



North Tyneside Council

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Road Activities Permit Scheme

For Road Works and Street Works

YEAR 3 REVIEW

Executive Summary

The North Tyneside Permit Scheme was the first Permit Scheme to be implemented in the North East of England.

Secretary of State Approval was made on the 18th November 2014 and it commenced operation on the 9th February 2015.

This is the third annual evaluation of the North Tyneside Scheme covering the period from the 9th February 2017 to 8th February 2018.

The report evaluates the progress of the permit scheme in meeting both the stated objectives and parity of treatment of all works for highway purposes and utility street works. In both respects the Scheme continues to demonstrate success in respect of the intended outcomes.

Whilst the first year was challenging in terms of the changes in processes required for the Authorities, and the utility companies, the time and effort committed by all parties is paying off in respect of the success of the scheme. There is especially a demonstrable improvement in the way the Highway Authority has adopted the requirements of the scheme for its own works.

The scheme continues to be successful in respect of the following;

- improved engagement with all Promoters, and
- increased registration of the Highway Authority's own works.
- reduced days of occupancy
- average durations have shown a trend downwards in some promoters

All of the above continues to ensure that the Permit Scheme remains a vital platform to support North Tyneside Council (NTC) in fulfilling its Network Management Duty and supporting economic development in the coming years.

This evaluation report for North Tyneside Council follows the suggested layout and guidance released by HAUC (England) in association with the Permit Forum to ensure that the requirements of the regulations are met and that the scheme is demonstrably meeting its objectives.

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1 Objectives of the North Tyneside Permit Scheme

The Permit Scheme was introduced to give greater control over activities taking place on the North Tyneside Highway Network which in the past have been seen to cause unnecessary disruption. These were previously coordinated via a notice system operated under the New Roads and Street Works Act (NRSWA).

Permit Schemes enables the Authority to;

- manage and coordinate street works more effectively
- minimise disruption to users
- recharge the allowable coordination costs to the Utility Companies.

The power afforded to North Tyneside has allowed them to agree conditions with Promoters, carrying out works to ensure that works are carried out in a safe, efficient and cost effective manner.

The over-arching objectives of the scheme were to:

- Reduce occupation of the highway
- Enhance co-ordination of all activities on the highway
- Obtain greater control of all activities on the public highway
- Minimise/avoid/manage delays to all road users
- Encourage collaborative activities between all activity promoters
- Promoting best practices across North Tyneside and the wider Tyne and Wear region
- Enhanced cross-boundary co-operation
- Reducing the impact of noise on residents by having greater control of timing of activities
- Reduce instances of customer complaints regarding road and street activities
- Public transport benefits which come from more structured and coherent engagement with all stakeholders at all stages of the activities life cycle.
- Promote common activity practices across the region to ensure ease of operation for activity promoters
- Demonstrate parity for all activity promoters
- Enhance reliability of activities taking place at a particular time.

Other positive observed changes since the introduction of the scheme has been accuracy of information supplied by works promoters, with more accurate dates, plotting of works and traffic management information now being available to coordinators and road users through the public facing website www.roadworks.org, showing all activities across North Tyneside network.

The Permit and Highway Authorities together with the Utilities have aimed to keep residents, businesses and all users of network fully informed of what is going on as works progress and wherever possible publish advance notification of potential works that could lead to disruption.

Moving forward NTC are committed to improving the Scheme, working more closely with Promoters to amend and develop the current processes to make sure that the Permit Scheme is more consistent and reliable

2 Fee structure

It is generally accepted that permit schemes can take up to three years to become financially stable. A full review of the cost benefit analysis has now been undertaken on this the third anniversary of the scheme.

The costs associated with the administration of utility works permits for years three are as follows

Operating Costs	Set-up costs	Permit Fees
£409,504	£52,738	£416,861

Comments;

- The costs of operation and associated overheads of the scheme have increased by 12%
- Original set-up costs have been recovered on a month by month basis through the scheme fees
- Additional ongoing costs incurred in relation to managed services and the Authority IT network capacities have been included within operating costs.
- The original operating cost estimate has increased due to increase in overheads related to:-
 - Office space
 - Upgraded IT service
 - Upgraded access into Elgin to ensure full transparency of data and optimisation of software capability
- Changes in operational business management are shared through delegation to a Business Manager whose costs are now included in the scheme (for permit related activities only).

With the above in mind, the scheme made a small loss as the set-up costs were recovered over the final few months of year three but this is anticipated to become cost neutral in year 4.

2.1 Monetised benefits

The Cost benefit analysis business case calculated the cost for traffic management types and the reduction in days' occupancy is accounted for across all works types.

- The average monetary cost of works per day as derived from QUADRO is £223. (2012 prices)
- The overall duration of works from the pre-permit values of 4.8 days has further reduced to 4.1 days which represents a 14% reduction in average works duration since scheme commencement.
- Monetary benefit to road users as derived from QUADRO is, £3.04m per annum

This saving equates to approximately 18% of the overall cost of works calculated in the Cost Benefit Analysis which identified a £16.5m per annum total cost to road users.

The 14% reduction in occupation is higher than the 5% benefit specified in the DfT guidelines for the

business case justification for a move to Permit Schemes and indicates that the scheme is already achieving the stretch target identified of 10% and North Tyneside should now look to use the improvements identified within the review to achieve higher targets.

2.2 Cost Benefit Analysis review

An analysis for Year 3 of the NTC scheme has been carried out to seek to estimate the cost benefit that permit schemes may deliver by calculating the cost of delay on NTC’s roads attributed to roadwork activity.

In order to estimate the cost of works and therefore the benefit that the Permit Scheme may deliver, the Authority undertook a broad view of the impact of works at a network level.

An estimate of the number of vehicles on a road type was derived using data from the ATC data available through DfT publications, TADU Traffic flow information and UK traffic data. Across all data points the number of travelling vehicles since permit scheme implementation has increased by 5% and as such the impact of delays on those roads has increased exponentially.

By updating the original modelling the following table reflects how increased monitoring of the impact of active Traffic Management has had a positive impact on congestion and associated delays

TM Type	Road Closure	Contraflow	Temp Signals	Stop/Go	Lane Closure	Priority/Other	Totals
Number	200	4	410	33	92	1948	2687
%	2.8%	0.06%	5.73%	0.46%	1.29%	27.22%	6.26%
Avg Duration	10	10	12	5	5	4	7.6
Averaged user cost	£643	£9,421	£1,296	£18,421	£23,211	£65	

Comments;

- The percentage of works using multi-way signals has significantly reduced from pre-scheme levels which can be attributed to improved pre-planning of works
- Average durations of works using active traffic management have remained fairly static from pre-scheme levels. However when combined with the reduction in actual applications this has a positive impact on the operation of the network.
- The reduction in average user costs when applied across the network has reduced in specific relation the TM type due to both reduced durations and the reduced number of actual applications.

The original estimate of costs was £223 but by using economic data which identifies an increase in private and commercial user travel time & vehicle operating costs and associated provider impacts from pre-scheme to year 3, the value increases to £230 per day. This emphasises the importance of managing the number of works and associated duration on the network. If no further efficiencies were realised the benefit to the economy would reduce by 3% from £3.04m to £2.95m.

3 Evaluation of the Scheme

The scheme was developed using the mandatory Key Performance Indicators which were part of the statutory guidance determining schemes at the time of development. Further indicators were added as agreed during consultation.

The headlines from this review are:

- 10,305 permit applications were checked and co-ordinated,
- 79% granted first time
- 4% subject to PMR
- 17% refused
- 3,294 variations have been checked and co-ordinated
- Individual promoter performance reflects a positive reduction in average durations which will only serve to support the North Tyneside economy in reduced congestion

KPI 1 - The number of permit and permit variation applications received, the number granted and the number refused.

Promoter	New	Granted	%	Refused	%	Variation (inc Cancelled)	Granted	%	Refused	%	Others
Openreach	1,616	1,284	79%	332	20%	526	365	69%	161	31%	0
Newcastle	118	70	59%	48	41%	75	46	61%	17	23%	12
NTC	2,747	2,547	93%	200	7%	1,090	1,012	93%	78	7%	0
NPG	923	744	80%	179	19%	355	320	90%	35	10%	0
Vodafone	33	17	52%	16	48%	21	13	62%	5	24%	3
NR	17	10	59%	7	41%	0	0	0%	0	0%	0
VM	1,264	926	73%	338	27%	408	285	70%	123	30%	0
O2	33	15	45%	18	55%	19	11	58%	8	42%	0
Gas Tsport	16	7	44%	9	56%	11	4	36%	4	36%	3
T-Mobile	11	7	64%	4	36%	10	7	70%	0	0%	3
NGN	880	691	78%	189	41%	319	258	81%	36	11%	25
NWL	2,647	2,236	84%	411	15%	598	497	83%	101	17%	0
TOTALS	10,305	8,554	83%	1,751	17%	3,432	2,818	85%	568	12%	46

The above data has also been reviewed against the benchmarked statistics from year 2 of operation.

The data shows the following;

- NTC have increased the number of permits submitted as the operations are improving year on year in respect of registerable activities being appropriately registered.
- The number of NTC variations has reduced which is accounted for by the continual improvement operation management of the permits by the Highways Teams across the Authority.

- Authority will review use of PMR as opposed to refusal as this statistic has seen an increase from previous year
- Smaller works promoters have a higher refusal rate, NTC will work with these promoters on an individual basis to ensure they understand compliance with the permit scheme

Type	15/16	16/17	17/18	Variance against average of Years 1 & 2
Emergency	425	498	359	-103
Major	542	1,645	1,186	93
Minor	4,437	6,124	5,082	-199
Standard	2,148	4,161	2,306	-849
Urgent	1,330	1,747	1,373	-166
Totals	8,882	14,175	10,306	-1,223

The above table benchmarks the number of applications against previous years and highlights the following;

- Number of permit applications has overall decreased when comparing with pre-scheme levels by approx. 1,223 individual jobs thereby reducing occupation on the highway
- Number of major permits, similar to previous years, has increased as developments within the Authority increase. This is combined with major infrastructure upgrades for broadband roll-out
- Un-necessary applications are not being made
- All applications are being carefully considered and potential collaborations applied

KPI 2 - Conditions applied by condition type

The data below does not take into account the assumed conditions and only reflects those conditions added specifically to a permit.

TOTALS	Emergency	Major	Minor	Standard	Urgent	Total	% of all permits
NCT02a	33	245	655	255	3	1191	11.56%
NCT02b	0	1	15	10	4	30	0.29%
NCT04a	12		166	25	7	210	2.04%
NCT04b	0	3	4	8	0	15	0.15%
NCT05a	105	112	185	463	2	867	8.41%
NCT06a	83	215	430	865	25	1618	15.70%
NCT07a	0	45	0	0	0	45	0.44%
NCT08a	7	36	95	265	2	405	3.93%
NCT08b	0	45	36	5	1	87	0.84%
NCT09a	0	4	2	3	0	9	0.09%
NCT09b	0	0	0	0	0	0	0.00%
NCT09c	0	1	29	17	0	47	0.46%
NCT10a	0	8	0	18	2	28	0.27%
NCT11b	0	245	5	18	0	268	2.60%
NCT12a	0	7	25	3	0	35	0.34%
NCT13	0	0	0	0	0	0	0.00%
TOTALS	240	967	1647	1955	46	4855	
Permits	359	1186	5082	2306	1373	10306	

The collation of this data has highlighted the following;

- The highest used condition as percentage of application is NCT06a relating to road space availability. This illustrates that promoters and the Authority are using best endeavours to reduce occupation and thereby congestion
- The second most used is in respect of times of day the network is occupied. As above the increased usage is testament to all promoters in their drive to reduce congestion

KPI 3 - The number of agreed extensions to durations

Works Promoter	Granted	Variation requests %	Variations granted %
Openreach	33	7%	97%
Newcastle City	11	15%	100%
North Tyneside	95	9%	97%
Northern Powergrid	89	26%	100%
Vodafone	0	0%	0%
Network Rail	0	0%	0%
Virgin Media	41	11%	91%
O2	0	0%	0%
Gas Transportation	0	0%	0%
T-Mobile	1	10%	100%
Northern Gas Networks	54	17%	100%
Northumbrian water	125	22%	99%
TOTALS	449	14%	98%

A review of duration variation applications has highlighted the following

- Reduced number of applications as a whole from previous year
- As a percentage of the total number of permits granted the percentage has increased by 9%

NTC will review these on an individual promoter basis to understand the variances from previous years with a view to continued improvement.

KPI 4 - Number of inspections carried out to monitor conditions

Works Promoter	Granted	Cat A Inspections	Breaches identified	% Breaches
Openreach	1,284	404	93	7%
Newcastle City	70	19	11	16%
North Tyneside	2,547	107	105	4%
Northern Powergrid	744	457	124	17%
Vodafone	17	6	4	24%
Network Rail	10	0	0	0%
Virgin Media	926	180	116	13%
O2	15	1	0	0%
Gas Transportation	7	4	1	14%
T-Mobile	7	2	3	43%
Northern Gas Networks	691	438	100	14%
Northumbrian water	2,236	838	191	9%
TOTALS	8,554	2456	748	13% (avg)

In reviewing this dataset the Authority is gaining an understanding of who the poor performers are. In comparison with previous years there has been a small increase in the number of breaches identified.

The Authority will;

- Engage with the promoters as to cause and remedy
- Discuss with the small promoters their obligations and overall understanding of the permit scheme requirements

4 HAUC England KPI measures

This section outlines the Permit Indicators (KPI) contained as Annex A within the Statutory Guidance for Highway Authority Permit Schemes.

These indicators for permit schemes are additional to the general TMA Performance Indicators (TPIs), which are already being produced.

Works Promoter	Works Phases started	Works phases completed	Days of occupancy	Average Duration	Works phases completed after reasonable period	Deemed	Phase 1 permanent reinstatement
Openreach	1591	1210	8,652	3.84	2	0	1015
Newcastle City	70	70	210	3.64	0	0	70
North Tyneside	2810	1956	16,350	4.22	3	0	1956
Northern Powergrid	856	832	13,654	7.98	4	0	796
Vodafone	17	17	145	2.85	0	0	12
Network Rail	10	10	49	2.13	0	0	10
Virgin Media	1231	1120	11,729	4.47	8	0	845
O2	15	13	18	0.86	0	0	13
Gas Transportation	7	7	123	6.5	0	0	7
T-Mobile	7	7	18	1.07	0	0	7
Northern Gas Networks	852	836	21,326	17.89	14	0	796
Northumbrian water	2910	2845	18,653	4.2	16	0	2710
TOTALS	10,376	8923	90,927	4.13 (avg)	47	0	8237

5 Authority Measures

The following measures have been developed with a view to reflect the business case and objectives put forward in the scheme submission documentation.

AM 1 - Average duration of works by permit type

Type	Applications	Average Durations
Immediate (E)	359	2.2
Major	1,186	11
Minor	5,082	1.1
Standard	2,306	4
Immediate (U)	1,373	2.3

Durations have statistically been reducing and most importantly a focus has been given to Major works and reducing their impact as much as possible. Most improved when benchmarked against previous years is that minor permits are reducing in duration. This can be due to a number of factors but improvements in technology is playing a critical part of this.

AM 2 Inspections

Inspections have been reviewed in KPI 4

AM 3 Days of Disruption Saved/Number of collaborative works

There has only been a small amount of collaborative working registered through EToN which is disappointing from the Authorities perspective; however it has been identified there are a number of schemes which after discussions and agreements with statutory undertakers collaborative working did occur but not registered through EToN system.

This is an area the Authority will engage with the promoters as to the cause and remedy.

AM 4 Response Code – broken down by promoter

Retrieving this information from the Symology system has remained difficult as such no return has been provided. During the regular permit meetings there are detailed discussions as to specific examples of refusal reasons and any ongoing issues are dealt with on a case by case basis. Investigations are ongoing with Symology as to how to resolve this IT issue.

AM 5 FPNs (Permit Breaches)

Permit breaches has been illustration in KPI 4 however on further interrogation the following is noted

- Large reduction in data FPN's

On comparing this against previous years there has been a marked improvement in data updates and promoters should be praised and encouraged to continue their good work.

6 Conclusion

Since the introduction of the permit scheme it has been demonstrably successful with the benefits being delivered against the initial objectives, most visibly in terms of consistency of approach to in the delivery of the Network Management Duty. There has been a clear alignment between the delivery of the street works across the Authority between all works promoters.

Whilst the average days occupation of the highway undertaken by Statutory Undertakers has remained static the actual number of excavations undertaken has seen reductions.

The implementation of the scheme has been combined with the introduction of software which has seen the dramatic improvement of the Highway Authority permitting their own works to ensure consistency.

There are areas which could be improved and the scheme will always be seeking to challenge itself to improve its operations. This will ensure the permit scheme operates in a cost effective and economic manner.

Areas for improvement include:

- Cross boundary co-ordination and works planning. The close relationship with Newcastle City Council is illustrated in how major cross boundary works are co-ordinated
- Forward planning and communications around the extent, nature and disruption resulting from works.
- Increase and improve collaborative working between promoters
- Ongoing reviews of days of occupancy
- Consistency of use of conditions across all promoters

Actions recommended from the review

- Encourage the uptake of the incentives available
- Authority will review use of PMR as opposed to refusal as this statistic has seen an increase from previous year
- Smaller works promoters have a higher refusal rate, NTC will work with these promoters on an individual basis to ensure they understand compliance with the permit scheme.

- Ongoing reviews of days of occupancy
- As a percentage of the total number of permits granted the percentage of variation has increased by 9%. Specific discussions will be held with promoters
- Discuss with the small promoters their obligations and overall understanding of the permit scheme requirements