffic management by 33%. The calculated Scheme benefit was 4 times greater than value for money threshold required by the Department for Transport (DfT).
- 6.1.5 At the end of each subsequent year, further reviews have been carried out and reported. This is a lower level review to monitor key performance indicators and identify and report any significant changes year on year.
- 6.1.6 The performance of the Scheme in subsequent years shows slight variation in the average duration, but generally shows the benefits to be maintained around the level achieved in year 1.
- 6.1.7 The number of works permitted has steadily reduced over the 8-year life of the scheme, from a high in year 1 of 14,331 permits completed to 9,308 in year 8. Highway authority permits have reduced by a factor of 2, but still account for more than 50% of all permits granted.
- 6.1.8 Utility works permits have been relatively consistent year on year, varying by +/- 10% from an average of 4,400 works.

### 6.2 Scheme benefits

- 6.2.1 Average duration for highway works is unchanged from the previous year, at 2.0 days and maintains the reduction from 2.3 days in year 1.
- 6.2.2 Utility works average duration has increased to 3.8 days from 3.5 days in years 6 and 7 and from 3.4 days in year 1. This due in part to an increase in the number of higher duration Major and Standard works. However, the average duration of Minor works has increased from 1.7 days in year 1 to 1.9 days in year 8.



6.2.3 The benefits achieved in year 1 of the Permit Scheme have been maintained through to year 8.

### 6.3 Recommendations

6.3.1 Whilst none of the issues identified during the review are thought to be significant in terms of the calculated Scheme benefits, one recommendation has been made to review the estimated duration for utility works in subsequent years;

***Recommendation Yr 9 - 01: Review estimated durations for Minor works by utility works promoters and consider duration challenges if appropriate.***

### 6.4 Conclusions

6.4.1 Monitoring the key performance indicators and evidence gained from the eight year of operation demonstrates that the Permit Scheme continues to;

- improve coordination of activities
- improve safety at road and street works
- improve communication between authority and utility companies
- reduce occupancy of the highway
- improve accuracy of works records recorded in the Register
- reduce customer complaints

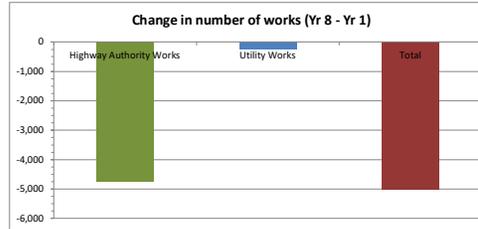
6.4.2 This review has demonstrated that Scheme continues to meet its key objectives, as defined in the Scheme document.

**A. PERMIT APPLICATIONS 2019-20**

**A.1 All works permits**

Table A.1: Number of works p.a., year on year comparison

PROMOTER TYPE	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
Highway Authority Works	10,281	6,382	5,519	-4,762	-46.3%
Utility Works	4,050	4,491	3,789	-261	-6.4%
<b>Total</b>	<b>14,331</b>	<b>10,873</b>	<b>9,308</b>	<b>-5,023</b>	<b>-35.0%</b>



Change (Yr 8 - Yr 7)	Percentage Change
-863	-13.5%
-702	-15.6%
<b>-1,565</b>	<b>-14.4%</b>

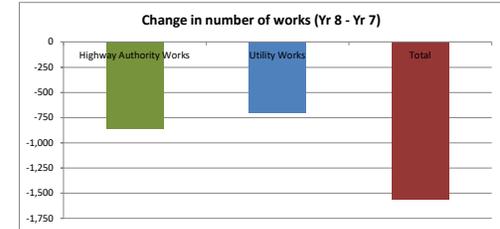
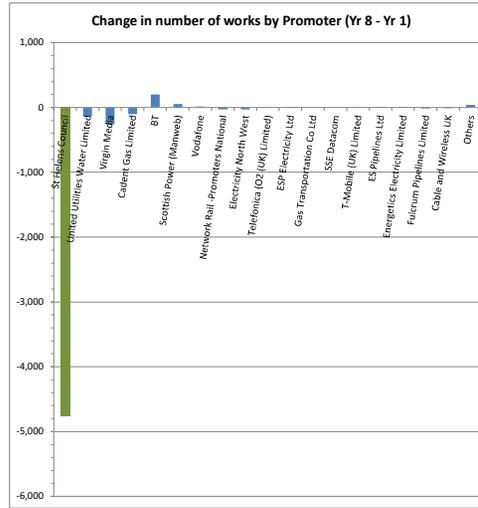


Table A.2: Number of works by Promoter, year on year comparison

PROMOTER	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
St Helens Council	10,281	6,382	5,519	-4,762	-46.3%
United Utilities Water Limited	1,622	1,752	1,484	-138	-8.5%
Virgin Media	652	862	392	-260	-39.9%
Cadent Gas Limited	640	512	536	-104	-16.3%
BT	367	588	568	201	54.8%
Scottish Power (Manweb)	474	517	528	54	11.4%
Vodafone	3	7	17	14	466.7%
Network Rail -Promoters National	39	16	11	-28	-71.8%
Electricity North West	208	178	180	-28	-13.5%
Telefonica (O2 (UK) Limited)	5	4	-5	-100.0%	
ESP Electricity Ltd	12	10	10	0	0.0%
Gas Transportation Co Ltd	2	8	4	2	100.0%
SSE Datacom	6	1	-5	-83.3%	
T-Mobile (UK) Limited		4	4	4	400.0%
ES Pipelines Ltd	2	17	10	8	400.0%
Energetics Electricity Limited	2	4	11	9	450.0%
Fulcrum Pipelines Limited	19	5	4	-15	-78.9%
Cable and Wireless UK	9		-9	-100.0%	
Others		5	39	39	780.0%
<b>Total</b>	<b>14,331</b>	<b>10,873</b>	<b>9,318</b>	<b>-5,013</b>	<b>-35.0%</b>



Change (Yr 8 - Yr 7)	Percentage Change
-863	-13.5%
-268	-15.3%
-470	-54.5%
24	4.7%
-20	-3.4%
11	2.1%
10	142.9%
-5	-31.3%
-4	-100.0%
-2	-16.7%
-4	-50.0%
1	1.1%
-7	-41.2%
7	175.0%
-1	-20.0%
34	680.0%
<b>-1,555</b>	<b>-14.3%</b>

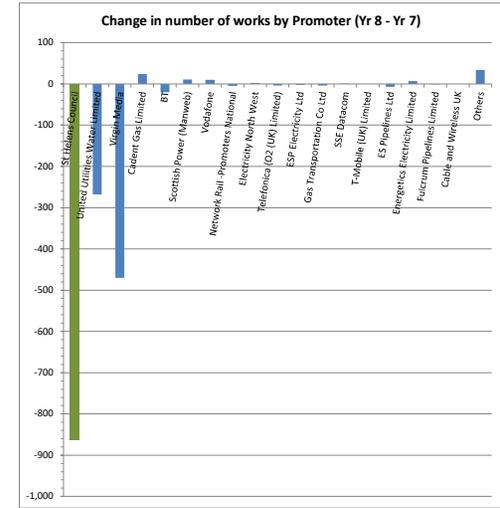
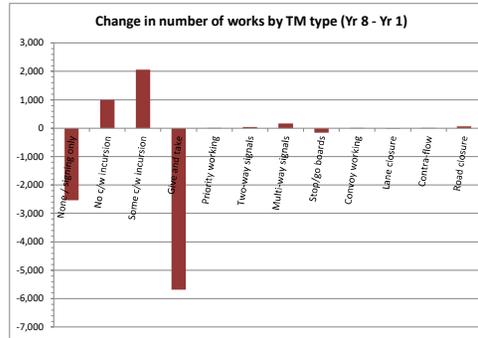


Table A.3: Number of works by traffic management type, year on year comparison

TRAFFIC MANAGEMENT TYPE	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
None / signing only	2,535			-2,535	-100.0%
No c/w incursion		1,325	992	992	
Some c/w incursion		2,297	2,066	2,066	-52.4%
Give and take	10,855	6,241	5,170	-5,685	-52.4%
Priority working	4	8	11	7	175.0%
Two-way signals	320	368	365	45	14.1%
Multi-way signals	148	284	315	167	112.8%
Stop/go boards	230	61	73	-157	-68.3%
Convoy working	2	7	17	15	750.0%
Lane closure	143	108	131	-12	-8.4%
Contra-flow	2	8	9	7	350.0%
Road closure	92	166	159	67	72.8%
Blank					
<b>Total</b>	<b>14,331</b>	<b>10,873</b>	<b>9,308</b>	<b>-5,023</b>	<b>-35.0%</b>



Change (Yr 8 - Yr 7)	
-333	-25.1%
-231	-10.1%
-1,071	-17.2%
3	37.5%
-3	-0.8%
31	10.9%
12	19.7%
10	142.9%
23	21.3%
1	12.5%
-7	-4.2%
<b>-1,565</b>	<b>-14.4%</b>

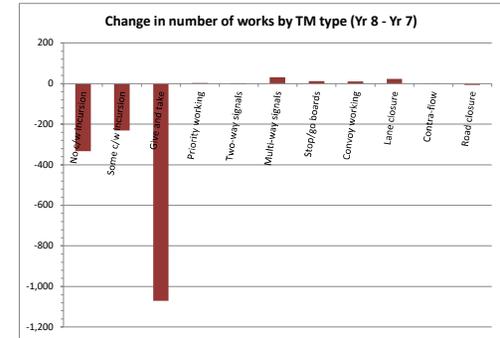
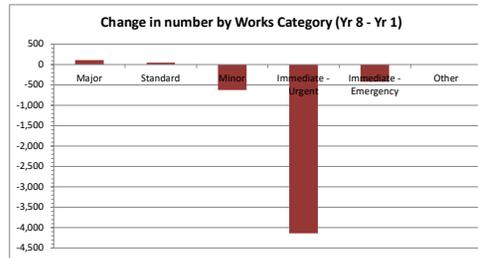


Table A.4: Number of works by works category, year on year comparison

WORKS STOPPED	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
Major	254	329	362	108	42.5%
Standard	616	577	666	50	8.1%
Minor	2,801	2,839	2,175	-626	-22.3%
Immediate - Urgent	10,045	6,870	5,907	-4,138	-41.2%
Immediate - Emergency	615	258	198	-417	-67.8%
Other					
<b>Total</b>	<b>14,331</b>	<b>10,873</b>	<b>9,308</b>	<b>-5,023</b>	<b>-35.0%</b>



Change (Yr 8 - Yr 7)	
33	10.0%
89	15.4%
-664	-23.4%
-963	-14.0%
-60	-23.3%
<b>-1,565</b>	<b>-14.4%</b>

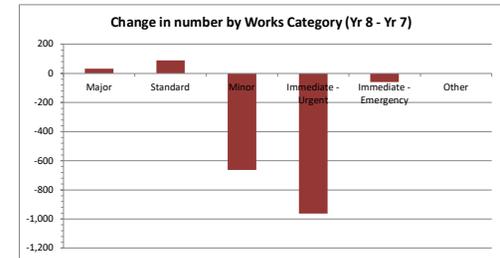
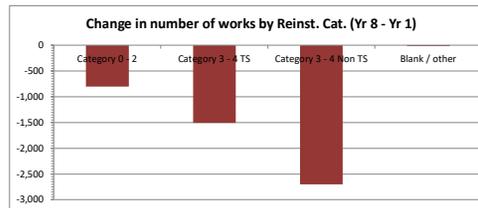


Table A.5: Traffic sensitivity, year on year comparison

REINSTATEMENT CATEGORY	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
Category 0 - 2	3,598	3,032	2,796	-802	-22.3%
Category 3 - 4 TS	3,890	2,824	2,385	-1,505	-38.7%
Category 3 - 4 Non TS	6,755	4,900	4,053	-2,702	-40.0%
Blank / other	88	117	74	-14	-15.9%
<b>All works</b>	<b>14,331</b>	<b>10,873</b>	<b>9,308</b>	<b>-5,023</b>	<b>-35.0%</b>



Change (Yr 8 - Yr 7)	
-236	-7.8%
-439	-15.5%
-847	-17.3%
-43	-36.8%
<b>-1,565</b>	<b>-14.4%</b>

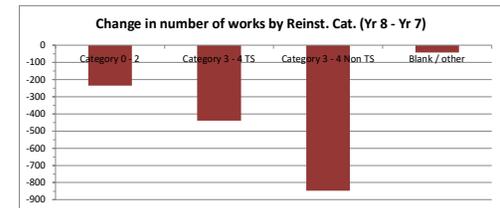


Table A.6: Average works duration, year on year comparison

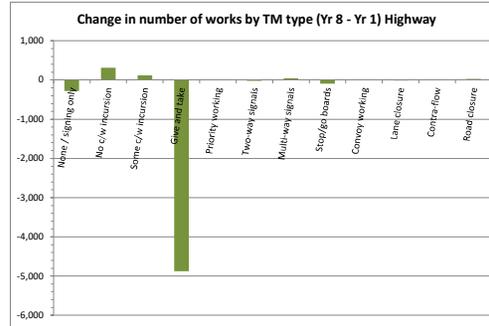
DURATION	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
Average duration (days)	2.6	2.7	2.7	0.1	2.3%
<b>Total number of days worked</b>	<b>37,841</b>	<b>28,830</b>	<b>25,449</b>	<b>-12,392</b>	<b>-32.7%</b>

Change (Yr 8 - Yr 7)	
<b>-3,381</b>	<b>-11.7%</b>

## A.2 Highway authority works permits

Table A.7: Number of works by traffic management type, year on year comparison

TRAFFIC MANAGEMENT TYPE	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
None / signing only	278			-278	-100.0%
No c/w incursion		277	314	314	
Some c/w incursion		86	121	121	
Give and take	9,537	5,680	4,665	-4,872	-51.1%
Priority working			1	1	
Two-way signals	135	101	113	-22	-16.3%
Multi-way signals	25	41	67	42	168.0%
Stop/go boards	132	33	37	-95	-72.0%
Convoy working	2	7	15	13	650.0%
Lane closure	111	70	97	-14	-12.6%
Contra-flow	1		2	1	100.0%
Road closure	60	87	87	27	45.0%
Blank					
<b>Total</b>	<b>10,281</b>	<b>6,382</b>	<b>5,519</b>	<b>-4,762</b>	<b>-46.3%</b>



Change (Yr 8 - Yr 7)	
37	13.4%
35	40.7%
-1,015	-17.9%
1	
12	11.9%
26	63.4%
4	12.1%
8	114.3%
27	38.6%
2	
<b>-863</b>	<b>-13.5%</b>

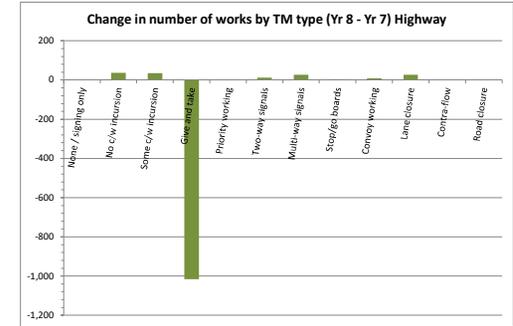
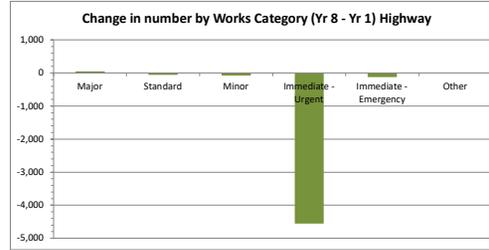


Table A.8: Number of works by works category, year on year comparison

WORKS STOPPED	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
Major	161	158	207	46	28.6%
Standard	279	178	219	-60	-21.5%
Minor	542	442	470	-72	-13.3%
Immediate - Urgent	9,168	5,601	4,615	-4,553	-49.7%
Immediate - Emergency	131	3	8	-123	-93.9%
Other					
<b>Total</b>	<b>10,281</b>	<b>6,382</b>	<b>5,519</b>	<b>-4,762</b>	<b>-46.3%</b>



Change (Yr 8 - Yr 7)	
49	31.0%
41	23.0%
28	6.3%
-986	-17.6%
5	166.7%
<b>-863</b>	<b>-13.5%</b>

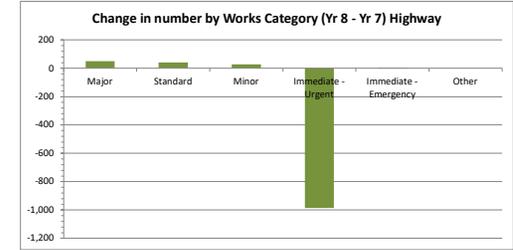


Table A.9: Average works duration, year on year comparison

DURATION	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
Average duration (days)	2.3	2.0	2.0	-0.3	-14.1%
<b>Total number of days worked</b>	<b>23,939</b>	<b>12,993</b>	<b>10,976</b>	<b>-12,963</b>	<b>-54.2%</b>

Year 8, 2019-20, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
19.7	6.9	1.6	1.0	2.4
<b>4,080</b>	<b>1,512</b>	<b>741</b>	<b>4,624</b>	<b>19</b>

Year 1, 2012-13, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
13.8	5.5	2.4	2.0	4.8
<b>2,214</b>	<b>1,541</b>	<b>1,325</b>	<b>18,225</b>	<b>634</b>

Difference, Year 8 - Year 1

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
6.0	1.4	-0.9	-1.0	-2.5
<b>1,866</b>	<b>-29</b>	<b>-584</b>	<b>-13,601</b>	<b>-615</b>

Change (Yr 8 - Yr 7)	
-2,017	-15.5%

Year 8, 2019-20, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
19.7	6.9	1.6	1.0	2.4
<b>4,080</b>	<b>1,512</b>	<b>741</b>	<b>4,624</b>	<b>19</b>

Year 7, 2018-19, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
11.9	9.7	2.1	1.5	5.7
<b>1,877</b>	<b>1,719</b>	<b>910</b>	<b>8,470</b>	<b>17</b>

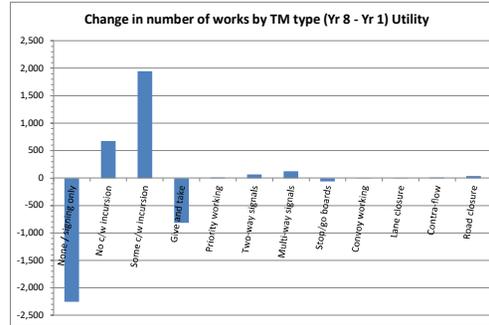
Difference, Year 8 - Year 7

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
7.8	-2.8	-0.5	-0.5	-3.3
<b>2,203</b>	<b>-207</b>	<b>-169</b>	<b>-3,846</b>	<b>2</b>

### A.3 Utility works permits

Table A.10: Number of works by traffic management type, year on year comparison

TRAFFIC MANAGEMENT TYPE	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
None / signing only	2,257			-2,257	-100.0%
No c/w incursion		1,048	678	678	150.0%
Some c/w incursion		2,211	1,945	1,945	88.0%
Give and take	1,318	561	505	-813	-61.7%
Priority working	4	8	10	6	150.0%
Two-way signals	185	267	252	67	36.2%
Multi-way signals	123	243	248	125	101.6%
Stop/go boards	98	28	36	-62	-63.3%
Convoy working			2	2	100.0%
Lane closure	32	38	34	2	6.3%
Contra-flow	1	8	7	6	600.0%
Road closure	32	79	72	40	125.0%
Blank					
<b>Total</b>	<b>4,050</b>	<b>4,491</b>	<b>3,789</b>	<b>-261</b>	<b>-6.4%</b>



Change (Yr 8 - Yr 7)	
-370	-35.3%
-266	-12.0%
-56	-10.0%
-2	25.0%
-15	-5.6%
5	2.1%
8	28.6%
2	
-4	-10.5%
-1	-12.5%
-7	-8.9%
<b>-702</b>	<b>-15.6%</b>

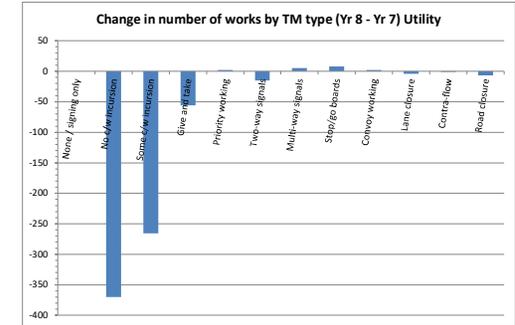
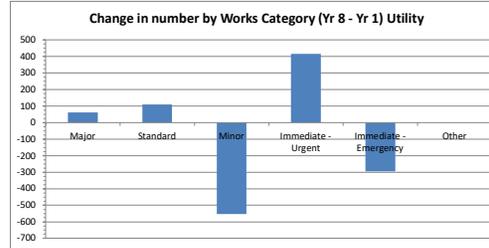


Table A.11: Number of works by works category, year on year comparison

WORKS STOPPED	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
Major	93	171	155	62	66.7%
Standard	337	399	447	110	32.6%
Minor	2,259	2,397	1,705	-554	-24.5%
Immediate - Urgent	877	1,269	1,292	415	47.3%
Immediate - Emergency	484	255	190	-294	-60.7%
Other					
<b>Total</b>	<b>4,050</b>	<b>4,491</b>	<b>3,789</b>	<b>-261</b>	<b>-6.4%</b>



Change (Yr 8 - Yr 7)	
-16	-9.4%
48	12.0%
-692	-28.9%
23	1.8%
-65	-25.5%
<b>-702</b>	<b>-15.6%</b>

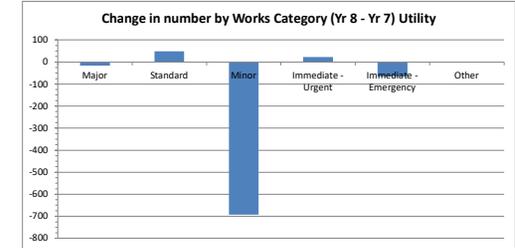


Table A.12: Average works duration, year on year comparison

DURATION	Year 1 2012-13	Year 7 2018-19	Year 8 2019-20	Change (Yr 8 - Yr 1)	
Average duration (days)	3.4	3.5	3.8	0.4	10.7%
<b>Total number of days worked</b>	<b>13,902</b>	<b>15,837</b>	<b>14,473</b>	<b>571</b>	<b>4.1%</b>

Year 8, 2019-20, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
15.6	6.5	1.9	3.8	5.4
<b>2,420</b>	<b>2,913</b>	<b>3,170</b>	<b>4,952</b>	<b>1,018</b>

Change (Yr 8 - Yr 7)	
0.3	8.6%
<b>-1,364</b>	<b>-8.6%</b>

Year 8, 2019-20, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
15.6	6.5	1.9	3.8	5.4
<b>2,420</b>	<b>2,913</b>	<b>3,170</b>	<b>4,952</b>	<b>1,018</b>

Year 1, 2012-13, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
19.6	5.9	1.7	4.6	4.6
<b>1,822</b>	<b>1,978</b>	<b>3,851</b>	<b>4,018</b>	<b>2,233</b>

Year 7, 2018-19, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
12.3	6.4	2.3	3.3	5.4
<b>2,105</b>	<b>2,560</b>	<b>5,553</b>	<b>4,239</b>	<b>1,380</b>

Difference, Year 8 - Year 1

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
-4.0	0.6	0.2	-0.7	0.7
<b>598</b>	<b>935</b>	<b>-681</b>	<b>934</b>	<b>-1,215</b>

Difference, Year 8 - Year 7

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
3.3	0.1	-0.5	0.5	-0.1
<b>315</b>	<b>353</b>	<b>-2,383</b>	<b>713</b>	<b>-362</b>

**B. PROMOTER DURATION ANALYSIS**

Works Promoter Duration Analysis

**TRAFFIC MANAGEMENT & DURATION, PROMOTER ST HELENS COUNCIL**

NO C/W INCURSION	SOME C/W INCURSION	STOP/GO BOARDS	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	GIVE & TAKE	PRIORITY WORKING	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE
Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
4.1	7.2	2.2	5.4	7.1	1.2	25.0	1.8	18.5	1.5	4.7
Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum
1.0	1.0	1.0	1.0	1.0	1.0	25.0	1.0	1.0	1.0	1.0
Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum
165.0	207.0	10.0	146.0	54.0	152.0	25.0	7.0	291.0	2.0	39.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15
9	8		4	10	17	1		12		5
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
4	3		3	2	2			6		2
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60
2	1		1		1			6		
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180
	1							6		
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
1,294	870	82	612	476	5,380	25	27	1,797	3	410
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
314	121	37	113	67	4,665	1	15	97	2	87

Total Number of Works

5,519

Average Duration

2.0

Total Number of Days Worked

10,976

**PROMOTER ST HELENS COUNCIL**

Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Average	Average	Average	Average	Average
19.7	6.9	1.6	1.0	2.4
Minimum	Minimum	Minimum	Minimum	Minimum
1.0	1.0	1.0	1.0	1.0
Maximum	Maximum	Maximum	Maximum	Maximum
291.0	43.0	36.0	6.0	10.0
>15	>15	>15	>15	>15
50	14	2		
>30	>30	>30	>30	>30
18	3	1		
>60	>60	>60	>60	>60
11				
>180	>180	>180	>180	>180
7				
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
4,080	1,512	741	4,624	19
Number	Number	Number	Number	Number
207	219	470	4,615	8

Works Promoter Duration Analysis

**TRAFFIC MANAGEMENT & DURATION, PROMOTER UNITED UTILITIES WATER PLC (HZ)**

NO C/W INCURSION	SOME C/W INCURSION	STOP/GO BOARDS	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	GIVE & TAKE	PRIORITY WORKING	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE
Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
3.4	2.5	17.9	2.4	2.6	3.4	3.0	#DIV/0!	3.7	4.3	5.2
Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum
1.0	1.0	1.0	1.0	1.0	1.0	3.0		1.0	1.0	1.0
Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum
10.0	173.0	115.0	6.0	5.0	10.0	3.0		11.0	9.0	64.0

>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15
	1	1								1
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
	1	1								1
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60
	1	1								1
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180

| Days Worked |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 409         | 2,312       | 125         | 152         | 128         | 905         | 3           |             | 33          | 17          | 196         |
| Number      |
| 119         | 926         | 7           | 64          | 49          | 267         | 1           |             | 9           | 4           | 38          |

Total Number of Works

1,484

Average Duration

2.9

Total Number of Days Worked

4,280

**PROMOTER UNITED UTILITIES WATER PLC (HZ)**

Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Average	Average	Average	Average	Average
37.3	5.0	1.8	3.4	2.8
Minimum	Minimum	Minimum	Minimum	Minimum
1.0	1.0	1.0	1.0	1.0
Maximum	Maximum	Maximum	Maximum	Maximum
173.0	15.0	9.0	13.0	4.0

>15	>15	>15	>15	>15
3				
>30	>30	>30	>30	>30
3				
>60	>60	>60	>60	>60
3				
>180	>180	>180	>180	>180

| Days Worked |
|-------------|-------------|-------------|-------------|-------------|
| 373         | 136         | 1,194       | 2,544       | 33          |
| Number      | Number      | Number      | Number      | Number      |
| 10          | 27          | 681         | 754         | 12          |

Works Promoter Duration Analysis

**TRAFFIC MANAGEMENT & DURATION, PROMOTER CADENT GAS LIMITED (AZ)**

NO C/W INCURSION	SOME C/W INCURSION	STOP/GO BOARDS	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	GIVE & TAKE	PRIORITY WORKING	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE
Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
4.6	7.5	#DIV/0!	14.6	12.0	6.8	#DIV/0!	#DIV/0!	22.0	#DIV/0!	6.0
Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum
1.0	1.0		3.0	1.0	1.0			1.0		5.0
Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum
15.0	34.0		43.0	28.0	23.0			53.0		7.0

>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15
	21		3	5	5			2		
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
	4		3					1		
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180

| Days Worked |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 407         | 2,551       |             | 263         | 348         | 372         |             |             | 88          |             | 18          |
| Number      |
| 88          | 339         |             | 18          | 29          | 55          |             |             | 4           |             | 3           |

Total Number of Works

536

Average Duration

7.6

Total Number of Days Worked

4,047

**PROMOTER CADENT GAS LIMITED (AZ)**

Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Average	Average	Average	Average	Average
15.8	8.3	2.6	4.9	5.8
Minimum	Minimum	Minimum	Minimum	Minimum
5.0	2.0	1.0	2.0	1.0
Maximum	Maximum	Maximum	Maximum	Maximum
53.0	15.0	8.0	17.0	32.0

>15	>15	>15	>15	>15
32			1	3
>30	>30	>30	>30	>30
7				1
>60	>60	>60	>60	>60
>180	>180	>180	>180	>180

| Days Worked |
|-------------|-------------|-------------|-------------|-------------|
| 1,670       | 830         | 249         | 339         | 959         |
| Number      | Number      | Number      | Number      | Number      |
| 106         | 100         | 97          | 69          | 164         |

Works Promoter Duration Analysis

TRAFFIC MANAGEMENT & DURATION, PROMOTER BT (BC)										
NO C/W INCURSION	SOME C/W INCURSION	STOP/GO BOARDS	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	GIVE & TAKE	PRIORITY WORKING	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE
Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
2.2	2.6	1.4	2.0	2.4	2.0	3.0	1.0	23.8	3.0	2.5
Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.0	1.0
Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum
13.0	42.0	3.0	10.0	10.0	10.0	5.0	1.0	49.0	3.0	10.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15
	1							2		
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
	1							2		
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
136	636	13	152	164	179	15	2	95	3	20
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
61	243	9	76	68	91	5	2	4	1	8

Total Number of Works

568

Average Duration

2.5

Total Number of Days Worked

1,415

PROMOTER BT (BC)				
Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Average	Average	Average	Average	Average
8.4	7.2	1.9	2.1	1.1
Minimum	Minimum	Minimum	Minimum	Minimum
1.0	1.0	1.0	1.0	1.0
Maximum	Maximum	Maximum	Maximum	Maximum
49.0	42.0	4.0	8.0	2.0
>15	>15	>15	>15	>15
2	1			
>30	>30	>30	>30	>30
2	1			
>60	>60	>60	>60	>60
>180	>180	>180	>180	>180
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
134	311	738	224	8
Number	Number	Number	Number	Number
16	43	394	108	7

Works Promoter Duration Analysis

TRAFFIC MANAGEMENT & DURATION, PROMOTER SCOTTISH POWER MANWEB (GY)										
NO C/W INCURSION	SOME C/W INCURSION	STOP/GO BOARDS	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	GIVE & TAKE	PRIORITY WORKING	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE
Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
4.5	5.0	3.3	5.1	5.3	5.1	#DIV/0!	#DIV/0!	5.9	5.0	7.2
Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum
1.0	1.0	1.0	1.0	1.0	1.0			2.0	1.0	4.0
Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum
9.0	19.0	5.0	19.0	12.0	10.0			15.0	9.0	20.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15
	1		1							2
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
457	1,127	23	261	370	231			41	10	130
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
102	226	7	51	70	45			7	2	18

Total Number of Works

528

Average Duration

5.0

Total Number of Days Worked

2,650

PROMOTER SCOTTISH POWER MANWEB (GY)				
Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Average	Average	Average	Average	Average
9.8	5.2	2.4	5.2	4.0
Minimum	Minimum	Minimum	Minimum	Minimum
4.0	1.0	1.0	1.0	2.0
Maximum	Maximum	Maximum	Maximum	Maximum
20.0	10.0	4.0	15.0	6.0
>15	>15	>15	>15	>15
4				
>30	>30	>30	>30	>30
>60	>60	>60	>60	>60
>180	>180	>180	>180	>180
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
156	903	142	1,437	12
Number	Number	Number	Number	Number
16	174	60	275	3

Works Promoter Duration Analysis

**TRAFFIC MANAGEMENT & DURATION, PROMOTER VIRGIN MEDIA (NK)**

NO C/W INCURSION	SOME C/W INCURSION	STOP/GO BOARDS	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	GIVE & TAKE	PRIORITY WORKING	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE
Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
1.5	2.4	2.0	2.0	1.0	2.2	#DIV/0!	#DIV/0!	13.0	#DIV/0!	#DIV/0!
Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum
1.0	1.0	1.0	1.0	1.0	1.0			1.0		
Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum
3.0	3.0	3.0	3.0	1.0	3.0			25.0		
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15
								1		
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
384	204	26	16	6	37			26		
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
261	85	13	8	6	17			2		

Total Number of Works

392

Average Duration

1.8

Total Number of Days Worked

699

**PROMOTER VIRGIN MEDIA (NK)**

Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Average	Average	Average	Average	Average
25.0	#DIV/0!	1.7	1.2	2.0
Minimum	Minimum	Minimum	Minimum	Minimum
25.0		1.0	1.0	2.0
Maximum	Maximum	Maximum	Maximum	Maximum
25.0		3.0	2.0	2.0
>15	>15	>15	>15	>15
1				
>30	>30	>30	>30	>30
>60	>60	>60	>60	>60
>180	>180	>180	>180	>180
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
25		661	11	2
Number	Number	Number	Number	Number
1		381	9	1

Works Promoter Duration Analysis

**TRAFFIC MANAGEMENT & DURATION, PROMOTER ELECTRICITY NORTH WEST (JG)**

NO C/W INCURSION	SOME C/W INCURSION	STOP/GO BOARDS	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	GIVE & TAKE	PRIORITY WORKING	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE
Average	Average	Average	Average	Average	Average	Average	Average	Average	Average	Average
5.0	5.5	#DIV/0!	3.5	5.9	5.7	6.3	#DIV/0!	5.0	#DIV/0!	9.0
Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum
3.0	1.0		1.0	1.0	1.0	6.0		5.0		5.0
Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum	Maximum
6.0	15.0		7.0	10.0	12.0	7.0		5.0		13.0

>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180

| Days Worked |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 25          | 559         |             | 77          | 118         | 142         | 19          |             | 10          |             | 18          |
| Number      |
| 5           | 101         |             | 22          | 20          | 25          | 3           |             | 2           |             | 2           |

Total Number of Works

180

Average Duration

5.4

Total Number of Days Worked

968

**PROMOTER ELECTRICITY NORTH WEST (JG)**

Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Average	Average	Average	Average	Average
15.0	6.6	2.0	5.2	#DIV/0!
Minimum	Minimum	Minimum	Minimum	Minimum
15.0	1.0	1.0	1.0	
Maximum	Maximum	Maximum	Maximum	Maximum
15.0	13.0	5.0	12.0	

>15	>15	>15	>15	>15
>30	>30	>30	>30	>30
>60	>60	>60	>60	>60
>180	>180	>180	>180	>180

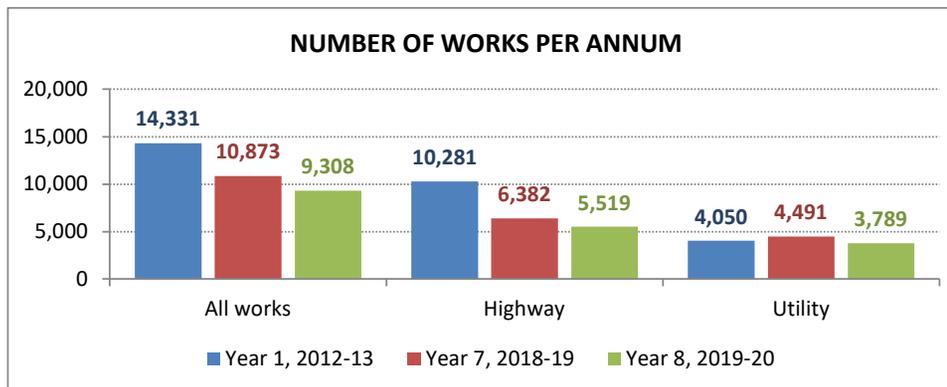
| Days Worked |
|-------------|-------------|-------------|-------------|-------------|
| 30          | 487         | 56          | 395         |             |
| Number      | Number      | Number      | Number      | Number      |
| 2           | 74          | 28          | 76          |             |

**C. SCHEME BENEFITS**

## SCHEME BENEFITS

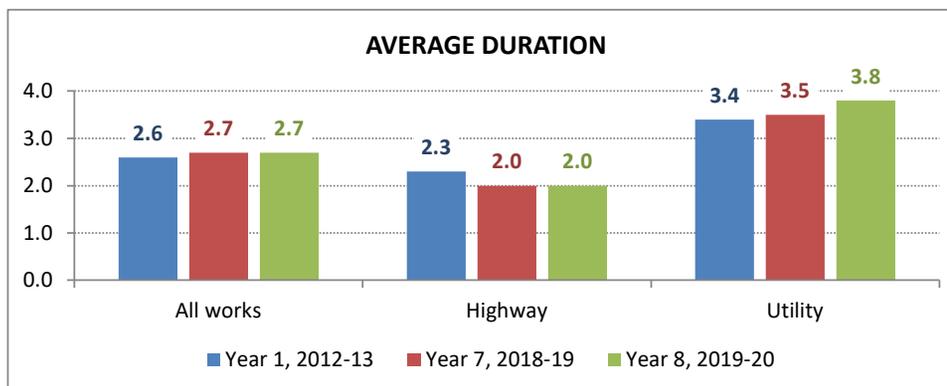
### NUMBER OF WORKS (number)

	All works	Highway	Utility
Year 1, 2012-13	14,331	10,281	4,050
Year 7, 2018-19	10,873	6,382	4,491
Year 8, 2019-20	9,308	5,519	3,789
Change, Year 8 - Year 7	-1,565	-863	-702
Change (%)	-14.4%	-13.5%	-15.6%



### AVERAGE DURATION (days)

	All works	Highway	Utility
Year 1, 2012-13	2.6	2.3	3.4
Year 7, 2018-19	2.7	2.0	3.5
Year 8, 2019-20	2.7	2.0	3.8
Change (days), Year 8 - Year 7	0.0	0.0	0.3



### DAYS WORKED (days)

	All works	Highway	Utility
Year 1, 2012-13	37,841	23,939	13,902
Year 7, 2018-19	28,830	12,993	15,837
Year 8, 2019-20	25,449	10,976	14,473
Change, Year 8 - Year 7	-3,381	-2,017	-1,364
Change (%)	-11.7%	-15.5%	-8.6%

