



# The Lancashire Permit Scheme for Road & Street Activities

Year 7 Review, 2021-22

<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	BACKGROUND.....	1
1.2	ANNUAL REVIEWS .....	1
1.3	YEAR 7 INTERIM REVIEW .....	1
<b>2</b>	<b>SCHEME OBJECTIVES.....</b>	<b>3</b>
2.1	KEY OBJECTIVES.....	3
<b>3</b>	<b>PERMIT APPLICATIONS .....</b>	<b>5</b>
3.1	METHODOLOGY .....	5
3.2	ALL WORKS .....	5
3.3	SCHEME BENEFIT.....	12
<b>4</b>	<b>KPI MONITORING.....</b>	<b>14</b>
4.1	INTRODUCTION .....	14
4.2	KPI REVIEW.....	14
<b>5</b>	<b>STAFFING &amp; RESOURCE .....</b>	<b>19</b>
5.1	SUMMARY .....	19
5.2	STAFF RESOURCE.....	19
5.3	OPERATING COST .....	20
5.4	FEE INCOME.....	20
<b>6</b>	<b>CONCLUSIONS.....</b>	<b>22</b>
6.1	SUMMARY .....	22
6.2	SCHEME BENEFITS.....	22
6.3	RECOMMENDATIONS .....	22
6.4	CONCLUSIONS.....	23
<b>APPENDIX A.</b>	<b>YEAR 7 DETAILED ANALYSIS .....</b>	<b>24</b>
<b>APPENDIX B.</b>	<b>PROMOTER DURATION ANALYSIS.....</b>	<b>28</b>
<b>APPENDIX C.</b>	<b>SCHEME BENEFIT SUMMARY .....</b>	<b>34</b>

## 1 INTRODUCTION

### 1.1 Background

- 1.1.1 The Lancashire County Council (LCC) Permit Scheme went live on 2<sup>nd</sup> March 2015.
- 1.1.2 The operation of the first year of the Scheme was evaluated and reported in the '*Lancashire County 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 not significant at 3%; but combined with a significant reduction in average works durations, resulted in an overall 17% reduction in number of days worked on the road network. This equated to nearly 28,000 fewer days worked on the network in the first year.
- 1.1.5 The financial benefit to road users of the Permit Scheme in Year 1 is calculated at **£16.4M per annum**. This saving equated to approximately 23% of the overall cost of works calculated in the CBA (£72.0M per annum total cost to road users).

### 1.2 Annual Reviews

- 1.2.1 The Council has commissioned a full review of the scheme at the end of each year since, with the following reports available:
- '*The Lancashire Permit Scheme for Road & Street Activities, Year 2 Review 2016-17*'
  - '*The Lancashire Permit Scheme for Road & Street Activities, Year 3 Review 2017-18*'
  - '*The Lancashire Permit Scheme for Road & Street Activities, Year 4 Review 2018-19*'
  - '*The Lancashire Permit Scheme for Road & Street Activities, Year 5 Review 2019-20*'
  - '*The Lancashire Permit Scheme for Road & Street Activities, Year 6 Review 2020-21*'
- 1.2.2 The financial benefit to road users of the Permit Scheme in years 2 to 6 was calculated at between **£10.6M and £24M per annum**; from a saving of 18,000 to 40,534 days compared with the Noticing baseline. Overall, the benefits have been maintained at or above the level achieved in Year 1 over the last 5 years.

### 1.3 Year 7 Interim Review

- 1.3.1 The permit scheme regulations require the production of a full review of the scheme benefits, parity of operation and fee income every year for the first three years. Thereafter, a full review is required every third year. To date the Council has commissioned a review at the end of every year since the scheme went live, with the performance reported annually.

- 1.3.2 This report presents an interim review of the operation at the end of Year 7, covering the period March 2021 to February 2022. A full review of scheme operation and costs will be presented at the end of Year 9.
- 1.3.3 Chapter 2 presents the key objectives stated in the permit scheme document. The analysis of the permit applications and network occupancy is presented in Chapter 3. A review of the key performance indicators (KPI and TPI) is reported in Chapter 4.
- 1.3.4 A review of staff resource required to process the actual number of permit applications granted in Year 7 is reported in Chapter 5 together with a comparison of the calculated operating costs and fee income. Chapter 6 presents the report summary, conclusions and recommended actions to consider during the current year.

## **2 SCHEME OBJECTIVES**

### **2.1 Key objectives**

2.1.1 The objectives as set out in the 'The Lancashire Permit Scheme for Road & Street Activities' scheme document are:

1. Reduce occupation of the highway to benefit all road users.
2. Obtain greater control of all activities on the public highway.
3. Minimise/avoid/manage delays to all road users.
4. Enhance co-ordination of all activities on the highway.
5. Achieve an improvement in air quality.
6. Enhance safety of all road users at road and street activities.
7. Reduce potential incidents/accidents at road activities.
8. Improve public perception of managing road activities.
9. Enhance reliability of journey times.
10. Enhance journey experience.
11. Reduce long-term damage to the highway asset.
12. Encourage collaborative activities between all activity promoters.
13. Enhance reliability of activities taking place at a particular time, especially on the strategic road network.
14. Promote best practices across the North West.
15. Promote common activity practices across the region to ensure ease of operation for activity promoters.
16. Enhanced cross-boundary co-operation.
17. Demonstrate parity for all activity promoters.
18. Reduce instances of customer complaints regarding road and street activities.
19. 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:

- Reduce occupation of the highway to benefit all road users.
- Minimise/avoid/manage delays to all road users by reducing occupation of the highway and ensuring the most appropriate traffic management is used.
- Encourage collaborative activities between all activity promoters.
- Demonstrate parity for all activity promoters.

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

- Improve safety for all road users by driving down non-compliance during inspections and FPN rates for signing and lighting failures, for example.
- Reduce the impact of noise on residents by having greater control of timing of activities.
- Enhance reliability of journey times.
- Enhance reliability of activities taking place at a particular time, especially on the strategic road network.

### 3 PERMIT APPLICATIONS

#### 3.1 Methodology

3.1.1 Data sources available for the Year 7 review are:

- Permit Scheme work stops notices, February 2021 - February 2022 (Symology system).
- Key Performance Indicator reports February 2021 – February 2022 (Symology system).
- TPI reports; days of occupancy, average duration of works, overrun days, FPN given.

3.1.2 This review will assess 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.

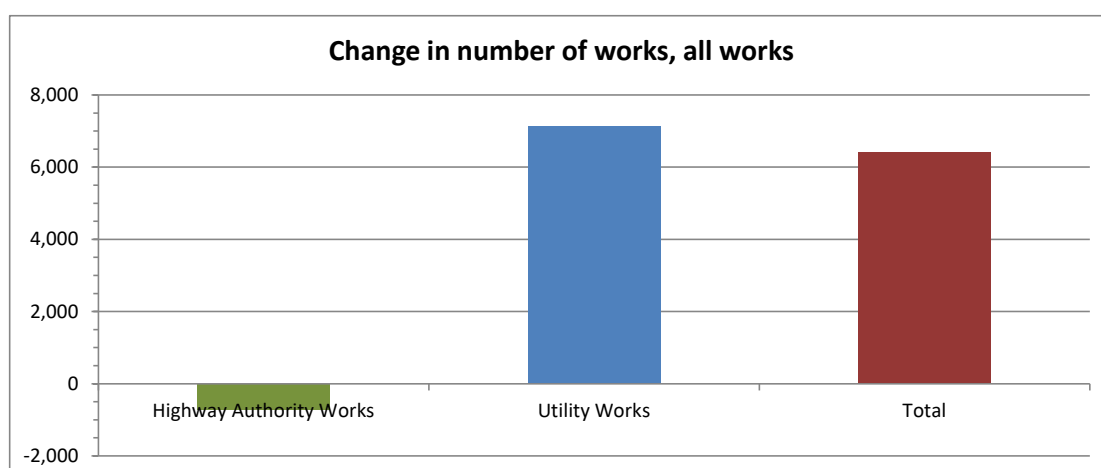
#### 3.2 All works

3.2.1 The following series of charts and tables present a comparison of the Year 7 performance against the previous year - Year 6 - and the first year of operation.

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 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Highway Authority Works	2,116	1,684	974	-710
Utility Works	26,176	26,913	34,045	7,132
<b>Total</b>	<b>28,292</b>	<b>28,597</b>	<b>35,019</b>	<b>6,422</b>



3.2.3 35,019 works were completed during Year 7, an increase of over 20% compared with previous years. Prior to Year 7, the maximum number of works completed in a single year was 30,355.

3.2.4 Utility works increased by 26% in Year 7 compared with the previous year. Conversely, Year 7 saw a further reduction in highway works, with fewer than 1,000 work recorded as complete.

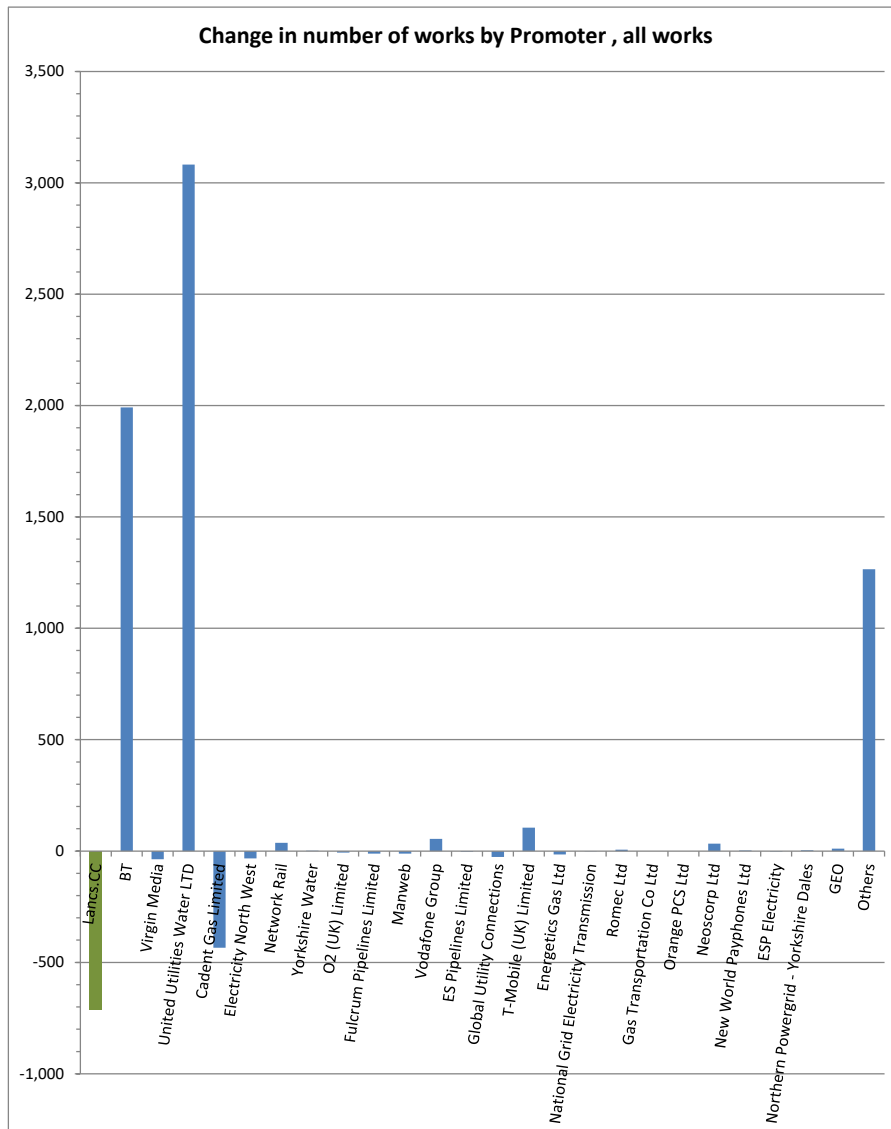
***Recommendation Yr 07 – 01: Review highway works to identify if all works requiring a permit are recorded correctly in the system.***

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 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Lancs.CC	2,116	1,684	974	-710
BT	6,482	7,125	9,117	1,992
Virgin Media	2,518	2,716	2,679	-37
United Utilities Water LTD	9,662	9,743	12,825	3,082
Cadent Gas Limited	3,396	3,339	2,905	-434
Electricity North West	3,240	2,879	2,846	-33
Network Rail	152	179	216	37
Yorkshire Water	94	140	141	1
O2 (UK) Limited	10	9	2	-7
Fulcrum Pipelines Limited	57	35	23	-12
Manweb	45	54	42	-12
Vodafone Group	193	32	87	55
ES Pipelines Limited	51	30	27	-3
Global Utility Connections	47	76	49	-27
T-Mobile (UK) Limited	42	97	202	105
Energetics Gas Ltd	28	21	6	-15
National Grid Electricity Transmission	1	5	4	-1
Romec Ltd	9	9	15	6
Gas Transportation Co Ltd	26	27	27	
Orange PCS Ltd	5			
Neoscorp Ltd	2	12	45	33
New World Payphones Ltd	7	2	4	2
ESP Electricity	8	13	11	-2
Northern Powergrid - Yorkshire Dales	101	82	85	3
GEO		36	47	11
Others		252	1,517	1,265
<b>Total</b>	<b>28,292</b>	<b>28,597</b>	<b>33,896</b>	<b>5,299</b>





- 3.2.6 The data shows a further large increase in the number of BT works completed – a 28% increase amounting to almost 2,000 additional works.
- 3.2.7 The number of works completed by United Utilities Water Ltd also increased by over 3,000 or 32%.
- 3.2.8 Year 7 also saw a large increase in the number of works completed by telecoms works promoters; increasing from 10,199 in Year 6 to 13,557 or a 36% increase.

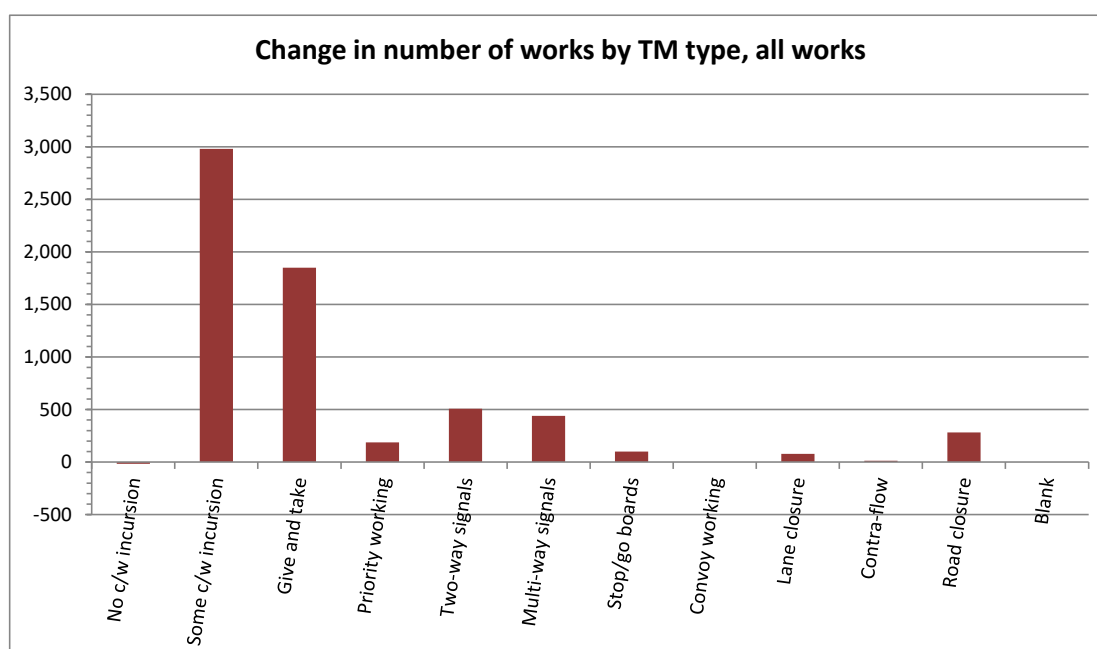
**Table 2b Number of by telecoms work promoters**

TELECOMMS. PROMOTERS	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
<b>Number of works completed</b>	<b>9,306</b>	<b>10,199</b>	<b>13,557</b>	<b>3,358</b>

- 3.2.9 The increase in works completed by BT accounted for a large proportion of these, however, Year 7 also saw a large increase in the number of works completed by Cityfibre and IX Wireless Ltd.
- 3.2.10 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 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
No c/w incursion	6,784	2,444	2,427	-17
Some c/w incursion	8,836	13,723	16,704	2,981
Give and take	5,441	4,637	6,488	1,851
Priority working	334	123	310	187
Two-way signals	3,111	3,018	3,526	508
Multi-way signals	1,045	2,412	2,851	439
Stop/go boards	730	339	438	99
Convoy working	12	1	1	
Lane closure	268	338	417	79
Contra-flow	7	5	17	12
Road closure	1,499	1,557	1,840	283
Blank	225			
<b>Total</b>	<b>28,292</b>	<b>28,597</b>	<b>35,019</b>	<b>6,422</b>



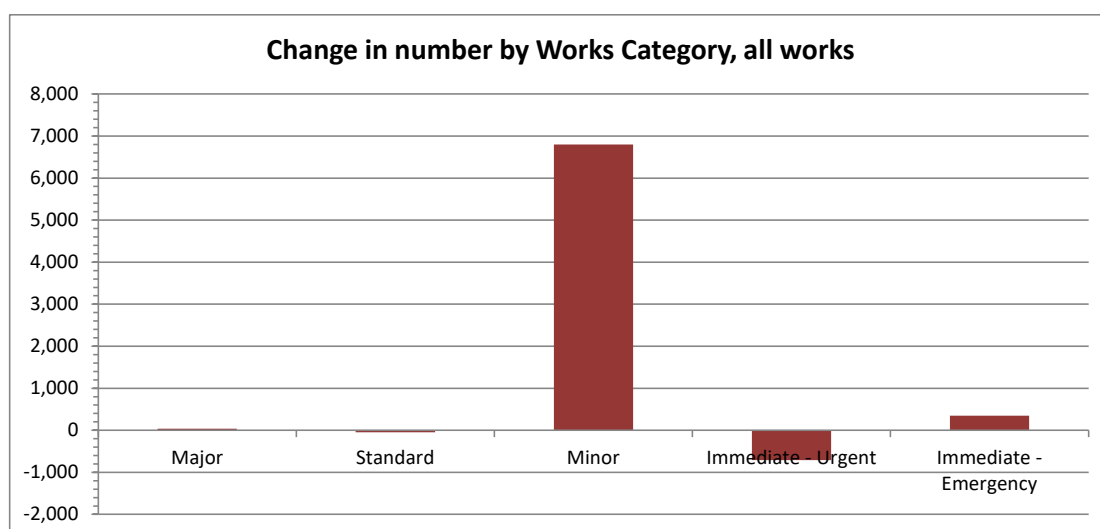
3.2.11 Year 7 sees most categories increase by 20% to 30%, with the highest proportionate increase for works operating with some carriageway incursion and give & take traffic management.

3.2.12 The number of works operating with multi-way traffic signals has steadily increased year-on-year, from just over 1,000 in Year 1 to almost 3,000 in Year 7.

3.2.13 The total number of completed works permits by works category is shown in Table 4 and the accompanying chart.

**Table 4 Applications by works category**

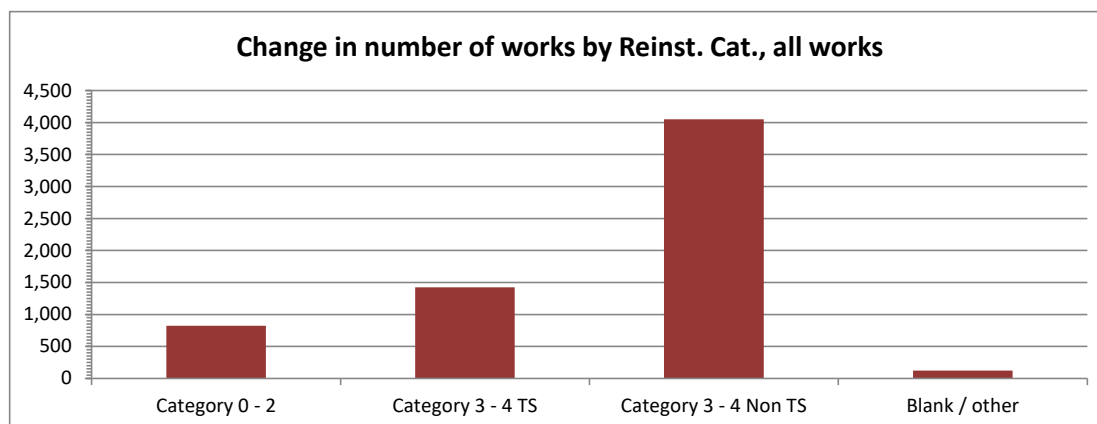
WORKS STOPPED	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Major	1,595	1,568	1,604	36
Standard	3,340	3,441	3,391	-50
Minor	13,433	12,313	19,112	6,799
Immediate - Urgent	8,127	10,066	9,357	-709
Immediate - Emergency	1,572	1,209	1,555	346
Intention to Issue Licence	225			
<b>Total</b>	<b>28,292</b>	<b>28,597</b>	<b>35,019</b>	<b>6,422</b>



- 3.2.14 Following an increase in the number of Immediate – Urgent works between years 4 and 6, with similar reductions in the number of Minor works, Year 7 has seen an increase in the proportion of Minor works completed.
- 3.2.15 The majority of the increase in the number of works last year are accounted for by an additional 6,799 Minor works compared with the previous year. United Utilities accounted for almost half of this increase with the number of Minor works increasing from 3,102 in Year 6 to 6,334 in Year 7.
- 3.2.16 There are no significant changes in the number of works completed for other categories.
- 3.2.17 The total number of works completed 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 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Category 0 - 2	6,464	6,453	7,277	824
Category 3 - 4 TS	5,338	5,006	6,432	1,426
Category 3 - 4 Non TS	15,942	16,677	20,727	4,050
Blank / other	548	461	583	122
<b>All works</b>	<b>28,292</b>	<b>28,597</b>	<b>35,019</b>	<b>6,422</b>



3.2.18 The spread of works completed across the three road category groups has been broadly consistent year on year. The increase in works in Year 7 is generally spread proportionately across each category.

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

**Table 6 Average works duration**

DURATION	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Average duration (days)	4.7	4.2	3.5	-0.7
<b>Total number of days worked</b>	<b>133,791</b>	<b>121,053</b>	<b>123,023</b>	<b>1,970</b>

3.2.20 The occupancy of the network (total number of days worked) has only increased by less than 2% despite a 22% increase in the number of works completed in Year 7. This is a result of a large reduction in the average duration of works, reducing from 4.2 days in Year 6 to 3.5 days in Year 7.

3.2.21 The average duration of highway works continues to fall year on year, from 12.8 days in Year 1 to 7.5 days last year. This is in part due to a reduction in the number of longer duration Major and Standard works completed. The number of days worked on highway schemes is at its lowest level since Noticing.

3.2.22 Following a slight increase in the average duration of utility works in years 5 and 6, Year 7 saw the lowest average recorded at 3.4 days. This is in part due to the increase in the number of short duration Minor works recorded.

3.2.23 Following a recommendation in the Year 6 review to monitor the proposed duration of Major works undertaken by utility works promoters (Recommendation Yr 06-02), Year 7

recorded a large reduction in the average duration of Major works from 17.5 days to 12.4 days – contributing to over 5,000 fewer days worked on Major projects in the last year.

3.2.24 The other utilities' works categories show only small fluctuations in average duration (see Table 7).

**Table 7 Utility works duration by works category**

**Year 7, 2021-22, Duration by works category**

AJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
12.4	6.5	2.0	3.7	4.3
<b>16,917</b>	<b>20,593</b>	<b>37,971</b>	<b>33,792</b>	<b>6,438</b>

**Year 6, 2020-21, Duration by works category**

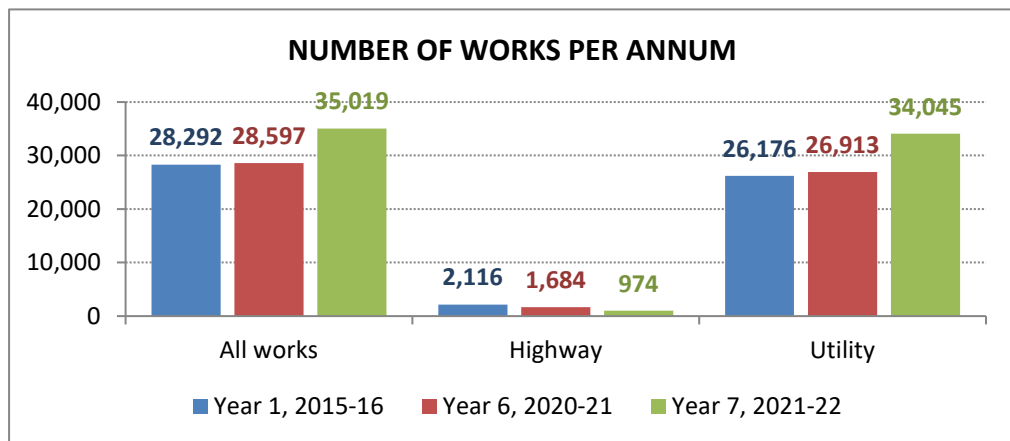
AJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
17.5	6.7	1.9	3.7	5.5
<b>22,146</b>	<b>18,277</b>	<b>22,277</b>	<b>36,399</b>	<b>6,454</b>

**Difference, Year 6 - Year 5**

AJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
-5.1	-0.2	0.1		-1.2
<b>-5,229</b>	<b>2,316</b>	<b>15,694</b>	<b>-2,607</b>	<b>-16</b>

### 3.3 Scheme Benefit

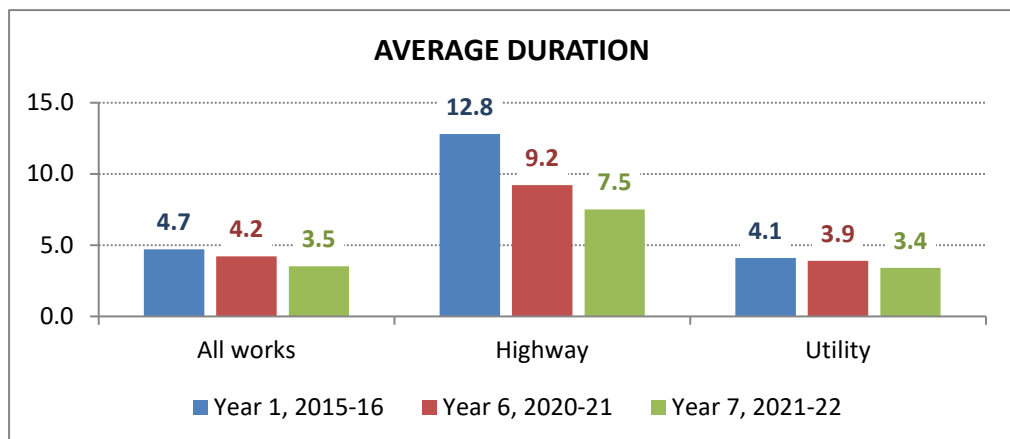
3.3.1 Figure 1 presents the number of works per annum in years 1, 6 and 7.



**Figure 1 Number of works per annum**

3.3.2 Figure 1 shows the large increase in the total number of works recorded in Year 7. The number of utility works completed has increased by at least 25% compared with all previous years. Prior to this, the number of utility works was generally consistent, with only small fluctuations between years evident.

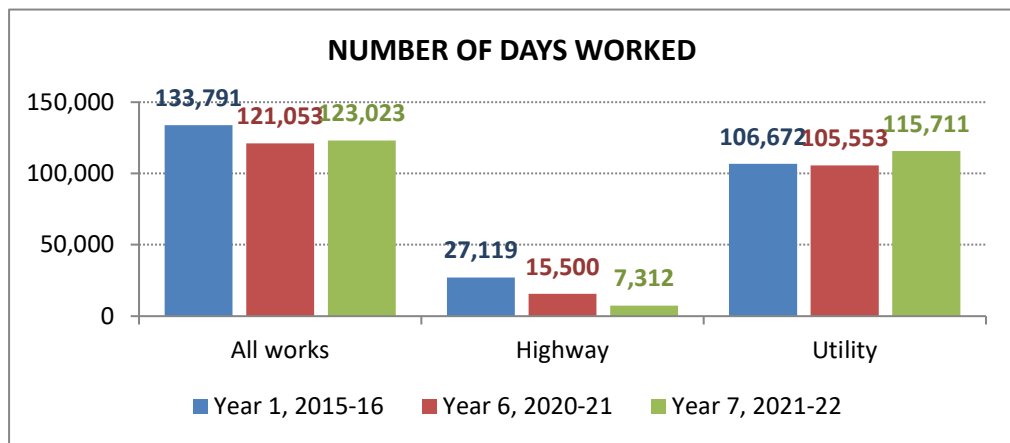
3.3.3 Figure 2 presents a comparison of the average duration of works.



**Figure 2 Average duration of works**

3.3.4 This figure demonstrates the steady downward fall in average duration for all promoters.

3.3.5 Figure 3 presents a comparison of the total number of days worked.



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

- 3.3.6 Whilst the total number of days worked has increased slightly from Year 6, this has to be considered in the context of the very large increase in the number of works completed during Year 7. A 22% increase in the number of all works saw a less than 2% increase in total occupancy.
- 3.3.7 The benefit of the scheme is assessed against the benchmark prior to the introduction of the Permit Scheme. Year 7 shows a 38,564 reduction in number of days worked compared with the Noticing baseline (123,023 days compared with 161,587 days).
- 3.3.8 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 days worked numbers is accounted for across all traffic management types, the financial benefit to road users of the Permit Scheme in Year 7 is calculated as:
- Average monetary cost of works per day, £592 (source: CBA report 2010 prices, average cost of impact for all works involving some form give & take traffic management)
  - Number of days saved under Permit Scheme, 38,564
  - **Monetary benefit to road users, £22.8M per annum**
- 3.3.9 This saving equates to approximately 32% of the overall cost of works calculated in the CBA (£72.0M per annum total cost to road users).
- 3.3.10 The 24% reduction in number of days worked since Noticing is substantially higher than the 5% benefit specified in the DfT guidelines for the business case justification for a move to Permit Schemes.
- 3.3.11 The £24M reported benefit in Year 6 was the highest achieved since the introduction of the scheme. Despite the 22% increase in the number of works completed in Year 7, the reported benefit is only marginally lower than the Year 6 peak.

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

4.2.2 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 and Variation applications received and refused**

<b>KPI 1: Permit &amp; Permit Variation Applications</b>	<b>Received</b>	<b>Granted</b>	<b>Refused</b>	<b>Deemed</b>	<b>% Refused</b>
Highway authority	1,636	1,570	53	13	3.2%
Utility	57,860	52,804	5,022	34	8.7%
ALL	59,496	54,374	5,075	47	8.5%

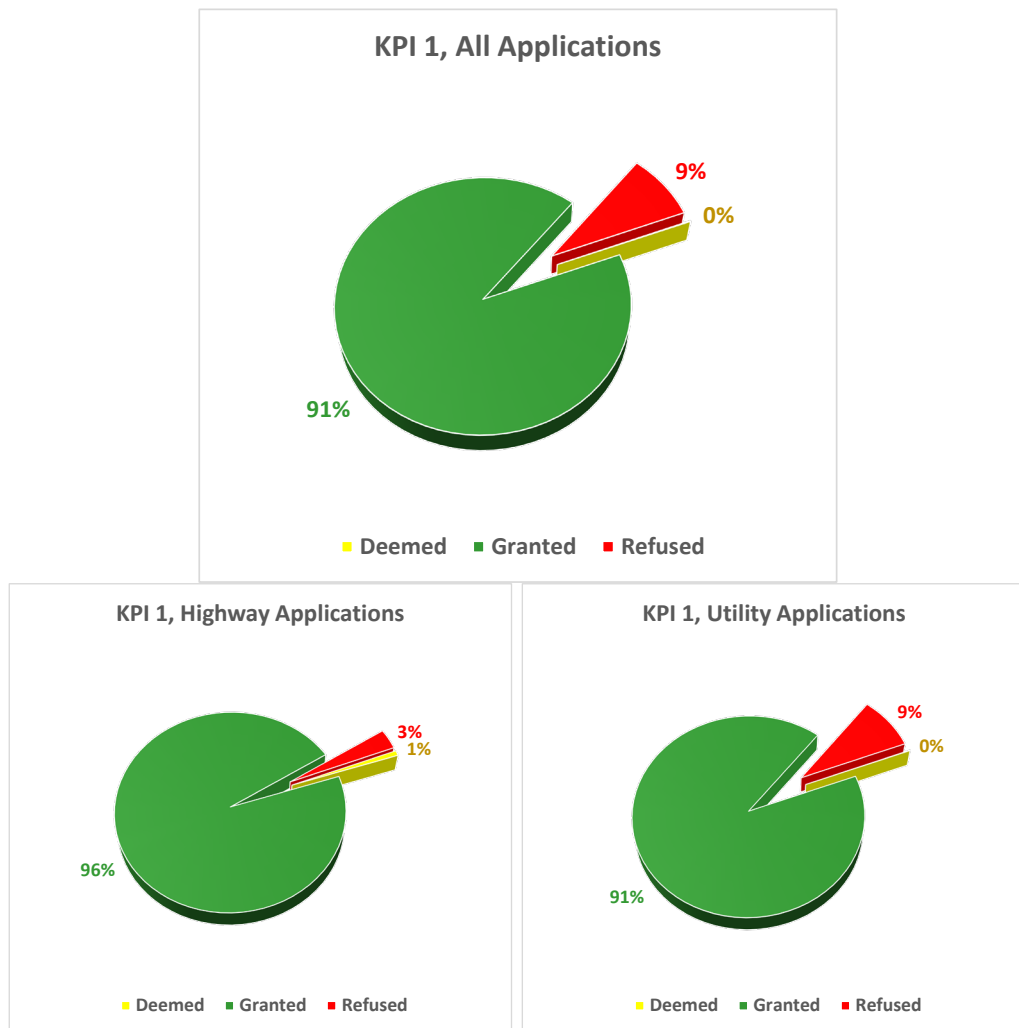
4.2.3 The refusal rate for permit applications has reduced again slightly compared with previous years.

4.2.4 While the number of utility applications refused has increased from 4,254 to 5,022, the refusal rate has reduced slightly 9.8% to 8.7%.

4.2.5 The refusal rate for highway authority applications has further reduced from a high of 14.3% in Year 4 to 3.2%. 53 of the 1,636 applications received were refused, compared with 167 of 2,620 applications received in Year 6.

4.2.6 47 applications were deemed during Year 7; 13 for highway promoter applications and 34 for utility promoters. This is fewer than 0.1% of all applications submitted.





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

4.2.7 Approximately 12% of all permits granted were subsequently cancelled or never started in Year 7. The total number of permits cancelled and the split between highway and utility permits is very similar to previous years.

**Table 9 Permits granted but cancelled or never started**

PROMOTER	Permits Granted	Cancelled/Never Started	%
Highway authority	1,570	605	38.5%
Utility	52,804	5,861	11.1%
ALL	54,374	6,466	11.9%

4.2.8 The above permits have been included in the assessment of staff resource and cost to process as staff resource has been allocated to process and a permit fee charged following granting.

4.2.9 **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.

4.2.10 The KPI 2 condition report contained no data on conditions. This may be a result of the change to Street Manager and a change in how conditions are reported.

**Recommendation Yr 07 – 02: Investigate the Street Manager and Symology permit conditions report to identify the number of conditions associated with each permit granted.**

- 4.2.11 **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.

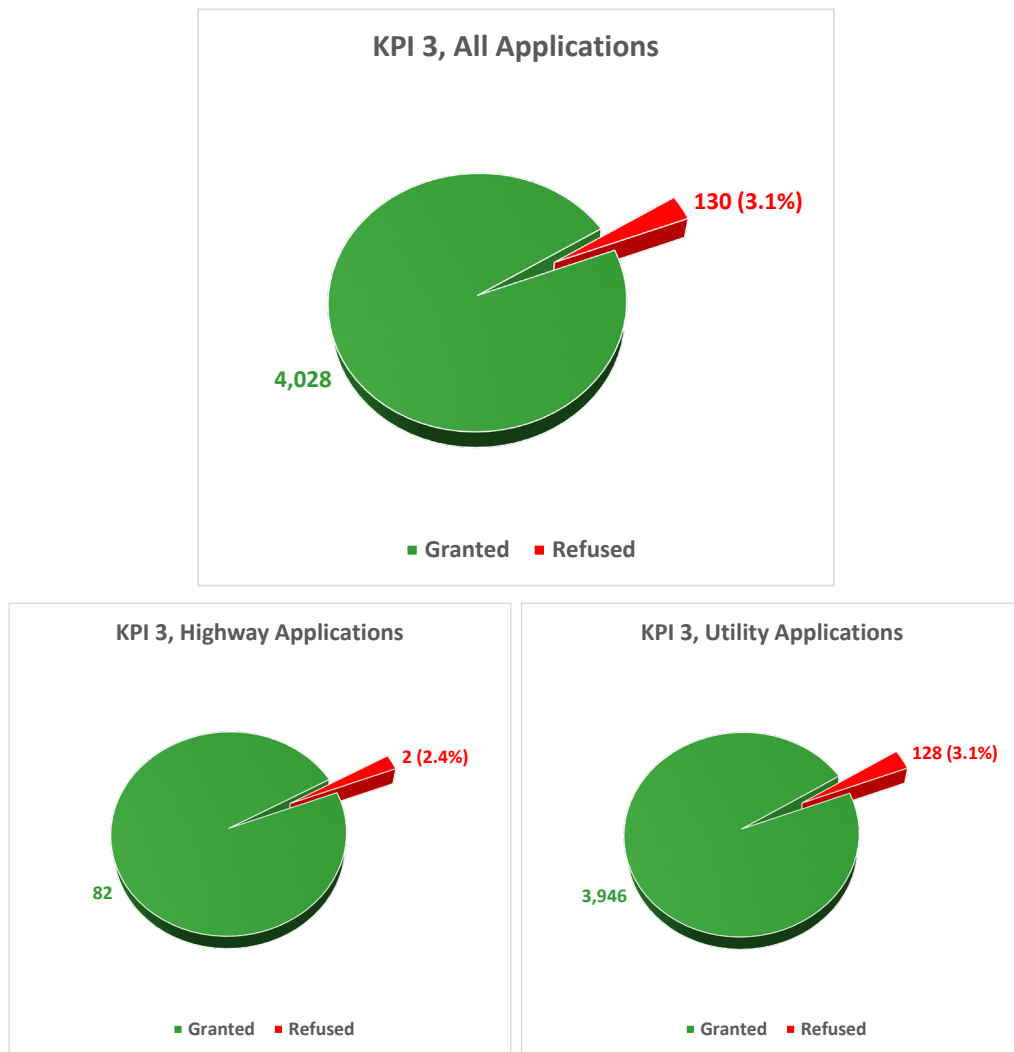
**Table 10 KPI 3, Number of approved extensions**

<b>KPI 3: Duration Extension Requests</b>	<b>Received</b>	<b>Refused</b>	<b>%</b>
Highway authority	84	2	2.4%
Utility	4,074	128	3.1%
ALL	4,158	130	3.1%

- 4.2.12 The number of applications to extend permit duration saw a further increase in Year 7, from 3,187 to 4,158. This is broadly in-line with the increase in number of permits granted.

**Recommendation Yr 07 – 03: Continue to monitor the number of applications to extend permit duration in Year 8, to identify the reasons for the year-on-year increase.**

- 4.2.13 The refusal rate is consistent between highway and utility works promoters, at 2% to 3%, and slightly lower than the overall refusal rate in previous years.



**Figure 5: KPI 3, Permit Extensions**

4.2.14 **KPI 4** - the Number of Early Start Requests.

4.2.15 The number of early start requests received is shown in Table 11.

**Table 11 KPI 4, Number of early start requests**

Promoter	Early Start Requests	No agreement	Total
Highway authority	58	1	59
Utility	884	126	1,010
<b>ALL</b>	<b>942</b>	<b>127</b>	<b>1,069</b>

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

**Table 12 KPI 7, Number of permit inspections**

Permit Condition Inspections	Passed	Non-Compliant	Abortive	Number of Inspections	Fail %
Highway authority	27	8		35	22.9%
Utility	3,980	501	2	4,483	11.2%
ALL	4,007	509	2	4,518	11.3%

4.2.17 4,518 permit condition inspections were recorded in Year 7. This is a 20% increase compared with the previous year.

4.2.18 There is not significant change in the rate of non-compliance found from the previous year at 11%.

## 5 STAFFING & RESOURCE

### 5.1 Summary

- 5.1.1 The DfT Fees Matrix used to estimate staff numbers and set the permit fee charges has been re-run with the actual number of permit applications granted in each year since the introduction of the scheme, to determine whether the staff numbers forecast in the business case are still appropriate.
- 5.1.2 The number of utility permits granted in Year 7 is significantly higher at 38,541 compared with 29,000 to 31,000 in previous years. This is 23% higher than the average number granted in the first six years of the scheme.
- 5.1.3 Highway permit numbers are lower than forecast and lower than any previous year – 1,295.

### 5.2 Staff Resource

- 5.2.1 The DfT Fees Matrix calculated the number of staff required to process the forecast number of permit applications in the first year of the scheme and set the permit fees to match the costs incurred to process utilities permit applications.
- 5.2.2 The forecast permit activity used in the 2014 business case estimated a total number of full time equivalent (FTE) staff of 18.0 (shown in Table 13). 14.7 FTE staff would be required to process utility permit applications and 3.3 staff to process highway applications.

**Table 13 2014 Business case staff resource projection**

PERSONNEL LEVEL	All Works	Utilities
Street Works Officer	8.9	7.4
Street Works Co-ordinator	7.3	6.0
Traffic Manager	1.7	1.4
<b>Total employees</b>	<b>18.0</b>	<b>14.7</b>

- 5.2.3 Using the actual number of utility and highway authority permit applications recorded in Year 7, the same Fees Matrix spreadsheet calculates the total number of staff required at 24.3 (Table 14).

**Table 14 Year 7 staff resource, 2021-22**

PERSONNEL LEVEL	All Works	Utilities
Street Works Officer	11.3	10.7
Street Works Co-ordinator	9.0	8.4
Traffic Manager	4.0	3.7
<b>Total employees</b>	<b>24.3</b>	<b>22.9</b>

- 5.2.4 Year 7 shows an increase in the number of full-time equivalent staff required to process utility permit applications, increasing from 18.5 in Year 6 to 22.9.

5.2.5 The additional resource required to process permit applications will be reflected in a higher cost to the Council to operate the scheme.

### 5.3 Operating Cost

5.3.1 Using the same Fees Matrix spreadsheet, the cost to process granted utility permits in Year 7 has increased to £2,308,315 from £1,858,676 the previous year; a 24% increase.

5.3.2 This is broken down as £1,690,539 for staff costs related to permit applications and £443,930 for the additional fees charged for permit variations (Table 15).

5.3.3 The permit fees charged in each year include a surcharge to cover the utilities' share of the allowable operational costs. This surcharge recovered £173,846 of the calculated overheads, or approximately 7.4% of the total annual income. An increase of 26% compared with the money recovered via the surcharge in the previous year.

**Table 15 Year 7 DfT Fees Matrix outputs, 2021-22**

	NUMBER OF STAFF	SCHEME COST	EMPLOYEE COSTS		OTHER COSTS
			PERMIT APPLICATIONS	VARIATIONS	OVERHEADS
<b>All works</b>	24.3	<b>£2,445,716</b>	£1,801,541	£460,048	<b>£184,127</b>
<b>Utility works only</b>	22.9	<b>£2,308,315</b>	<b>£1,690,539</b>	<b>£443,930</b>	<b>£173,846</b>

5.3.4 The calculated operating cost to process utility promoter permit applications has increased by 24% compared with the previous year. This is a result of the 26% increase in the number of utility permits granted in Year 7.

### 5.4 Fee Income

5.4.1 Permit fee income billed has also increased significantly, increasing by 26% from £1,727,458 in Year 6 to £2,172,115 in Year 7.

5.4.2 Despite this increase in fee income, the scheme was operating at a 6% loss in the seventh year. This is a result of the continued increase in staff salaries and other costs since the permit fee schedule was set in 2015 and the increase in number of staff required to process the number of permit applications submitted.

5.4.3 Salaries for SW co-ordinators and SW officers have increased by between 15% and 20% since 2015 and employer National Insurance payments have increased by 2%.

5.4.4 The Council has reviewed permit fee income and total costs to operate the scheme at the end of Year 3 and at the end of Year 6; in line with advice in the Department for Transport statutory advice at the time.

5.4.5 No action was taken to recover accumulated losses during the first six years of the scheme. However, a small operating loss was forecast during Year 7 and a small adjustment in fees was recommended to prevent these losses accruing in subsequent years.

5.4.6 The plan to adjust fees during 2022 was postponed following feedback received during the consultation process, with the Council planning to re-consider permit fees at the end of the current year.

***Recommendation Yr 07 - 04: Review fee income and reported losses and consider adjusting fees before the start of Year 8 to avoid losses accruing in subsequent years.***

## 6 CONCLUSIONS

### 6.1 Summary

- 6.1.1 The Lancashire County Council (LCC) Permit Scheme went live on 2<sup>nd</sup> March 2015.
- 6.1.2 The permit scheme regulations require the production of a full review of the scheme benefits, parity of operation and fee income every year for the first three years. Thereafter, a full review is required every third year. To date the Council has commissioned a review at the end of every year since the scheme went live, with the performance reported annually.
- 6.1.3 This report presents an interim review of the operation at the end of Year 7, covering the period March 2021 to February 2022. A full review of scheme operation and costs will be presented at the end of Year 9.

### 6.2 Scheme benefits

- 6.2.1 35,019 works were completed during Year 7, an increase of over 20% compared with previous years. Prior to Year 7, the maximum number of works completed in a single year was 30,355. Utility works increased by 26% in Year 7 compared with the previous year.
- 6.2.2 The occupancy of the network (total number of days worked) has only increased by less than 2% despite a 22% increase in the number of works completed in Year 7. This is a result of a large reduction in the average duration of works, reducing from 4.2 days in Year 6 to 3.5 days in Year 7.
- 6.2.3 The average duration of highway works continues to fall year on year, from 12.8 days in Year 1 to 7.5 days last year. The number of days worked on highway schemes is at its lowest level since Noticing.
- 6.2.4 Whilst the total number of days worked has increased slightly from Year 6, this has to be considered in the context of the very large increase in the number of works completed during Year 7. A 22% increase in the number of all works saw a less than 2% increase in total occupancy.
- 6.2.5 The benefit of the scheme is assessed against the benchmark prior to the introduction of the Permit Scheme. Year 7 shows a 38,564 reduction in number of days worked compared with the Noticing baseline (123,023 days compared with 161,587 days).
- 6.2.6 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 7 is calculated at **£22.8M per annum**. This saving equates to 32% of the overall cost of works calculated in the CBA (£72.0M per annum total cost to road users).
- 6.2.7 The £24M reported benefit in Year 6 was the highest achieved since the introduction of the scheme. Despite the 22% increase in the number of works completed in Year 7, the reported benefit is only marginally lower than the Year 6 peak.
- 6.2.8 The 24% reduction in number of days worked since Noticing is substantially higher than the 5% benefit specified in the DfT guidelines for the business case justification for a move to Permit Schemes.

### 6.3 Recommendations

- 6.3.1 Four recommendations have been made, relating to recording of highway works, monitoring Key Performance Indicators relating to permit conditions and requests to



extend the duration of works and to consider adjusting permit fees to recover losses recorded in Year 7.

*Duration & occupancy;*

***Recommendation Yr 07 – 01: Review highway works to identify if all works requiring a permit are recorded correctly in the system.***

*Key Performance Indicators;*

***Recommendation Yr 07 – 02: Investigate the Street Manager and Symology permit conditions report to identify the number of conditions associated with each permit granted.***

***Recommendation Yr 07 – 03: Continue to monitor the number of applications to extend permit duration in Year 8, to identify the reasons for the year-on-year increase.***

*Permit Fees;*

***Recommendation Yr 07 - 04: Review fee income and reported losses and consider adjusting fees before the start of Year 8 to avoid losses accruing in subsequent years.***

6.3.2 Recommendation 03 is a continuation of a recommendation made in the Year 6 review.

## **6.4 Conclusions**

6.4.1 Monitoring the key performance indicators and empirical evidence gained from the first 7 years 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

6.4.2 This review has demonstrated that Scheme has achieved its objectives in the seventh year, as defined in the application documents.

6.4.3 The 24% reduction in number of days worked since Noticing is substantially higher than the 5% benefit specified in the DfT guidelines for the business case justification for a move to Permit Schemes.

## APPENDIX A. YEAR 7 DETAILED ANALYSIS

### A1. All Works

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

PROMOTER TYPE	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Highway Authority Works	2,116	1,684	974	-710
Utility Works	26,176	26,913	34,045	7,132
<b>Total</b>	<b>28,292</b>	<b>28,597</b>	<b>35,019</b>	<b>6,422</b>

-42.2%  
26.5%  
22.5%

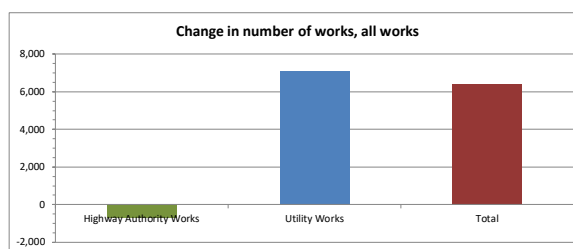


Table A.2: Number of works by Promoter, year on year comparison

PROMOTER	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Lancs.CC	2,116	1,684	974	-710
BT	6,482	7,125	9,117	1,992
Virgin Media	2,518	2,716	2,679	-37
United Utilities Water LTD	9,662	9,743	12,825	3,082
Cadent Gas Limited	3,396	3,339	2,905	-434
Electricity North West	3,240	2,879	2,846	-33
Network Rail	152	179	216	37
Yorkshire Water	94	140	141	1
O2 (UK) Limited	10	9	2	-7
Fulcrum Pipelines Limited	57	35	23	-12
Manweb	45	54	42	-12
Vodafone Group	193	32	87	55
ES Pipelines Limited	51	30	27	-3
Global Utility Connections	47	76	49	-27
T-Mobile (UK) Limited	42	97	202	105
Energetics Gas Ltd	28	21	6	-15
National Grid Electricity Transmission	1	5	4	-1
Romec Ltd	9	9	15	6
Gas Transportation Co Ltd	26	27	27	
Orange PCS Ltd	5			
Neoscorp Ltd	2	12	45	33
New World Payphones Ltd	7	2	4	2
ESP Electricity	8	13	11	-2
Northern Powergrid - Yorkshire Dales	101	82	85	3
GEO		36	47	11
Others		252	1,517	1,265
<b>Total</b>	<b>28,292</b>	<b>28,597</b>	<b>33,896</b>	<b>5,299</b>

-42.2%  
28.0%  
-1.4%  
31.6%  
-13.0%  
-1.1%  
20.7%  
0.7%  
-77.8%  
-34.3%  
-22.2%  
171.9%  
-10.0%  
-35.5%  
108.2%  
-71.4%  
-20.0%  
66.7%  
  
275.0%  
100.0%  
-15.4%  
3.7%  
30.6%  
18.5%

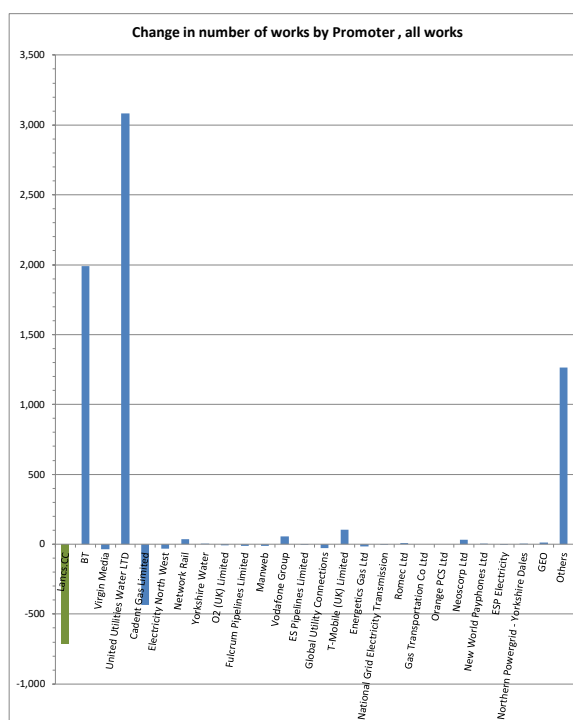


Table A.2b: Number of works by Telecomms. promoters, year on year comparison

TELECOMMS. PROMOTERS	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
<b>Number of works completed</b>	<b>9,306</b>	<b>10,199</b>	<b>13,557</b>	<b>3,358</b>

36.1%

Change from 2015-16 baseline

9.6%

45.7%

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

TRAFFIC MANAGEMENT TYPE	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
No c/w incursion	6,784	2,444	2,427	-17
Some c/w incursion	8,836	13,723	16,704	2,981
Give and take	5,441	4,637	6,488	1,851
Priority working	334	123	310	187
Two-way signals	3,111	3,018	3,526	508
Multi-way signals	1,045	2,412	2,851	439
Stop/go boards	730	339	438	99
Convoy working	12	1	1	
Lane closure	268	338	417	79
Contra-flow	7	5	17	12
Road closure	1,499	1,557	1,840	283
Blank	225			
<b>Total</b>	<b>28,292</b>	<b>28,597</b>	<b>35,019</b>	<b>6,422</b>

% no carriageway incursion 24.0% 8.5% 6.9%

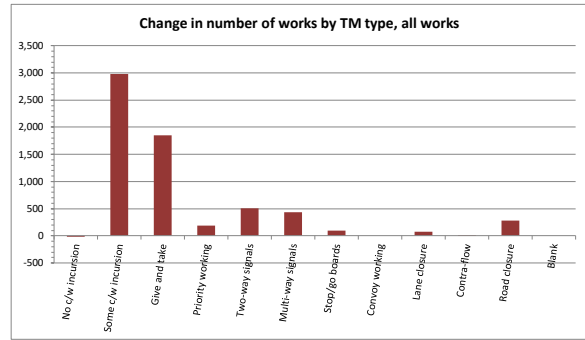


Table A.4: Number of works by works category, year on year comparison

WORKS STOPPED	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Major	1,595	1,568	1,604	36
Standard	3,340	3,441	3,391	-50
Minor	13,433	12,313	19,112	6,799
Immediate - Urgent	8,127	10,066	9,357	-709
Immediate - Emergency	1,572	1,209	1,555	346
Intention to Issue Licence	225			
<b>Total</b>	<b>28,292</b>	<b>28,597</b>	<b>35,019</b>	<b>6,422</b>

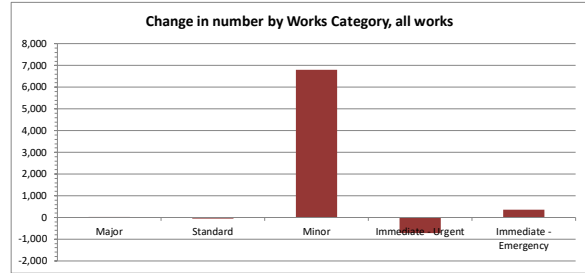


Table A.5: Traffic sensitivity, year on year comparison

REINSTATEMENT CATEGORY	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Category 0 - 2	6,464	6,453	7,277	824
Category 3 - 4 TS	5,338	5,006	6,432	1,426
Category 3 - 4 Non TS	15,942	16,677	20,727	4,050
Blank / other	548	461	583	122
<b>All works</b>	<b>28,292</b>	<b>28,597</b>	<b>35,019</b>	<b>6,422</b>

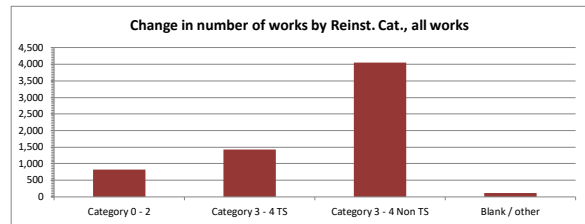


Table A.6: Average works duration, year on year comparison

DURATION	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Average duration (days)	4.7	4.2	3.5	-0.7
<b>Total number of days worked</b>	<b>133,791</b>	<b>121,053</b>	<b>123,023</b>	<b>1,970</b>

Year 7, 2021-22, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
12.4	6.6	2.0	3.8	4.4
<b>19,825</b>	<b>22,464</b>	<b>38,286</b>	<b>35,612</b>	<b>6,836</b>

Year 6, 2020-21, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
17.0	7.3	2.0	3.7	6.3
<b>26,734</b>	<b>24,987</b>	<b>24,387</b>	<b>37,327</b>	<b>7,618</b>

Difference, Year 6 - Year 5

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
-4.6	-0.7		0.1	-1.9
<b>-6,909</b>	<b>-2,523</b>	<b>13,899</b>	<b>-1,715</b>	<b>-782</b>

## A2. Highway Works

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

TRAFFIC MANAGEMENT TYPE	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
No c/w incursion	126	628	23	-605
Some c/w incursion	201	212	169	-43
Give and take	328	107	46	-61
Priority working	13	9	6	-3
Two-way signals	231	133	147	14
Multi-way signals	62	116	91	-25
Stop/go boards	230	103	48	-55
Convoy working	1		1	1
Lane closure	82	65	100	35
Contra-flow	1	1	1	
Road closure	616	310	342	32
Blank	225			
<b>Total</b>	<b>2,116</b>	<b>1,684</b>	<b>974</b>	<b>-710</b>

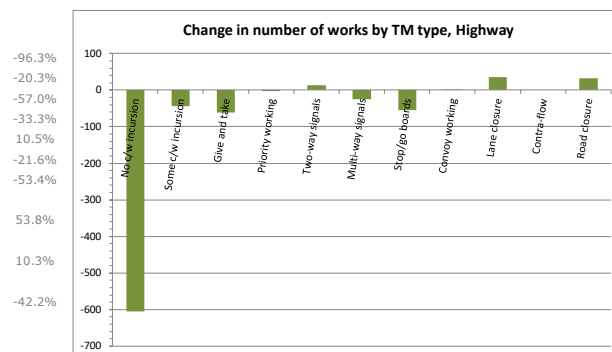


Table A.8: Number of works by works category, year on year comparison

WORKS STOPPED	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Major	768	299	238	-61
Standard	574	702	242	-460
Minor	443	499	177	-322
Immediate - Urgent	63	144	271	127
Immediate - Emergency	43	40	46	6
Intention to Issue Licence	225			
<b>Total</b>	<b>2,116</b>	<b>1,684</b>	<b>974</b>	<b>-710</b>

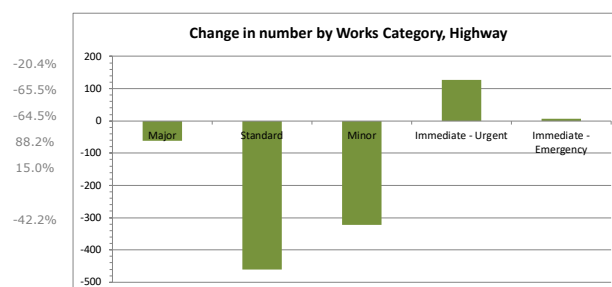


Table A.9: Average works duration, year on year comparison

DURATION	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6
Average duration (days)	12.8	9.2	7.5	-1.7
<b>Total number of days worked</b>	<b>27,119</b>	<b>15,500</b>	<b>7,312</b>	<b>-8,188</b>

-18.5%  
-52.8%

Year 7, 2021-22, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
12.2	7.7	1.8	6.7	8.7
<b>2,908</b>	<b>1,871</b>	<b>315</b>	<b>1,820</b>	<b>398</b>

Year 6, 2020-21, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
15.3	9.6	4.2	6.4	29.1
<b>4,588</b>	<b>6,710</b>	<b>2,110</b>	<b>928</b>	<b>1,164</b>

Difference, Year 6 - Year 5

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
-3.1	-1.9	-2.4	0.3	-20.4
<b>-1,680</b>	<b>-4,839</b>	<b>-1,795</b>	<b>892</b>	<b>-766</b>

### A3. Utility Works

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

TRAFFIC MANAGEMENT TYPE	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6	
No c/w incursion	6,658	1,816	2,404	588	32.4%
Some c/w incursion	8,635	13,511	16,535	3,024	22.4%
Give and take	5,113	4,530	6,442	1,912	42.2%
Priority working	321	114	304	190	166.7%
Two-way signals	2,880	2,885	3,379	494	17.1%
Multi-way signals	983	2,296	2,760	464	20.2%
Stop/go boards	500	236	390	154	65.3%
Convoy working	11	1	-1	-1	-100.0%
Lane closure	186	273	317	44	16.1%
Contra-flow	6	4	16	12	300.0%
Road closure	883	1,247	1,498	251	20.1%
Blank					
<b>Total</b>	<b>26,176</b>	<b>26,913</b>	<b>34,045</b>	<b>7,132</b>	<b>26.5%</b>

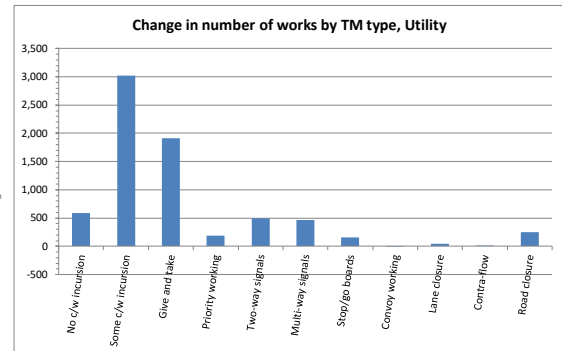


Table A.11: Number of works by works category, year on year comparison

WORKS STOPPED	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6	
Major	827	1,269	1,366	97	7.6%
Standard	2,766	2,739	3,149	410	15.0%
Minor	12,990	11,814	18,935	7,121	60.3%
Immediate - Urgent	8,064	9,922	9,086	-836	-8.4%
Immediate - Emergency	1,529	1,169	1,509	340	29.1%
Other					
<b>Total</b>	<b>26,176</b>	<b>26,913</b>	<b>34,045</b>	<b>7,132</b>	<b>26.5%</b>

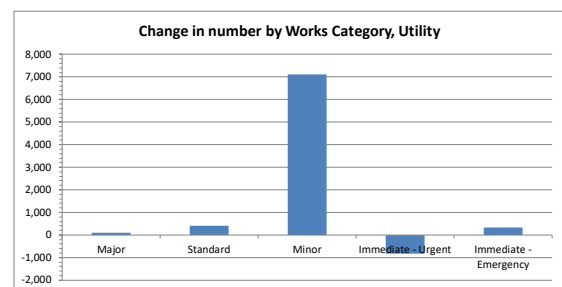


Table A.12: Average works duration, year on year comparison

DURATION	Year 1 2015-16	Year 6 2020-21	Year 7 2021-22	Diff Yr 7 - Yr 6	
Average duration (days)	4.1	3.9	3.4	-0.5	-12.8%
<b>Total number of days worked</b>	<b>106,672</b>	<b>105,553</b>	<b>115,711</b>	<b>10,158</b>	<b>9.6%</b>

Year 7, 2021-22, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
12.4	6.5	2.0	3.7	4.3
<b>16,917</b>	<b>20,593</b>	<b>37,971</b>	<b>33,792</b>	<b>6,438</b>

Year 6, 2020-21, Duration by works category

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
17.5	6.7	1.9	3.7	5.5
<b>22,146</b>	<b>18,277</b>	<b>22,277</b>	<b>36,399</b>	<b>6,454</b>

Difference, Year 6 - Year 5

MAJOR	STANDARD	MINOR	IMMED. (URGENT)	IMMED. (EMERG.)
-5.1	-0.2	0.1		-1.2
<b>-5,229</b>	<b>2,316</b>	<b>15,694</b>	<b>-2,607</b>	<b>-16</b>

**APPENDIX B. PROMOTER DURATION ANALYSIS**

TRAFFIC MANAGEMENT & DURATION, PROMOTER BT (BC)											PROMOTER BT (BC)				
NO C/W INCURSION	SOME C/W INCURSION	GIVE & TAKE	PRIORITY WORKING	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	STOP/GO BOARDS	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE	Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration					
Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Average	Average	Average	Average	Average
1.8	2.7	2.7	2.6	1.6	2.2	4.4	#DIV/0!	1.4	1.0	1.6	4.5	7.2	2.0	1.8	2.0
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Minimum	Minimum	Minimum	Minimum	Minimum
										1.0					
Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Maximum	Maximum	Maximum	Maximum	Maximum
11.0	34.0	26.0	8.0	44.0	46.0	20.0		4.0	1.0	13.0	46.0	24.0	44.0	6.0	13.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>30	>30	>30	>30	>30
	16	18		2	1	8					2		1		
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>60	>60	>60	>60	>60
	1			1	1										
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>180	>180	>180	>180	>180
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>365	>365	>365	>365	>365
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
781	3,920	1,843	17	845	1,147	181		49	1	333	239	729	6,513	1,389	247
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
1,395	10,411	5,064	44	1,351	2,555	800		69	1	517	1,082	5,241	12,944	2,438	502
TOTAL WORKS															
9,117															
Ave Duration															
3.0															
No. days worked															
22,207															

TRAFFIC MANAGEMENT & DURATION, PROMOTER VIRGIN MEDIA (NK)											PROMOTER VIRGIN MEDIA (NK)				
NO C/W INCURSION	SOME C/W INCURSION	GIVE & TAKE	PRIORITY WORKING	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	STOP/GO BOARDS	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE	Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration					
Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Average	Average	Average	Average	Average
1.5	1.5	2.5	#DIV/0!	2.4	2.2	1.3	#DIV/0!	2.9	1.5	0.7	0.7	7.3	1.6	1.4	0.9
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Minimum	Minimum	Minimum	Minimum	Minimum
										1.0		2.0			
Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Maximum	Maximum	Maximum	Maximum	Maximum
5.0	13.0	13.0		7.0	10.0	3.0		9.0	2.0	1.0	1.0	13.0	5.0	4.0	3.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>30	>30	>30	>30	>30
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>60	>60	>60	>60	>60
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>180	>180	>180	>180	>180
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>365	>365	>365	>365	>365
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
345	2,053	143		38	55	26		14	2	3	3	20	2,604	34	18
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
503	3,115	358		90	121	33		41	3	2	2	145	4,055	47	17
TOTAL WORKS															
2,679															
Ave Duration															
1.9															
No. days worked															
4,266															



TRAFFIC MANAGEMENT & DURATION, PROMOTER UNITED UTILITIES WATER LIMITED (HZ)											PROMOTER UNITED UTILITIES WATER LIMITED (HZ)				
NO C/W INCURSION	SOME C/W INCURSION	GIVE & TAKE	PRIORITY WORKING	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	STOP/GO BOARDS	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE	Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration					
Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Average	Average	Average	Average	Average
3.9	3.0	3.3	5.5	2.7	2.6	1.7	#DIV/0!	2.5	1.5	3.7	6.4	6.9	2.1	3.9	1.7
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Minimum	Minimum	Minimum	Minimum	Minimum
											1.0				
Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Maximum	Maximum	Maximum	Maximum	Maximum
45.0	75.0	39.0	81.0	93.0	41.0	8.0		11.0	5.0	98.0	98.0	81.0	45.0	42.0	19.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>30	>30	>30	>30	>30
4	3	2	2	5	5					8	8	2	2	2	
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>60	>60	>60	>60	>60
3	1	1	1	2	2					4	4	1			
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>180	>180	>180	>180	>180
1	1		1	1						2					
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>365	>365	>365	>365	>365
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
470	5,951	3,013	31	1,460	899	111		112	8	770	155	279	6,334	5,731	326
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
1,828	17,742	10,032	172	3,938	2,342	184		278	12	2,884	993	1,921	13,391	22,543	564
TOTAL WORKS															
12,825															
Ave Duration															
3.5															
No. days worked															
39,412															

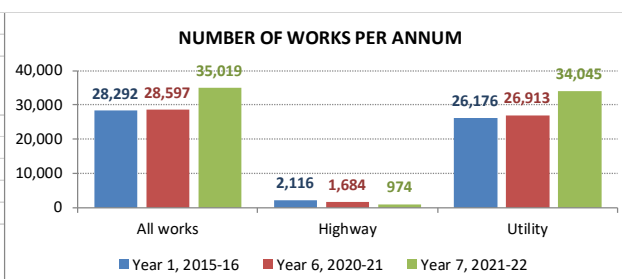
TRAFFIC MANAGEMENT & DURATION, CADENT GAS LIMITED (AZ)											PROMOTER NATIONAL GRID GAS NW NETWORK (AZ)				
NO C/W INCURSION	SOME C/W INCURSION	GIVE & TAKE	PRIORITY WORKING	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	STOP/GO BOARDS	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE	Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration					
Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Average	Average	Average	Average	Average
4.1	6.6	5.7	14.6	7.4	21.1	0.8	#DIV/0!	11.7	#DIV/0!	13.4	21.7	7.1	2.4	4.3	6.0
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Minimum	Minimum	Minimum	Minimum	Minimum
			5.0								1.0	1.0			
Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Maximum	Maximum	Maximum	Maximum	Maximum
108.0	85.0	78.0	31.0	105.0	125.0	1.0		52.0		79.0	125.0	65.0	9.0	36.0	108.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>30	>30	>30	>30	>30
6	145	29	1	22	76			12		21	77	4		1	11
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>60	>60	>60	>60	>60
1	28	7	1	8	36			3		9	14	1			5
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>180	>180	>180	>180	>180
1	5	1		5	7					1					
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>365	>365	>365	>365	>365
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
350	1,698	345	5	225	162	8		35		77	433	431	809	358	874
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
1,447	11,122	1,983	73	1,661	3,415	6		409		1,034	9,384	3,047	1,928	1,528	5,263
TOTAL WORKS															
2,905															
Ave Duration															
7.6															
No. days worked															
21,150															

TRAFFIC MANAGEMENT & DURATION, PROMOTER ELECTRICITY NORTH WEST (JG)											PROMOTER ELECTRICITY NORTH WEST (JG)				
NO C/W INCURSION	SOME C/W INCURSION	GIVE & TAKE	PRIORITY WORKING	TWO-WAY SIGNALS	MULTI-WAY SIGNALS	STOP/GO BOARDS	CONVOY WORKING	LANE CLOSURE	CONTRA-FLOW	ROAD CLOSURE	Major	Standard	Minor	Immed. (Urgent)	Immed. (Emerg.)
Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration	Duration					
Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Ave	Average	Average	Average	Average	Average
4.7	5.1	5.7	5.3	5.4	9.8	2.0	#DIV/0!	6.7	7.0	7.3	15.4	6.4	1.8	4.7	6.5
Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Minimum	Minimum	Minimum	Minimum	Minimum
1.0		1.0	3.0					1.0	7.0		1.0	1.0			4.0
Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Maximum	Maximum	Maximum	Maximum	Maximum
15.0	77.0	30.0	10.0	56.0	80.0	8.0		49.0	7.0	46.0	80.0	77.0	15.0	29.0	16.0
>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>15	>30	>30	>30	>30	>30
	21	5		11	14			2		12	17	1			
>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>30	>60	>60	>60	>60	>60
	3			1	10			2		2	9	1			
>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>60	>180	>180	>180	>180	>180
	1				9										
>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>180	>365	>365	>365	>365	>365
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
93	1,734	225	4	403	166	18		55	2	146	152	983	325	1,380	6
Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked	Days Worked
434	8,780	1,290	21	2,174	1,633	36		367	14	1,068	2,347	6,316	572	6,543	39
TOTAL WORKS															
2,846															
Ave Duration															
5.8															
No. days worked															
15,817															

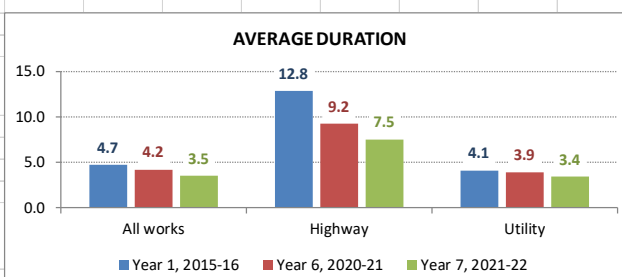


## APPENDIX C. SCHEME BENEFIT SUMMARY

NUMBER OF WORKS (number)			
	All works	Highway	Utility
Year 1, 2015-16	28,292	2,116	26,176
Year 6, 2020-21	28,597	1,684	26,913
Year 7, 2021-22	35,019	974	34,045
Change, Year 7 - Year 6	6,422	-710	7,132
Change (%)	22.5%	-42.2%	26.5%



DURATION (days)			
	All works	Highway	Utility
Year 1, 2015-16	4.7	12.8	4.1
Year 6, 2020-21	4.2	9.2	3.9
Year 7, 2021-22	3.5	7.5	3.4
Change (days)	-0.7	-1.7	-0.5



DAYS WORKED (days)			
	All works	Highway	Utility
Year 1, 2015-16	133,791	27,119	106,672
Year 6, 2020-21	121,053	15,500	105,553
Year 7, 2021-22	123,023	7,312	115,711
Change, Year 7 - Year 6	1,970	-8,188	10,158
Change (%)	1.6%	-52.8%	9.6%

