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Lane Rental Scheme Evaluation Report

December 2022 – March 2024

Document information

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Service Area	Highways and Transport
Directorate	Place Services
Authors	Allan Pike, Lane Rental Scheme Manager
	Jeff Elliott, Highway Network & Traffic Manager
	Jason Setford-Smith, Scheme Consultant
	Bryony Hughes, Project Support Officer
	Paul Thomson, Senior Environmental Health Officer, Chichester District Council
Project Lead	Andy Ekinsmyth, Head of Transport and Network Management
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Reference documents

Lane rental schemes: guidance for English highway authorities

Street works: fines and lane rental surplus funds

New Roads and Street Works Act 1991

The Street Works (Charges for Occupation of the Highway) (England) Regulations 2012

Traffic Management Act 2004

West Sussex Lane Rental Scheme SLRS operational guidance

West Sussex Lane Rental Scheme SLRS information

West Sussex Lane Rental Scheme SLRS charges policy and table

West Sussex Lane Rental Scheme streets and timings

West Sussex Permit Scheme Evaluation Reports

Travel time statistics background quality report - GOV.UK

NICE Air pollution: outdoor air quality and health

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Executive summary

The New Roads & Street Works Act 1991 (NRSWA), as amended by the Transport Act 2000 and the Traffic Management Act 2004 (TMA), contains provision for Highway Authorities to operate lane rental schemes that involve charging Promoters for the time their street or road works (also known as activities) occupy the highway.

At the beginning of 2020, West Sussex County Council (WSCC) began to develop proposals to introduce a Lane Rental Scheme in West Sussex to support their duty to co-ordinate and manage all activities on the highway, in order to minimise highway network disruption.

This was the first lane rental scheme development project following the successful trials of lane rental in Kent and by Transport for London.

West Sussex has one of the most extensive highway networks in the country. West Sussex County Council maintains over 4,000 kilometres of roads and 7.82 million square metres of footways as well as over 4,000 kilometres of public rights of way.

WSCC is also directly responsible for 726 road bridges and an increasing number of cycle routes.

London Gatwick is the UK's second largest airport and the busiest single-runway airport in the world and is a major economic driver for the South East region.

In support of this, the West Sussex Local Transport Plan includes 4 key objectives:

- Promoting economic growth
- Tackling climate change
- Providing access to services, employment & housing
- Improving safety, security & health

After extensive engagement with industry stakeholders on the design of the scheme and considering the Department for Transport (DfT) guidance, an application to operate a lane rental scheme was submitted to the Secretary of State for Transport was made on the 8th of December 2021, with approval received on the 16th of August 2022.

The West Sussex County Council Lane Rental Scheme (WSLRS) was introduced on 1st December 2022.

Please Note: This report covers the period from December 2022 to the end of March 2024.

Future reports will be 12 months from 1st April to 31st March.

Part of the application to the Secretary of State includes a clear plan for evaluating whether the objectives of the scheme have been met and whether the overall benefits are sufficient to justify the costs involved.

This included an evaluation methodology, an evaluation programme setting out when the evaluation will be carried out, the baseline data against which scheme performance will be measured, and a formal statement that this evaluation process will be fully resourced.

Lane rental evaluation should be performed annually with the subsequent report made available publicly.

Authorities can recoup the costs of evaluation from Lane Rental charges.

It is also expected that evaluation plans will include provision for independent evaluation of scheme performance, including an assessment of the extent to which activities were moved out of chargeable periods and the overall balance between costs and benefits arising from the scheme.

The purpose of this report is to comply with the terms of any Secretary of State approval, update behavioural change assumptions, introduce key performance indicator proposals and evaluate the impact of the WSLRS, its operational performance and costs and benefits.

In the interests of parity and transparency, representatives of both WSCC and Promoters will be actively involved in the evaluation process.

The first year of any new operational scheme is an important phase of learning and development. An evaluation not only gauges the scheme's initial impact but also lays the groundwork for future developments.

Scheme scope & objectives

The WSLRS seeks to limit the amount of disruption on West Sussex's roads by encouraging the undertaking of activities at the least disruptive time for road users, and for the early completion of activities.

The WSLRS complements the West Sussex Permit Scheme (WSPS).

Over 50,000 permit applications are received from promoters of activities in West Sussex with a steady increase seen each year. Circa 80% of these permit applications are granted and circa 80% are from Utility companies.

Over £2m of annual revenue is generated from permit fees to deliver the administration of the WSPS which is a well-regarded and highly effective service.

The information provided in permit applications and relevant notices, subject to any agreed correction, is used to determine any daily lane rental charges.

The WSLRS is a mechanism for providing all activities' Promoters with an incentive to change behaviour and minimise their occupation of the most sensitive parts of West Sussex's highway network street at the most sensitive times.

The WSLRS applies a daily charge for any part(s) of the day that the street is occupied by the activities during chargeable hours. The daily charge does not apply if the activities take place outside of the specified times.

The WSLRS applies the following guiding principles:

- The cost of disruption from activities on the highway network must be recognised.
- Inconvenience to all people using a street must be minimised, but particularly to people with particular accessibility requirements, and also other vulnerable road users such as people walking or cycling.

Objectives

The objectives of the WSLRS are to:

- Apply the scheme to all work Promoters on a consistent basis.
- Promote behaviour change to minimise the duration of occupation of the highway at the busiest locations at the most sensitive times.
- Minimise the number of activities taking place during the most traffic-sensitive times; and
- Contribute to reducing disruption to all road users.

Improvements Expected

The expected improvements from the WSLRS were:

- Behavioural changes that minimise the duration of occupation of the highway at the busiest locations at traffic sensitive times on the network.
- Reductions in the proportional number of activities taking place during traffic sensitive times; and
- Contributions towards maintaining or improving journey time reliability on the highway network.

Scope

The WSLRS has been designed to ensure that charges are only applied when activities Promoters occupy the highway at traffic-sensitive times and to allow exemptions, waivers or reduced charges at other times to encourage Promoters to adopt less disruptive working practices.

The WSLRS and the associated charging regime applies to all Promoters.

Time Restrictions

Lane Rental charges apply to specified locations at specified days and times, including on Saturdays. No charges are currently applied on Sundays, Bank Holidays and Public Holidays, including Good Friday, Easter Sunday, Easter Monday, Christmas Day or Boxing Day.

Designated Streets

Lane Rental charges are to be targeted at the most Traffic-Sensitive parts of the highway network, which are streets where activities in the highway cause the highest levels of disruption and thus require the greatest efforts to manage the impact on pedestrians, cyclists, buses, freight or other general motor vehicles.

Benefits and impacts

The WSLRS Evaluation Plan is based on the principle that the original WSLRS Cost Benefit Analysis is repeated using actual data produced over the initial and following years of operation.

Actual impacts and benefits are therefore calculated in a manner consistent with the original assumptions.

The original assumed impacts in terms of disruption reductions and societal savings are used with actual activities volumes applied to these financial impacts.

Cost benefits analysis (16-month year)

Anticipated year 1 costs £733,634	Anticipated year 1 benefit £52,844,839	Anticipated year 1 benefit to cost ratio 77.59:1
Actual year 1 costs £624,050	Actual year 1 benefit £53,274,903	Actual year 1 benefit to cost ratio 88.37:1

In line with the new DfT analysis form, future assessments will use the total charges paid by promoters as the total scheme costs and compare this to societal reductions in delay costs to identify the benefit to cost ratio.

For this analysis, only the administration / operating costs have been used, which is consistent with the original costs benefit analysis submitted as part of the application to the Secretary of State.

Costs and income

Over the period of this report, £5,932,700 of new revenue was received.

Over the period of this report, £831,151 of operational costs were incurred.

Over the period of this report, £5,101,549 was generated as a surplus and allocated to the LRSF (West Sussex).

It has not been possible to calculate the monetised costs of any behavioural change delivered by promoters.

The behavioural changes, when implemented, are varied and project specific and not recorded or calculated by promoters.

Summary costs and benefits

Baseline costs and benefits parameters	Year 1 (part year)	Year 2 (full year)	Net present value
Costs	-	-	-
Lane rental scheme charges paid by Promoters	£1,364,000	£4,568,700	-
WSLRS administration costs	£211,240	£619,911	-
Benefits			
Reduction in delay costs seen by society (CBA Assessment)	£53,274,904		£52,650,854
WSLRS surplus revenue allocation	£1,152,760	£3,948,789	-

Benefits anticipated

During the design of the WSLRS in 2021, 4 key benefits were anticipated, and these were incorporated in to the Evaluation Plan and submitted to the Secretary of State.

Further details of the Evaluation Plan are below.

The anticipated benefits were:

- Activities are carried out in a less disruptive way.
- Improved journey time reliability.
- Revenue generated from Lane Rental to be applied to measures that will help to reduce the disruption caused by future activities.
- Reduced road transport-related emissions.

Activities have been carried out in a less disruptive way by moving them out of the busy periods or times of days or by undertaking them in a less disruptive way. This includes undertaking them in different ways, using different technology, employing different working practices and when possible, collaboratively.

Disruption on the network contributes towards congestion and the inability of individuals to predict journey times. Any measure that reduces disruption, therefore improves journey time reliability.

Revenue has been generated from lane rental changes and will be returned to the highway network via the Lane Rental Surplus Funds (LRSF) group. Please see the separate LRSF (West Sussex) Evaluation report.

It is also known that reduced disruption results in better network operational efficiency and therefore reduced emissions. Driving with more accelerations, decelerations, stops and starts increases exhaust emissions and brake and tyre wear, which in turn produces particulate emissions.

It is concluded that the anticipated benefits of the WSLRS have been realised.

Impacts on the permit scheme

The operation of the WSLRS does not replace the West Sussex Permit Scheme (WSPS). Applications are still made through the permit scheme process and permit conditions are agreed and attached to granted permits.

If the activities are subject to a lane rental charge, then no permit fee is charged. This means that promoters either pay a permit fee or lane rental charge.

It is a policy of the WSLRS that if lane rental charges are applied for any day(s) of the activities, no permit fees will be applied on the non-lane rental days. For example, if a 5-day activity is only lane rental on one day, and a charge is applied, no permit fee will apply for the remaining 4 days. This is to reduce the administrative burden on both parties.

If a lane rental charge is applied, there is a subsequent loss of permit fee income, even though the permit application process, including an extensive number of business processes and co-ordination activities take place, which has an operational cost to the permit scheme. These costs are recovered from the lane rental charges and returned to the permit scheme.

During the report period £101,785 of permit fee income was not charged because lane rental charges were applied to the corresponding activities.

This reduced permit fee income has been returned to the permit team via payments from lane rental charge income in the form of a contribution towards staff costs within the permit team.

In addition to the charge regime detailed above, to support promoters working in a different way, a 30% discount is applied to permit fees for out of hours (OOH) working further encouraging disruption mitigation efforts.

Summary evaluation findings

The scheme's independent consultant rates the West Sussex Lane Rental Scheme as **EXCELLENT**.

The reasons for the rating are that the WSLRS has been implemented and managed extremely well, especially considering there were only trial schemes to learn from and use as benchmarks.

A new team has been built and an extremely competent manager has been put in place (Allan Pike) who has developed the scheme very well over the first 2 years.

Close liaison with promoters, the permit team, environment health teams, finance and senior management has been established and maintained and working practices and processes developed and improved.

Both policies and practical measures have been put in place to support and encourage behaviour change and reduce disruption on the most critical parts of the network and the busiest times.

The original vision and anticipated benefits have been realised and even exceeded.

Highlights are:

- 8.4 years of highway occupation has been saved.
- Highways network users in West Sussex have saved £53,274,904 from the introduction of Lane Rental.
- >91% of activities were not charged due to behavioural change being delivered.
- Environmental health impacts are being considered for out of hours working.
- Only 6 customer complaints have been received against an increase in out of hours working.
- Original modelled behavioural changes have been achieved.
- Busy period activities durations have reduced.
- Immediate work durations have reduced.
- Outside busy period working has increased.
- Collaborative working has increased.
- Working relationships with all promoters has improved.
- Promoters have sought to change their operations wherever possible.

The average duration of Utility activities has reduced by 32.48%. This substantial improvement serves as compelling evidence for the positive impact of introducing lane rental charges.

3,083 days of highways occupation has been saved. This equates to 8.4 years of occupation.

Activities durations

Within the WSLRS Cost Benefit Analysis, the primary objective of the WSLRS is to incentivise activities on the most critical roads of the road network to be undertaken outside of traffic-sensitive times, or reduce the duration of activities if they are carried out during traffic-sensitive times.

The CBA assumption is a 25% reduction in work durations activity produced a BCR of 77.59. Modelled duration reductions are reductions in busy period occupations.

In the new DfT analysis form an assessment of the percentage increase in work days being undertaken outside of chargeable hours to avoid charges, is required.

Moving activities outside of busy periods can reduce efficiency due to shortened work hours available. For example, activities that would take 4 days working 8am to 4pm (32 hours) may take over 5 days working 6 hours per day, between the busy periods. This can result in average duration increases being shown as they are recorded in calendar days.

Promoters can also increase resources on site to shorten the duration of activities to mitigate charges. A commercial decision can be made between the additional resource costs and the lesser charge applied from reduced durations. There is also a desire to maintain deadlines rather than extend durations to mitigate charges.

All activities promoters have set amounts of work to deliver each year so don't necessary want to extend durations if there is an alternative. This is obviously not always the case but has been delivered on many activities' sites. An example of this is Southern Gas Networks who undertook activities in Worthing, working at both ends of a site at the same time to speed up the process.

Utilities are required to get activities done by their regulators and Authority promoters must meet the expectations of Councillors who assign monies on behalf of the public to deliver road maintenance, repairs, and construction.

Durations also vary greatly by promoter type, as for example, gas main replacements will be their nature generally take longer than a fibre cable install. This means that the ability of promoters to work at different times and in different ways will vary greatly.

Authority activities are again, generally larger scale activities, on average, so efforts to reduce disruption can cause calendar days durations to increase.

In the first year of lane rental implementation WSCC experienced several significant weather events, along with prolonged periods of heavy rainfall, which in some cases saw record rainfall levels in certain months. This led to a high number of incidents occurring across the network which in some cases took place on traffic sensitive roads subject to Lane Rental.

In some of the cases the only way to manage the risk and safety issues present was to implement a road closure, closing some affected roads for long periods of time. Please see the examples indicating the type of issues that occurred, along with locations where notable:

- Widespread surface water flooding and main rivers breaching – Routes affected A29 in Bognor, Shripney and Fontwell, B2141 Chilgrove, B2166 Pagham Road/Lagness Road. Road Closures and Positive Traffic Management implemented on multiple occasions over a number of months.
- Widespread rapid deterioration in carriageway condition – Multiple road closures and positive Traffic Management countywide until a permanent solution could be delivered.
- Increase in carriageway voids appearing on the network – Multiple road closures and positive Traffic Management implemented at various sites countywide, until investigation could take place and a permanent solution delivered.
- Culvert Failure - West Chiltington Road Culvert – 4 month closure until permanent replacement was completed.
- Landslips – 4 month closure of the A29 Pulborough with positive TM for 13 months. Closure and positive TM for a week on the A283 Fittleworth.
- Midhurst Hotel Fire – Closure of the A286 for 3 months.

To better reflect the differences between busy period durations and total activities durations, measured in calendar days, work needs to be undertaken nationally to allow for this analysis. There are of course also annual variances in average durations due to the work programmes of promoters. Therefore, average durations need to be assessed over time and by work type.

The WSLRS attempts to balance all these factors to achieve the core objectives.

Environmental health impacts

The Secretary of State expects Authorities and activities promoters to work with local Environmental Health (EH) departments, before lane rental is implemented, to ensure an appropriate balance between congestion and noise-related objectives.

For example, it was considered helpful to ensure EH departments recognise that while some aspects of activities may cause substantial noise and vibration (for example, excavation), others should not (for example, laying new pipes and cables once a trench has been dug) and that some activities can be completed using trenchless techniques that do not require disruptive excavation.

Part of the evaluation of the WSLRS is recording the number of activates that are passed to local Environmental Health teams for an assessment of the potential impacts along with the number of subsequent complains received from the public regarding the works and their impact.

The WSLRS was developed in close liaison with local EH teams and a robust process of EH review of proposed out of hours activities was put in place.

This also included recording and monthly reporting on any public complaints and queries detailed below.

Part of the permit application process now includes the submission of a pro-forma and accompanying documentation and informs the Authority decision maker whether it is appropriate to grant a Permit; or grant a Permit subject to specific conditions; or refuse the Permit.

The required pro-forma is titled; ‘Notification for Works that have the Potential to Cause Disturbance from Dust, Light, Noise and Vibration’ and is submitted to the appropriate Environmental Health Team for the area the activities are planned in.

Pro-formas 1st December 2022 to 31st March 2024

Authority	Number of pro-formas received for works on lane rental scheme
Adur and Worthing Councils	25
Arun District Council	8
Chichester District Council	22
Crawley Borough Council	11
Horsham District Council	18
Mid Sussex District Council	35
Total	119

Environmental Health Team colleagues also now attend the WSLRS Operational meetings and report on any complaints.

There was a concern, amongst the Environmental Health Teams within District Councils, that the Lane Rental Scheme would incentivise out of hours working greatly and there was a risk that this could cause increased levels of disturbance by way of noise, vibration dust and light.

As such, a pro-forma procedure was set up whereby the Environmental Health Team were able to agree to an appropriate level of mitigation on a case-by-case basis.

In general terms it takes between 30mins and 1hr for the Environmental Health Team to process a pro-forma notification. This includes the time for Admin staff to raise a job and pass it to an officer for review.

There is an issue with pro-formas not always being fully completed and this adds additional unnecessary time to the process when information must be chased. It is planned to alleviate this issue through promoter briefing sessions.

Customer complaints

Over the first 16 month of operating the WSLRS there have been a total of 6 customer complaints.

Considering the increase in out of hours works, reducing network disruption, and the process of embedding a new way of working and learning new processes this is considered a very positive outcome.

Authority	Number of complaints:
Adur and Worthing Councils	3
Arun District Council	0
Chichester District Council	0
Crawley Borough Council	0
Horsham District Council	1
Mid Sussex District Council	2
Total	6

Recommendations

A final decision on whether to implement all or any of the recommendations below will be taken by West Sussex County Council following further consultation with key stakeholders.

1. No changes are made to the charge and discount table.

2. Update the charges policy so that the current consideration given to reducing charges for major activities that deliver significant highway infrastructure improvements, substantially extend/renew the longevity of an asset, or future proof a highway to protect it from being excavated again does not exclude Authority activities as a principle but considers all activities from all promoters on the extent and impact of the activities.

3. Modify the WSLRS so that it applies 7 days a week in line with new national guidance.

4. Review the Lane Rental Streets list and update it to ensure it is delivering the maximum impact and covers the most critical parts of the highway network.

5. Support a full review of the Traffic-Sensitive Streets list and associated individual streets timings and periodicity to ensure the Lane Rental Streets charges periods are appropriate and reducing disruption. (Lane Rental Streets are a subset of the TSS so timings and periodicity are the same)

6. Support a full review of Network Hierarchy to ensure the Lane Rental Streets are aligned to critical streets and the primary route network, where appropriate.

7. Now updated DfT Guidance includes and expectation that Lane Rental will cover between 5% and 10% of an Authorities network, the scope of the WSLRS Network should be reviewed to maximise its benefit.

8. Review staffing levels to ensure these are sufficient to meet the needs of the developing scheme.

9. Continue with business process developments to delivery and the development of Key Performance Indicators and any future developments in this Evaluation area.

Charges, waivers, and discounts

A lane rental classification applied to a street, highlights that activities or activities at traffic-sensitive times at these locations are likely to be particularly disruptive to road users.

Currently, charges will be waived for activities undertaken on Sundays, Bank Holidays and Public Holidays, including Good Friday, Easter Sunday, Easter Monday, Christmas Day or Boxing Day.

The most recent guidance from Highway Authorities and Utilities Committee (HAUC(UK)) includes reference to the days of the week lane rental charges can apply.

Section 3.4, Specified Days and Times

3.4.1 Subject to a street being a Specified Location, lane rental charges can apply:

- Whenever a street is designated as traffic sensitive, including weekends and Bank Holidays – except for Christmas Day and Boxing Day. The Traffic Sensitive times on a Bank Holiday will be the same as those for a Sunday at that location; and;

- During specified days of the year, for example during school term time, seasonally affected streets.

It is therefore recommended that the WSLRS is modified to allow for charges to be applied on these days.

A charge of up to £2,500 is applied to activities on the streets as an incentive to work outside the peak traffic times or in a less disruptive ways, but it does not necessarily prevent occupation during Traffic-Sensitive times.

The WSLRS adopted a policy of maximum charges to maximise the incentive for behavioural change.

This has been effective and evidenced by the content of this report and the KPIs detailed below.

Therefore, no changes to the charge and discount table will be made.

Identified lane rental charge streets (bands)	Lane rental charge discount applied	Full day charge
Band 1 (single carriageway)	0%	£2,500
Band 2 (all carriageway remedial works)	0%	£2,500
Band 3 (single lane occupancy of multi lane or dual carriageway)	20%	£2,000
Band 4 (cycle track)	40%	£1,500

If an activity footprint spans more than one Band of charging at any time during the duration of the activities, then the higher Band daily rate of charge will apply for the days the activity footprint spans the higher charge Band.

Key policies

Charging Mechanism

Activity promoters are required to pay a daily charge for occupying the highway during Traffic-Sensitive times. The charge is intended to drive a range of behavioural changes that reduce disruption.

Exemptions and Waivers

Provisions are included for charge exemptions and waivers under certain circumstances. For example, the first 48 hours of emergency activities are exempt from charges to incentivise the timely completion of these essential activities.

Enforcement and Monitoring

WSCC are responsible for monitoring activities to ensure compliance with the permit and lane rental schemes' requirements. This sometimes includes visits from inspectors, evaluation of permits and the use of CCTV. These methods help to monitor activities and enforce conditions effectively.

Impact Assessment

The scheme will undergo yearly evaluation to measure its effectiveness in delivering behavioural change and reducing disruption and improving overall network operational efficiency.

The WSLRS evaluation plan

The Government's expectation is that a robust evaluation plan is part of any proposed lane rental scheme that is submitted for Secretary of State approval.

As an evaluation plan was an integral part of the WSLRS application, there is a need to adhere to the plan in order to comply with the terms of any Secretary of State approval.

The WSLRS Evaluation Plan sets out the evidence and data that will be collected to enable a proper evaluation to take place, and the pre lane rental benchmarks against which the before and after comparison will be made.

The WSLRS Evaluation Plan defined.

1. The success criteria by which it will be measured.
2. The information used for monitoring and assessment.
3. Surplus Revenue Allocation.
4. Base Innovation and Disruption Saving Assumptions.
5. Customer Satisfaction Monitoring; and
6. Updating the Lane Rental Streets List.

The original success criteria of the WSLRS was delivery of the benefits arising from the WSLRS, which were defined as:

- Reductions in disruption and congestion delay for road users where activities are carried out in a less disruptive way, benefiting both business users and private individuals.
- Improved journey time reliability for road users where activities are carried out in a less disruptive way, benefiting both business users and private individuals.
- Revenue generated by WSLRS. The regulations require the revenue generated from lane rental to be applied to measures that will help to reduce the disruption caused by future activities. Such measures would be expected to deliver further benefits to Promoters, activities undertakers and road users.
- Environmental benefits. By reducing the congestion arising at activity sites, the WSLRS has the potential to reduce road transport-related emissions – particularly local air quality pollution that is exacerbated by stationary or slow, stop-start traffic.

Original WSLRS innovation and disruption saving assumptions

Within the WSLRS it is assumed that.

- Significant progress will be made in developing and applying new, less-disruptive techniques by the third year of the WSLRS.
- There will be increased scope to work in less disruptive ways in years three (3) to five (5) onwards, therefore; in following years Promoters and undertakers are able to reduce their exposure to lane rental charges by increasing their expenditure on, and use of, less disruptive working practices.
- Lane rental charges will also provide an incentive for Promoters and undertakers to further invest in the development of less-disruptive techniques.
- There will be an increased use of innovative traffic management.
- There will be an increased use of innovative techniques.

During the development of the WSLRS a number of behavioural changes were assumed as a result of the introduction of the financial incentive to work at a different time or in a different way.

The original behavioural changes anticipated have become better understood during the first year of operation now that implementation has been achieved and working practices are embedded.

The consultancy team supporting the WSLRS have worked with the DfT economic assessment team to further analyse the impact of these behavioural changes and embed them in a new assessment tool used for proposed lane rental schemes going forward. This has been invaluable and is a key foundation for defining key performance indicators for lane rental schemes.

The expected improvements from the WSLRS are.

- Behavioural changes that minimise the duration of occupation of the highway at the busiest locations at traffic sensitive times.
- Reductions in the proportional number of activities taking place during traffic sensitive times; and
- Contributions towards maintaining or improving journey time reliability on the highway network.

Updated behavioural change assumptions

When assessing the impact of Lane Rental Schemes, a list of behaviour changes is expected.

Using information from trials and the first operational schemes these behaviour changes are now better defined given a percentage figure that is applied to the volume of activities on the proposed lane rental network.

These anticipated behavioural changes are.

- Increase in the overall duration of activities on Lane Rental Streets due to reduced efficiency (shorter days etc).
- Decrease in the overall duration of Immediate activities on Lane Rental Streets to avoid charge periods.
- Percentage of Immediate activities being completed before charge periods apply.
- Activities being undertaken outside the Lane Rental Charge periods, such as out of hours (not charged).
- Activities being undertaken in a way that triggers a waiver, such as the use of new technology.
- Activities being undertaken in a way that triggers a discount, such as collaborative working.

Following the initial years of development of new Lane Rental Schemes and industry discussion these behavioural changes have been embedded into the new DfT Guidance and for part of the 'Lane Rental Schemes: cost-benefit analysis template.

This template is now completed by Authorities applying to operate a lane rental scheme and is produced from the results of a Cost Benefit Analysis (CBA) assessing the impacts of lane rental.

These anticipated behavioural changes in the analysis template are listed below.

- Percentage increase in Major, Standard & Minor work days being undertaken outside of chargeable hours to avoid Lane Rental charges.
- Percentage increase in Major, Standard & Minor work days being undertaken in a way that triggers a waiver, such as the use of new technology.
- Percentage increase in Major, Standard & Minor work days being undertaken in a way that triggers a discount, such as through collaborative working.
- Percentage increase in Immediate work days being completed before charge periods apply.
- Anticipated additional days due to reduced efficiency (shorter days etc)

There is also a specific measure of chargeable days anticipated following the application of behavioural changes listed above and this will provide Authorities considering Lane Rental with a potential revenue figure.

- Anticipated number of Major, Standard, Minor and Immediate work days potentially chargeable after behavioural changes have occurred.

New Key Performance Indicator proposals

Part of the requirement when operating Lane Rental Schemes is to measure a range of Key Performance Indicators (KPIs).

At the time of producing this evaluation report, no specific nationally agreed lane rental KPIs had been agreed.

When preparing this report, a list of proposed KPIs has been produced to create a KPI framework as a start point for national discussions.

These KPIs have been prepared with existing permit scheme KPIs, Traffic Management Act Performance Indicators (TPIs) and Authority Measures in mind so there is no general duplication of report requirements.

Durations KPIs

- Pre Lane Rental average duration of activities on the Traffic-Sensitive Streets Network by type.
- Post Lane Rental average duration of activities on the Traffic-Sensitive Streets Network by type.
- Total days saved due to behavioural changes.
- Average duration of activities on the Lane Rental Streets Network by type.

Volume KPIs

- Total number of activities completed on the Traffic-Sensitive Streets Network.
- Total number of activities completed on Traffic-Sensitive Streets Network by type.
- Total number of activities completed on the Lane Rental Streets Network.
- Total number of activities completed on Lane Rental Streets Network by type.
- Total number of activities completed out-of-hours on the Lane Rental Streets Network.
- Total number of activities completed out-of-hours on Lane Rental Streets Network by type.
- Total number of activities completed collaboratively on the Lane Rental Streets Network.
- Total number of activities completed collaboratively on Lane Rental Streets Network by type.

Immediate activities KPIs

- Total number of immediate activities stated on each day of the week.
- Total percentage of immediate activities stated on each day of the week.
- Total number of all activities stated on each day of the week.
- Total percentage of all activities stated on each day of the week.

Promoter KPIs

- Total number of activities completed on Traffic-Sensitive Streets Network by Promoter.
- Total number of activities completed on Lane Rental Streets Network by Promoter Type. (Water, Gas, Electricity, Telecoms, Developer, Agency (e.g. Rail) Authority).

Charging KPIs

- Total potentially chargeable activities on the Lane Rental Streets Network.
- Total potentially chargeable activities on the Lane Rental Streets Network by type.
- Total potentially chargeable activities on the Lane Rental Streets Network by Promoter.
- Total number activities not charged.
- Total Percentage of activities not charged.
- Total Percentage of activities not charged by type.
- Total Percentage of activities not charged by Promoter.

Disbenefit KPIs

- Percentage of promoters who have increased out-of-hours working.
- Percentage of promoters who have moved to weekend working.
- Percentage of promoters who have increased staff numbers.
- Percentage of promoters who have invested in new technology.
- Percentage of promoters who have increased collaborative working.
- Percentage of promoters who have avoided working on the lane rental network.
- Percentage of promoters who have made no change.

Lane rental streets

Lane rental charges need to target the most critical parts of the West Sussex highway network.

It is important that Authorities adopt an evidence-based approach to identify the critical streets (or parts of streets) where lane rental charges will apply.

Lane Rental Streets are a subset of and are based on, Traffic-Sensitive Streets.

A Traffic-Sensitive Street is a street where activities have the potential to cause significant delays and disruption to road users. It is a designation that allows streets to be identified as requiring activities promoters to give greater advanced warning of proposed activities.

Criteria for Traffic-Sensitive Streets has changed recently, removing Gritting Routes and Tourist Routes as justifications.

In response to this, a new approach has developed that aligns Traffic-Sensitive Streets with the Authority's Network Management Duty.

"It is the duty of a local Traffic Authority to manage their road network with a view to achieving, so far as may be reasonably practicable having regard to their other obligations, policies and objectives, the following objectives:

a) securing the expeditious movement of traffic on the authority's road network; and,

b) facilitating the expeditious movement of traffic on road networks for which another Authority is the traffic authority."

This is under The Network Management Duty under Section 18 of the Traffic Management Act 2004 ("the Act").

The Act defines the action that an Authority may take in performing the duty as including anything that would contribute to the more efficient use of the network, or that would avoid, eliminate, or reduce congestion or disruption.

The Authority shall make such arrangements as they consider appropriate for delivering their network management duty.

The arrangements must include provision for ensuring that the Authority determines specific policies or objectives in relation to different roads or classes of road in their road network.

Lane rental street justifications and timings

A Traffic-Sensitive Street is a street where activities have the potential to cause significant delays and disruption to road users.

Lane Rental Streets are a subset of the Traffic-Sensitive Street network and are identified as suitable for a Daily Lane Rental change to be applied.

The justifications Traffic-Sensitive Streets is an evolving area and currently included traffic-based justifications such as bus routes, vehicle and HGVs volumes. In addition, there are geographic justifications such as streets within 100 meters of critical junctions or critical traffic signals, gyratorys or roundabout systems, access routes to critical infrastructure such as hospitals and transport hubs.

When the TSS streets are identified, TSS timings need to be applied to the times of day lane rental charges applied are defined.

These are, for example:

- AM Peak - 07:30 to 09:30
- PM Peak - 15:30 to 19:00
- Inter-peak - 09:30 to 15:30
- Off-Peak - 19:00 to 07:30
- Saturday Recreational - 09:00 to 22:00

The TSS review process recommended in this evaluation report will update the streets, justifications and timing ensuring the impact of the WSLRS is targeted, reasonable and of maximum benefit to West Sussex highway users.

UK highways context

The Government's guidance document, 'Lane rental schemes: guidance for English highway authorities', encourages highway authorities to apply for lane rental schemes.

The main aim of lane rental is to reduce the impact of activities on the busiest roads at the busiest times.

There were 2.2 million street and road activities carried out in England between April 2022 and March 2023. These can cause significant disruption to people's journeys and congestion, which is estimated to cost the economy over £4 billion per year ('Halcrow 2004, Estimation of the Cost of Delay from Utilities' Streetworks').

Disruption resulting from activities on the highway not only impacts motorists by adding to congestion, but also has wider implications for the economy and the environment. Increased idling time and stop-and-go traffic contribute to higher fuel consumption and vehicle emissions, exacerbating air pollution and environmental concerns.

Efforts to mitigate the impact of activities include careful planning, communication, and co-ordination between highway authorities, activities promoters and local communities. Advance notice of activities, clear signage and alternative route information help motorists plan their journeys and minimises disruptions. Additionally, implementing off-peak work schedules and utilising innovative techniques can help expedite project timelines and reduce the duration of road closures.

Despite these efforts, minimising the impact of activities remains a complex challenge. Balancing the need for infrastructure improvements with the demands of maintaining traffic flow and minimising disruption requires strategic planning and ongoing collaboration between stakeholders. By prioritising efficiency, communication and stakeholder engagement, highway authorities can work towards minimising the inconvenience associated with activities while maximizing the benefits of infrastructure installation and upgrades for communities and highways users alike.

While Lane Rental schemes have been successful in some areas at reducing congestion and minimising disruption, its effectiveness may vary depending on local factors and the level of cooperation among activities promoters and highway authorities.

Nevertheless, the Government's support for lane rental schemes underscores its commitment to managing activities on the highway more effectively and ensuring less disruption and smoother journeys across the UK.

WSLRS KPIs and data

This section provides information on the activities undertaken on the Lane Rental Network during the first sixteen months of the lane rental scheme (December 2022 – March 2024).

Additionally, comparative data for the preceding nineteen months (April 2021 – November 2022) before the scheme's implementation is included for reference.

This demonstrates the effectiveness of the scheme.

It is important to note that the comparison period included three additional months of data compared to the initial period of the scheme.

Although this is the first year+ of operation of the WSLRS and there is a great deal of learning and development still to achieve, a direction of travel can clearly be seen.

Part of the ongoing development work will be monitoring data and reporting on the nationally agreed KPIs proposed earlier in this document.

Table 1 - number of activities completed on traffic-sensitive streets across West Sussex. The data has been broken down by the type of activity the activities were categorised as.

Activity type	April 2021 – November 2022	December 2022 – March 2024
Immediate (urgent)	1,665	1,776
Immediate (emergency)	503	611
Minor	5,949	4,225
Standard	1,110	665
Major (< 10 days duration)	557	398
Major (> 10 days duration)	262	189
Total	10,046	7,864

The total number of activities completed on the lane rental network exhibited a decrease of 2,182 when compared to the previous period[1].

Activities numbers are subject to fluctuation and are largely influenced by factors such as the condition of infrastructure, planned upgrades, the volume of emergency repairs, and the construction of new developments.

[1] The introduction of the WSLRS has had no impact on the data presented in Table 1 and Table 2. We have included this data to provide context for the other datasets outlined in this report.

Table 2a – number of activities completed by utility activities promoters on traffic sensitive streets.

Activity type	April 2021 – November 2022	December 2022 – March 2024
Immediate (urgent)	1,552	1,684
Immediate (emergency)	442	478
Minor	3,533	2,438
Standard	900	450
Major (< 10 days duration)	135	107
Major (> 10 days duration)	141	84
Total	6,703	5,241

Table 2b – provides further breakdown of the number of activities completed, showing the breakdown by each major utility industry, water, gas, electricity, and telecommunications.

Utility industry	Water	Gas	Electricity	Telecoms
Immediate (urgent)	1,029	27	279	335
Immediate (emergency)	96	257	1	120
Minor	520	10	166	1,683
Standard	72	34	112	221
Major (< 10 days duration)	34	3	10	22
Major (> 10 days duration)	9	27	34	14
Total	1,760	358	602	2,395

The detailed breakdown of activity types according to industry offers valuable insights into the lane rental scheme's effectiveness within each utility sector and highlights specific challenges or constraints that may be encountered. This analysis enables a nuanced understanding of how the scheme operates within different industrial contexts, thereby facilitating targeted improvements or adjustments where necessary.

Figure 2c – shows the number of activities completed by each respective activities promoter that has operated on a traffic-sensitive street in West Sussex during the first phase of the WSLRS (December 2022 – March 2024).

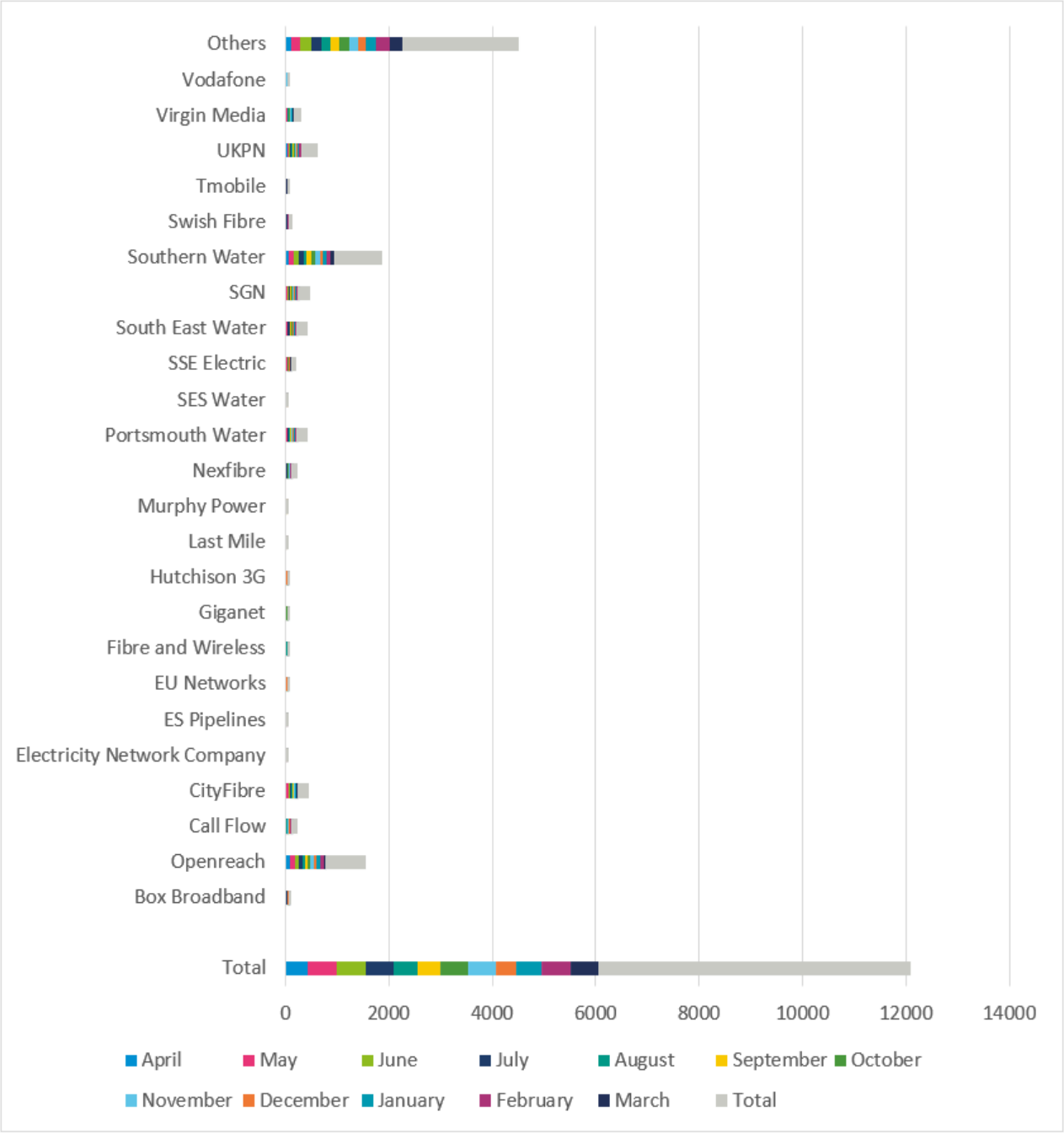

Table 3 – shows the number of potentially chargeable activities that took place on traffic sensitive streets across West Sussex.

Activity type	April 2021 – November 2022	December 2022 – March 2024
Immediate (urgent)	531	583
Immediate (emergency)	298	354
Minor	2,531	1,681
Standard	555	282
Major (< 10 days duration)	342	258
Major (> 10 days duration)	200	117
Total	4,457	3,285

The total number of potentially chargeable activities has reduced by 1,172.

Table 4a – shows the number of potentially chargeable activities carried out by utilities activities promoters on traffic sensitive streets.

Activity type	April 2021 – November 2022	December 2022 – March 2024
Immediate (urgent)	422	503
Immediate (emergency)	245	250
Minor	848	616
Standard	417	202
Major (< 10 days duration)	38	40
Major (> 10 days duration)	107	55
Total	2,077	1,666

The total number of potentially chargeable utility activities has reduced by 411.

Table 4b – provides a further breakdown of the potentially chargeable activities completed by utilities, broken down by industry sector. Authority and developer activities will be included as data becomes available.

Utility industry	Water	Gas	Electricity	Telecoms
Immediate (urgent)	338	5	84	76
Immediate (emergency)	55	128	1	66
Minor	152	3	46	415
Standard	36	15	51	99
Major (< 10 days duration)	24	3	7	6
Major (> 10 days duration)	7	19	22	7
Total	612	173	211	669

Table 5 – shows the number of activities on traffic sensitive streets in West Sussex that were subject to Lane Rental charges. [2]

Activity type	December 2022 – March 2024
Immediate (urgent)	189
Immediate (emergency)	131
Minor	201
Standard	116
Major (< 10 days duration)	21
Major (> 10 days duration)	15
Total	673

4,568 activities were not charged. This is the result of various factors. The list below provides a non-exhaustive list:

- Works completed outside of specified times or dates.
- Non-excavatory works.
- Lamp column or telecoms post replacement etc.
- Works that fell into transitional arrangements as per the scheme documents.

[2] No comparison data has been provided for the period leading up to the scheme, as no charges were applicable before the WSLRS implementation.

Table 6 – provides a breakdown of the activities charged by promoter type.

Utility industry	Water	Gas	Electricity	Telecoms
Immediate (urgent)	133	3	39	7
Immediate (emergency)	10	96	0	14
Minor	74	3	18	100
Standard	32	14	27	39
Major (< 10 days duration)	14	2	3	2
Major (> 10 days duration)	2	2	2	4
Total	265	120	89	166

Table 7a – shows the percentage of activities charged.

	December 2022 – March 2024
All Activities3	8.56%
Potentially Chargeable Activities	20.49%

Table 7b - shows the percentage of utilities activities charged.

Utility industry	Water	Gas	Electricity	Telecoms
All Activities	15.06%	33.52%	14.78%	6.93%
Potentially Chargeable Activities	43.30%	69.36%	42.18%	24.81%

This data reflects the types and priority of activities undertaken in each industry. Notably the telecoms industry, despite conducting the largest volume of activities, incurred the smallest percentage of charges. This phenomenon may be attributed to their relatively fewer immediate activities, allowing them to operate in the most financially viable manner and organise a significant portion of their activities outside of chargeable periods. They are also in a better position to pull traffic management in because often their works are off the carriageway.

[3] "All activities" refers to the total number of activities that took place on traffic sensitive streets, including those not chargeable.

Despite executing the smallest volume of activities, the gas industry incurred the highest percentage of charges. Notably, immediate activities constituted 79.33% of all activities within this industry. It is significant to acknowledge that the first two days of immediate activities (urgent and emergency) are not subject to lane rental charges. Whilst these imperative repairs cannot be circumvented or delayed until non-chargeable periods, there is an opportunity to mitigate charges by endeavouring to diminish the average duration of immediate repairs.

Table 8 – shows the average duration (in calendar days) of all activities carried out on traffic sensitive streets in West Sussex.

Activity type	April 2021 – November 2022	December 2022 – March 2024
Immediate (urgent)	3.67	3.66
Immediate (emergency)	7.52	7.83
Minor	1.87	1.71
Standard	8.05	7.38
Major (< 10 days duration)	2.85	2.77
Major (> 10 days duration)	45.15	43.60

The average duration of major works activities has decreased by 1.55 days since lane rental's inception. While this reduction of 3.43% marks a positive stride forward, a comparison with the 6.28% reduction observed solely within the utilities data indicates that there is still room for improvement in minimising the duration of WSCC activities.

Table 9 – shows the average duration (in calendar days) of activities carried out by utility activities promoters on traffic sensitive streets.

Activity type	April 2021 – November 2022	December 2022 – March 2024
Immediate (urgent)	3.78	3.76
Immediate (emergency)	7.51	7.04
Minor	2.23	2.02
Standard	8.20	7.45
Major (< 10 days duration)	2.99	2.50
Major (> 10 days duration)	42.52	39.85

The average duration of major utility activities has decreased by 2.67 days. This reduction of 6.28% underscores the effectiveness of lane rental charges in incentivising expedited completion of activities.

Table 10 – shows the average duration (in calendar days) of all potentially chargeable activities carried out on traffic sensitive streets in West Sussex.

Activity type	April 2021 – November 2022	December 2022 – March 2024
Immediate (urgent)	4.53	2.74
Immediate (emergency)	7.60	8.56
Minor	1.54	1.27
Standard	8.19	7.15
Major (< 10 days duration)	3.29	2.87
Major (> 10 days duration)	36.74	45.73

In contrast to figure 8, the average duration of potentially chargeable major works activities has risen by 8.99 days. This 24.47% increase can be attributed to the WSCC data.[4]

Table 11 – shows the average duration of potentially chargeable activities carried out by utility activities promoters on traffic sensitive streets.

Activity type	April 2021 – November 2022	December 2022 – March 2024
Immediate (urgent)	4.90	2.92
Immediate (emergency)	7.40	6.76
Minor	2.32	1.46
Standard	8.32	7.11
Major (< 10 days duration)	5.39	2.78
Major (> 10 days duration)	58.75	39.67

The average duration of major utilities activities has seen a remarkable reduction, amounting to a decrease of 19.08 days. This surpasses initial expectations, with the

[4] It is essential to highlight that the WSCC data concerning volumes and durations of work encompasses closures of all natures, not solely limited to activities as in the utilities data. Notably, significant closures resulting from events such as flooding, or fires are incorporated within these figures.

reduction percentage standing at 32.48%. This substantial improvement serves as compelling evidence for the positive impact of the WSLRS.

Table 12 – shows the number of days saved across all activities, when compared to the average duration of activities during the pre-Lane Rental period (April 2021 – November 2022).

Activity type	December 2022 – March 2024
Immediate (urgent)	25.87
Immediate (emergency)	-190.17
Minor	705.54
Standard	441.35
Major (< 10 days duration)	29.98
Major (> 10 days duration)	293.85
Total	1,306.41

Table 13 – shows the number of days saved by utilities activities promoters.

Activity type	December 2022 – March 2024
Immediate (urgent)	34.17
Immediate (emergency)	221.24
Minor	522.68
Standard	336.50
Major (< 10 days duration)	52.41
Major (> 10 days duration)	224.49
Total	1,391.50

Table 14 – shows the number of days saved across all potentially chargeable activities.

Activity type	December 2022 – March 2024
Immediate (urgent)	937.21
Immediate (emergency)	-339.17
Minor	449.91
Standard	294.37
Major (< 10 days duration)	112.58
Major (> 10 days duration)	-1,052.01
Total	402.89

Table 15 – shows the number of days of potentially chargeable activities saved by utilities activities promoters.

Activity	December 2022 – March 2024
Immediate (urgent)	991.55
Immediate (emergency)	158.98
Minor	533.76
Standard	244.43
Major (< 10 days duration)	104.79
Major (> 10 days duration)	1049.00
Total	3082.51

This total figure equates to 8.45 years' worth of savings.

Table 16a – shows the number of potentially chargeable immediate activities starting each day.

Start Day	April 2021 – November 2022	December 2022 – March 2024
Monday	147	193
Tuesday	178	166
Wednesday	152	195
Thursday	160	180
Friday	120	129
Saturday	31	38
Sunday	41	36

Table 16b – shows the percentage of potentially chargeable activities starting on each day.

Start Day	April 2021 – November 2022	December 2022 – March 2024
Monday	17.73%	20.60%
Tuesday	21.47%	17.72%
Wednesday	18.34%	20.81%
Thursday	19.30%	19.21%
Friday	14.48%	13.77%
Saturday	3.74%	4.06%
Sunday	4.95%	3.84%

Table 17a – shows the number of potentially chargeable activities carried out by utilities activities promoters starting on each day.

Start Day	April 2021 – November 2022	December 2022 – March 2024
Monday	107	145
Tuesday	148	147
Wednesday	124	155
Thursday	126	140
Friday	99	100
Saturday	25	34
Sunday	38	32

Table 17b – shows the percentage of potentially chargeable activities carried out by utilities activities promoters starting on each day.

Start Day	April 2021 – November 2022	December 2022 – March 2024
Monday	16.04%	19.26%
Tuesday	22.19%	19.52%
Wednesday	18.59%	20.58%
Thursday	18.89%	18.59%
Friday	14.84%	13.28%
Saturday	3.75%	4.52%
Sunday	5.70%	4.25%

Transitional arrangements

Major schemes

During the period covered by this report (December 2022 – March 2024) no section 278 works were subject to charges under the lane rental scheme due to transitional arrangements or due to being forward planned.

Transitional arrangements within the WSLRS document states. 'Major schemes with a valid forward planning notice submitted on the permit system with a start date within twenty-four months of the WSLRS come-into-effect date will not be subject to charge.'

Section 278 works

During the period covered by this report (December 2022 – March 2024) no section 278 works were subject to charges under the lane rental scheme.

A Section 278 agreement under the Highways Act 1980 allows developers to enter into a legal agreement with the Council, to make alterations and improvements to a public highway, as part of a planning application. On most development sites, it will be necessary to alter the existing public highway layout.

This was a result of almost all these works falling into the transitional period when charges are not applied.

Transitional arrangements within the WSLRS document states. 'Works, that are executed under a NRSWA Section 50 licence, or an agreement pursuant to Section 278 of the Highways Act 1980 that actually start within the three months of the WSLRS come-into-effect date will not be subject to charge'.

Despite the absence of the financial incentives during the transitional arrangements, a notable change in behaviour among the Section 278 works promoters has been observed.

It is expected that this behavioural change will persist as these activities become liable for charges.

A comparison of the Section 50 and Section 278 behavioural changes compared to utility and Authority activities will be included in the next report.

Within the case study section of the evaluation report there are two case studies detailing disruption mitigation measures implemented by Section 278 works promoters.

Analysing behavioural changes

Utility companies have implemented significant operational change to reduce their activities durations in response to the introduction of the WSLRS.

As detailed above, utility activities promoters have collectively saved 3,082.51 days of potentially chargeable activities.

It is crucial to acknowledge the considerable efforts utility companies have gone to achieve this.

We reached out to every activities promoter who carried out chargeable activities on Lane Rental streets in West Sussex to document their strategies for mitigating charges and minimising disruption caused by their activities.

Out of 29 utility companies contacted, 21 did not respond to our requests for information.

Therefore, the information provided below is not reflective of all utilities, only the 8 who responded, but is a useful analysis of the impact of the WSLRS.

A key behavioural change resulting from potential lane rental charges is more activities being undertaken outside normal working hours. Promoters working this way are reducing disruption but also potentially incurring additional operational costs, such as lighting equipment or staff overtime.

The WSPS has introduced a policy that applies a 30% discount to the permit fee for activities undertaken out of hours.

There has been significant increase in the number of activities being discounted in this way, rising from 241 before the lane rental scheme was introduced to 701 after.

This is a clear behavioural change, delivered by the incentive lane rental charges produce.

Case studies

Case study contributors' perspectives

Moved to OOH working

Moved to weekend working

Increased staff numbers

Invested in new technology

Collaborative working

Avoided works

Made no changes

Case study 1: Southern Water

Website address: Southern Water Ltd

Southern Water encountered increasing pressure to minimize Lane Rental (LR) charges while efficiently carrying out essential repair and maintenance tasks. They faced constraints such as Service Level Agreements (SLA's) and priority response times, which limited their ability to schedule works out of hours.

Strategies implemented

Internal Briefing for Subcontractors

Southern Water has issued a comprehensive internal briefing to their subcontractors, emphasising the importance of adhering to LR charge stipulations. They outlined the new goal of completing emergency works within two days and encouraged subcontractors to schedule remaining repairs outside LR chargeable periods wherever possible.

Investment in innovative technology

Recognising the potential of technology to streamline operations, Southern Water has invested in cutting-edge "no dig" technology. Key innovations included Kobus pipe pullers and Sarco Aquastop systems, which have facilitated quicker repairs and minimised road space occupation.

Out of hours (OOH) work

While prioritising OOH work to avoid LR charges, Southern Water acknowledged the limitations imposed by SLA's and priority response times. They made concerted efforts to schedule works during off-peak hours whenever feasible but accepted that this wasn't always possible.

Strategic planning for new installations

In planning new location installs, Southern Water weighs the option of avoiding works to minimise LR charges. However, they recognise that emergency works are sometimes unavoidable, and prioritise safety and infrastructure integrity over cost considerations.

Outcomes

Reduced LR charges

By leveraging innovative technology, and optimising scheduling, Southern Water somewhat minimised LR charges and road occupation.

Enhanced efficiency

The implementation of streamlined processes and the adoption of advanced technology improved operational efficiency, enabling reduced disruption to the public.

Continued commitment to safety

Despite cost pressures, Southern Water maintained a steadfast commitment to safety standards, ensuring that emergency works were promptly addressed to safeguard public welfare and infrastructure integrity.

Through strategic planning, innovative technology adoption, and effective subcontractor management, Southern Water has made efforts to successfully mitigate LR charges while fulfilling their obligations to maintain and repair essential underground infrastructure. Their proactive approach to addressing cost pressures while prioritising safety underscores their commitment to excellence in service delivery within the water utilities sector.

Case study 2: South East Water

Website address: South East Water Ltd

South East Water encountered pressure to minimise Lane Rental (LR) charges while effectively carrying out essential works. They face constraints such as limited labour resources and financial viability, which impact their ability to schedule out of hours (OOH) works and increase staff levels. Additionally, they strive to maintain collaborative relationships with other contractors and improve interdepartmental communication to optimise project planning and execution.

Strategies implemented

Selective OOH working

South East Water adopts OOH working only when financially viable and when labour resources permit. They prioritise projects where the potential cost savings outweigh the additional expenses associated with OOH operations.

Investment in innovative technology

Recognising the importance of minimising disruption caused by their works, South East Water has invested in innovative technology. Highlights include One.Network software for planning optimal diversion routes and Hotbox reinstatement technology for efficient road surface repairs.

Collaborative working with other contractors

South East Water seeks opportunities for collaborative working with other contractors, particularly during the planning and permitting stages of projects. They recognise the benefits of sharing resources and expertise to minimise LR charges and enhance project efficiency.

Acceptance of unavoidable LR charges

South East Water acknowledges that in some cases, LR charges are unavoidable due to project constraints or unforeseen circumstances. They accept these charges and prioritise completing works efficiently to minimise their impact.

Internal contractual KPI’s and interdepartmental communication

South East Water has established internal contractual Key Performance Indicators (KPI’s) with caveats that push for the completion of works within two days to avoid LR charges. Additionally, they emphasise better interdepartmental communication when planning works to promote internal collaborative working and streamline operations.

Outcomes

Cost-effective operations

By selectively implementing OOH working, leveraging innovative technology, and optimising collaborative efforts, South East Water attempts to minimise LR charges.

Improved project efficiency

The adoption of advanced technology and collaborative working practices enhances project planning and execution, resulting in reduced disruption and improved overall efficiency.

Enhanced internal communication

By emphasising better interdepartmental communication, South East Water fosters a culture of collaboration and coordination, leading to more effective project delivery.

South East Water demonstrates a proactive approach to minimising LR charges while optimising project efficiency and maintaining collaborative relationships within the industry. Through strategic utilisation of resources, investment in innovative technology, and emphasis on internal communication and collaboration, they have successfully attempted to navigate challenges associated with LR charges and ensure efficient project delivery in the infrastructure sector.

Case study 3: SSEPD

Website address: Scottish & Southern Energy Power Distribution Ltd

SSEPD encounters difficulties in minimising Lane Rental (LR) charges due to the unpredictable nature of their work. SSEPD have not changed their internal polices specifically for Lane Rental schemes. To do so would incur major impacts financially and need a change in operational practices, and LR only impacts a small amount of their current work at this time. While collaborative working with other contractors is actively pursued, safety concerns relating to working near gas lines/water pipes often limit the viability of such collaborations.

Strategies implemented

No specific LR policies

Recognising the diverse and unpredictable nature of emergency Electricity works, SSEPD approach each situation on a case-by-case basis, responding to emergencies as they arise and prioritise works in LR areas where possible.

Limited ability to expedite emergency/reactive repairs

SSEPD acknowledges the inherent challenges in expediting emergency and reactive repairs due to the nature of their operations. While they strive to respond promptly to emergencies, they advise that there is limited scope for expediting repairs beyond what is feasible given the circumstances.

Challenges in collaborative working

SSEPD actively tries to pursue collaborative working with other contractors; however, SSEPD faces limitations in how successful this is due to safety concerns. Working near gas lines/water pipes presents inherent risks, making it challenging to collaborate effectively with other contractors on shared projects.

Active initiatives to reduce work lengths or avoid LR charges

They prioritise safety and compliance with regulatory requirements while responding to emergencies, which may limit their ability to implement changes aimed at cost reduction and prioritise LR locations to clear quickly where possible depending on the emergency found.

Outcomes

Operational flexibility

SSEPD tailors their approach to each situation based on its unique characteristics and requirements.

Safety prioritisation

The company maintains a strong commitment to safety in their operations, particularly when working near gas/water lines, which limits their ability to collaborate with other contractors and implement changes aimed at cost reduction.

Limited impact on LR charges

While LR charges remain a challenge for SSEPD, their focus on safety and compliance may result in limited opportunities to implement measures aimed at reducing costs associated with LR charges.

SSEPD navigates the challenges of managing LR charges amidst operational constraints inherent in emergency and reactive electrical repair works. While they prioritise safety and respond promptly to emergencies, their approach is constricted by working conditions and regulatory requirements. This challenges SSEPD to undertake policies and initiatives aimed specifically at minimising LR charges. Moving forward, the company may benefit from exploring alternative strategies or collaborating with industry stakeholders to address the unique challenges posed by their operational environment.

Case study 4: SGN

Website address: Southern Gas Networks Plc

SGN encounters difficulties in avoiding Lane Rental (LR) charges while prioritising quick action and emergency response in the case of gas escapes. Operating out of hours (OOH) is not always feasible due to the severity of gas escapes, and collaborative working for reactive repairs is limited. Despite a significant recruitment drive and investment in innovative technology, avoiding works completely to avoid LR charges is not a possibility.

Strategies implemented

The processes discussed in this study are applicable to the SO Central Ops region and do not reflect all SGN regions as a whole.

Recruitment drive

In response to the demands of emergency response work, SGN has conducted a massive recruitment drive, hiring 400 new frontline staff. This influx of personnel enables them to enhance their capacity for emergency repairs and reduce response times.

Investment in innovative technology

SGN has invested in new, innovative technology to improve the efficiency of their operations. This includes the acquisition of new core & vac machines and CISBOT machines, which streamline repair processes and minimise disruption to LR chargeable areas.

Limitations of OOH operations

While recognising the benefits of OOH working, SGN faces limitations due to the urgent nature of gas escapes. Quick action is often necessary to ensure public safety and minimise the risk of incidents, making it challenging to schedule works outside of regular hours.

Collaborative working constraints

SGN acknowledges that collaborative working is not always feasible for reactive repairs, particularly in emergency situations. However, they explore opportunities for collaboration on planned works where possible, although the scope for such initiatives is limited.

Trial of planning excellence team

SGN has initiated a trial of a new Planning Excellence Team within their central operations team. This team will focus on planning larger, more complex works and collaborate closely with local authorities to minimise disruption. While still in its early stages, this initiative aims to optimise project planning and reduce LR charges.

Outcomes

Enhanced emergency response

SGN's recruitment drive and investment in technology have bolstered their capacity for emergency response, enabling quicker action and reducing the length of works.

Limited LR charge reduction

Despite efforts to minimise LR charges, the urgent nature of gas escapes and the constraints of emergency response work make it challenging to completely avoid LR charges. However, the trial of the Planning Excellence Team holds promise for future LR charge management efforts.

Continued focus on public safety

SGN maintains a steadfast commitment to public safety, prioritising quick action and efficient response to gas escapes, even if it means incurring LR charges.

SGN grapples with the inherent challenges of balancing emergency response with LR charge management in the gas utilities sector. While they have made significant investments in recruitment and technology to enhance their capabilities, the urgent nature of their work presents obstacles to LR charge avoidance. Moving forward, the trial of the Planning Excellence Team and continued collaboration with local authorities may offer opportunities to further optimise project planning and mitigate LR charges while ensuring public safety remains the top priority.

Case study 5: UKPN

Website address: UK Power Networks (Operations) Ltd

UKPN has encountered difficulties in minimising Lane Rental (LR) charges while ensuring public safety and regulatory compliance. Operating out of hours (OOH) has been met with resistance from the public and Environmental Health Officers (EHOs) and increasing staff numbers is perceived as inefficient. Despite their efforts to implement smarter working practices and seek opportunities for collaboration, safety concerns and regulatory obligations present significant constraints.

Strategies implemented

Focus on smarter working

Instead of increasing staff numbers, UKPN prioritises "smarter" working by improving communication and works management systems. This approach aims to optimise resource utilisation and streamline operations without appearing “inefficient” to their regulators.

Challenges of OOH working

While recognising the potential benefits of OOH working, UKPN faces challenges due to public and EHO sensitivities. They carefully consider the impact of OOH operations on disruption levels and safety concerns, balancing the need to minimise LR charges with public expectations and regulatory requirements.

Seeking collaborative opportunities

UKPN actively seeks opportunities for collaborative working to optimise efficiency and minimise LR charges. However, the feasibility of collaboration is contingent upon the specific nature of the works and the willingness of other stakeholders to participate.

Regulatory obligations and duty to provide supplies

UKPN acknowledges their duty to improve, maintain, and provide utility supplies, which necessitates carrying out works even in LR chargeable areas. They prioritise safety and compliance with regulatory requirements while seeking to minimise disruptions and LR charges wherever possible.

Consideration of safety and disruption

UKPN carefully considers safety concerns and disruption levels when planning works, particularly regarding OOH operations. They recognise that sometimes safety considerations may override the desire to avoid LR charges, and OOH working may inadvertently increase the duration of works due to additional safety measures required.

Outcomes

Emphasis on safety and regulatory compliance

UKPN maintains a strong focus on safety and regulatory compliance, prioritising these aspects even in the face of LR charge constraints.

Strategic smarter working

The company's emphasis on smarter working practices, such as improved communication and works management systems, enables them to optimise efficiency without increasing staff numbers.

Limited impact on LR charges

Despite their efforts to minimise LR charges, UKPN faces challenges due to the inherent complexities of utility supply provision and regulatory obligations.

UKPN has attempted to navigate the challenges of minimising LR charges while prioritising safety, regulatory compliance, and efficient service provision in the electricity utilities sector. Despite constraints related to public sensitivities, regulatory obligations, and the limitations of collaborative working, they continue to seek opportunities for optimisation and improvement. Moving forward, UKPN remains committed to reducing disruptions and LR charges while ensuring safety remains paramount in all their operations.

Case study 6: City Fibre

Website address: City Fibre Ltd

City Fibre has encountered challenges in avoiding Lane Rental (LR) charges while carrying out infrastructure works on LR chargeable streets. Despite their efforts, collaborative working with other contractors has seen minimal uptake, and there have been instances where works have been avoided altogether due to cost inefficiency. However, the company has implemented various strategies, including weekend works and investment in technology, to mitigate LR charges.

Strategies Implemented

Weekend Works and Extended Hours

City Fibre schedules carriageway crossing works on weekends to minimise LR charges associated with weekday disruptions. Additionally, they ensure staff remain on-site for the full duration of each day's permit maximizing productivity and reducing the total number of days required to complete works.

Increased Staff Numbers

City Fibre have not raised staff numbers.

Investment in Innovative Technology

City Fibre has invested in innovative technology, such as top cutters (hired when required), to speed up works and minimise disruption. These technologies have been implemented for several reasons to enable faster and more efficient installation processes and assist with reducing the likelihood of incurring LR charges.

Encouraging Collaborative Working

Despite limited uptake from other contractors, City Fibre continues to encourage collaborative working to optimise project efficiency and minimise LR charges. However, the challenges of coordinating with other stakeholders in the industry remain a barrier to widespread collaboration.

Cost-Efficient Works

City Fibre occasionally avoids carrying out works altogether when it is not cost-efficient to do so. While this may result in some customer properties not receiving fibre upgrades, this is to minimise expenses and LR charges.

Outcomes

Reduced LR Charges

City Fibre's strategic approach, including weekend works, and investment in technology, has resulted in a reduction in LR charges incurred during infrastructure projects. This has, however, resulted in increased build costs due to paying their subcontractors to work in restricted hours, increased traffic management costs from setting up and taking down equipment every day and having to descope areas due to these unaccounted-for costs.

Enhanced Efficiency

The company's focus on maximising productivity through extended working hours and innovative technology adoption has improved project efficiency and minimised disruptions to LR chargeable streets.

Limited LR Charge Payments

City Fibre prioritise proactive measures to avoid them, such as pre-approval for subcontractors and adherence to agreed working practices. City Fibre and its partners have incurred significant costs since the introduction of lane rental and continue to implement measures to attempt to reduce the impact of this to their fibre rollout plans.

City Fibre has demonstrated a proactive approach to minimising LR charges while efficiently completing infrastructure works on LR chargeable streets. Through strategic scheduling, investment in technology and proactive collaboration efforts, they successfully navigate some of the challenges associated with LR charges and ensure cost-effective project delivery in the telecommunications sector. Moving forward, the company may continue to explore opportunities for collaborative working and technological advancements to further optimise their operations and minimise LR charges.

Case study 7: Water Lane collaboration

Website addresses: Southern Water Ltd The Clancy Group Ltd

Southern Water instigated a huge collaborative working scheme during their road closure in Water Lane, Angmering. The road was closed for the installation of a new 225mm sewer, from 15/05/2023 – 14/07/2023. To make the best use of this road closure, they sought out various other works promoters who were planning works in that road space. They also facilitated great internal communication and planning by scheduling multiple of their own works to take place at the same time.

Overall, this impressive disruption mitigation effort saved approximately 82 working days (excluding bank holidays & weekend working, non NRSWA days).

Successful collaborative working on the Water Lane, Angmering project was underpinned by three core pillars which were demonstrated by the Clancy / Southern Water delivery team and WSCC throughout the project.

Early Engagement

Contact was made with WSCC early in the project planning process so that highways co-ordination constraints and traffic management feedback could be considered. This provided the WSCC co-ordination team with foresight of an upcoming project and gave the Clancy / SW team vital scheduling and traffic management information to inform the detailed project planning and delivery. This process included the identification of other key third-party stakeholders who would be impacted by the project.

Communication

There were regular and frequent meetings as the planning process developed, ensuring the latest information, feedback from stakeholders and constraints were factored into the planning process.

There were clear lines of communication within the team so that any enquiries could be efficiently discussed and resolved. This was particularly effective when works were in progress and the team could react to stakeholder requests for specific signs and content on the VMS boards.

Programme

A clear understanding of the programmes and traffic management phasing gave WSCC confidence to promote collaborative working with third parties, so that the traffic management could be shared and the ultimate impact to the community reduced. Several parties carried out works in the area in co-ordination with the SW project throughout the duration of our permit.

Case study 8: London Road innovation

Website addresses: Taylor Wimpey Plc Technical & Development Services (Southern) Ltd

TDS, acting on behalf of their client Taylor Wimpey, undertook a significant infrastructure project involving the installation of a junction for a new residential development. This complex task included the construction of a bridge and the establishment of new utility connections. In a proactive move, TDS altered their conventional working methods, despite not being subject to LR charges at the time. Their approach aimed to minimise disruption to traffic flow and demonstrated a forward-thinking attitude towards potential future charges.

Project Scope and Challenges

The primary components of the project were:

- Installation of a new junction.
- Construction of a bridge.
- Establishment of new utility connections.

The main challenge was to carry out these extensive works without causing significant disruption to traffic, a common issue in major infrastructure projects. TDS's innovative solution was to remove an existing pedestrian crossing island, thus allowing for two-way traffic flow during the construction period. This measure was critical in maintaining traffic fluidity and minimising inconvenience to road users.

Collaboration and Early Planning

A crucial factor in the project's success was their early collaboration with the WSCC Highways team. By engaging in discussions and planning sessions well before the commencement of work, TDS and WSCC were able to identify potential issues and make necessary design adjustments. This pre-emptive strategy not only facilitated smoother construction processes but also helped in significantly reducing the overall impact on traffic.

Innovative Working Methods

TDS’s decision to implement new working methods was partly motivated by a desire to avoid anticipated LR charges. Although not yet subject to these charges, TDS adopted practices that would potentially mitigate future costs. The changes included:

- Removal of the pedestrian crossing island to maintain two-way traffic.
- Implementation of design changes to streamline construction activities.

These methods, while more time-consuming and costly, were chosen to reduce the disruption caused by their works. TDS’s forward-thinking approach exemplifies the potential benefits of adopting innovative practices in anticipation of LR charges.

Cost-Benefit Analysis

TDS's approach incurred higher immediate costs due to the extended duration and the complexity of the modified working methods. However, the reduced impact on traffic flow and road user inconvenience demonstrated a clear benefit. Furthermore, TDS posits that if LR charges had been applicable, the additional costs would have been justified by the savings from avoiding such charges. This scenario underscores the economic and operational advantages of proactive planning and innovation in infrastructure projects.

TDS's project is a testament to the value of early collaboration, innovative thinking, and strategic planning in minimising the disruption of major construction works. Their ability to adapt and implement new methods ahead of charges highlights a commendable commitment to reducing the impact on the public and preparing for future industry standards. This case study serves as a model for the Section 278 industry, illustrating how proactive measures and early dialogue can lead to successful project outcomes and foster strong working relationships between stakeholders.

Glossary

Term	Explanation
Activities	Means street works as in Part 3 of NRSWA and works by licences under Section 50 of NRSWA and works for road purposes as defined by Section 86 of NRSWA.
Apparatus	As defined in Section 105(1) of NRSWA "apparatus includes any structure for the lodging therein of apparatus or for gaining access to apparatus".
Bank holiday	As defined in Section 98(3) of NRSWA, "bank holiday means a day which is a bank holiday under the Banking and Financial Dealings Act 1971 in the locality in which the street in question is situated".
Carriageway	As defined in Section 329 of Highways Act 1980, "carriageway means a way constituting or comprised in a highway, being a way (other than a cycle track) over which the public have a right of way for the passage of vehicles".
Code of practice for permits	As published by Department for Transport March 2008.
Cycle track	As defined in Section 329(1) of the Highways Act1980, "cycle track means a way constituting or comprised in a highway, being a way over which the public have the following, but not other, rights of way, that is to say, a right of way on pedal cycles with or without a right of way on foot".
Day	In the context of the duration of activities, a day refers to a working day, unless explicitly stated otherwise.
DfT	Department for Transport.
Footpath	As defined in Section 329 of the Highways Act 1980 “footpath means a highway over which the public have a right of way on foot only, not being a footway”.
Footway	As defined in Section 329 of the Highways Act 1980, "footway means a way comprised in a highway which also comprises a carriageway, being a way over which the public have a right of way on foot only".
HAUC(UK)	The Highway Authorities and Utilities Committee for the UK.
Highway	As defined in Section 328 of the Highways Act 1980, "highway means the whole or part of a highway other than a ferry or waterway".
Highway Authority	As defined in Sections 1 and 329 of the Highways Act 1980.
Highway works	"works for road purposes" or "major highway works".
Immediate activities	Immediate activities are either emergency works as defined in Section 52 of NRSWA or urgent works as defined in The Street Works (Registers, Notices, Directions and Designations) (England) Regulations 2007.

Term	Explanation
Maintenance	As defined in Section 329 of Highways Act 1980, "maintenance includes repair, and "maintain" and "maintainable" are to be construed accordingly".
Major activities	As defined within the West Sussex Permit Scheme and as found for works categories in the 2007 Notices Regulations under NRSWA.
Major highway works	As defined in Section 86(3) of NRSWA, "major highway works means works of any of the following descriptions executed by the Highway Authority in relation to a highway which consists of or includes a carriageway - (a) a reconstruction or widening of the highway; (b) works carried out in exercise of the powers conferred by Section 64 of the Highways Act 1980 (dual carriageways and roundabouts); (c) substantial alteration of the level of the highway; (d) provision, alteration of the position or width, or substantial alteration in the level of a carriageway, footway or cycle track in the highway; (e) the construction or removal of a road hump within the meaning of Section 90F of the Highways Act 1980; (f) works carried out in exercise of the powers conferred by Section 184 of the Highways Act 1980 (vehicle crossings over footways and verges); (g) provision of a cattle-grid in the highway or works ancillary thereto; or (h) tunnelling or boring under the highway".
Minor activities	Minor activities are those activities other than immediate emergency and major activities where the planned duration is 3 days or less.
Network management duty	As stated in Part 2 of TMA.
NRSWA	New Roads and Street Works Act 1991.
Permit	The approval of a Permit Authority for an activity Promoter to carry out activity in the highway subject to conditions.
Permit Authority	A Local Authority or other “Highway Authority” which has been given approval by the Secretary of State to operate a permit scheme on all or some of its road network.
Permit scheme	A scheme approved by the Secretary of State or Local Order under which permits for highways activities are sought and given.
Promoter	A person or organisation who commissions or promotes activities on the highway.
Provisional advance authorisation (PAA)	The early provisional approval of activities in the highway. Refer to West Sussex Permit Scheme.
Reasonable period	As defined in Section 74(2) of NRSWA, "a reasonable period means such period as is agreed by the Authority and the undertaker to be reasonable or, in default of such agreement, is determined by arbitration to be reasonable, for completion of the activities in question".

Term	Explanation
Registerable	As stated in NRSWA, registerable activities correspond to specified works in the regulations and codes of practice.
Reinstatement	As defined in Section 105(1) of NRSWA, "reinstatement includes making good".
Remedial work	Remedial works are those required to put right defects identified in accordance with the provisions of the Code of Practice for Inspections and regulations.
Road	"Highway".
Standard activities	Standard activities are those activities, other than immediate emergency and major activities, that have a planned duration of between 4 and 10 days inclusive.
Statutory right	As defined in Section 105(1) of NRSWA, "statutory right means a right (whether expressed as a right, a power or otherwise) conferred by an enactment (whenever passed or made), other than a right exercisable by virtue of a street works licence".
Street	As defined in Section 48(1) of NRSWA, "street means the whole or any part of any of the following, irrespective of whether it is a thoroughfare (a) any highway, road, lane, footway, alley or passage; (b) any square or court; (c) any land laid out as a way whether it is for the time being formed as a way or not".
Street works	As defined in Section 48(3) of NRSWA, "street works means works of any of the following kinds (other than works for road purposes) executed in a street in pursuance of a statutory right or a street works licence: (a) placing apparatus; or (b) inspecting, maintaining, adjusting, repairing, altering or renewing apparatus, changing the position of apparatus or removing it, or works required for or incidental to any such works (including, in particular, breaking up or opening the street, or any sewer, drain or tunnel under it, or tunnelling or boring under the street".
TMA	The Traffic Management Act 2004.
Traffic	As defined in Section 105(1) of NRSWA, "traffic includes pedestrians and animals".
Traffic flow	The number of vehicles using the particular street at specified times of the day and year, measured in accordance with DfT guidelines.
Traffic-sensitive street	This means a street designated by a Street Authority as traffic-sensitive pursuant to Section 64 of NRSWA and in a case where a limited designation is made pursuant to Section 64(3) any reference to works in a traffic-sensitive street shall be construed as a reference to works to be executed at the times and dates specified in such designation.

Term	Explanation
Transportation	Transport or transportation is the movement of humans, animals and goods from one location to another. In other words, the action of transport is defined as a particular movement of an organism or thing from a point A to a Point B. Modes of transport include air, land (rail and road), water, cable, pipeline and space. The field can be divided into infrastructure, vehicles and operations. Transport enables trade between people, which is essential for the development of civilization.
Undertaker	As defined in Section 48(4) of NRSWA, "undertaker in relation to street works means the person by whom the relevant statutory right is exercisable (in the capacity in which it is exercisable by him) or the licensee under the relevant street works licence, as the case may be".
Urgent activities	Urgent activities are (a) activities (not being emergency activities) whose execution at the time they are executed is required (or which the person responsible for the activity believes on reasonable grounds to be required) (i) to prevent or put an end to an unplanned interruption of any supply or service provided by the undertaker; (ii) to avoid substantial loss to the undertaker in relation to an existing service; or (iii) to reconnect supplies or services where the undertaker would be under a civil or criminal liability if the reconnection is delayed until after the expiration of the appropriate notice period; and (b) Includes activity that cannot reasonably be severed from such activities.
Working day	As defined in Section 98(2) of NRSWA, "for the purposes of this Part a working day means a day other than a Saturday, Sunday, Christmas Day, Good Friday or a bank holiday; and a notice given after 4.30 p.m. on a working day shall be treated as given on the next working day".
Works	Street works or works for road purposes.