



Annual Permit Scheme Evaluation Report

Year 1 (January to December 2020)

Table of Contents

1. Executive Summary.....	3
2. Introduction.....	5
3. Objectives of the Dorset Permit Scheme.....	6
4. Fee Structure.....	9
5. Costs and Benefits.....	10
6. Key Performance Indicators	13
KPI 1: Permit & Variation Applications Received, Granted & Refused.....	13
KPI 2: Number of Conditions Applied by Condition Type	14
KPI 3: Number of Approved Revised Durations	16
KPI 4: Number of occurrences of reducing the application period (early starts)....	16
7. Traffic Management Act Performance Indicators (TPI).....	18
TPI 1 Works Phases Started.....	18
TPI 2 Works Phases Completed	19
TPI 3 Days of Occupancy Phases Completed	20
TPI 4 Average Duration of Works	21
TPI 5 Phases Completed Involving Overrun	22
TPI 6 Number of Overrun Days.....	22
TPI 7/8 Number of Phase One Registrations/Phase One Permanent Registrations	23
TPI 13 Early Start Agreements	27
8. Conclusions	29
9. Recommendations.....	30
10. Appendix	31
Infringements	31
Carbon Emission Analysis	34

List of Tables

Table 1: Occupation of the highway by Utility Companies.....	6
Table 2: Occupation of the highway by Dorset Council	7
Table 3: Fee Structure.....	9
Table 4: Permit Applications & Variations Summary	13
Table 5: Number of Conditions Applied by Condition Type	14
Table 6: Revised Duration Requests.....	16
Table 7: Early Start Requests and Agreements	16
Table 8: Works Phases Started.....	18
Table 9: Works Phases Completed	19
Table 10: Days of Occupancy Phases Completed	20
Table 11: Average Duration of Works	21
Table 12: Phases Completed Involving Overrun	22
Table 14: Number of Phase One Registrations/Phase One Permanent Registrations	23
Table 15: Early Start Agreements	27
Table 16: Infringements by promoters by categories	31

1. Executive Summary

The Dorset Permit Scheme was introduced on 16th January 2020, replacing the noticing process that had previously been in place. The Permit Scheme applies to works on all adopted and publicly maintainable streets within the administrative boundaries of Dorset Council (DC), including works undertaken by Highway Authority and Statutory Undertakers. This report evaluates the operational performance of the permit scheme in its first year covering the period from 16th January to 31st December 2020. Year 1 cut-off at the end of December 2020 has been considered to ensure a simpler approach to financial and reporting reconciliations.

The successful introduction of the scheme has resulted in greater control over road and street works taking place in Dorset's network. By ensuring that the works are carried out at the least disruptive time along with suitable traffic management, the impact of works has reduced.

In the first year of permit scheme operation, the recorded number of days where streets were occupied and affected the community has significantly reduced. For utility work, this has reduced by 23% and for the authority's own works by 40% when compared with the base level prior to being a permitting authority. Overall, the occupancy of highways has reduced by 30% during the year. However, the figure for Dorset Council's own works may not reflect a true comparison of occupation reduction as volume of works used for analysis were reduced by 81% due to effective clustering.

Dorset Council has worked diligently with all promoters during Year 1 to achieve key objectives of the Permit Scheme. Collaborative approach and ongoing dialogues have resulted in the average duration of works to reduce by 13% for external work promoters, from an average of 3.9 days to 3.4 days. An average 90% of phase one registrations were completed with permanent reinstatement which is high when compared to industry standards.

Dorset Council received a total of 26,595 Permit and Permit Variation applications during the period, out of which 28% were received from Dorset Highways and 72% from 26 external work promoters. On average 80% of these applications were granted which shows good cooperation between the council and all work promoters. Enhanced communication and advanced planning have ensured that only 12% of the applications were refused and less than 1% were deemed. During this period, the traffic team has encouraged all work promoters to improve upon their quality of information submitted for permit applications and modifications.

Dorset Council has applied parity to all works as required by the scheme, however, there will be a further drive in Year 2 to ensure that all authority works are compared against Year 1 base level via the permits scheme in order to better demonstrate this.

The fee income received in Year 1 has reflected the cost of operating the scheme with a noticeable deficit of £51,533. This will be used in Year 2 to make decisions on increasing the fee for all permit types if necessary.

Following recommendations have been noted following the Year 1 review of the permit scheme:

- Costs and utilisation of resources to be monitored through the next year. Decision to be taken on proposed increase of fee across all permit types if the trend continues.
- Dorset Council to continue monitoring of durations for all works against the Year 1 levels.
- Review utility application permit conditions to see if all stated conditions are necessary and required, with an intent of reducing the amount of breach of conditions and infringements in Year 2.
- Discuss and analyse standard system reports with EToN Developer to address data related observations or conditions applied for reporting to Department for Transport (DfT).

Overall, the Dorset Permit Scheme has operated successfully in Year 1 and has delivered all key objectives as laid out in the original scheme document.

2. Introduction

This report sets out the operational performance of Dorset Council's Permit Scheme in its first year.

The Traffic Management Act 2004 (TMA), Part 3 Sections 32 to 39 and the Traffic Management Permit Scheme (England) Regulations 2007 and Traffic Management Permit Scheme (England) (Amendment) Regulations 2015 make provision for Permit Schemes to be introduced in England. The Dorset Permit Scheme was adopted by the council on 16th January 2020 and reflects the requirements of this legislation.

The scheme supports our duties under both section 59 of the New Roads and Street Works Act 1991 and section 16 of the Traffic Management Act 2004.

3. Objectives of the Dorset Permit Scheme

The purpose of the scheme is to enable Dorset Council to improve the strategic and operational management of the highway network through better planning, scheduling, and management of activities to minimise disruption to the road network and its users. It also aims to enable better coordination of activities which links into Dorset Council's service priorities of reducing traffic congestion and supporting safer travel. Objectives of this Permit Scheme are detailed in Section 3 of the scheme document and key factors considered for improving performance are:

- Enhanced coordination and cooperation
- Encouragement of partnership working between the Permit Authority, all Promoters, and key stakeholders.
- Provision of more accurate and timely information to be communicated between all stakeholders including members of the public.
- Promotion and encouragement of collaborative working
- Improvement in timing and duration of activities particularly in relation to the busiest streets within the network
- Promotion of dialogue with regard to the way activities are to be carried out.
- Enhanced programming of activities and better forward planning by all Promoters

During first year of this operational permit scheme, average occupation of the highways by utility companies has reduced by 23% due to an average reduction in duration of works from 3.9 days to 3.4 days and average occupation of the highways by Dorset Council has reduced by 40% due to an average reduction in duration of works from 6.6 days to 4.4 days when compared to the previous year. Overall, the occupancy of highways has reduced by 30%.

It must be noted that the figure for Dorset Council's own works may not reflect a true comparison of occupation reduction as volume of works used for analysis were reduced by 81% due to effective clustering. This has been achieved by having regular dialogues with work promoters and by ensuring that conditions on the permit are met.

Table 1: Occupation of the highway by Utility Companies

	Noticing 2018	Year 1	Difference
Average duration (days)	3.9	3.4	-0.5 (13%)
Total number of days worked	41,782	31,990	-9,792 (23%)

Table 2: Occupation of the highway by Dorset Council

	Noticing 2018	Year 1	Difference
Average duration (days)	6.6	4.4	-2.2 (33%)
Total number of days worked	25,719	15,322	-10,397 (40%)

At the time of implementing the Permit Scheme it was identified that majority of the highways works (reactive maintenance) are not comparable to works carried out by external promoters in terms of their duration and complexity. Hence, it was decided that relevant highways work will be clustered for the purpose of permitting and follow-on work notices. This has facilitated a true representation for monitoring performance of the permit scheme.

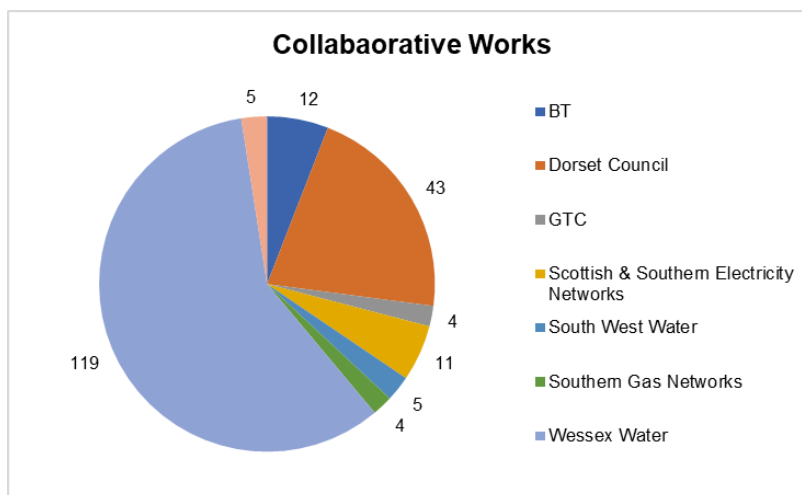
The permit scheme has enabled Dorset Council to have greater control on the works carried out by applying conditions on the way works are managed by the work promoter, and challenging variation requests on the duration of works. This has resulted in effectively managing and reducing disruptions across the authority's network.

Enhanced communication and advanced planning have resulted in a small number of works being refused or deemed. The traffic team has spent significant time throughout the first year, on ensuring high quality of information submitted for permit applications and modifications. Out of all applications received 12.8% were refused and deemed (KPI 1). Out of all permits issued, only 7.3% of the works requested duration extensions, 95.8% of these extensions were approved and 4.2% were refused where they were found to be unreasonable (KPI 3).

Improved forward planning by works promoters has increased Phase one registrations where permanent reinstatement was carried out at the same time. On average 90% of Phase one registrations were completed with permanent reinstatement, which reduces the need to return to the site in future causing lesser disruption.

Dorset Council has encouraged collaborative working arrangements, including trench, road space and duct sharing between promoters wherever possible. In total 203 instances of collaborative working were recorded during Year 1 of permit scheme operations. Figure 1 presents a breakdown of collaborative works by promoters.

Figure 1: Collaborative works by promoters



With implementation of the Permit Scheme, quality of data supplied by all work promoters has significantly improved. A thorough review of all permit applications and work notices allowed Dorset Council to identify opportunities for improving coordination with work promoters. Issuing of Fixed Penalty Notices (FPNs) where promoters failed to submit accurate and timely information (Appendix 2) has encouraged further improvement of data quality. The scheme has also encouraged planning activities prior to submitting permit application which has resulted in fewer rejections and has helped all users of the highway.

The first year of the scheme has focused on streamlining the operations in addition to fulfilling its objectives. At its introduction and during this first year, Dorset Council has worked with all promoters to improve standards of work and to ensure all the conditions of working are met. It is our objective to improve dialogue with all promoters and to work constructively and collaboratively. We have discussed failures with teams on-site and with their managers to encourage improvement but have subsequently issued FPNs where necessary. Out of the total FPNs issued during the year, 45.3% were related to breach of permit conditions.

4. Fee Structure

The Traffic Management Permit Scheme (England) (Amendment) Regulations 2015 require that the permit authority to review the existing fee levels to determine if any revision is needed when a surplus or deficit exists. The current fee structure for the Dorset Council Permit Scheme is provided in Table 3.

Table 3: Fee Structure

Permit Type	Reinstatement Category	
	Road Category 0, 1 & 2 or Traffic Sensitive	Road Category 3 & 4 and Non-Traffic Sensitive
Provisional Advance Authorisation	£96	£64
Major works - over 10 days and all major works requiring a traffic regulation order	£196	£105
Standard activity (also Major works – from 4-10 days)	£120	£61
Minor activity (also Major works – up to 3 days)	£60	£31
Immediate activity	£56	£27
Permit Variation	£45	£35

For Year 1 (Jan to Dec 2020), total Permit Fee income invoiced was £607,678. The operating costs to process utility permit applications for the same period is calculated at £659,211, out of which employee cost is £571,507 and total allowable operational factor costs are £87,705. Hence, an overall deficit of £51,533 has been recorded for Year 1.

Due to impact of COVID19 pandemic coordination was challenging due to work from home, and efforts were higher than anticipated. Furthermore, activities on Category 0-2 and Traffic sensitive streets were almost double than the scheme estimates. Dorset Council has carefully considered a potential increase of 11% fee across all permit types but has decided to continue with another year of operating the scheme at current fee levels.

5. Costs and Benefits

The Traffic Management Permit Scheme (England) (Amendment) Regulations 2015 require that the Permit Authority also shall consider whether the permit scheme is meeting Key Performance Indicators (KPIs) where these are set out in the guidance.

The benefits of permit schemes are normally quantified by multiplying the number of days saved on the network over the whole year multiplied by the average cost per day incurred by motorists travelling through traffic managed sites.

Under Noticing, 81,980 working days were recorded between Jan to Dec 2018. The benchmark case has been reduced to 67,501 working days by excluding 14,479 Minor highway works of less than 1 day duration, thereby removing the short duration reactive repairs that do not require a permit, to avoid over-stating the benefits of the scheme. The Year 2018 was used as the base year.

For a similar 12 months' period from Jan to Dec 2020 corresponding to the first year of the Permit Scheme 47,312 working days were recorded, a saving of 20,189 days worked on the network.

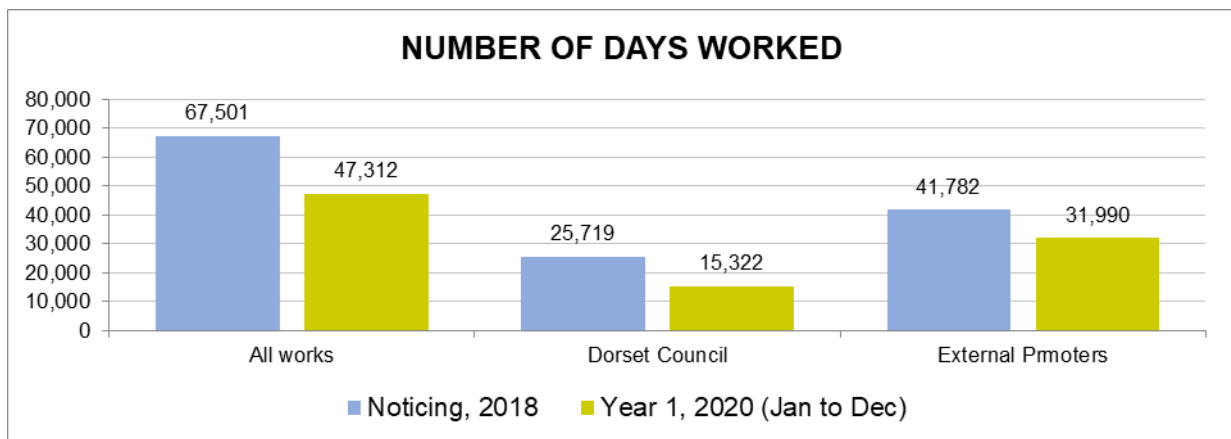
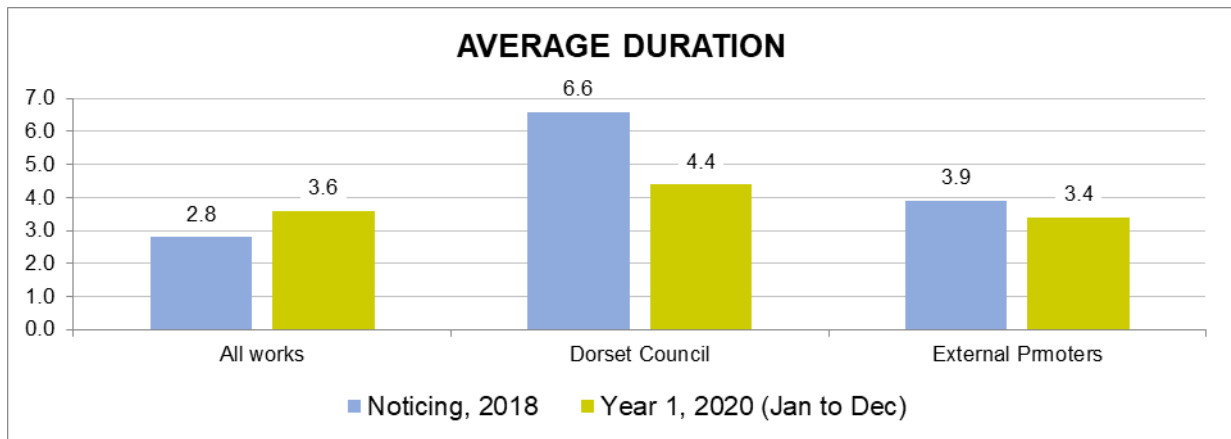
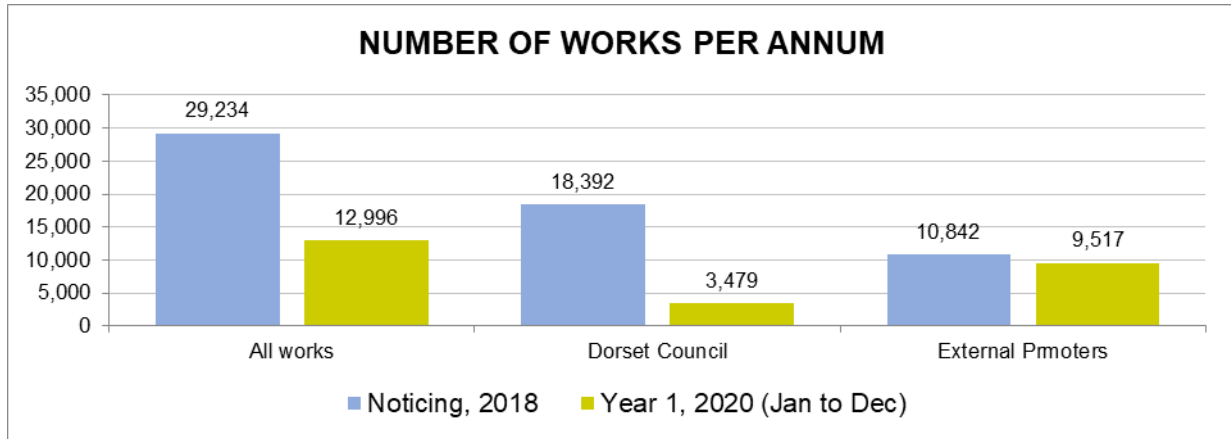
This saving is a result of 40% reduction in occupancy by Highways and 23% reduction recorded by external work promoters. While number of works undertaken by external work promoters reduced by 12% during Year 1, more complex and long duration works were carried out when compared to the benchmark analysis done at the time of implementing the scheme. Number of Highways works had a significant reduction of 81% primarily due to clustering of reactive maintenance works for better coordination and parity of treatment.

The 20% effective reduction in occupancy of the network in the first year is significantly higher than the 5% minimum stipulated in the guidance to authorities implementing a permit scheme.

During Year 1 of permit scheme operations, number of external promoters' works recorded were 9,517 as compared to the benchmark of 10,842. Subsequently, their occupancy reduced from 41,782 days to 31,990 days, an overall saving of 9,792 days (23%). This has resulted in a reduction in average works duration from 3.9 days to 3.4 days. In comparison, Highways' occupancy has reduced from 25,719 days during benchmark period to 15,322 days in Year 1, resulting in a reduction of average works duration from 6.6 days (adjusted) to 4.4 days.

The key performance metrics i.e., summary of Works and duration analysis is presented in Figure 2 below.

Figure 2: Noticing vs. Permit Scheme



The Cost Benefit Analysis conducted in 2019 (source: The Dorset Council Permit Scheme – Final Report Cost Benefit Analysis, January 2020, Table 11 page 26) calculated the impact of 1 year worth of typical street works at £32.3M (stated at 2010 values, in line with standard CBA procedures).

The 15,347 works completed in the Noticing period have an average duration of 4.6 days, this equates to an average cost of £457 per day for all work types. Therefore, the calculated monetary benefit to transport users of the Permit Scheme in Year 1 is;

- All works saving £9.24M (at 2010 values) or 28% of the total annual impact
- Highway works saving £4.76M (at 2010 values) or 15% of the total annual impact
- Utility works saving £4.48M (at 2010 values) or 14% of the total annual impact

In addition to calculating the monetary benefit of the first year of the Scheme, this section also re-evaluates the Cost Benefit Analysis (CBA) replacing the estimated number of works and works types used in the business case assessment with the actual numbers recorded in the first year.

The methodology involves the following steps using the Year 1 data records;

- Identify the number of works-by-works category and road type
- Update forecast opening year 2020 Quadro modelling with volumes recorded in 2020
- Recalculate the annual impact using updated Quadro model outputs
- Recalculate the operating costs (replacing the Fees Matrix forecast with the actual number of permit works stopped records)
- Recalculate the NPV and BCR for default 5% saving and recorded 20.4% saving in working days

The updated CBA recalculated the annual impact on the network at £37.0M in Year 1, a 14.5% increase in modelled impact due to the slight increase in the number of works operating with active traffic management (road and lane closures & temporary traffic signals).

A 5% reduction in occupancy results in a BCR of 2.3 and a Net Present Value (NPV) of £665,619. This is a slight increase over the BCR of 2.1 calculated for the opening year in the 2018 CBA.

The 20.4% reduction in occupancy recorded for all works produces a BCR of 15.2 and a NPV of £6,385,456.

This is well above the DfT value for money threshold of 2.0 for the both the recommended 5% occupancy saving, and the actual 20.4% saving recorded in the first year of the scheme.

This demonstrates that the Permit Scheme delivers excellent value for money in its first year.

6. Key Performance Indicators

Section 20.3 of the Permits Code of Practice states that every Authority that wants to run a Permit Scheme must explain how it intends to demonstrate parity of treatment for all promoters in its application. To demonstrate that the permit scheme is operated with parity, Dorset Council has applied a set of Key Performance Indicators (KPIs) shown below. The data has been extracted and analysed for Year 1 (Jan to Dec 2020).

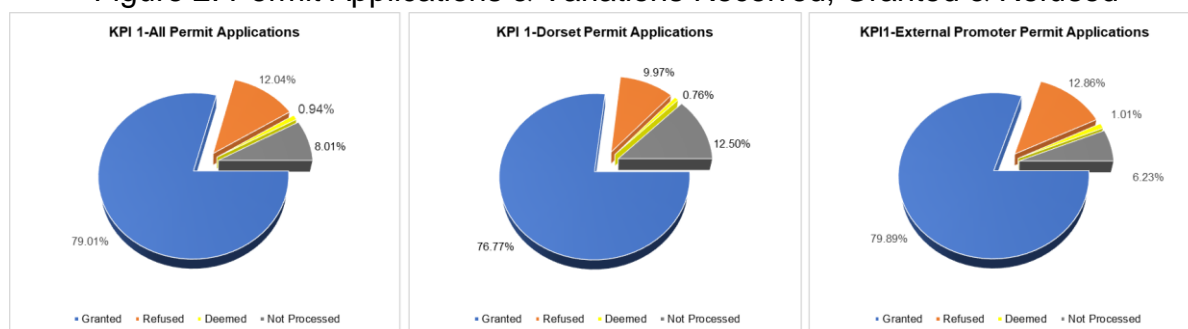
KPI 1: Permit & Variation Applications Received, Granted & Refused

Dorset Council received a total of 26,595 Permit and Permit Variation applications during the period, out of which 28% were received from the Dorset Highways and 72% from 26 external work promoters. Due to clustering of reactive maintenance works, the share of permits applications for Highways may appear lower when compared to other similar size unitary authorities. Table 4 shows the number of permit applications and variations received, granted, refused, and deemed for the period.

Table 4: Permit Applications & Variations Summary

	Applications	Granted	Refused	Deemed	Cancelled / Superseded
Dorset	7,526	5,778 (77%)	750 (10%)	57 (1%)	941 (12%)
External	19,069	15,235 (80%)	2,453 (13%)	193 (1%)	1,188 (6%)
All	26,595	21,013 (79%)	3,203 (12%)	250 (1%)	2,129 (18%)

Figure 2: Permit Applications & Variations Received, Granted & Refused



During Year 1 of the Permit Scheme operations, 79% of all permit applications received by Dorset Council were granted, while 12% were refused due to valid reasons. Our analysis clearly indicates parity of treatment for all work promoters. A

slightly higher refusal rate for external promoter works is attributed to higher complexity and average durations of such works.

Out of the 250 (0.94%) deemed applications, 118(0.44%) were for permits applied on private streets for which Dorset Council had decided to allow work to progress by default.

Further reviews and focused dialogues with all promoters will continue into the current year of operations.

KPI 2: Number of Conditions Applied by Condition Type

A total of 18,202 standard conditions were applied to 21,013 granted permits and variations out of which 62% were related to external (utility) work promoters' applications. Most number of conditions applied to external work promoters' permits relate to Time Constraints (29%), Consultation and Publicity (15%) and Light Signals and Shuttle Working (11%). Highway permit conditions are predominantly related to Time Constraints (46%), Date Constraints (21%) and Consultation and Publicity (20%).

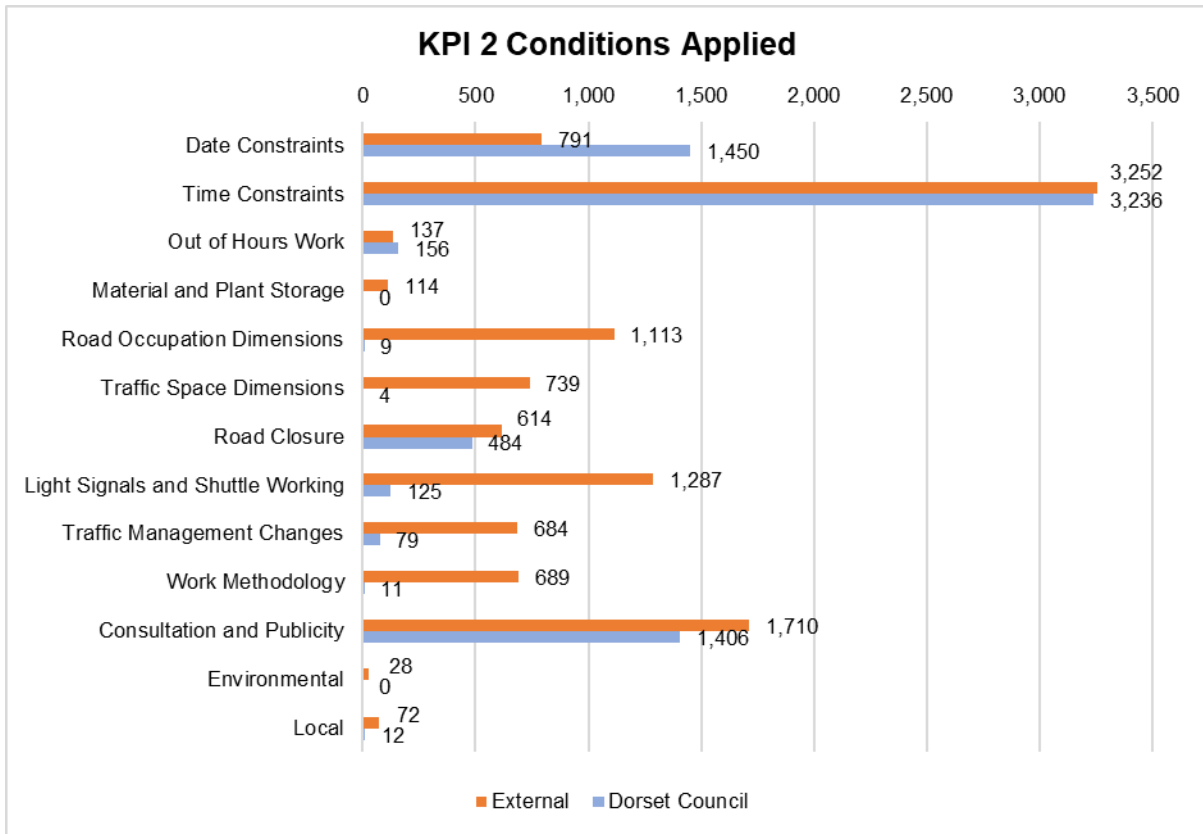
Number of conditions applied to the Highways permits is lower, however this is justified due to lower number of Highways works and permit applications during the period when compared to external work promoters. Further, the type of works combined with effective pre scheme collaboration and discussions contributed to fewer Road Occupation Dimensions and Light Signals and Shuttle Working conditions required or issued for Highway works which justifies the low overall number of highway permit conditions being issued in Year 1. Table 5 and Figure 3 further illustrates the breakdown and comparative view of conditions applied to the permits.

Table 5: Number of Conditions Applied by Condition Type

Condition	Condition Description	External	Dorset	All
NCT01	Date constraints	791	1,450	2,241
NCT02	Time constraints	3,252	3,236	6,488
NCT03	Out of Hours Work	137	156	293
NCT04	Material & plant storage	114	0	114
NCT05	Road occupation dimensions	1,113	9	1,122
NCT06	Traffic space dimensions	739	4	743
NCT07	Road closure	614	484	1,098

Condition	Condition Description	External	Dorset	All
NCT08	Light Signals and Shuttle Working	1,287	125	1,412
NCT09	Traffic Management Changes	684	79	763
NCT10	Work Methodology	689	11	700
NCT11	Consultation and Publicity	1,710	1,406	3,116
NCT12	Environmental	28	0	28
NCT13	Local	72	12	84
	TOTAL	11,230	6,972	18,202
		62%	38%	

Figure 3: Number of Conditions Applied by Condition Type



Average number of constraints applied to Highways works (2) is higher than applied to external work promoters (0.9).

KPI 3: Number of Approved Revised Durations

Table 6 shows the number of Revised Duration (extension) requests received, granted, and refused for internal and external works.

Table 6: Revised Duration Requests

	External	Dorset	All
Permits Issued	13,514	4,652	18,174
Extension Requests	924 (7%)	405 (9%)	1,329 (7%)
Extensions Agreed	865 (94%)	405 (100%)	1,273 (96%)
Extensions Refused	59 (6%)	0 (0%)	59 (4%)

Of the permits granted during the evaluation period, only 7% requested duration extensions, 9% for internal works and 7% for external works. Dorset Council demonstrated parity of treatment by granting high number of extensions requested by external work promoters (94%) irrespective of more complex nature of these jobs. Overall, low number of duration extension requests and higher approval rates for these extensions has demonstrated high level of coordination and collaboration with work promoters.

KPI 4: Number of occurrences of reducing the application period (early starts)

Table below captures the number of early start requests received from Dorset's internal and external work promoters, along with their agreements and refusals.

Table 7: Early Start Requests and Agreements

	External	Dorset	All
Permit Granted	11,716	7,223	18,939
Early Start Requests	1,554 (13%)	2,786 (39%)	4,340 (23%)
Early Start Agreements	936 (60%)	1,472 (53%)	2,408 (56%)
Early Starts Refused	618 (40%)	1,314 (47%)	1,932 (44%)

Of the 18,939 permits granted, 23% of the works requested early starts with nearly 39% of Dorset Council works and 13% of Utility works requesting early starts.

Through good communication and dialogue, the impact of each of the early starts were assessed and the permit team granted almost 56% of early start requests demonstrating good collaboration. The remaining early start requests were rejected due to various reasons such as clashes of works or where the early start was requested too late to be processed on time.

Dorset Council demonstrated parity of treatment on this measure by approving higher than average % of early start requests by external work promoters when compared with their own works.

7. Traffic Management Act Performance Indicators (TPI)

The TMA Performance Indicators (TPI's) are a collection of measures for Works Promoters in the Streetworks Industry designed by Highway Authorities and Utilities Committee (HAUC) UK and EToN Developers' Group (EDG) members.

TPI 1 Works Phases Started

Table 8 shows the count of all Works phases that started by each quarter by promoters. A total of 12,747 works was started from 16th of January 2020 to 31st December 2020, out of which 3,504 were highway works and 9,243 were utility works.

Table 8: Works Phases Started

Promoter	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
BT	657	647	713	731
Energy Assets Networks Ltd	1	0	0	0
ES Pipelines Ltd	1	1	1	1
Fulcrum Electrical Assets Limited	0	0	0	2
Fulcrum Pipelines Limited	0	0	2	0
GTC	3	5	4	9
Last Mile Electricity Limited	6	1	0	5
Last Mile Gas Limited	0	1	0	2
National Grid Electric PLC	6	2	2	6
NETWORK RAIL-PROMOTERS NATIONAL	9	10	15	14
Romec	0	4	2	2
SCOTTISH& SOUTHERN ELECTRICITY NETWORKS	183	238	230	185
South West Water	180	216	169	160
SOUTHERN GAS NETWORKS	115	205	175	232
SSE DATACOM	0	0	2	1
SSE GAS	0	1	0	1
T-Mobile (UK) Limited	3	2	2	2
VIRGIN MEDIA	10	3	12	5
Vodafone	0	26	32	7
WESSEX WATER	1411	1761	1731	1378
Western Power Distribution	90	67	94	124
All Utilities Promoters	2675	3190	3186	2867
Dorset Council	671	881	706	1917

*Since this is the first year of the scheme operation, some TPI counts may include Notices counts of works that started before permit scheme implementation and completed after implementation.

TPI 2 Works Phases Completed

Table 9 shows the count of all Works phases completed by each quarter by promoters. A total of 16,085 works phases were completed from 16th of January 2020 to 31st December 2020, out of which 4,178 were highway works and 11,907 were utility works.

Table 9: Works Phases Completed

Promoter	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
BT	654	644	716	722
Energy Assests Networks Ltd	1	0	0	0
ES Pipelines Ltd	1	1	1	1
Fulcrum Electrical Assets Limited	0	0	0	2
Fulcrum Pipelines Limited	0	0	2	0
GTC	2	6	4	9
Last Mile Electricity Limited	8	0	1	3
Last Mile Gas Limited	1	0	1	1
National Grid Electric PLC	4	1	2	6
NETWORK RAIL -PROMOTERS NATIONAL	9	10	15	13
Romec	0	4	2	2
SCOTTISH& SOUTHERN ELECTRICITY NETWORKS	180	243	231	182
South West Water	180	215	174	159
SOUTHERN GAS NETWORKS	111	199	180	231
SSE DATACOM	0	0	2	1
SSE GAS	0	1	0	1
T-Mobile (UK) Limited	3	2	2	2
VIRGIN MEDIA	10	3	12	6
Vodafone	0	20	37	7
WESSEX WATER	1402	1754	1749	1386
Western Power Distribution	91	67	92	123
All Utilities Promoters	2657	3170	3223	2857
Dorset Council	652	875	735	1916

*Since it is the first year of the scheme operation, some TPI counts may include Notices counts of works that started before permit scheme implementation and completed after implementation.

TPI 3 Days of Occupancy Phases Completed

Table 10 shows the count of all Works occupancy days for any works phases that were active (in progress) at any time within a given quarter, only days within the quarter are counted.

Table 10: Days of Occupancy Phases Completed

Promoter	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
BOURNEMOUTH WATER	182	184	184	182
BT	2959	3045	2863	3422
Energy Assests Networks Ltd	17	0	0	0
ES Pipelines Ltd	2	4	2	2
Fulcrum Electrical Assets Limited	0	0	0	9
Fulcrum Pipelines Limited	0	0	8	0
GTC	18	23	11	61
Last Mile Electricity Limited	87	3	2	52
Last Mile Gas Limited	13	3	2	25
National Grid Electric PLC	224	527	485	199
NETWORK RAIL -PROMOTERS NATIONAL	205	200	235	153
Romec	0	4	2	2
SCOTTISH& SOUTHERN ELECTRICITY NETWORKS	1355	1531	1403	1416
South West Water	572	788	646	641
SOUTHERN GAS NETWORKS	4488	5262	4660	6267
SSE DATACOM	0	0	17	52
SSE GAS	0	1	0	7
T-Mobile (UK) Limited	7	12	10	2
VIRGIN MEDIA	192	187	202	252
Vodafone	91	168	213	98
WESSEX WATER	4439	5085	5171	4830
Western Power Distribution	802	800	990	1047
All Utilities Promoters	15653	17827	17106	18719
Dorset Council	3423	4227	4210	5471

*Since it is the first year of the scheme operation, some TPI counts may include Notices counts of works that started before permit scheme implementation and completed after implementation. We believe the counts also include the works started any time before the observation period and did not receive a work stop notice. The actual number of days worked calculated by work stop notices can be found in [Appendix 1](#)

TPI 4 Average Duration of Works

Table 11 shows the average duration in days for all those Work phases that were completed within each quarter by promoters. The average duration for all promoters in the 1st year of scheme's operation is 3.77* days.

Table 11: Average Duration of Works

Promoter	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
BT	2.2	2.24	1.72	2.75
Energy Assests Networks Ltd	17	0	0	0
ES Pipelines Ltd	2	4	2	2
Fulcrum Electrical Assets Limited	0	0	0	4.5
Fulcrum Pipelines Limited	0	0	4	0
GTC	3.5	5.67	2.75	6.78
Last Mile Electricity Limited	11.13	0	5	16.67
Last Mile Gas Limited	14	0	5	24
National Grid Electric PLC	43	68	12.5	49
NETWORK RAIL -PROMOTERS NATIONAL	2.56	15.4	3.4	1.62
Romec	0	1	1	1
SCOTTISH& SOUTHERN ELECTRICITY NETWORKS	6.53	5.6	5.11	6.61
South West Water	2.75	2.95	2.69	3.36
SOUTHERN GAS NETWORKS	20.95	10.57	9.89	13.16
SSE DATACOM	0	0	8.5	52
SSE GAS	0	1	0	7
T-Mobile (UK) Limited	2.33	6	5	1
VIRGIN MEDIA	1	1	1.5	21
Vodafone	0	3	3.46	1
WESSEX WATER	2.15	2.01	2.18	2.45
Western Power Distribution	2.14	2.33	3.61	3.09
All Utilities Promoters	3.39	3.02	2.82	3.92
Dorset Council	4.28	4.36	5.26	3.1

*Since it is the first year of the scheme operation, some TPI counts may include Notices counts of works that started before permit scheme implementation and completed after implementation. Also, these counts may include the works for which works stop notices are not sent on time. The actual average duration will be less than 4.07. The actual calculations based on the works stopped during the 1st year of the scheme operation for overall and by works category average duration can be found in [Appendix 1](#)

TPI 5 Phases Completed Involving Overrun

Table 12 shows the count of works phases where the Works Stop Date was after the “Reasonable Period” for the phase for each quarter by promoters. A total of 221 work phases were completed after the reasonable period, out of which 85 works were Highway works and 136 works were utility works.

Table 12: Phases Completed Involving Overrun

Promoter	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
BT	0	5	9	1
Energy Assests Networks Ltd	1	0	0	0
National Grid Electric PLC	1	0	0	1
SCOTTISH& SOUTHERN ELECTRICITY NETWORKS	4	11	2	6
South West Water	1	1	0	0
SOUTHERN GAS NETWORKS	0	3	0	3
VIRGIN MEDIA	0	0	0	1
WESSEX WATER	7	11	9	6
Western Power Distribution	0	2	0	0
All Utilities Promoters	14	33	20	18
Dorset Council	32	23	24	57

*Since it is the first year of the scheme operation, some TPI counts may include Notices counts of works that started before permit scheme implementation and completed after implementation.

TPI 6 Number of Overrun Days

Table 13 shows the sum of the total overrun days for those work phases that were completed during the quarter for each quarter by promoters. A total of 1861 overrun days, out of which 1038 days overrun by Highway works and 823 days overrun by utility works.

Table 13: Number of Overrun Days

Promoter	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
BT	0	7	48	158
Energy Assests Networks Ltd	5	0	0	0
National Grid Electric PLC	63	0	0	106
SCOTTISH& SOUTHERN ELECTRICITY NETWORKS	21	81	4	42
South West Water	48	4	0	0

Promoter	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
SOUTHERN GAS NETWORKS	0	20	0	8
VIRGIN MEDIA	0	0	0	117
WESSEX WATER	21	23	31	14
Western Power Distribution	0	2	0	0
All Utilities Promoters	158	137	83	445
Dorset Council	214	135	340	349

*Since it is the first year of the scheme operation, some TPI counts may include Notices counts of works that started before permit scheme implementation and completed after implementation.

TPI 7/8 Number of Phase One Registrations/Phase One Permanent Registrations

Table 14 shows the count of works of all sites on the Full Registration notice for the works phase. It also shows the percentage where permanent reinstatement has been carried out in Phase One. On average, 90% of Phase One registrations were completed with permanent reinstatement, which is much higher than the industry standards.

Table 14: Number of Phase One Registrations/Phase One Permanent Registrations

Promoter	Registration	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
BT	Phase One Registrations	342	265	346	312
	Phase One Permanent Registrations	331	243	331	292
	% of Phase One Permanent Registrations	97%	92%	96%	94%
Energy Assests Networks Ltd	Phase One Registrations	1	0	0	0
	Phase One Permanent Registrations	1	0	0	0
	% of Phase One Permanent Registrations	100%			
ES Pipelines Ltd	Phase One Registrations	0	1	0	1
	Phase One Permanent Registrations	0	0	0	0

Promoter	Registration	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
	% of Phase One Permanent Registrations		0%		0%
Fulcrum Electrical Assets Limited	Phase One Registrations	0	0	0	2
	Phase One Permanent Registrations	0	0	0	1
	% of Phase One Permanent Registrations				50%
Fulcrum Pipelines Limited	Phase One Registrations	0	0	1	0
	Phase One Permanent Registrations	0	0	0	0
	% of Phase One Permanent Registrations			0%	
GTC	Phase One Registrations	1	4	3	8
	Phase One Permanent Registrations	1	4	2	4
	% of Phase One Permanent Registrations	100%	100%	67%	50%
Last Mile Electricity Limited	Phase One Registrations	8	0	1	3
	Phase One Permanent Registrations	8	0	1	3
	% of Phase One Permanent Registrations	100%		100%	100%
Last Mile Gas Limited	Phase One Registrations	1	0	1	1
	Phase One Permanent Registrations	1	0	1	1
	% of Phase One Permanent Registrations	100%		100%	100%
	Phase One Registrations	3	1	2	1

Promoter	Registration	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
National Grid Electric PLC	Phase One Permanent Registrations	3	1	2	1
	% of Phase One Permanent Registrations	100%	100%	100%	100%
NETWORK RAIL - PROMOTERS NATIONAL	Phase One Registrations	0	1	0	0
	Phase One Permanent Registrations	0	0	0	0
	% of Phase One Permanent Registrations		0%		
Romec	Phase One Registrations	0	3	2	2
	Phase One Permanent Registrations	0	0	2	2
	% of Phase One Permanent Registrations		0%	100%	100%
SCOTTISH& SOUTHERN ELECTRICITY NETWORKS	Phase One Registrations	147	155	168	143
	Phase One Permanent Registrations	132	142	159	117
	% of Phase One Permanent Registrations	90%	92%	95%	82%
South West Water	Phase One Registrations	150	202	152	125
	Phase One Permanent Registrations	132	191	147	115
	% of Phase One Permanent Registrations	88%	95%	97%	92%
SOUTHERN GAS NETWORKS	Phase One Registrations	81	178	169	197
	Phase One Permanent Registrations	79	164	166	195
	% of Phase One Permanent Registrations	98%	92%	98%	99%

Promoter	Registration	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
SSE DATACOM	Phase One Registrations	0	0	1	0
	Phase One Permanent Registrations	0	0	0	0
	% of Phase One Permanent Registrations			0%	
SSE GAS	Phase One Registrations	0	1	0	1
	Phase One Permanent Registrations	0	1	0	1
	% of Phase One Permanent Registrations		100%		100%
T-Mobile (UK) Limited	Phase One Registrations	3	2	1	0
	Phase One Permanent Registrations	3	2	1	0
	% of Phase One Permanent Registrations	100%	100%	100%	
VIRGIN MEDIA	Phase One Registrations	8	3	9	5
	Phase One Permanent Registrations	8	3	8	5
	% of Phase One Permanent Registrations	100%	100%	89%	100%
Vodafone	Phase One Registrations	0	8	25	0
	Phase One Permanent Registrations	0	8	25	0
	% of Phase One Permanent Registrations		100%	100%	
WESSEX WATER	Phase One Registrations	1147	1557	1477	1016
	Phase One Permanent Registrations	1025	1326	1220	914

Promoter	Registration	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
	% of Phase One Permanent Registrations	89%	85%	83%	90%
Western Power Distribution	Phase One Registrations	20	16	27	18
	Phase One Permanent Registrations	20	16	24	18
	% of Phase One Permanent Registrations	100%	100%	89%	100%
All Utilities Promoters	Phase One Registrations	1912	2397	2385	1835
	Phase One Permanent Registrations	1744	2101	2089	1669
	% of Phase One Permanent Registrations	91%	88%	88%	91%

*Since it is the first year of the scheme operation, some TPI counts may include Notices counts of works that started before permit scheme implementation and completed after implementation. Please note that we have not mentioned the Dorset Council's performance in TPI7/8 as Site registration is not mandatory for Highways Authority.

TPI 13 Early Start Agreements

Table 15 shows the count of works phases where an "Early Start" has been agreed. There was a total of 1687 early starts agreed out of which 896 were for Highways works and 791 were for utility works.

Table 15: Early Start Agreements

Promoter	Q4 19/20	Q1 20/21	Q2 20/21	Q3 20/21
BT	87	77	58	87
Fulcrum Pipelines Limited	0	0	1	0
Last Mile Electricity Limited	3	0	0	5
Last Mile Gas Limited	0	0	0	2
National Grid Electric PLC	4	2	1	2
NETWORK RAIL -PROMOTERS NATIONAL	0	2	2	1
SCOTTISH& SOUTHERN ELECTRICITY NETWORKS	6	33	18	4
South West Water	0	1	9	3
SOUTHERN GAS NETWORKS	41	59	44	58

SSE DATACOM	0	0	1	0
VIRGIN MEDIA	0	0	1	0
Vodafone	0	2	13	0
WESSEX WATER	30	29	40	47
Western Power Distribution	2	0	5	11
All Utilities Promoters	173	205	193	220
Dorset Council	199	262	238	197

*Since it is the first year of the scheme operation, some TPI counts may include Notices counts of works that started before permit scheme implementation and completed after implementation.

8. Conclusions

The first year of the Dorset Permit Scheme operations is considered to be a success. This review lays out key recommendations to further improve the operations in Year 2.

In the first year of operation, it is pleasing to see that the number of days occupation has reduced by 29.9%, whilst the number of works has been re-baselined for internal promoters. The average duration of works has reduced by 13% for external work promoters, from an average of 3.9 days to 3.4 days. The first year of scheme operation shows improved coordination and information management between Dorset Council and all work promoters, with a small number of works being refused or deemed. Dorset Council has applied parity to all works as required by the scheme.

The fees income received in Year 1 has reflected the cost of operating the scheme was moderately higher than the estimated value. This will be used in Year 2 to make further improvements for operating the scheme and embedding system support for optimisation of efforts.

With the implementation of the Permit Scheme, the quality of data supplied by all work promoters has significantly improved, resulting in high quality of information recorded on the Streetworks Register. Identification of gaps in the supplied data at an early stage of permit noticing process helped to record more accurate data.

9. Recommendations

Based on the overall analysis of operating the Permit scheme in Year 1, the following recommendations have been made for Year 2.

Recommendation 01:

There has been an under-recovery of £51,533 (circa 8.5%) of total fee income, therefore we recommend that costs and utilisation of resources to be monitored through the next year. Decision to be taken on proposed increase of fee across all permit types if the trend continues.

Recommendation 02:

Significant reduction in occupancy of highways has been noted in Year 1, contributed by amount of works undertaken and treatment due to clustering of works from the base level estimates. Hence, Dorset Council to continue monitoring of durations for all works against the Year 1 levels.

Recommendation 03:

Review utility application permit conditions to see if all stated conditions are necessary and required, with an intent of reducing the amount of breach of conditions and infringements in Year 2.

Recommendation 04:

Discuss and analyse standard system reports with EToN Developer to address data related observations or conditions applied for reporting to DfT.

10. Appendix

Infringements

During the Year 1 of operations, it was noted that at times work promoters failed to comply with approved ways of working under the permit scheme. For such instances Dorset's traffic team identified the deviations through system generated data or site-based inspections, captured evidence wherever necessary and have issued Fixed Penalty Notices (FPNs) to the work promoters. All works carried out by Dorset Council were also monitored and reported internally for parity, however FPNs were not raised.

FPNs are classified under below categories to help work promoters focus on specific reasons of non-compliance, and thereof take necessary action to reduce such occurrences in future.

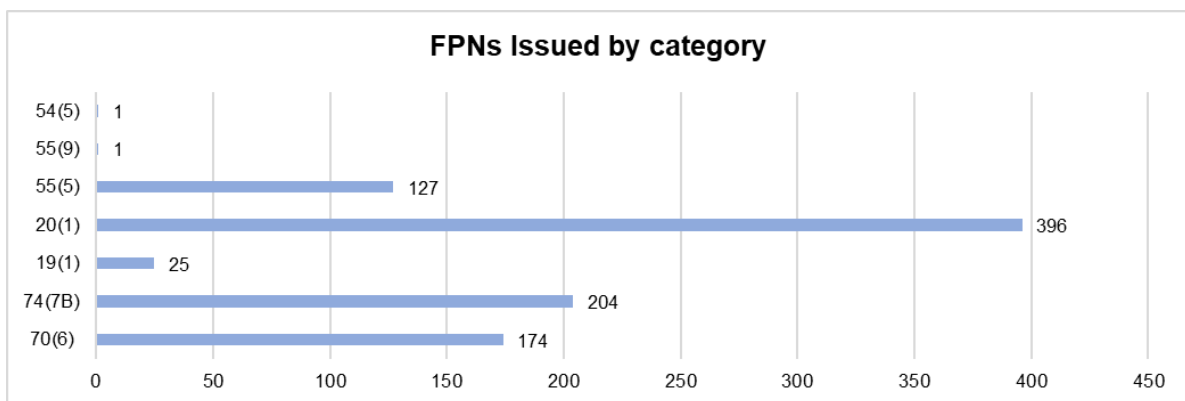
- s.70(6) - Failure to provide registration details (Partial or Full) of interim or permanent reinstatement within 10 working days from the date on which the reinstatement is completed.
- s.74(7B) - Failure to provide a notice of Actual start date, Revised duration or works clear/closed (Works Stop)
- Regulation 19 creates the criminal offence for an undertaker or someone acting on its behalf to undertake works without a valid permit.
- Regulation 20 creates the criminal offence for an undertaker or someone acting on its behalf to undertake works in breach of a condition.
- S 55(5) - works have actually started on site without a valid notice in place
- S 55(9) – Cancellation
- S54(5) – Advance notice

Table 16: Infringements by promoters by categories

Promoters	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	54(5)	Total
BT	122	58	6	29	22	1	1	239
SCOTTISH & SOUTHERN ELEC. NETWORKS	13	20	6	119	37	0	0	195
WESTERN POWER DISTRIBUTION	0	23	0	0	0	0	0	26
NATIONAL GRID	0	2	0	7	3	0	0	12
Network Rail	0	0	0	0	3	0	0	3
VIRGIN MEDIA	0	0	0	0	1	0	0	1
GTC	0	3	0	0	0	0	0	3
SSE DATACOM	0	0	0	4	1	0	0	1

Promoters	70(6)	74(7B)	19(1)	20(1)	55(5)	55(9)	54(5)	Total
T-MOBILE (UK) LIMITED	0	0	0	0	1	0	0	1
SOUTHERN GAS NETWORKS	19	12	5	95	24	0	0	155
ENERGY ASSETS NETWORKS LTD	0	0	0	0	1	0	0	1
SOUTH WEST WATER	10	1	1	33	12	0	0	57
WESSEX WATER	9	85	7	109	20	0	0	230
BOURNEMOUTH WATER	0	0	0	0	1	0	0	1
TOTAL	173	204	25	395	126	1	1	925

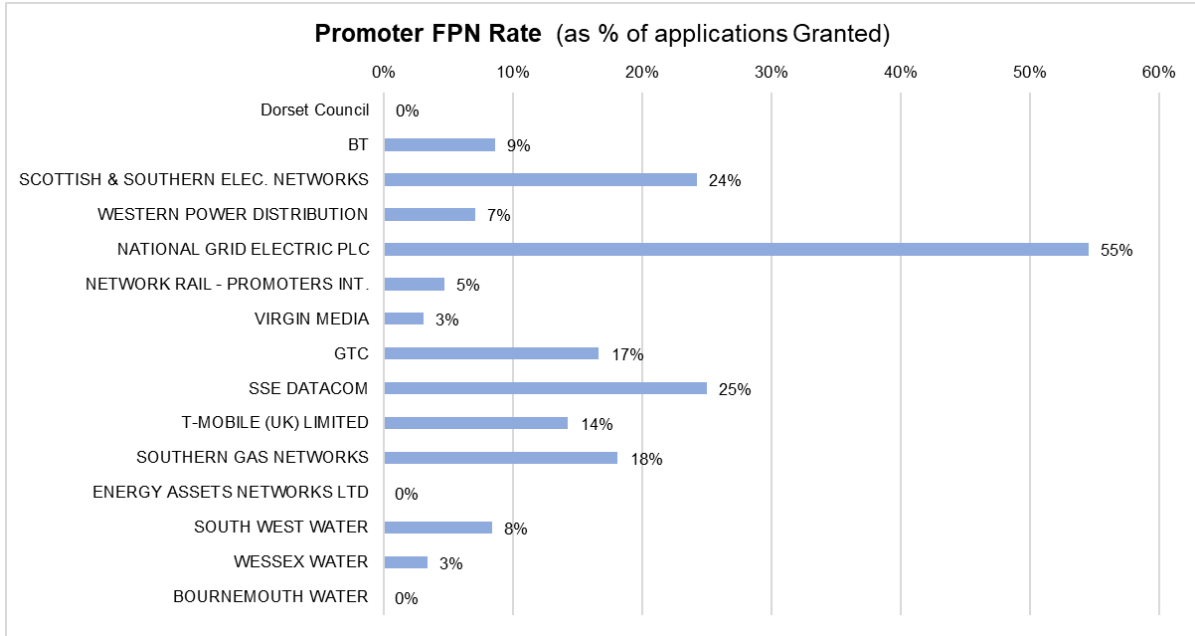
Figure 4: FPNs issued



The breach of permit conditions for works undertaken on Dorset's network appears as the primary reason for infringements.

Additional details of infringements (%) by work promoters has been analysed against the granted permit and permit variations applications. This provides further insight into the areas of improvement in Year 2.

Figure 5: Promoter FPN Rate



Carbon Emission Analysis

Dorset Council monitors carbon emissions contributed by various factors across its network. Implementing the permit scheme has significantly reduced occupancy of roads by work promoters in Year 1. Hence, a high-level analysis was undertaken to estimate probable value adding benefits offered by implementing the permit scheme.

It has been verified through the Quadro modelling documentation and the calculation of fuel emissions, that costs are internal within the model. It only reports the cost of change in emissions; hence emissions could not be directly derived from the models. However, the WebTAG datebook provides the cost of carbon dioxide equivalent emissions as £52.30 per tonne of CO₂e at 2010 values.

The Cost Benefit Analysis modelling reported the total annual fuel emissions cost of delays and diversions due to roadworks across the network in the first year at £763,851 (2010 values) or 2.4% of the total cost of works (£32.3M). Calculating backwards from the cost per tonne, would give 14,605 tonnes of carbon dioxide emitted during a typical year.

The permit scheme has reduced average durations and therefore occupancy by around 20% when compared with the Noticing benchmark period. Therefore, the effective reduction of carbon dioxide emitted in the first year of the scheme can be stated as 2,921 tonnes of CO₂e saved.

Although no benchmark is available to make a comparison a realistic approach has been undertaken for this analysis.