

# The Sefton Metropolitan Borough Council Permit Scheme for Road and Street Activities#



SEFTON MBC NETWORK MANAGEMENT  
YEAR 3 REVIEW, 2017-18





*Sefton Council Permit Scheme,  
Year 3 Review, 2017-18*

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## 1 INTRODUCTION

### 1.1 Background

- 1.1.1 The Sefton Metropolitan Borough Council (SMBC) Permit Scheme went live on 2<sup>nd</sup> February 2015.
- 1.1.2 The operation of the first year of operation was evaluated and reported in the '*Sefton Council 12 Month review, 2015-16*'.
- 1.1.3 The purpose of the 12-month 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 reduction in number of works across the network was significant at 16%. The combination of a reduction in the number of works and a significant reduction in average works durations resulted in an overall 38% reduction in number of days worked on the road network. This equated to nearly 25,000 fewer days worked on the network in the last year.
- 1.1.5 The financial benefit to road users of the Permit Scheme in year 1 is calculated at **£3.9M per annum**. This saving equated to approximately 20% of the overall cost of works calculated in the CBA (£18.25M per annum total cost to road users).

### 1.2 Year 3 Review

- 1.2.1 The operation of the second year of operation was evaluated and reported in the report '*Sefton Council Year 2 Review, 2016-17*'.
- 1.2.2 The overall reduction in average duration following the introduction of the Permit Scheme was maintained in year 2 at 2.5 days; a 25% reduction compared with performance prior to introducing the Scheme. The financial benefit to road users of the Permit Scheme in year 2 was calculated at **£3.4M per annum**.
- 1.2.3 Following the third anniversary of the Permit Scheme on 2<sup>nd</sup> February 2018, GK-TC has been commissioned to undertake a detailed review of the operation during year 3 and to determine whether benefits achieved in years 1 and 2 have been maintained.
- 1.2.4 Chapter 2 presents the analysis of the permit applications and actual durations. The review of the key performance indicators is reported in Chapter 3.
- 1.2.5 Chapter 4 presents the report summary, conclusions and recommendations.



## 2 PERMIT APPLICATIONS

### 2.1 Methodology

2.1.1 Data sources available for this review are:

- Permit Scheme work stops notices, February 2015 - February 2016, Year 1 (Mayrise database)
- Permit Scheme work stops notices, February 2016 - February 2017, Year 2 (Mayrise database)
- Permit Scheme work stops notices, February 2017 - February 2018, Year 3 (Mayrise database)

2.1.2 This review assesses the year on year change in the number of Permit applications and to review the breakdown of key metrics. The purpose of the review is to quantify the benefit of the Permit Scheme in terms of a reduction in number of days worked on the road network.

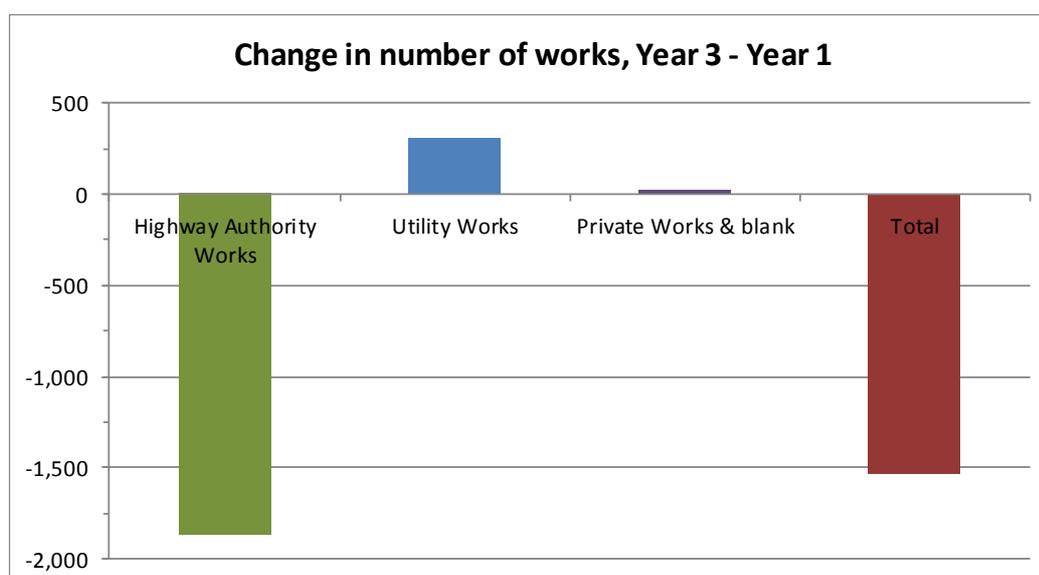
### 2.2 All works

2.2.1 The following series of charts and tables present a comparison of the third year under the Permit Scheme with year 1 and year 2 data records.

2.2.2 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 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
Highway Authority Works	8,970	8,458	7,103	-1,867
Utility Works	7,562	8,963	7,869	307
Private Works & blank	71	123	99	28
<b>Total</b>	<b>16,603</b>	<b>17,544</b>	<b>15,071</b>	<b>-1,532</b>

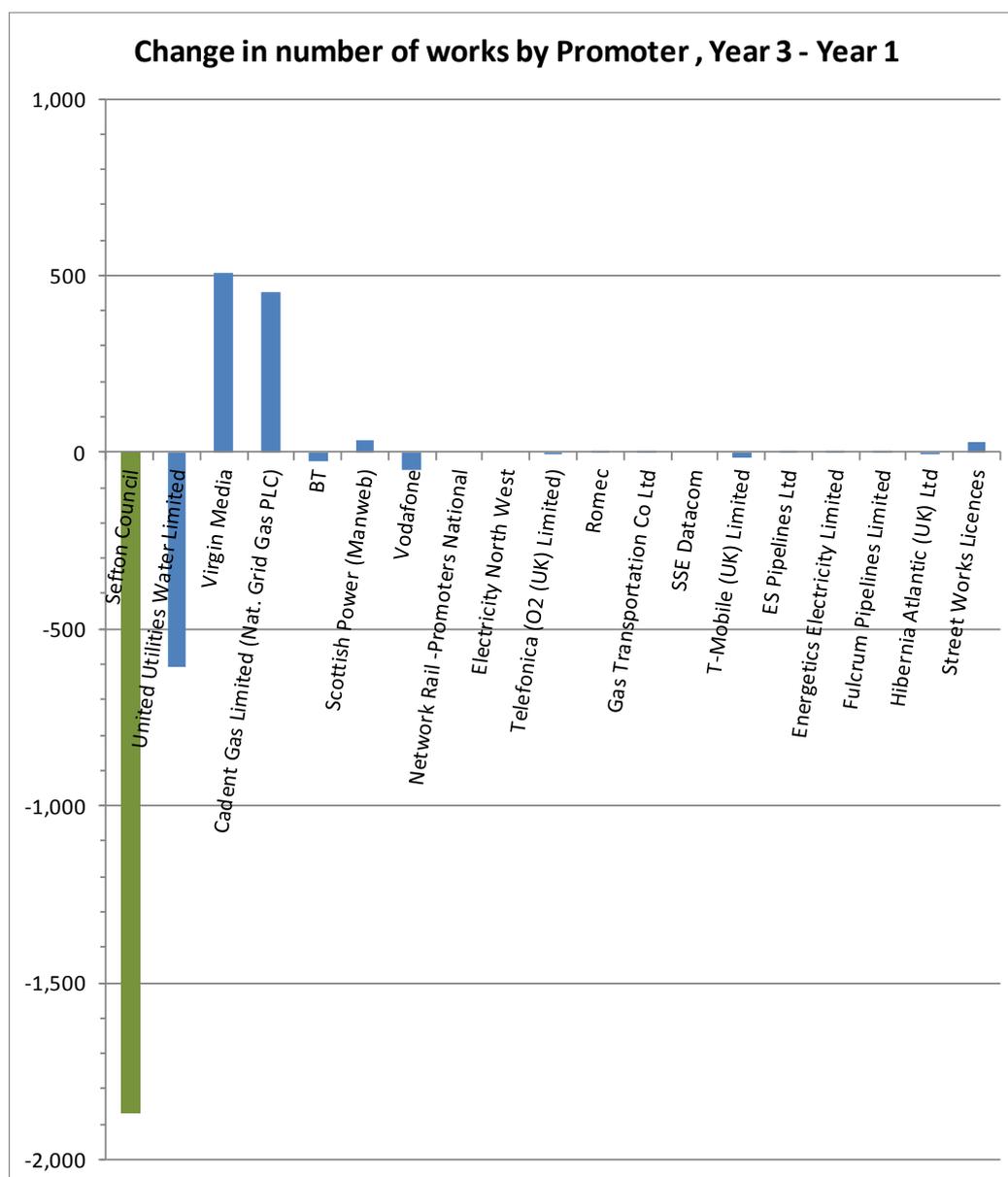




- 2.2.3 There is a further reduction in the number of highway works permitted (a 16% reduction from year 2 and a 21% reduction from year 1).
- 2.2.4 There is a 12% reduction in the number of utility works compared with year 2, but the number of utility promoter permits granted has increased by 4% compared with year 1.
- 2.2.5 Overall the number of permit applications has reduced by 9% compared with year 1 and 14% compared with year 2.
- 2.2.6 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 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
Sefton Council	8,970	8,458	7,103	-1,867
United Utilities Water Limited	3,432	3,717	2,823	-609
Virgin Media	753	1,138	1,258	505
Cadent Gas Limited (Nat. Grid Gas PLC)	1,025	1,589	1,479	454
BT	1,392	1,329	1,368	-24
Scottish Power (Manweb)	810	1,028	846	36
Vodafone	59	24	8	-51
Network Rail -Promoters National	30	31	30	
Electricity North West		1		
Telefonica (O2 (UK) Limited)	3	2	1	-2
Romec	2		4	2
Gas Transportation Co Ltd	4	11	8	4
SSE Datacom		4		
T-Mobile (UK) Limited	29	30	12	-17
ES Pipelines Ltd	7	15	8	1
Energetics Electricity Limited		10	2	2
Fulcrum Pipelines Limited	14	18	17	3
Hibernia Atlantic (UK) Ltd	2	6		-2
Street Works Licences	68	122	99	31
Blank / Others	3	11	5	2
<b>Total</b>	<b>16,603</b>	<b>17,544</b>	<b>15,071</b>	<b>-1,532</b>

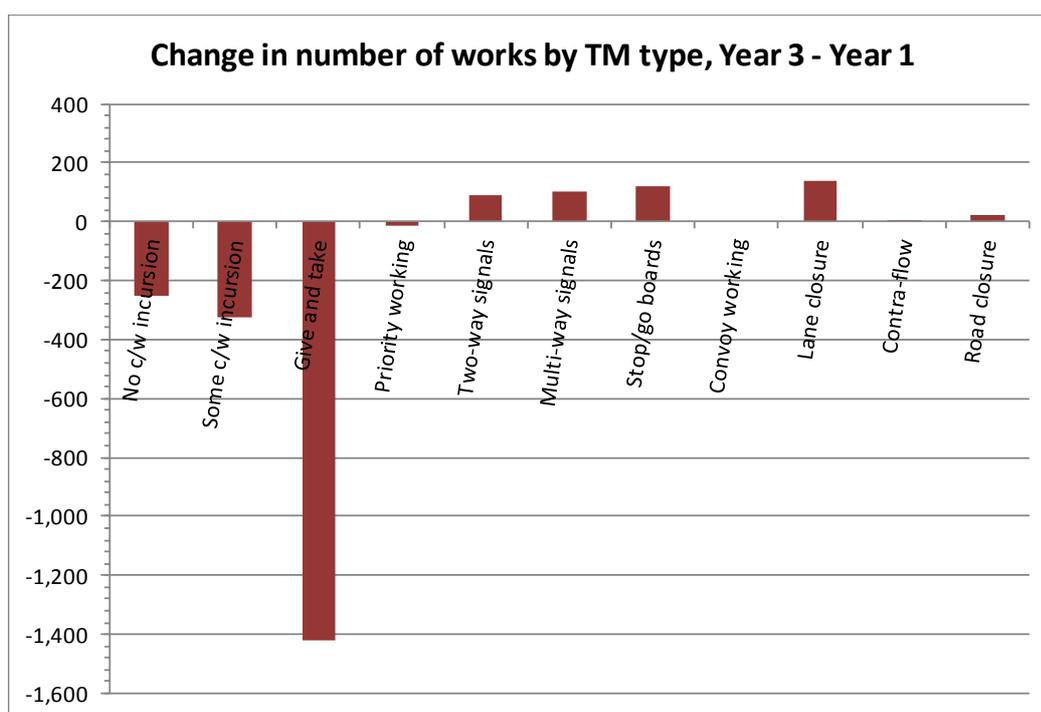


- 2.2.7 Virgin Media and Cadent Gas Limited show 67% and 44% increases over the number of year 1 permits, but only small changes compared with year 2. These increases are offset by a 17% reduction in the number of United Utilities Water permits.
- 2.2.8 The other utility companies show only small fluctuations from a relatively low base number in each year.
- 2.2.9 Other than the large reduction in United Utilities works in year 3, the number of permit applications by the other utility works promoters is broadly similar to the year 2 records.
- 2.2.10 The following detailed analysis is presented for applications by all works promoters. The same analysis is presented separately in Appendix A for highway authority works and utility company works.
- 2.2.11 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 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
No c/w incursion	2,717	3,020	2,468	-249
Some c/w incursion	10,133	11,961	9,810	-323
Give and take	2,668	1,152	1,247	-1,421
Priority working	27	28	15	-12
Two-way signals	318	403	409	91
Multi-way signals	188	269	288	100
Stop/go boards	91	261	213	122
Convoy working	1	1	1	
Lane closure	182	247	318	136
Contra-flow	1	7	3	2
Road closure	277	192	298	21
Blank		3	1	1
<b>Total</b>	<b>16,603</b>	<b>17,544</b>	<b>15,071</b>	<b>-1,532</b>



2.2.12 The biggest changes from year 1 are small reductions in no carriageway incursion and some carriageway incursion and a large reduction in works operating under give and take traffic management. Give and take works has increased slightly compared with year 2, but still less than 50% of the number recorded in year 1.

2.2.13 Highway works shows a very large reduction in give and take traffic management, from 1,068 in year 1 to 52 and 78 in years 2 and 3, respectively.

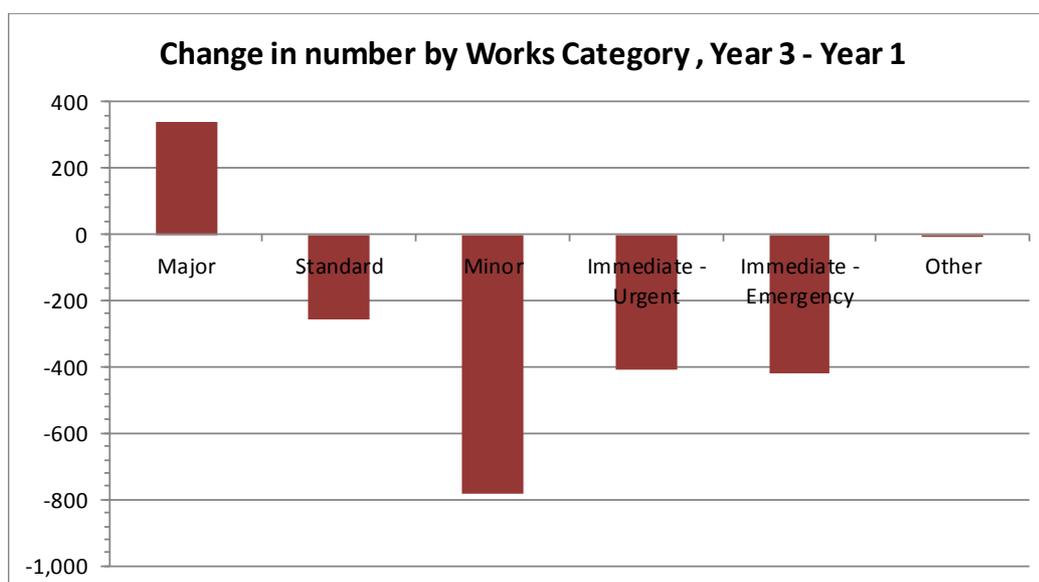


**Year 3 Recommendation 01: Continue to monitor traffic management types and confirm if an apparent move from give and take to some or no carriageway incursion is appropriate.**

- 2.2.14 Works operating under temporary traffic signals and lane closures have increased compared with year 1 and have not changed significantly compared with year 2. The number of road closures has increased by 106 from year 2, back to the number recorded in year 1.
- 2.2.15 The 12-month review identified a reduction in works using stop/go boards or convoy working and a corresponding increase in road closures, with a recommendation that traffic management types be monitored in year 2 to “confirm if an apparent move from stop/go boards and convoy working to road closures is appropriate.”
- 2.2.16 The year 2 and year 3 data shows a shift back with an increase in the number of works operating with stop/go boards.
- 2.2.17 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 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
Major	232	403	570	338
Standard	1,038	1,022	780	-258
Minor	11,935	12,569	11,152	-783
Immediate - Urgent	2,567	2,742	2,161	-406
Immediate - Emergency	829	805	407	-422
Other	2	3	1	-1
<b>Total</b>	<b>16,603</b>	<b>17,544</b>	<b>15,071</b>	<b>-1,532</b>

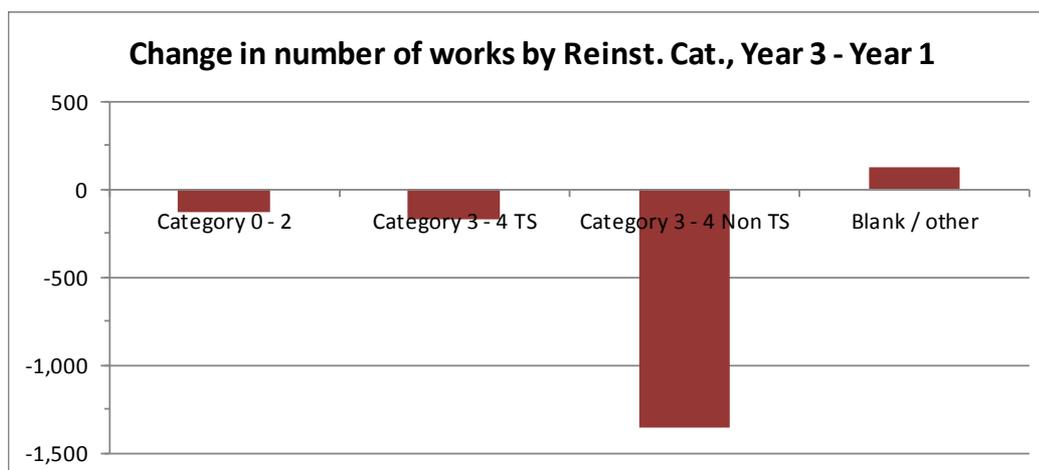




- 2.2.18 The most significant change is an increase in Major works from 232 in year 1, to 403 in year 2 through to 570 in year 3. There is a small increase in the number of Major works undertaken by the highway authority (from 32 in year 1 to 96 in year 3). The bulk of the change is due to a large increase in the number of Major works registered by utility works promoters (from 200 in year 1 to 474 in year 3).
- 2.2.19 Other works categories show reductions consistent with the overall reduction in the number of works recorded in year 3.
- 2.2.20 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 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
Category 0 - 2	2,449	2,620	2,317	-132
Category 3 - 4 TS	3,649	3,913	3,478	-171
Category 3 - 4 Non TS	10,429	10,937	9,073	-1,356
Blank / other	76	74	203	127
<b>All works</b>	<b>16,603</b>	<b>17,544</b>	<b>15,071</b>	<b>-1,532</b>



- 2.2.21 The reductions are generally spread pro rata across the three reinstatement category groupings.
- 2.2.22 Table 6 shows a comparison of the average works duration for all works.

**Table 6 Average works duration**

DURATION	Year 1 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
Average duration (days)	2.5	2.5	2.5	
<b>Total number of days worked</b>	<b>40,996</b>	<b>44,115</b>	<b>38,085</b>	<b>-2,911</b>

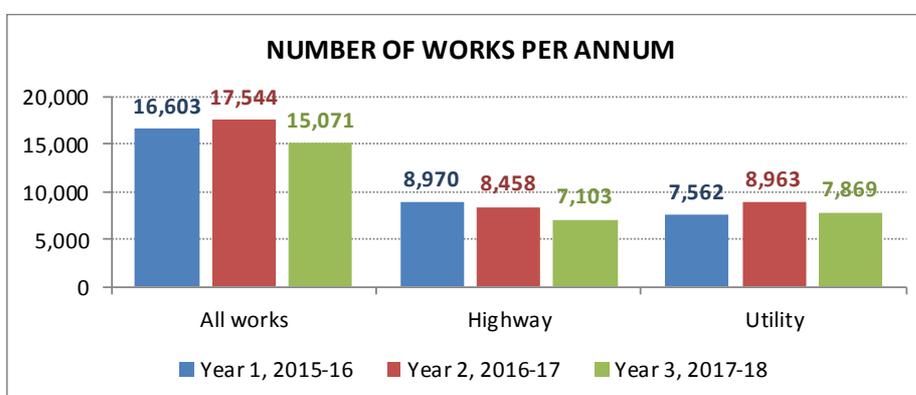


- 2.2.23 Average works duration is maintained at the year 1 level of 2.5 days. Therefore, continuing the significant overall reduction in road occupancy from the period before the introduction of the Permit Scheme.
- 2.2.24 Highway authority and utility works durations (Appendix A.1 and A.2) both show no significant change in average durations in each of the three years.
- 2.2.25 Average durations are low for each highway works category, with a significant reduction in Major works duration compared with year 2. It is unlikely that durations could be reduced much further.
- 2.2.26 Utility company works durations for each works category are also low. Major works duration has also reduced significantly from 15.7 days average in year 2 to 11.8 days in year 3.
- 2.2.27 Average durations by works category are logical, but average durations for Immediate works are higher than for highway works (3.1 and 5.8 days compared with 1.1 and 1.3 days).

***Year 3 Recommendation 02: Continue to monitor utility works durations on Immediate works in year 3, to identify if durations can be challenged to further improve benefits from the Scheme.***

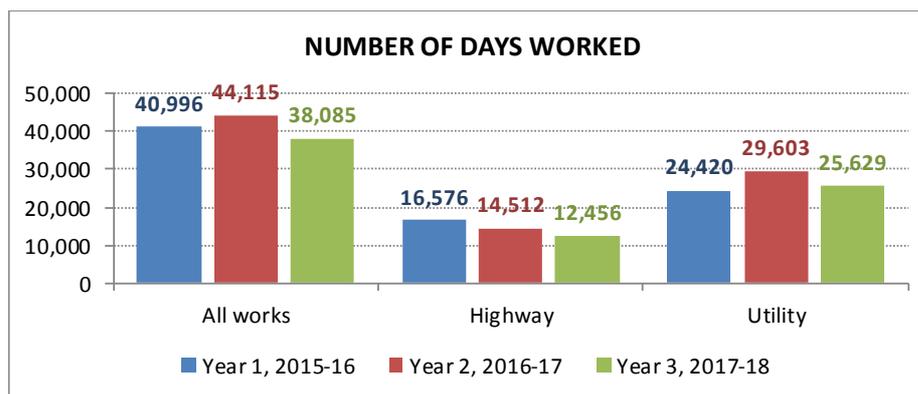
### 2.3 Scheme Benefit

- 2.3.1 The number of works in year 3 are lower than the previous 2 years. An 8.7% reduction on year 1 records.
- 2.3.2 Highway works have reduced by 22% compared with year 1 and utility works have increased by 3.4%.
- 2.3.3 Figure 1 presents the number of works per annum in the first 3 years of the Scheme.



**Figure 1 Number of works per annum**

- 2.3.4 Figure 2 presents the total number of days worked across the network in each year.
- 2.3.5 The 8.7% reduction in number of works has resulted in a 7.1% reduction in the number of days worked overall.



**Figure 2 Number of days worked per annum**

2.3.6 The CBA business case calculated the cost per day for each traffic management type on each street type. Since the majority of the reduction in works numbers is accounted for with short duration Immediate – Urgent works on category 3 and 4 non-traffic sensitive streets, the financial benefit to road users of the Permit Scheme in year 1 is calculated as:

- Average monetary cost of works per day, £159 (source: CBA report 2010 prices, works with some form of give and take management)
- Number of days saved under Permit Scheme, 27,657 (compared with 24,676 days in year 1)
- **Monetary benefit to road users, £4.4M per annum**

2.3.7 This saving equates to approximately 25% of the overall cost of works calculated in the CBA (£18.25M per annum total cost to road users).

## 2.4 Conclusions

2.4.1 Overall the number of permit applications has reduced by 9% compared with year 1 and 14% compared with year 2.

2.4.2 There is a further reduction in the number of highway works permitted (a 16% reduction from year 2 and a 21% reduction from year 1).

2.4.3 There is a 12% reduction in the number of utility works compared with year 2, but the number of utility promoter permits granted has increased by 4% compared with year 1.

2.4.4 Virgin Media and Cadent Gas Limited show 67% and 44% increases over the number of year 1 permits, but only small changes compared with year 2. These increases are offset by a 17% reduction in the number of United Utilities Water permits.

2.4.5 Other than the large reduction in United Utilities works in year 3, the number of permit applications by the other utility works promoters is broadly similar to the year 2 records.

2.4.6 The overall reduction in average duration following the introduction of the Permit Scheme is maintained at 2.5 days; reducing from 3.3 days under Noticing. This is a 25% reduction in average works duration. The reduction constitutes 27,657 fewer days worked compared with the situation under Noticing, an overall 42% reduction in working days.



- 2.4.7 The total number of days worked on highway authority works further reduces by 2,056 or 14% compared with year 2. Overall, the number of days worked on utilities schemes increases by 1,209 compared with year 1, a 5% increase.
- 2.4.8 The CBA business case calculated the cost per day for each traffic management type on each street type. The financial benefit to road users of the Permit Scheme in year 1 is calculated as:
- Average monetary cost of works per day, £159 (source: CBA report 2010 prices, works with some form of give and take management)
  - Number of days saved under Permit Scheme, 27,657
  - **Monetary benefit to road users, £4.4M per annum**
- 2.4.9 The 42% reduction in number of days worked is substantially higher than the 5% benefit specified in the DfT guidelines for the business case justification for a move to Permit Schemes.



### 3 KPI MONITORING

#### 3.1 Introduction

3.1.1 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

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

#### 3.2 KPI review

3.2.1 KPI 1 - the number and proportion of Permit and Permit Variation applications received and refused; a breakdown of refusal rate is presented below.

3.2.2 Table 7 and Figure 3 shows the breakdown of number of permit applications and permit variation requests received and the refusal rate.

**Table 7 KPI 1, Permit applications received and refused**

<b>PROMOTER</b>	<b>Received</b>	<b>Refused</b>	<b>%</b>
Highway authority	9,093	554	6.1%
Utility	9,460	1,170	12.4%
ALL	18,553	1,724	9.3%

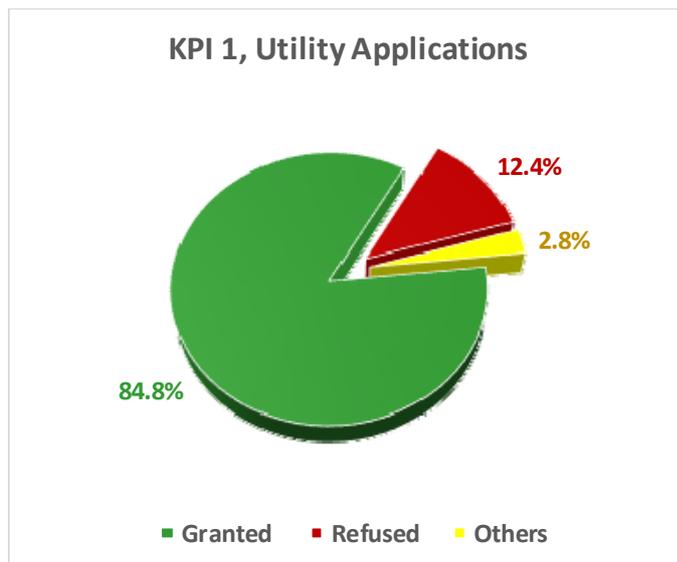
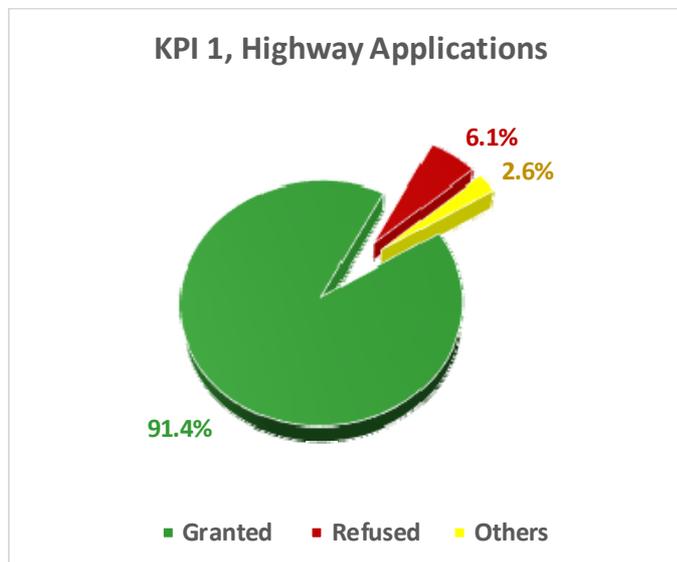
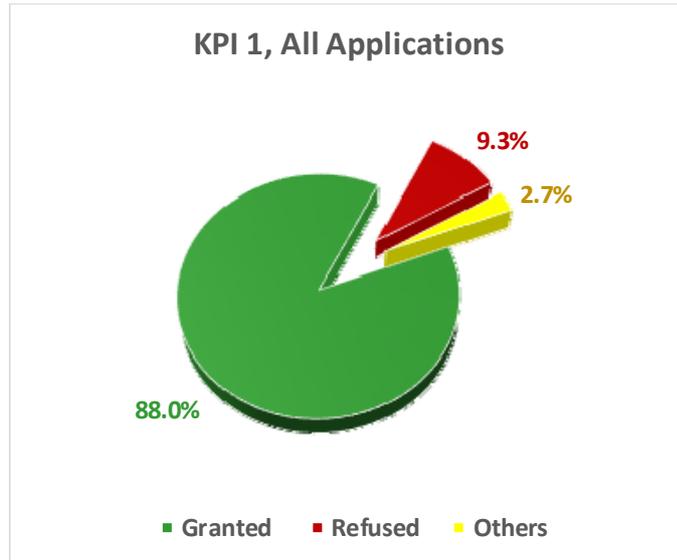


Figure 3: KPI 1, Permit Applications



- 3.2.3 KPI 1 – Approximately one in eight of permit applications by statutory undertakers were refused. 9% of all applications are refused; down from 11% in year 2.
- 3.2.4 The refusal rate for highway authority applications is unchanged from year 2, at 6%.
- 3.2.5 Utility application refusals have reduced to 12% in year 3. This is lower than the refusal rates for years 1 and 2, with utility applications refused down from 21% to 16.8%, respectively.
- 3.2.6 It should be noted that the refusal data for KPI 1 includes Permit Modification requests for which the majority would have subsequently been granted. A high proportion of the modifications which have been requested are only applicable to utility works. This makes the KPI figures reported by Mayrise slightly misleading.
- 3.2.7 With regards to KPI 1, the high amount of granted permits does not reflect the actual amount of work involved by Scheme co-ordinators, as they only refuse permits where the activity promoters fail to update the permit.
- 3.2.8 Table 8 and Figure 4 shows the breakdown of number of permit applications and permit variation requests received and the refusal rate.

**Table 8 KPI 1, Permit Variation applications received and refused**

PROMOTER	Received	Refused	%	Variation Apps as % Permit Apps
Highway authority	948	137	14.5%	10.4%
Utility	3,041	679	22.3%	32.1%
ALL	3,989	816	20.5%	21.5%

- 3.2.9 The refusal rate for permit variations is broadly similar with 14% of highway applications refused and 22% of utility applications refused. Approximately 75% of applications were submitted by utilities.
- 3.2.10 The refusal rate is lower than recorded in year 2 – 21% of highway authority applications and 31% of utility applications were refused in year 2.

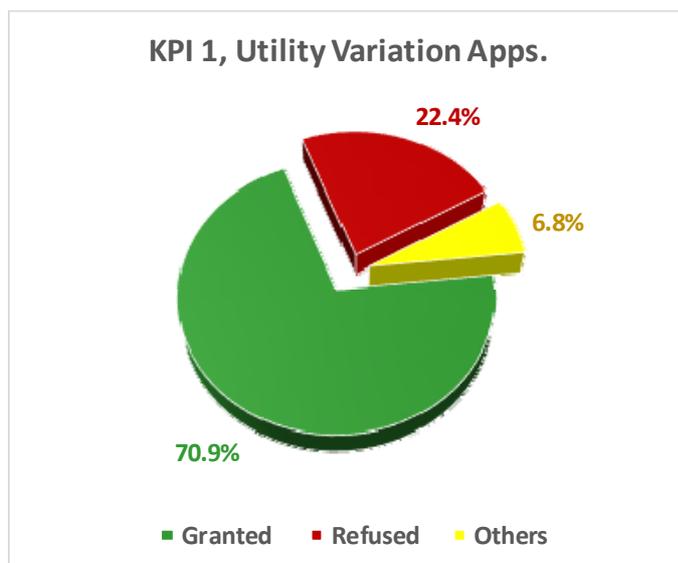
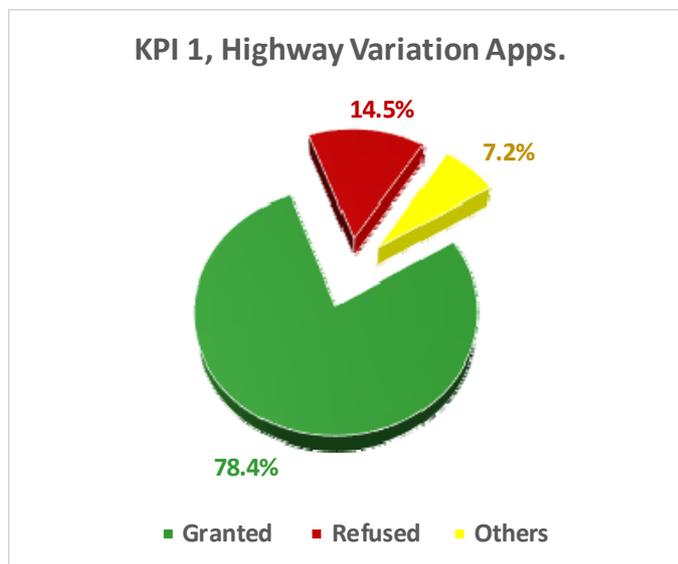
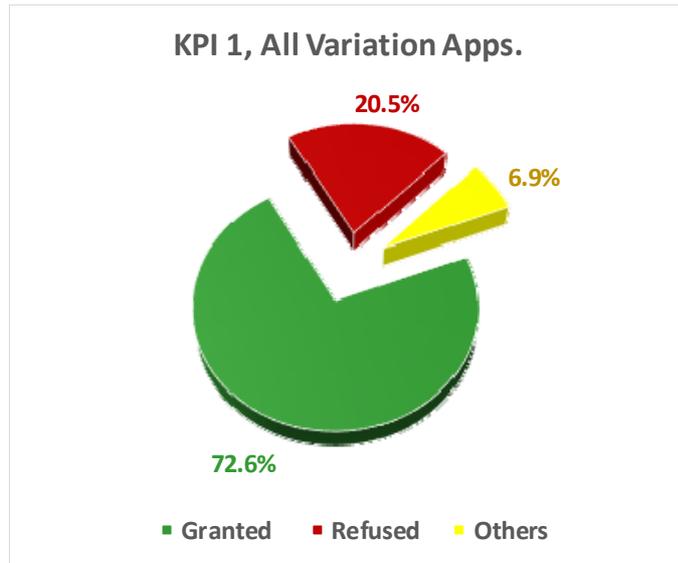
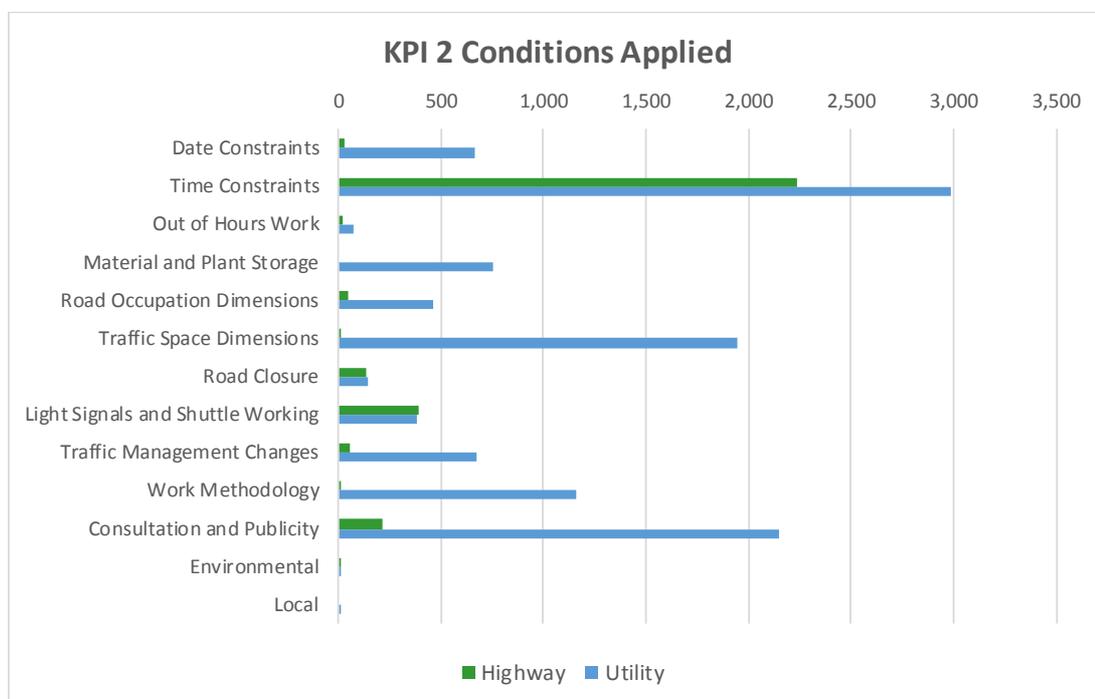


Figure 4: KPI 1, Permit Variation Applications



3.2.11 KPI 2 – the number of conditions applied by condition type; a breakdown of the number of conditions applied by condition type for highway and utility permit applications is shown in Figure 5.

All Conditions	Highway	Utility	All
TOTAL	3,143	11,403	14,546
	22%	78%	

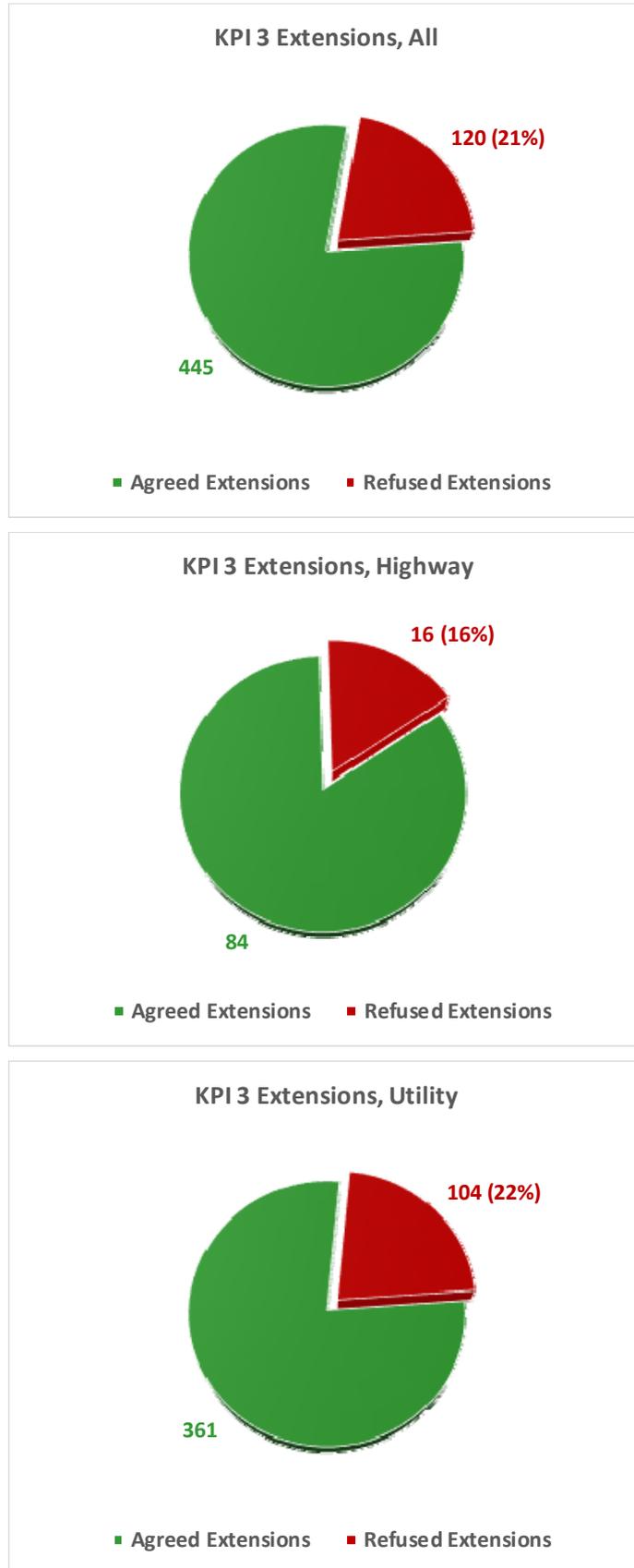


**Figure 5: KPI 2, Conditions Applied**

3.2.12 Approximately three quarters of the conditions applied relate to applications by utility works promoters. The remaining quarter apply to highway authority applications.

3.2.13 This is relatively consistent with years 1 and 2, where two thirds of conditions were applied to utility permit applications. The number of condition applied to highway authority permits is broadly consistent with year 2.

3.2.14 KPI 3 – number of approved extensions; the following figures show the number of extensions granted and refused, for all promoters, and separately for highway authority applications and for statutory undertakers.



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

3.2.15 all 142 27%, ha 9 12% & pu 133 30%



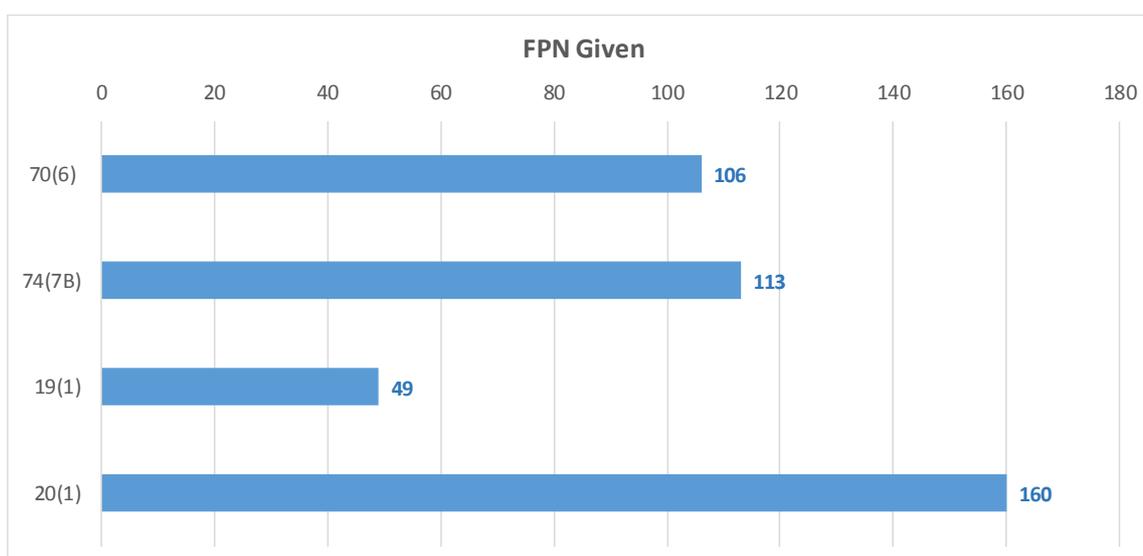
- 3.2.16 The overall statistics are lower than the year 2 data, with 21% of all extension requests refused, compared with 27% in year 2.
- 3.2.17 The refusal rate for utility extension requests is down from 30% in year 2 to 22%. Highway authority extension request refusals are slightly higher at 16%, compared with 12% in year 2.
- 3.2.18 Sefton Permit Co-ordinators and Inspectors continue to work closely with each other. They are fully aware of the works that are being undertaken on-site and therefore only grant permit variations (extensions) where they feel that they are appropriate. This helps to reduce occupation of the highway.
- 3.2.19 KPI 7 - the Number of Inspections carried out to monitor conditions. During year 3, the number of inspections carried out to monitor conditions reduced from 322 in year 2 to 229.
- 3.2.20 From these inspections 124 passed and 105 were found to be non-compliant, see Table 9 below. The failure rate has increased from 40% to 46%.

**Table 9 Number of inspections carried out to monitor conditions**

	Passed	Non-Compliant	Number of Inspections	Fail %
<b>TOTAL NUMBER OF INSPECTIONS</b>	<b>124</b>	<b>105</b>	<b>229</b>	<b>46%</b>

- 3.2.21 Consequently, 209 fixed penalty notices (FPN) have been given for breaches of permit conditions or working without a permit. This is a slight reduction over the 232 FPN, relating to permit conditions, given in year 2.

	FPN Given				Total	Permits	
	70(6)	74(7B)	19(1)	20(1)		Granted	%
TOTAL	106	113	49	160	428	7,984	5%



**Figure 7: Fixed Penalty Notices Given**



- 3.2.22 The FPN figures for 70 (6) and 74 (7B) are consistent with that from previous years. Offence codes 19(1) and 20 (1) are new offences relating specifically to permit schemes. It is the Council's intention to monitor these more closely throughout year 2 with a view to working with works promoters to identify and resolve potential issues.

*Year 3 Recommendation 03: FPN rate down to 209 from 232 in year 2 and 314 in year 1 (working without a permit or breach of conditions). Monitor site inspection failures and FPN given for breach of permit conditions in year 4 to determine whether this reduction is result of improved working practices or a result of the reduction in the number of inspections.*

### 3.3 Conclusions

- 3.3.1 **KPI 1**, the number of Permit and Permit Variation applications received and a breakdown of the number granted and refused; Approximately one in eight of permit and permit variation applications by statutory undertakers were refused. 9% of all applications are refused; down from 11% in year 2. The refusal rate for applications by the highway authority was unchanged from year 2 at 6%.
- 3.3.2 It should be noted that the refusal data for KPI 1 includes Permit Modification requests for which the majority would have subsequently been granted. A high proportion of the modifications which have been requested are only applicable to utility works. This makes the KPI figures reported by Mayrise slightly misleading.
- 3.3.3 **KPI 2**, the number of conditions applied by condition type; approximately three quarters of the conditions applied relate to applications by utility promoters. The remaining quarter apply to highway authority applications. This is relatively consistent with years 1 and 2, where two thirds of conditions were applied to utility permit applications. The number of conditions applied to highway authority permits is broadly consistent with year 2.
- 3.3.4 **KPI 3**, the number of approved Permit variations (extensions); the overall statistics are lower than the year 2 data, with 21% of all extension requests refused, compared with 27% in year 2.
- 3.3.5 The refusal rate for utility extension requests is down from 30% in year 2 to 22%. Highway authority extension request refusals are slightly higher at 16%, compared with 12% in year 2.
- 3.3.6 Sefton Permit Co-ordinators and Inspectors continue to work closely with each other. They are fully aware of the works that are being undertaken on-site and therefore only grant permit variations (extensions) where they feel that they are appropriate. This helps to reduce occupation of the highway.
- 3.3.7 **KPI 7**, the number of inspections carried out to monitor conditions; during year 3, the number of inspections carried out to monitor conditions reduced from 322 in year 2 to 229.
- 3.3.8 From these inspections 124 passed and 105 were found to be non-compliant, see Table 9 below. The failure rate has increased from 40% to 46%.



## 4 CONCLUSIONS

### 4.1 Summary

- 4.1.1 The Sefton Metropolitan Borough Council (SMBC) Permit Scheme went live on 2<sup>nd</sup> February 2015.
- 4.1.2 The operation of the first year of operation was evaluated and reported in the '*Sefton Council 12 Month review, 2015-16*'.
- 4.1.3 Following the third anniversary of the Permit Scheme on 2<sup>nd</sup> February 2018, GK-TC has been commissioned to undertake a detailed review of the operation during year 3 and to determine whether benefits achieved in years 1 and 2 have been maintained.
- 4.1.4 The purpose of the annual review is;
- 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.

### 4.2 Scheme benefits

- 4.2.1 Overall the number of permit applications has reduced by 9% compared with year 1 and 14% compared with year 2.
- 4.2.2 There is a further reduction in the number of highway works permitted (a 16% reduction from year 2 and a 21% reduction from year 1). There is a 12% reduction in the number of utility works compared with year 2, but the number of utility promoter permits granted has increased by 4% compared with year 1.
- 4.2.3 Virgin Media and Cadent Gas Limited show 67% and 44% increases over the number of year 1 permits, but only small changes compared with year 2. These increases are offset by a 17% reduction in the number of United Utilities Water permits.
- 4.2.4 Other than the large reduction in United Utilities works in year 3, the number of permit applications by the other utility works promoters is broadly similar to the year 2 records.
- 4.2.5 The overall reduction in average duration following the introduction of the Permit Scheme is maintained at 2.5 days; reducing from 3.3 days under Noticing. This is a 25% reduction in average works duration. The reduction constitutes 27,657 fewer days worked compared with the situation under Noticing, an overall 42% reduction in working days.
- 4.2.6 The CBA business case calculated the cost per day for each traffic management type on each street type. The financial benefit to road users of the Permit Scheme in year 3 is calculated at **£4.4M per annum**. This saving equates to approximately 25% of the overall cost of works calculated in the CBA (£18.25M per annum total cost to road users).



- 4.2.7 The 42% reduction in number of days worked is substantially higher than the 5% benefit specified in the DfT guidelines for the business case justification for a move to Permit Schemes.

### 4.3 Recommendations

- 4.3.1 The three recommendations made following the year 2 review remain valid and have been retained for consideration during the year 4;

*Year 3 Recommendation 01: Continue to monitor traffic management types and confirm if an apparent move from give and take to some or no carriageway incursion is appropriate.*

*Year 3 Recommendation 02: Continue to monitor utility works durations on Immediate works in year 3, to identify if durations can be challenged to further improve benefits from the Scheme.*

*Year 3 Recommendation 03: FPN rate down to 209 from 232 in year 2 and 314 in year 1 (working without a permit or breach of conditions). Monitor site inspection failures and FPN given for breach of permit conditions in year 4 to determine whether this reduction is result of improved working practices or a result of the reduction in the number of inspections.*

### 4.4 Conclusions

- 4.4.1 Monitoring the key performance indicators and evidence gained from the first year of operation demonstrates that the Permit Scheme;

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

- 4.4.2 This review has demonstrated that Scheme has continued to achieve its stated objectives in year 3, as defined in the application documents.

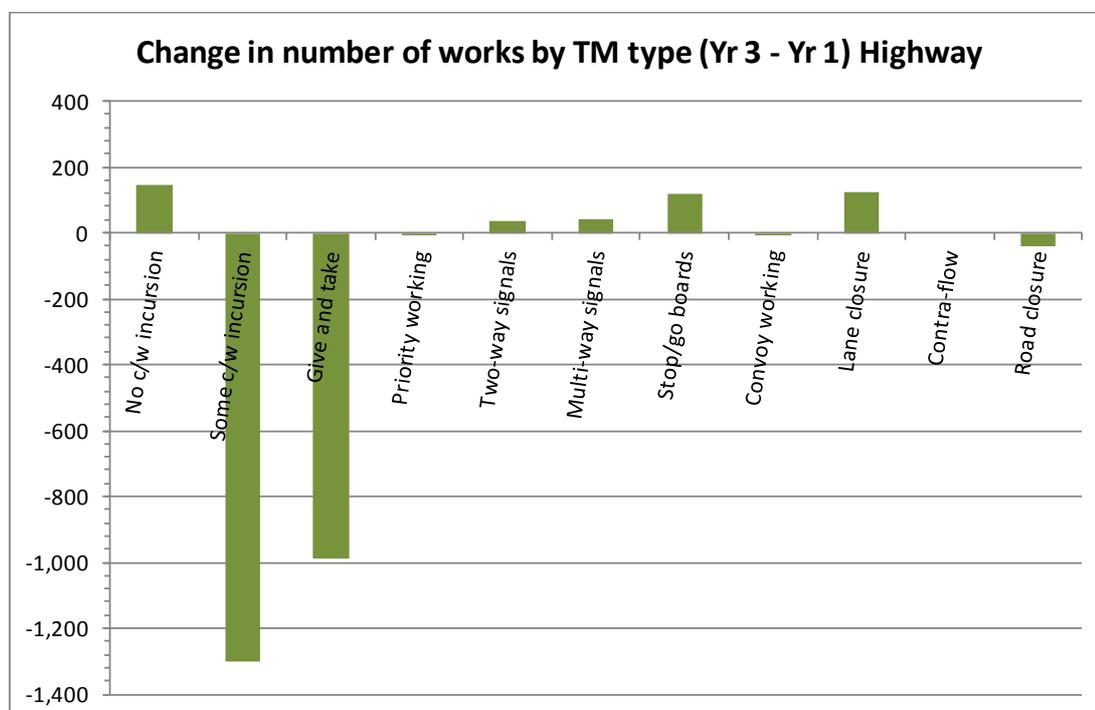
## A. YEAR 3 DETAILED ANALYSIS

### A.1 Highway authority works

The number of highway authority applications by traffic management type is shown in Table A.1.

**Table A.1 Number of applications by traffic management type**

TRAFFIC MANAGEMENT TYPE	Year 1 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
No c/w incursion	127	396	272	145
Some c/w incursion	7,189	7,327	5,888	-1,301
Give and take	1,068	52	78	-990
Priority working	2	1		-2
Two-way signals	173	198	207	34
Multi-way signals	75	78	117	42
Stop/go boards	40	169	161	121
Convoy working	1	1		-1
Lane closure	109	164	235	126
Contra-flow				
Road closure	186	72	145	-41
Blank				
<b>Total</b>	<b>8,970</b>	<b>8,458</b>	<b>7,103</b>	<b>-1,867</b>



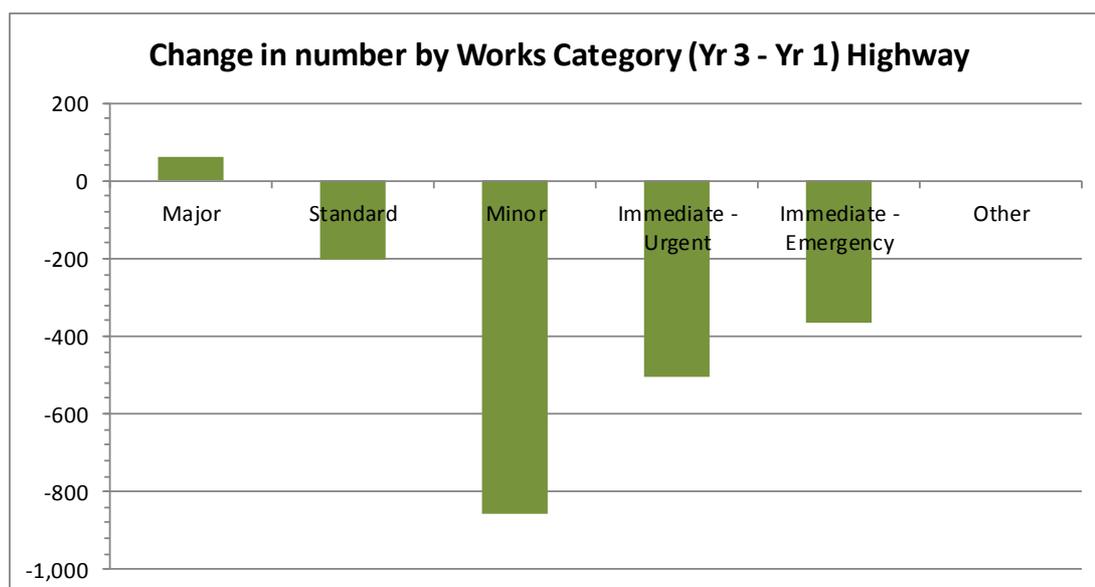
The biggest change is a reduction in the number of works operating under some carriageway incursion and give & take traffic management. This is primarily a result of the 857 reduction in the number of Minor works compared with the Year 1 data.

The traffic management numbers are generally consistent with the Year 2 records.

The number of works requiring a road closure has increased compared with year 2, back towards the Year 1 level (an increase of 73 compared with year 2).

**Table A.2 Applications by works category**

WORKS STOPPED	Year 1 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
Major	32	49	96	64
Standard	525	494	322	-203
Minor	7,393	7,033	6,536	-857
Immediate - Urgent	646	612	140	-506
Immediate - Emergency	374	270	9	-365
Other				
<b>Total</b>	<b>8,970</b>	<b>8,458</b>	<b>7,103</b>	<b>-1,867</b>



The overall reduction in number of highway works accounts for the large reduction in all works category types, other than Major works.

Major works show a small, but significant increase compared with years 1 and 2.

**Table A.3 Average works duration**

DURATION	Year 1 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
Average duration (days)	1.8	1.7	1.8	
<b>Total number of days worked</b>	<b>16,576</b>	<b>14,512</b>	<b>12,456</b>	<b>-4,120</b>

Highway authority works average duration is very consistent year on year since the start of the Permit Scheme. The reduction in number of days worked matches the trend towards an overall reduction in highway works.

**Table A.4 Analysis, average duration by works category****Year 3, 2017-18, Duration by works category**

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
5.5	7.6	1.4	1.1	1.3
<b>529</b>	<b>2,448</b>	<b>9,317</b>	<b>150</b>	<b>12</b>

**Year 2, 2016-17, Duration by works category**

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
14.2	5.4	1.4	1.7	1.6
<b>695</b>	<b>2,673</b>	<b>9,663</b>	<b>1,059</b>	<b>422</b>

**Difference, Year 3 - Year 2**

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
-8.7	2.2		-0.6	-0.3
<b>-166</b>	<b>-225</b>	<b>-346</b>	<b>-909</b>	<b>-410</b>

Highway authority average durations are within the range expected for each works category.

Year 3 durations are consistent or have reduced for Minor and Immediate works.

The Major works average duration has reduced significantly from 14.2 days to 5.5 days. Standard works duration has increased slightly from 5.4 days to 7.6 days.

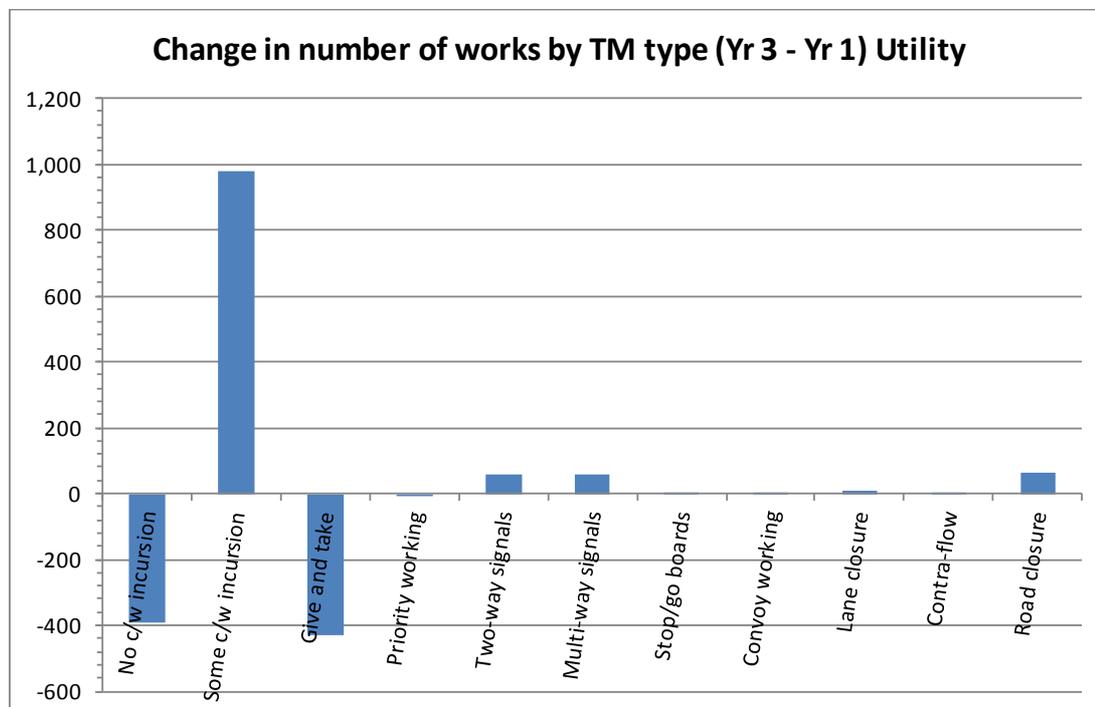
The increase in Major works suggests a larger number of works with duration less than 5 days. There may have been a corresponding reduction in the number of short duration Standard works last year.

## A.2 Utility works

Traffic management changes compared with the year 2 records are relatively small after accounting for the 1,100 drop in utility works.

**Table A.5 Number of applications by traffic management type**

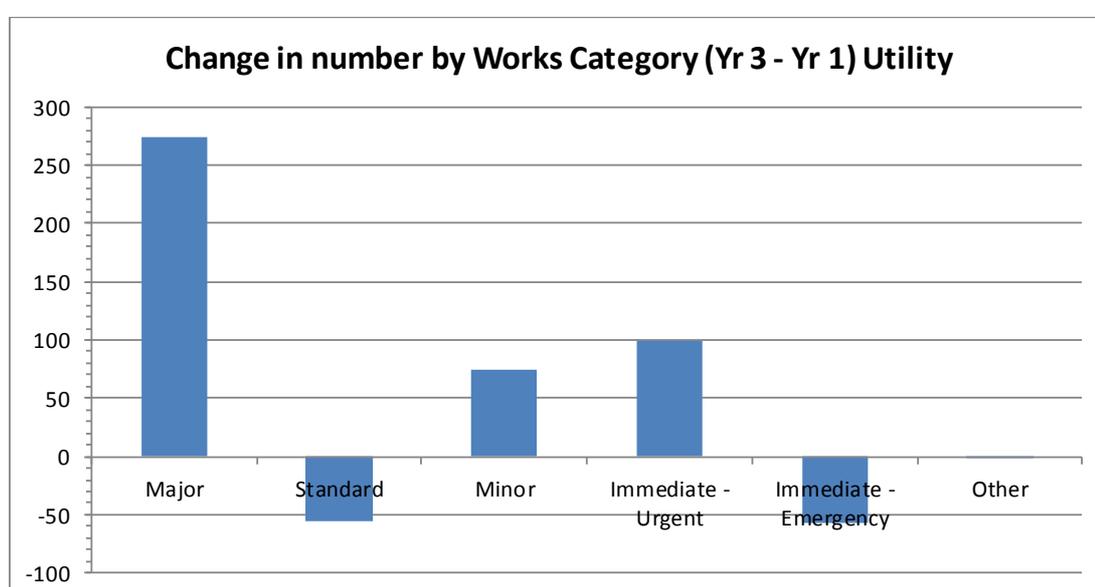
TRAFFIC MANAGEMENT TYPE	Year 1 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
No c/w incursion	2,590	2,624	2,196	-394
Some c/w incursion	2,944	4,634	3,922	978
Give and take	1,600	1,100	1,169	-431
Priority working	25	27	15	-10
Two-way signals	145	205	202	57
Multi-way signals	113	191	171	58
Stop/go boards	51	92	52	1
Convoy working			1	1
Lane closure	73	83	83	10
Contra-flow	1	7	3	2
Road closure	91	120	153	62
Blank				
<b>Total</b>	<b>7,633</b>	<b>9,083</b>	<b>7,967</b>	<b>334</b>



The change compared with year 1 are relatively small, other than a shift from no carriageway incursion and give & take control to some carriageway incursion, which has increased by almost 1,000 compared with year 1. The number of works operating under temporary signal control or road closures has increased but is consistent with the year 2 data.

**Table A.6 Applications by works category**

WORKS STOPPED	Year 1 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
Major	200	354	474	274
Standard	513	528	458	-55
Minor	4,542	5,536	4,616	74
Immediate - Urgent	1,921	2,130	2,021	100
Immediate - Emergency	455	535	398	-57
Other	2			-2
<b>Total</b>	<b>7,633</b>	<b>9,083</b>	<b>7,967</b>	<b>334</b>



There is a significant increase in the number of Major works over and above the year 2 increase; with a further 120 extra Major works on top of the 154 additional works in year 2). This is a 137% increase compared with year 1.

The small changes in the number of other works categories is within the range of year on year variation to be expected.

**Table A.7 Average works duration**

DURATION	Year 1 2015-16	Year 2 2016-17	Year 3 2017-18	Year 3 - Year 1
Average duration (days)	3.2	3.3	3.2	
<b>Total number of days worked</b>	<b>24,420</b>	<b>29,603</b>	<b>25,629</b>	<b>1,209</b>

The average duration of utility works has been consistent throughout the first 3 years of the Permit Scheme. The increase in total number of days worked

compared with year 1 (5% increase) is consistent with the 4.4% increase in number of works recorded.

**Table A.8 Analysis, average duration by works category**

**Year 3, 2017-18, Duration by works category**

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
11.8	6.1	1.9	3.1	5.8
<b>5,615</b>	<b>2,780</b>	<b>8,616</b>	<b>6,306</b>	<b>2,307</b>

**Year 2, 2016-17, Duration by works category**

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
15.7	6.0	1.9	3.5	5.0
<b>5,569</b>	<b>3,187</b>	<b>10,783</b>	<b>7,375</b>	<b>2,682</b>

**Difference, Year 3 - Year 2**

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
-3.9	0.1		-0.4	0.8
<b>46</b>	<b>-407</b>	<b>-2,167</b>	<b>-1,069</b>	<b>-375</b>

There are no significant changes in average duration for Standard, Minor and Immediate works categories. Major works show a 3.9 day reduction in average duration, which has offset the 33% increase in number of Major works.

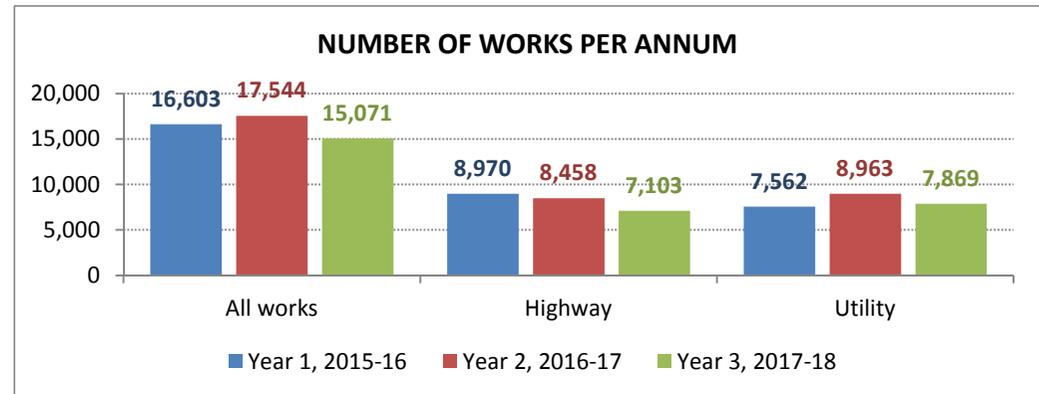
**B. SCHEME BENEFIT SUMMARY**

**B.1 Year on year comparison**

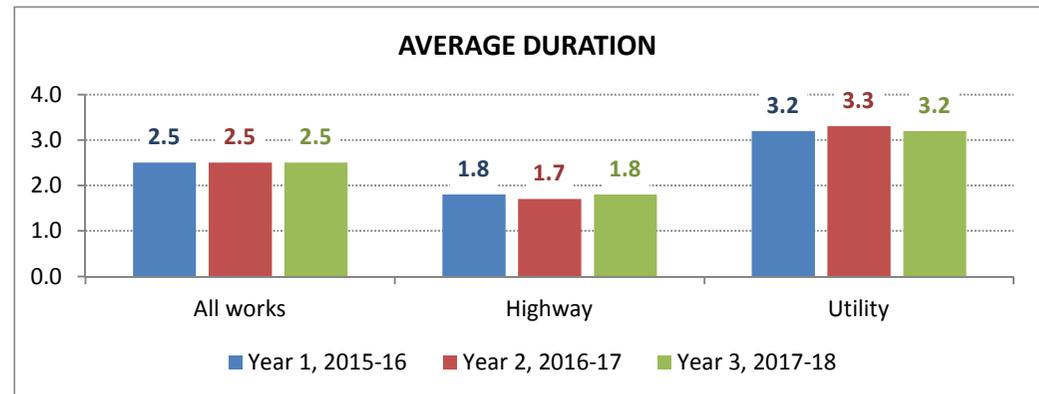
A comparison of the number of works, average duration of works and total number of days worked during the first three years of the Permit Scheme is shown on the following page.

## SCHEME BENEFITS

NUMBER OF WORKS (number)			
	All works	Highway	Utility
Year 1, 2015-16	16,603	8,970	7,562
Year 2, 2016-17	17,544	8,458	8,963
Year 3, 2017-18	15,071	7,103	7,869
Change, Year 3 - Year 1	-1,532	-1,867	307
Change (%)	-8.7%	-22.1%	3.4%



DURATION (days)			
	All works	Highway	Utility
Year 1, 2015-16	2.5	1.8	3.2
Year 2, 2016-17	2.5	1.7	3.3
Year 3, 2017-18	2.5	1.8	3.2
Change (days)	0.0	0.0	0.0



DAYS WORKED (days)			
	All works	Highway	Utility
Year 1, 2015-16	40,996	16,576	24,420
Year 2, 2016-17	44,115	14,512	29,603
Year 3, 2017-18	38,085	12,456	25,629
Change, Year 3 - Year 1	-2,911	-4,120	1,209
Change (%)	-7.1%	-24.9%	5.0%

