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|---|--|--|--|
| <b>Title:</b> Street Manager and updates to permit schemes<br><br><b>IA No:</b> DfT00408<br><b>RPC Reference No:</b> RPC-4351(2)-DfT<br><b>Lead department or agency:</b> Department for Transport<br><b>Other departments or agencies:</b> | <b>Impact Assessment (IA)</b>                            |  |  |
|   | <b>Date:</b> 12/12/2019                                  |  |  |
|   | <b>Stage:</b> Final                                      |  |  |
|   | <b>Source of intervention:</b> Domestic                  |  |  |
|   | <b>Type of measure:</b> Secondary legislation            |  |  |
|   | <b>Contact for enquiries:</b><br>Streetmanager@df.gov.uk |  |  |

|  |                           |
|--|---------------------------|
| <b>Summary: Intervention and Options</b> | <b>RPC Opinion: Green</b> |
|--|---------------------------|

| Cost of Preferred (or more likely) Option (in 2016 prices) |                            |                               |                               |
|--|----------------------------|-------------------------------|-------------------------------|
| Total Net Present Social Value                             | Business Net Present Value | Net cost to business per year | Business Impact Target Status |
| £64.5m   | £28.8m                     | -£2.9m                        | Non qualifying provision      |

**What is the problem under consideration? Why is government intervention necessary?**

There are estimated to be around 2.5 million road works each year on the local road network in England. These can cause significant disruption to people's journeys and congestion which is estimated to cost the economy around £4 billion per year. The Government is working with local authorities and utility companies on a range of measures (which are outlined in this assessment) to help ensure that road works are managed and co-ordinated as effectively as they can be, to reduce the time it takes to carry out works, and to make accurate and up-to-date information available to road users. The current system (EToN) that is used by the sector to record and manage road works is mandated in current regulations but is outdated, no longer fit-for-purpose, and needs to be modernised.

**What are the policy objectives and the intended effects?**

As part of a programme of modernisation and reforms, the Government has invested £10 million in the development of a new digital service called Street Manager. This will transform the planning, management and communication of street and road works, and it will provide up-to-date, accurate and open data on live and planned works. To support implementation of the service, we need to make a number of amendments to legislation. In addition, we consulted on amendments to the conditions in England that apply to permit schemes to improve the operation of them and to reduce the impact of works on congestion. The proposed changes now being made will support the reduction in disruption to people's journeys and congestion.

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**

A Discovery/user research carried out in 2017 considered the current systems (EToN) in use, found a number of issues, and considered options for meeting user needs. It considered no change, amending the current technical specification supported by regulation, and recommended the development of a new central digital service. An Alpha design phase in 2018 considered system design options and recommend the solution that is now built. Implementation of the solution requires amendment to regulations to replace the old system with the new service and to support its operation. Other non-regulatory options would not meet policy aims and user needs, or address limitations of current technology.

Option 0 – baseline option, do-nothing scenario: Keep the EToN system and EToN technical specification in current legislation.

Option 1 – do-something option: Implement Street Manager digital service by amending current legislation. Also amend permit scheme national conditions to reduce the impact of works on congestion.

**Will the policy be reviewed? It will be reviewed. If applicable, set review date: 2023**

|  |                |     |                    |       |
|--|----------------|-----|--------------------|-------|
| Does implementation go beyond minimum EU requirements?   | No             |     |                    |       |
| Is this measure likely to impact on trade and investment?  | No             |     |                    |       |
| Are any of these organisations in scope?   | Micro          | Yes | Medium             | Large |
|  | Yes            | Yes | Yes                | Yes   |
| What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent) | Traded:<br>N/A |     | Non-traded:<br>N/A |       |

***I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.***

Signed by the responsible Minister: Vere ..... Date: 6/2/2020

# Summary: Analysis & Evidence

# Policy Option 1

**Description:** Implement Street Manager digital service by amending current legislation. Also amend permit scheme national conditions to reduce the impact of works on congestion

## FULL ECONOMIC ASSESSMENT

| Price Base Year 2019 | PV Base Year 2019 | Time Period Years 10 | Net Benefit (Present Value (PV)) (£m) |            |                     |
|----------------------|-------------------|----------------------|---------------------------------------|------------|---------------------|
|                      |                   |                      | Low: 52.4                             | High: 94.4 | Best Estimate: 73.4 |

| COSTS (£m)    | Total Transition (Constant Price) Years | Average Annual (excl. Transition) (Constant Price) | Total Cost (Present Value) |
|---------------|---|--|----------------------------|
| Low           | 0.1                                     | -3.9   | <b>-31.5</b>               |
| High          | 0.2                                     | -3.9   | <b>-31.4</b>               |
| Best Estimate | 0.1                                     | -3.9   | <b>-31.4</b>               |

### Description and scale of key monetised costs by 'main affected groups'

*Utility companies (private business)* – costs to operate Street Manager borne by Government are recovered from utility companies through annual charges. These are expected to be lower than the current licence fees for the software Street Manager is replacing (EToN), resulting in a cost saving.

There are transition costs where some companies may be paying for both pieces of software at the same time due to existing EToN contracts and other familiarisation costs relating to using the new software.

*English local highways authorities (public sector)* – Street Manager annual charges are lower than that of EToN, resulting in a cost saving. Street Manager and EToN fees are lower for local authorities than for utility companies, and the scale of the cost savings is lower.

Under section 22 of the Small Business, Enterprise and Employment Act (SBEE) 2013, taxes, duties, levies or other charges (including fees) made by or on behalf of a public body are not considered regulatory provisions. As such, while monetised and included in the NPV, these are excluded from the EANDCB and BIT score calculations.

### Other key non-monetised costs by 'main affected groups'

*Utility companies and local highways authorities* – negligible familiarisation and administration costs associated with the amendments to existing permit scheme national conditions. These amendments were agreed upon with stakeholders at consultation, given these were slight technical wording changes.

| BENEFITS (£m) | Total Transition (Constant Price) Years | Average Annual (excl. Transition) (Constant Price) | Total Benefit (Present Value) |
|---------------|---|--|-------------------------------|
| Low           | 0.0                                     | 2.5  | <b>21.0</b>                   |
| High          | 0.0                                     | 7.4  | <b>63.0</b>                   |
| Best Estimate | 0.0                                     | 4.9  | <b>42.0</b>                   |

### Description and scale of key monetised benefits by 'main affected groups'

*Road users and wider society* – Congestion cost savings from better planned, managed and communicated open source road works data.

### Other key non-monetised benefits by 'main affected groups'

*Technology sector* – Access to open source data can enhance new and existing software applications, increase competition in the market and increase availability of products to consumers.

*Government* – Ownership and access of data can target government intervention and improve policy making in the Department

|  |                          |     |
|--|--------------------------|-----|
| <b>Key assumptions/sensitivities/risks</b>   | <b>Discount rate (%)</b> | 3.5 |
| <p>Key assumptions in the analysis are the reduction in work days due to Street Manager (which results in the monetised benefits presented through reduced congestion), the take-up of Street Manager and the continued use of EToN products. These assumptions have been sourced using direct feedback at stakeholder events and consultation responses. Assumptions on the take-up of Street Manager and the retention rates of EToN are well evidenced and come directly from users. Take-up of Street Manager reaches 100%, due to organisations being mandated to use it. The assumptions on the reduction of work days are illustrative, and will be reviewed in the PIR going forward. These have undergone director level clearance and internal peer review. Sensitivity analysis has been used, where appropriate, to illustrate such risks.</p> |                          |     |

**BUSINESS ASSESSMENT (Option 1)**

|  |                      |                  |  |
|--|----------------------|------------------|--|
| <b>Direct impact on business (Equivalent Annual) £m:</b> |                      |                  | <b>Score for Business Impact Target (qualifying provisions only) £m:</b> |
| <b>Costs:</b> -3.4                                       | <b>Benefits:</b> 0.0 | <b>Net:</b> -3.4 |  |
|  |                      |                  | <b>N/A</b>   |

# Evidence Base (for summary sheets)

## 1 Background

There are around 2.5 million road works carried out in England each year<sup>1</sup>. Street works are carried out by utility companies (water, gas, electricity and telecommunications) to install, repair or maintain the vital services on which we all rely. Road works are carried out by the local highways authority (LHA) to maintain the roads or, for example, to install cycle or bus lanes. We have used the term road works to cover both types of works in this Impact Assessment.

## 2 The Problem Under Consideration

Road works can cause significant delays and disruption to people's journeys. This is exacerbated when road works overrun or are mismanaged. Previous research for DfT has estimated that the cost of congestion resulting from street works was around £4.3 billion a year in 2003<sup>2</sup>. This is the most relevant and up to date estimate that monetises the impact of congestion. Improvements in data in the future (through the introduction of Street Manager) should provide an updated value.

Road works need to be planned, managed and co-ordinated more effectively to reduce the impacts they have on congestion. Reducing the time it takes to carry out works results in a shorter period over which there is traffic disruption, benefitting road users. Accurate and up-to-date information available to road users may help them plan their journeys more effectively. These factors do not solely minimise the impact that works have on congestion, but also help ensure that that our systems are fit for the challenges of the future (including the digital transport agenda); that they support innovation; and that they are able to deal with the rising demands for transport services and for utility infrastructure.

## 3 Rationale for Intervention

The rationale to intervene is due to the existence of government failure. Current regulations mandate the use of an outdated technical specification and software (known as Electronic Transfer of Notifications (EtoN)) that is no longer fit for purpose or meets user needs. The fact that data is closed and not in a consistent modern format also inhibits innovation and development of new products in the street works industry and for road users.

### 3.1 Government failure

The Electronic Transfer of Notifications (EToN) system was developed in the 1990s. The DfT owns and issues a detailed technical specification that provides the rules through which data is exchanged between organisations. The data requirements and technical specification are underpinned by regulations, guidance and authorities' permit scheme orders. Each local authority and utility company must purchase its own EToN software licence product from a small and declining market of private sector providers. Existing products are becoming increasingly costly as the system becomes more outdated and as competition reduces in the market. The last time the technical specification was updated was in 2013<sup>3</sup> using project management methodologies that are also now outdated in the technology sector.

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<sup>1</sup> ELGIN, 2016-18 street works data; this data reveal the total number of works completed in England and Wales. The 2.5 million figure is the result of summing the number of works across local authorities and utility companies in England. This data has been shared by ELGIN with DfT to help inform this Impact Assessment. Whilst able to use high-level summary figures to inform, we are not at liberty to present a further breakdown, as this is not our intellectual property. However, we believe the data is high-quality and robust, and is utilised by highway authorities, utility companies and contractors across the UK. For more detail, please see <https://www.elgintech.com/about-us> (last accessed 30/10/19)

<sup>2</sup> Halcrow 2004, Estimation of the Cost of Delay from Utilities' Street works ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/4821/f0007955-street-works-report-vol-3.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/4821/f0007955-street-works-report-vol-3.pdf), page 3, last accessed 30/10/19)

<sup>3</sup> Technical Specification Version 6.0 April 2013 New Roads and Street Works Act 1991 Technical Specification for the Electronic Transfer of Notifications (EToN)

In early 2017, the DfT began to investigate whether or not EToN was fit for purpose in terms of the technology it uses, the needs of the user community from local authorities and utilities, the needs of road users, and the rising demand for up to date and accurate data about road works. Organisations were reporting frustrations about:

- The timeliness and accuracy of data
- The lack of visibility and availability of the data across different local authority areas
- High costs
- The need for updates to reflect current needs and legislative changes
- Inconsistent systems and data

The Discovery<sup>4</sup> that we commissioned carried out user research with all those that are involved with and interact with street and road works on the local road network. Several common themes emerged from the research around:

- A lack of consistent working practices, leading to increased overheads and discontent
- Use of multiple systems leading to inconsistency
- The need for better communication and collaboration
- Too much time and effort being spent managing inefficient processes
- A general lack of visibility and accuracy of limited data
- Little or no support for collaboration and joint works
- Use of outdated and expensive technology
- An inability to change systems or add new fields to deal with legislative amendments
- A lack of innovation

The Discovery considered options for updating or reforming the current systems. This looked at options including no change, amending the current technical specification supported by regulation, non-regulatory options and other technical solutions such as distributed data models. The option that was recommended was for the development of a new central digital service. All options involved costs – the cost of doing nothing would be the greatest. The new digital service was recommended following consultation and validation with a range of users as being the best way of meeting user needs and delivering policy goals. It identified the goals for a new service and a set of prioritised user needs. It recommended that the project proceeded to an Alpha design phase. The DfT was also conscious of the risk associated with maintaining a status quo based on old technology that was initially developed in the 1990s. EToN no longer meets user needs and is becoming increasingly unable to meet upgraded working practices and technological advances. Such upgrades were becoming expensive and of limited practical use. This foundation is not sustainable in technology terms, lacks innovation and, at some stage, will need to be replaced.

The Discovery did not recommend the other options that were considered as they would not meet user needs, they would be too expensive, they would not meet the Government Digital Service's service standard and they would not meet policy aims. It was recommended that a single service used by local authorities and utilities would support user needs and policy aims. The current EToN system and use of electronic communications are mandated via regulations, so it was further recommended that the EToN system be replaced by Street Manager and that we should set up a single, common system that would allow for maximum benefits and for user needs to be met. As well as benefits associated with better planning and coordination of road works, there would also be benefits to be achieved from economies of scale, delivering future changes and improvements via one system change at no additional costs to users and admin efficiencies from greater consistency.

The project proceeded to an Alpha design phase in 2018. This considered different solutions for the design of the new services, consulting and testing with users throughout the process. We estimate that 300 hours of user research were carried out during the Discovery and Alpha phases. As a result of this

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<sup>4</sup> This Discovery was conducted following the government's Agile delivery framework. This is the phase where an understanding of the problem is made before deciding whether to commit to building a service to correct this. Further details can be found at <https://www.gov.uk/service-manual/communities/agile-delivery-community> (last accessed: 31/10/19), and the Discovery phase specifically at <https://www.gov.uk/service-manual/agile-delivery/how-the-discovery-phase-works> (last accessed 31/10/19)

ongoing consultation, the solution design was amended to include APIs (Advanced Programming Interfaces) in the design for Street Manager. Users will therefore be able to either use Street Manager's user interface via a website, or they will be able to send in data via an API with other asset management or works management systems they may have. Either way, the data will be available within Street Manager, whether it is entered via the user interface or via an API. This design meets our user needs.

Replacing the reference of 'EToN' in regulations with 'Street Manager' does not create additional regulation, it simply amends existing regulations. The preferred policy option provides a resolution to Government failure as it now references a system that is up to date, meets user needs, will be continuously improved, encourages innovation in the street works industry and future proofs policy-making.

Street Manager has been in its Beta development and build phase since May 2019. User research has continued (an additional 500 hours) and the service design continues to evolve in line with user need. The DfT has paid for the development of Street Manager and will cover costs until March 2020.

### **3.2 Issues from Lack of Competition**

EToN software hinders innovation and development in the street works industry. Organisations are required to use EToN, software that is only provided by four main software developers. Some products have also now been 'end of life' by their providers. This has created an oligopoly market with increasing costs to users and a lack of investment in the system as reported frustrations from users have not been addressed. EToN data is closed and can only be accessed by purchasing an EToN licence or product. This creates a barrier for new software developers to enter the market and develop products using EToN data. A lack of up to date and accessible data inhibits the ability of organisations to effectively plan, manage and co-ordinate street works to reduce congestion on the roads.

Closed data also impedes the ability of policy makers to identify potential areas of intervention in the street works industry. EToN data is costly to commission and difficult to access in a practical format that is suitable for policy makers and analysts to use.

The policy option does not necessarily increase competition, but addresses the problems with an oligopoly mentioned above (namely high prices, lack of innovation and lack of data), through the use of a single system on a common platform. Street Manager operates using a cost-recovery model, where the government operational costs for Street Manager are recovered through the usage fees charged. Government does not make profit through this system, and as such does not have an incentive to charge high prices. This results in lower usage fees for Street Manager compared to EToN.

In addition, Street Manager data will be open, allowing organisations who use this to plan, manage and co-ordinate street works more effectively, which may result in lower costs. Further, this presents opportunities for innovation<sup>5</sup>, through software developers having access to more data, from which new products can be developed.

Due to potentially prohibitive start-up costs in establishing a platform such as Street Manager (the government has invested £10 million), this could lead to a natural monopoly. However, due to the issues with an oligopoly outlined above, state provision of a system is preferred to prevent market exploitation of users.

### **3.3 Non-regulatory options**

Non-regulatory options have been considered, but are not appropriate to address the problem under consideration or the rationale for intervention.

It was not deemed suitable to deregulate this policy space and appropriate non-regulatory options were not recommended by the Discovery we carried out as none of the benefits from a single service would be realised.

There are significant data benefits presented by all groups using a single system on a common platform, creating a natural monopoly. These benefits are:

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<sup>5</sup> Please refer to section 6 of this Impact Assessment for further discussion on innovation

- Allows for the market to develop additional software based on evolving needs. An open platform will allow for extensions to the current functionality (see section 6 on innovation).
- Visibility of planned and live works will help the travelling public and businesses, local planners and national policy makers.
- Open data will also benefit local planners and national policy makers in the long term.

Due to the complex and fragmented structure of the current market, despite the natural monopoly benefits of a single platform, it is unlikely one single provision would emerge due to the high sunk costs and a lack of information about the products available. If one single platform did emerge in the unregulated market, this platform would then have strong monopoly power to exploit the market for the use of the software and the attached data.

Therefore, Government provision of a single software solution is preferred so it can be operated on a cost-recovery model, providing the monopoly benefits at the lowest cost to utility companies and local highways authorities.

Mandating its use overcomes information problems and fragmentation across the policy area, as without consistent use by all parties the monopoly benefits are undermined.

At consultation, utility companies, local highway authorities and representative groups supported the use of a single system to overcome the coordination issues or oligopoly issues in an open and unregulated market.

## **4 Policy Objective**

### **4.1 Regulation**

The DfT consulted between July and September 2019 on amendments to existing regulations that will help to address and deal with the problems identified above, and which will support the implementation of Street Manager. Existing systems are mandated in regulations, so the amendment would replace the old system with Street Manager. As noted above, maximum benefits will be achieved by use of a single digital service.

Permit schemes are now used by a majority of local authorities as they are a pro-active and effective way of managing access to the road network and reducing the impact of road works on congestion. In addition to the proposals related to Street Manager, the DfT proposed amendments to improve the administration of permit schemes. These relate to the national conditions that can be applied and are aimed at reducing congestion and the impact of works.

We also consulted on the timeframe for road restrictions that can be applied under Section 58 of the New Roads and Street Works Act 1991. Restrictions can be put in place after roads have been re-built or resurfaced and a framework is set out in regulations. This framework has not been considered since 2006/2007 and we wanted to seek views on whether or not it needs to be updated, especially in light of the growing demand for utility infrastructure. This would further support policy aims for improving the planning and management of road works.

### **4.2 Objectives of Street Manager**

The Department for Transport has invested £10 million in Street Manager, a new digital planning service that will replace a costly and ineffective system that no longer meets user needs. It will also make more consistent, accurate data on road works available to road users and organisations, and open up the market for technology companies to use this data to develop new products for the industry and road users. We have worked closely with local authorities and utility companies in the development of Street Manager, which has included over 800 hours of user research with people who work in those organisations. We have also communicated progress and received further feedback through workshops,

roadshows, newsletters and social media such as Slack and YouTube. This approach has been highly consultative.

Street Manager is being developed using the Agile methodology<sup>6</sup> for digital services that involves constant iteration with users and complies with the Government Digital Service's service standard.

Street Manager will deliver many benefits including:

- Better managed road works delivering time savings and reduced congestion. Data in Street Manager will support more collaboration and joint working, and it can be used to monitor performance and durations and assess impacts on congestion.
- Open, accurate and up-to-date data on live and planned works will be made available so that technology companies can use it in journey planning apps and satnavs, etc. Other new products could be developed too for all road users bringing more competition to this sector.
- In addition, open data can be used to innovate, manage the network and link in with the full range of new digital initiatives e.g. 3D, virtual mapping.
- Less duplication, greater efficiency and better value for money for local authorities and utility companies.
- A single service that will be on a modern technology platform so that we can continue to improve services in response to changing user needs. It will be fully compliant with legislation.
- One version of the truth and decisions that are informed and supported by data.
- Better reporting and performance management.
- It will also address the issues found in Discovery by;
  - Improving consistency. A single service and one version of the truth will support this, reduce overheads and disagreements.
  - Data and visibility of it will support better communication and collaboration.
- A single service designed to meet user needs using modern technology will improve efficiency. Street Manager is using modern technology that is efficient and inexpensive. It will also be continuously improved in line with user needs.
- It will provide data for the DfT to use to inform future policy development and assess previous interventions.

### 4.3 Street works software industry

The main system used by local authorities and utility companies for managing road works was originally developed in the 1990s. It is called the Electronic Transfer of Notifications or EToN. The DfT owns and issues a detailed technical specification that provides the rules through which data is exchanged (an XML schema) between EToN systems. The data requirements and the technical specification are underpinned by regulations, guidance and authorities' permit scheme orders.

Each individual organisation has its own EToN product or software package that is provided by a small number of private sector companies. The technical specification has been updated over the years. The last time was in 2013. The existing products allow for the notices and permit documents that are needed for road works to be exchanged between the local highway authority from the works promoter, who may be a utility company or a highway's works team, or from a contractor. They also allow for two-way communication between the local authority and the works promoter to, for example, query times and plans, and they store details of the works.

The market has declined over the years. There are now 4 main EToN providers. New entrants to the market are deterred by the need to develop products compliant with an out-dated technical specification that does not use modern data formats or standards. The current system is a barrier to innovation. Data is difficult to obtain from individual EToN systems and is not open. This is also a barrier to competition and to the development of new products for road users who would like up to date information on live and planned works.

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<sup>6</sup> The Government Digital Service's Service Standard can be found here: <https://www.gov.uk/service-manual/service-standard>



Street Manager will provide open data that will enable and support innovation, competition and new products to be developed. Via the APIs, it will be easy and low-cost to set up links with other asset or works management systems. It will support and enable a range of opportunities, as noted above.

## 5 Description of options considered

### 5.1 Option 0 – Do nothing scenario

This option is the baseline scenario, whereby no government intervention is undertaken. This is used as the counterfactual against which the costs and benefits of other options are compared.

We estimate that the current costs for the industry from the exiting EToN systems are between £30-£40 million per year. These costs include current licence costs, additional fees incurred for bespoke reports, administration costs associated with existing inefficiencies and workarounds, local IT costs, and training. Local authorities alone spend an estimated £7m per year in licence fees.

Doing nothing would mean that these costs would continue, as would the congestion costs from poorly managed and planned roadworks. They may also increase as the market of existing providers declines and costs rise. At some point, the existing products could be removed from the market, and costs would be incurred in developing a replacement which would need to be done urgently as utilities would still need to operate.

### 5.2 Option 1 – Amend legislation

We consulted on amendments to legislation that will, in turn, support the delivery of Street Manager. The proposed measures are set out below. The consultation was about amendments to:

- The Street Works (Registers, Notices, Directions and Designations) (England) Regulations 2007 (the 2007 Noticing Regulations).
- The Street Works (Charges for Unreasonably Prolonged Occupation of the Highway) (England) Regulations 2009 (the 2009 Charges Regulations).
- The Traffic Management Permit Scheme (England) Regulations 2007 (the 2007 Permit Regulations).
- The Street Works (Fixed Penalty) (England) Regulations 2007 (the 2007 FPN Regulations)

#### **Measure 1** – Changing ‘EToN’ to ‘Street Manager’

Works promoters are currently required through legislation, guidance and individual permit scheme orders to use EToN systems to provide information on the works they are undertaking. When Street Manager goes live, changes to legislation are required to replace references to EToN with references to ‘The DfT’s digital service for planning and managing roadworks’. The statutory instrument in which these references will be made include a URL link to Street Manager in the footnotes, allowing for updates to the website in line with our commitment to continuous improvement and allowing ongoing innovation. Should the brand name of ‘Street Manager’ change in the future, this can also be made without needed to amend the SI.

We therefore proposed amending the 2007 Noticing Regulations, the 2009 Charges Regulations and the 2007 Permit Regulations to replace references to EToN with references to the aforementioned digital service. We also want to make it clear that all street works communications should be sent via Street Manager and that all street works registers and permit scheme registers should be held centrally on Street Manager.

These changes were **supported** in the consultation.

#### **Measure 2** – Date in which the changes come into force

We consulted on the date when the amendments set out in measure 1 would come into force to the 2007

Noticing Regulations, the 2009 Charges Regulations, the 2007 Permit Regulations and to the 2007 FPN Regulations. This will give effect to the switch from EToN to Street Manager. Street Manager has been available for local authorities and utility companies to use in a private Beta environment since May 2019 and will be available via public Beta from November 2019. In line with best practice, transition for organisations will happen in phases and at a time that is most suitable for the individual organisation. This is in line with the Government's Service Standard – overnight switches by all organisations from one legacy system to another is high risk and not recommended practice. They may, for example, decide to switch when an existing contract ends, or with a group of other organisations with whom they work closely with or in a region.

The date when the changes come into force will mean that all local authorities and utility companies will need to be using street manager by this date and the existing EToN Technical Specification will be withdrawn in England.

We consulted on the following options for the date when the changes to legislation come into force:

- 31st January 2020
- 1st March 2020
- 31st March 2020

**The 31 March 2020 was overwhelmingly supported** in the consultation so this date will be the date when the regulations comes into force.

### **Measure 3** - Express charging power for Street Manager

The Government has invested £10 million in the development of Street Manager. Once it is being used by local authorities and utility companies, we intend to recover the ongoing costs for service support and continuous improvement on a cost recovery basis.

Section 53(5) of the 1991 Act gives the Secretary of State powers to (i) make arrangements for the duties of street authorities to keep a street works register to be discharged by means of one or more central registers kept by an appointed person and (ii) require street authorities to participate in and make contributions towards the cost of those arrangements. We intend to use these powers to require street authorities to contribute towards the cost of Street Manager. This power does not, however, currently allow costs to be recovered from all users as it only extends to street authorities and not to statutory undertakers (utility companies).

In addition, this power does not currently apply to permit schemes because section 53 of the 1991 Act also is disapplied by regulation 36(a) of the 2007 Permit Regulations.

Section 37(13) of the Traffic Management Act 2004 allows the Secretary of State to use regulations to disapply and/or modify provisions of the 1991 Act in so far as they apply to permit schemes. We intend to use this power to reapply and modify the relevant parts of sections 53 of the 1991 Act. We would then modify sections 53(4) and (5) so that (i) they specifically apply to and are consistent with the permit scheme registration requirements and (ii) allow the Secretary of State to require utility companies to participate in and contribute towards the cost of the central register.

By early 2020, almost all local authorities will be operating a permit scheme and we expect that all of them will have a scheme by the end of 2020. Organisations will be asked to contribute towards the cost of Street Manager from April 2020. We want to set up a charging regime that is based on a transactional model, so that heavy users pay more than light users. It will be on a cost recovery basis, with all charges being recycled into service support and improvement of Street Manager. The service support contract will be procured through open competition to ensure best value for money. There will be one charge per organisation, no matter how many users and payable in arrears.

We have proposed charging bands for 2020/21 and 2021/22 that are based on current estimates of organisations' usage. From April 2022, we will use data from Street Manager to review and develop a fair transactional charging regime.

We consulted on these amendments as the simplest and easiest way, in terms of administration, of charging utility companies. It also allows flexibility in the future to amend the way charges are calculated. However, we also consulted on an alternative way that would be for the DfT to charge local authorities an additional element for every permit issued to utilities, and to raise the maximum permit fee

so that authorities could recover these costs from utility companies. This would, however, be an additional administrative burden for authorities and it would mean that the charging regime would be based on permit numbers rather than any other basis we might agree is more desirable. This would therefore make this option less flexible.

The consultation **supported** making the amendments to Section 53 of the 1991 Act.

#### **Measure 4** - Definition of major works

Regulation 3 of the 2007 Noticing Regulations currently states that that major works are defined as

*"street works which have been identified in the annual operating programme of an undertaker, or which, though not specifically identified in such programme, would normally be planned or known about at least six months in advance of the date proposed for the works."*

Where works are not carried out under a permit scheme, works that are defined as 'major' works under the 2007 Noticing Regulations need to be notified to the local highway authority three months before works are due to start. These works may also attract a higher permit fee depending on the approach taken by individual local authorities.

One of the aims of Street Manager is to support and encourage forward plans (those in an annual operating programme) to be submitted by utility companies and highways works promoters, so that others can see who might be planning works in a particular area at some point in the future. This will support and identify opportunities for collaboration and joint works which, in turn, can lead to reductions in congestion or the same stretch of road being dug up on several separate occasions by different promoters.

We are aware of cases where some works are identified in an annual operating programme, but only then take a few days when it comes to carrying out the job. These may therefore be incorrectly being classified as a 'major' work when they should really be classified as 'standard' or 'minor'. Some stakeholders have raised concerns that works promoters may not want to submit forward plans to Street Manager if there is potential for them to be then be charged higher fees or subject to longer notice periods.

We therefore consulted on amending regulation 3 to remove the words '**which have been identified in the annual operating programme of an undertaker**'. All the other criteria for the definition of 'major' works would remain the same.

This proposal was **supported** by consultation responses.

#### **Measure 5** - Deadline for submission of notices

We would like information on when works have started and stopped, and when roads are open for traffic or closed due to road works to be as near to real-time as possible. In today's world, where information can be shared instantly with mobile phones, SATNAVs and other devices, the existing legislation is a real barrier to up-to-date data on progress with works being sent to street manager and then shared via open data platforms with technology companies. We therefore proposed amending the deadlines for notification in regulation 6 of the 2009 Charges Regulations so that "actual start of works notices", "works clear notices" and "works closed notices" must be given within two hours of the works having commenced/completed.

This proposal was **supported** by consultation responses.

#### **Measure 6** - Form of Fixed Penalty Notices

Fixed Penalty Notices (FPNs) can be issued by local authorities to utility companies for several offences set out in the New Roads and Street Works Act 1991 and the Traffic Management Act 2004. Offences include working without a permit and working beyond the time agreed in the permit. Offences are criminal, and utility companies can be prosecuted in court. Authorities can however give companies an opportunity to discharge the criminal liability by paying a FPN.

Regulation 23 of the Traffic Management Permit Scheme (England) Regulations 2007 sets out requirements relating to the form of Fixed Penalty Notices (FPN issued for fixed penalty offences under those regulations (undertaking works without a permit and breaching a permit condition). Schedule 1 of those Regulations goes on to show an actual form and layout for an FPN. Regulation 23(1) states that "A fixed penalty notice shall be in the form set out in Schedule 1 or in a form to substantially the like effect." It goes on to set out the information that shall be included in a FPN.

We understand that the vast majority of FPNs today are issued via EToN systems and do not follow this form. Some FPNs are emailed to smaller organisations and some want the FPN set out in Schedule 1 to be submitted by post. The latter will then involve local authorities needing to do mail merges.

The existing legislative requirement in 23(1) to use the form of FPN set out as in Schedule 1 (or a form to substantially the like effect) already seems to be overly prescriptive. It also does not fit well into Street Manager which will use modern technology to enable FPNs to be sent from authorities to utility companies within Street Manager. There is no need for the form of FPN currently in Schedule 1 to be recreated in Street Manager. The key information set out in the regulations will be included as fields, but Street Manager should not have to generate a PDF version of the form in the format required by the Schedule or support mail merges.

We therefore proposed amending the 2007 Permit Regulations to remove the requirement at regulation 23(1) and the form at Schedule 1. We would also need to make corresponding amendments to regulations 9, 27, and 39 and to remove Schedule 2. This will cut unnecessary administrative bureaucracy and support the modern services being developed in Street Manager.

We also need to make amendments to the Street works (Fixed Penalty) (England) Regulations 2007 in relation to FPNs issued for fixed penalty offences under Part III of the 1991 Act.

Regulation 39 of the 2007 Permit Regulations makes it possible to send FPNs via post if electronic means are unavailable or as an alternative. We will still need to provide a fall-back position in cases where Street Manager may be unavailable. We proposed making it clear that Street Manager should be used in the first instance but that, as a fall back, FPNs could be sent by fax, by post or via such other means as may be agreed between the sender and recipient.

This was **supported** by the consultation.

## **Measure 7** – Amend permit scheme national conditions

We consulted on amendments to the permit scheme statutory guidance that is issued by the DfT<sup>7</sup> and to the additional statutory guidance which provides a set of national conditions that can be applied to permits<sup>8</sup>.

The national conditions are the only ones that can be used for permits and they were last updated in March 2015. Since 2015, however, a number of developments have taken place and there is now, across the sector, a greater understanding of how the correct application of conditions can benefit the undertaking of works. We therefore proposed to make the following changes.

### **Amend NCT09c - Signal Removal from operation when no longer required.**

This condition currently states that:

*"For the activities hereby permitted it is a condition of this permit that activities using portable traffic signals must have the signals removed from use as soon as possible and within four hours of completion of works irrespective of day of completion".*

We want to update and clarify this condition to ensure that all forms of temporary traffic lights are removed as soon as possible after works have been completed. The updated condition would be:

*"For the activities hereby permitted it is a condition of this permit that activities using portable traffic signals must have the signals **(manually operated or not)** removed from use as soon as possible **and no later** than within four hours of completion of works irrespective of day of completion".*

We will make it clear in the statutory guidance that there is a strong recommendation for this condition to be attached to permits in cases where temporary traffic signals are used.

### **Add a new part condition to NCT13 - placement of new apparatus under the footway, footpath or verge**

In October 2013, the then National Joint Utilities Group (NJUG, now Streetworks UK) published guidelines "NJUG Guidelines on the Positioning and Colour Coding on Underground Utilities

<sup>7</sup> <https://www.gov.uk/government/publications/street-works-the-2007-permit-scheme-regulations-as-amended-in-2015>

<sup>8</sup> <https://www.gov.uk/government/publications/street-works-permit-schemes-conditions>

Apparatus"<sup>9</sup>. This advises that there should be a presumption that works promoters will, where practical, place equipment under the footway, footpath or verge to reduce the impact of works carried out in the carriageway on traffic.

We proposed introducing a part to the national condition that would reinforce and support this presumption and would be applied to all permits for new apparatus where possible and practical. The additional part would be:

*"For the activities hereby permitted it is a condition of this permit that activities placing new apparatus underground should, where possible and practical, be placed under the footway, footpath or verge. Placement in the carriageway should be a last resort."*

**Consultation responses supported the first condition change but not the second.** We therefore now propose to amend NCT09C but not add a new part regarding apparatus under the footway.

## **Measure 8** – Section 58 road restrictions

Section 58(1) of the New Roads and Street Works Act 1991 allows local authorities to prohibit road works following substantial resurfacing works for a period of time. The timescales are set out in the Street Works (Registers, Notices, Directions and Designations) (England) Regulations 2007. The aim of the restrictions is to prevent newly re-surfaced or rebuilt roads from being dug up immediately afterwards by utility companies and to help protect the local road asset. There are exemptions for emergency works and a local authority can also give access for certain works if it agrees they are necessary.

The current timeframes are set out in Paragraph 11(2) of the 2007 Regulations. They are:

- 5 years in relation to substantial road works involving reconstruction.
- 3 years in relation to substantial road works involving resurfacing or an alteration in the level of the highway.
- 1 year in relation to any other substantial road works carried out in a traffic sensitive street or a street in reinstatement road category 0, 1 or 2 which is not a traffic sensitive street.
- 6 months in relation to any other substantial road works carried out in a street in reinstatement road category 3 or 4 which is not a traffic sensitive street.

We consulted on whether these timeframes remain appropriate, given the rising levels of demand for new utility infrastructure including full fibre networks. In particular, the potential for restrictions of 5 years may seem overly prescriptive. We do need to protect the local road networks and any investment made by local authorities when they resurface and reconstruct roads, and are considering the following proposed changes to the timeframes:

- 3 [down from 5] years in relation to substantial road works involving reconstruction.
- 2 [down from 3] years in relation to substantial road works involving resurfacing or an alteration in the level of the highway.
- 1 [no change] year in relation to any other substantial road works carried out in a traffic sensitive street or a street in reinstatement road category 0, 1 or 2 which is not a traffic sensitive street.
- 6 months [no change] in relation to any other substantial road works carried out in a street in reinstatement road category 3 or 4 which is not a traffic sensitive street.

This proposal was **supported** by the consultation.

## **5.3 Preferred option – option 1**

The final options we plan to implement are to amend regulations to make the changes list above and for these changes to come into force by 31<sup>st</sup> March 2020. These are preferred as they will deliver the benefits that Street Manager in particular will deliver for the industry and for the travelling public.

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<sup>9</sup> <http://streetworks.org.uk/wp-content/uploads/2016/09/V1-Positioning-Colour-Coding-Issue-8.pdf>

## 6 Innovation

### 6.1 Removing barriers and encouraging innovation

Street Manager itself will be open source and data will be open, replacing a previously closed EToN system. This reduces entry barriers into the street works technology market, opening the market to new entrants such as software and app developers. Competition may increase as new and updated products are developed using the open data, leading to more options that meet user needs. Street Manager is already supporting innovation in the sector. Around 23 of the 55 organisations who have had access to the private Beta and test data have been testing out the API specifically. These organisations are already starting to develop products that can link to Street Manager and use the data on live and planned works for the benefit of users and the travelling public.

Street Manager will be owned and continuously improved by DfT, guaranteeing access to data for policy makers to aid future policy design. Continuous improvement will be informed by users and governance arrangements are being put in place to ensure they continue to be consulted. This also allows policy makers to adapt variables and inputs in order to focus on areas of potential policy intervention or ensure an evidence base for PIRs.

### 6.2 Futureproofing legislation

Street Manager can be continually developed, with user interface changed and additional functionality provided without any further regulatory changes. The regulations will not refer to Street Manager by name, but to a digital service appointed by the Secretary of State for transport. This will mean that we can continue to update the website in line with our commitment to continuous improvement and to allow ongoing innovation. Should the brand name of 'Street Manager' change in the future, this can also be made without needed to amend the SI.Arrangements for if Street Manager is ever off-line refer to email or any other forms of communication agreed between the utility and local authority.

There may need to be future changes, including de-regulatory, to the operation of some aspects of street works, for example, permit schemes and legal definitions. These will be subject to impact assessments and consultation. But, Street Manager will provide data to help assess the impacts of changes, prevent any double-counting and it will provide a way of implementing changes at no additional cost.

### 6.3 Risks to innovation

One of the regulatory requirements, (measure 5) on the deadline for submission of notices needs to be set out in regulations as there are penalties for non-compliance. If we wanted to amend this in the future to support more real time information, then further amendments will be needed to regulations. These would not be made until the technology and working practices have been established and would be able to deliver real-time updates.

## 7 Consultation

### 7.1 Responses to the consultation

We consulted between July and September 2019 on these amendments, receiving **92** responses. The feedback to each proposal is noted above. All but one measure (Placement of New Apparatus under Footway, Footpath or Verge; see section 5.2, measure 7) was supported by stakeholders, we have since removed this measure from consideration.

Stakeholder responses to assumptions made in the consultation stage impact assessment have been used to refine the analysis for this final stage impact assessment. Developments to the analysis are summarised in the table below in section 7.2.

The consultation document also included an option for stakeholders to provide data to the Department that could assist in the appraisal of non-monetised measures 4, 6, 7 and 8. A small number of responses

included additional data, however the sample was not large enough to provide a robust assessment. Therefore, it is disproportionate to monetise these measures as they are expected to have a negligible impact on stakeholders, there is a lack of conclusive data and limited time to complete an assessment. After the introduction of Street Manager, data held on the system is expected to quantitatively assess these measures in the future and should be included in the post-implementation review.

## 7.2 Impact Assessment development and constraints

Updates to the final stage impact assessment since the consultation stage Impact Assessment

| Update to IA                                     | Description  | IA reference      |
|--|--|-------------------|
| <b>Number of organisations</b>                   | Further research and responses to the consultation has identified a small increase in the number of organisations that may be affected. Organisations identified as contractors in the consultation stage IA are now identified as 'smaller utility companies' in this IA for simplicity.  | Section 8.1       |
| <b>Organisations who will retain EToN</b>        | Further research, responses to the consultation and stakeholder engagement revealed a small proportion of organisations will continue to retain EToN use, due to working across the UK. This has been made explicit in the IA.   | Section 8.2.1     |
| <b>Street Manager charge structure</b>           | The charge structure for Street Manager has been updated and is based upon the three-year average number of works carried out between 1 <sup>st</sup> January 2016 and 31 <sup>st</sup> December 2018. Organisations with a higher usage and therefore greater number of works will pay a higher charge than organisations with lower number of works. Charges and methodology will be reviewed in mid-2021.               | Section 8.2.2     |
| <b>Take-up assumptions for 2020</b>              | Assumptions for Street Manager take-up and EToN usage have been updated to reflect the usage pre/post the transition end date and takes into account consultation responses. These are now reflected in financial year terms, as Street Manager will be mandated from 1 <sup>st</sup> April 2020.  | Section 8.2.3     |
| <b>EToN upgrade costs</b>                        | Data obtained estimates the cost and frequency of EToN software upgrades to organisations. This has now been included in the final stage impact analysis.  | Section 8.2.8     |
| <b>Familiarisation costs</b>                     | Familiarisation costs have been included in the final stage impact assessment. These are estimated using stakeholder engagement at road show events and consultation responses. These include the time taken for an organisation to familiarise with the amendments to regulation and the time taken for employees to familiarise with the new Street Manager software, on top of the training provided by Street Manager. | Section 8.2.9     |
| <b>Street works data</b>                         | January 2016 to December 2018 works data has been provided by ELGIN. This has been used to uphold assumptions made from previous 2012/13 works data used in the consultation stage impact assessment, and used to determine the charge structure for Street Manager.   | Throughout the IA |
| <b>Small and Micro-sized Business Assessment</b> | Analysis using consultation responses and ELGIN works data has been completed to produce a detailed SaMBA for this final stage impact assessment   | Section 11.2      |

|                               |  |              |
|-------------------------------|--|--------------|
| <b>EToN developer revenue</b> | Impacts of decreased revenue to EToN developers is included in the written assessment but excluded from the quantitative appraisal. This is because this is revenue from payments no longer received by businesses for providing goods or services necessary to comply with a regulation. This is not included in the EANDCB or NPV calculations <sup>10</sup> . | Section 11.3 |
|-------------------------------|--|--------------|

### 7.3 Absence of data and time constraints

There is a lack of accessible data in the street works industry. This has made it difficult to produce robust analysis for all of the measures proposed. Additional data from ELGIN for the years January 2016 to December 2018 has been provided to the Department and responses to the consultation have been used to inform the final stage analysis. However, consultation responses are not substantial enough to provide a good data sample to quantitatively assess non-monetised measures 4, 6, 7 and 8.

Analysts have also been constrained with time. The consultation closed on the 13<sup>th</sup> September 2019, with a laying data for the SI in November 2019. This has meant there is limited time to produce further analysis and conduct further research, particularly in a low impact policy area. Further analysis is disproportionate to the impact size and would further delay the introduction of Street Manager.

## 8 Cost-Benefit Analysis and Appraisal

This section sets out the costs and benefits of the final policy option. The baseline option, whereby no government intervention is undertaken, is the “do-nothing” scenario and is used as the counterfactual against which the costs and benefits of the final option is compared to.

As this policy is not time-limited, the costs and benefits of the options have been assessed over a 10-year appraisal period, following guidance in the Better Regulation Framework Manual. The policy will be introduced in 2019, so the 10-year appraisal period begins on this date.

Unless otherwise stated, all values are presented in 2019 prices; and where costs and benefits are expressed in present value terms, they have been discounted to their present value in 2019 using a discount rate of 3.5% per year, as recommended by the Green Book.

Measures 1,2,3 and 5 relating to the introduction of Street Manager have been quantitatively assessed and monetised. Measures 4,6,7 and 8 are qualitatively assessed and non-monetised. This is due to proportionality as these measures are low impact, have very little data and it would be disproportionate to conduct further evidence-gathering exercises.

This assessment only considers English Local Highway Authorities. Those in other countries in the UK have not yet confirmed they will adopt Street Manager, and therefore face no change in costs or realise any benefits.

Under section 22 of the Small Business, Enterprise and Employment Act (SBEE) 2013<sup>11</sup>, taxes, duties, levies or other charges (including fees) made by or on behalf of a public body are not considered regulatory provisions. The Department has consulted with the Better Regulation Executive on this, and in line with their

<sup>10</sup> Regulatory Policy Committee – Other business impact target methodology issues  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/790024/RPC\\_case\\_histories\\_other\\_BIT\\_specific\\_issues\\_March\\_2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790024/RPC_case_histories_other_BIT_specific_issues_March_2019.pdf)

<sup>11</sup> <http://www.legislation.gov.uk/ukpga/2015/26/section/22/enacted>



advice, will exclude these fees from EANDCB and BIT score calculations. These will still be captured in the NPV presented to show the impact of the measure.

### 8.1 Baseline scenario (EToN system)

Currently, the use of EToN is mandated in legislation for all street works promoters and local highways authorities. There are 247 organisations that use EToN. 153 are Local Highways Authorities and 94 are utility companies (86 smaller utility companies that conduct up to 40,000 works per year and 8 larger utility companies that conduct between 40,000 to 300,000 works per year). To access EToN data, organisations must purchase a basic EToN licence from one of four private sector software developers. These developers are large organisations that create other software products, of which one of their products uses EToN data. Additional products beyond the basic EToN licence are purchased at an additional cost and vary in price depending on the product type and the size of the organisation.

EToN products include:

1. Basic EToN licence: Services related only to street and road works and that comply with the existing EToN technical specification
2. Additional service products: These allow highways authorities to manage other activities on the highway, for example, licences for construction equipment and road closures for special events.
3. Linked services: EToN products can be stand alone, or they can be linked with other products such as asset management and works management systems.

EToN users pay a licence fee on an annual or fixed term agreement. In some cases, organisations may purchase several licences to ensure that a number of employees can access EToN products simultaneously. From stakeholder research, around 75% of organisations purchase a basic EToN licence and additional service products only. The remaining 25% of organisations also purchase linked services products. These tend to be larger organisations that conduct a large number of works each year and may work across devolved nations.

Table 1: EToN costs by type of organisation (2019 prices)

| Organisation              | Number of organisations | Basic licence fee | Additional services fee | Total annual costs |                   |
|---------------------------|-------------------------|-------------------|-------------------------|--------------------|-------------------|
|                           |                         |                   |                         | Per organisation   | All organisations |
| Local Authorities         | 153                     | £30,000           | £6,000                  | £36,000            | £5,508,000        |
| Larger Utility Companies  | 8                       | £100,000          | £100,000                | £200,000           | £1,600,000        |
| Smaller Utility Companies | 86                      | £30,000           | £10,000                 | £40,000            | £3,440,000        |

Only the licence fee and additional service costs are displayed as these services will be directly replaced by Street Manager. These estimates indicate that EToN costs organisations in total around £10.5 million per year, broken down by £5.5 million to local highways authorities and around £5 million to works promoters.

EToN requires software upgrades as technical specifications are updated in legislation. Upgrades are chargeable to EToN users and, as EToN has become outdated over time, upgrades have become less frequent but more costly. An upgrade can cost up to £500,000 per organisation and are estimated to occur around every 5 years. Upgrades and development costs for Street Manager are inclusive of the Street Manager annual charge.

Table 2: EToN upgrade costs by organisation type (2019 prices)

| Organisation | Number of organisations | Total upgrade costs |                   |
|--------------|-------------------------|---------------------|-------------------|
|              |                         | Per organisation    | All organisations |

|                           |     |          |            |
|---------------------------|-----|----------|------------|
| Local Authorities         | 153 | £15,000  | £2,295,000 |
| Larger Utility Companies  | 8   | £500,000 | £4,000,000 |
| Smaller Utility Companies | 86  | £50,000  | £4,300,000 |

Organisations may also pay extra for bespoke reports and training in EToN systems. These are tailored to organisations, are commercially sensitive and vary in price so have not been monetised for this impact assessment.

## 8.2 Do-something scenario (Street Manager)

### 8.2.1 Street Manager outline

Street Manager will go live from November 2019 and will be mandated in legislation from the 31<sup>st</sup> March 2020. From 1<sup>st</sup> April 2020, all organisations will be using Street Manager and paying an annual charge.

Street Manager charges will cover all aspects of the use of Street Manager, including all its services, all future upgrades and all users within an organisation. There will be one charge with no hidden or added extras and it will directly replace the current services provided through a basic EToN licence, additional service products and upgrades.

Street Manager will only be used in England; works in the rest of the UK will continue under the EToN software. Changes in Scotland, Wales and Northern Ireland would need to be implemented by those countries as this is a devolved power. As such, if a company operates in England only, it is assumed they will switch from EToN to Street Manager. If a company operates in England and another country in the UK, these companies will adopt Street Manager (for efficiency gains in England), but must retain EToN for works outside of England.

Data from ELGIN<sup>12</sup> data reveals out of all those using EToN, 12 out of 94 utility companies operate in Wales as well as in England. These organisations will need to retain their EToN licenses. Of these 12 utility companies, 8 (of 8 large utility companies) are defined as large (40k-300k works per year) and 4 (of 86 small utility companies) are small (up to 40k works per year). These 12 utility companies represent 5% of all 247 current EToN license holders.

Feedback gathered through surveys, roadshow events and consultation responses is in line with the claim that most organisations (those that purchase a basic EToN licence and additional service products only) will replace their existing EToN systems with Street Manager, although this may happen over time. This represents around 95% of users in this analysis (primarily made up of English Local Authorities). The remaining 5% of organisations (primarily large utility companies, who also purchase linked services) will link to Street Manager via an API (Advanced Programming Interface) so will continue to pay for and use EToN for the foreseeable future. These organisations are large utility companies, who may produce their own street works management software, work across devolved nations, or use EToN software to produce bespoke reporting.

During the transition period, organisations are expected to use Street Manager if they are already participating in the private Beta or if they are keen to transition to Street Manager early. From 1<sup>st</sup> April 2020, it will be mandatory for all organisations to use and pay charges for Street Manager, regardless of their existing EToN licence agreements. Therefore, most organisations are expected to start using Street Manager from February and March 2020, and entering data either via the user interface or sending data via an API with other works or asset management systems.

Conversations with relevant officials in Wales have stated there is still scope for Street Manager to be introduced; however, this has not been decided upon yet. If this does happen, then these organisations

<sup>12</sup> This data reveals the road works completed, by which organisation/local authority and where. From this, it has been possible to identify organisations who work across the UK. This data has been shared by ELGIN with DfT to help inform this Impact Assessment. Whilst able to use high-level summary figures to inform, we are not at liberty to present a further breakdown, as this is not our intellectual property. However, we believe the data is high-quality and robust, and is utilised by highway authorities, utility companies and contractors across the UK. For more detail, please see <https://www.elgintech.com/about-us> (last accessed 30/10/19)

will not have to retain EToN, resulting in these associated costs not being realised. This will result in the costs presented in this assessment being an overestimate.

## 8.2.2 Charge structure

Measure 3 gives an express power to charge organisations for the use of Street Manager. The charge structure is based on usage, with heavier users (those with more works) paying a higher charge than organisations who conduct fewer works. Smaller organisations will therefore pay lower charges than larger organisations. This will also ensure that LHAs and works promoters pay 50% of the costs of Street Manager each. The proposed charging system has been sent to organisations following the closure of the consultation. Annual charges are calculated using 'bands' of number of works and are calculated using different methodologies for LHAs and works promoters in order to keep the charge structure fair for the two types of users.

Charges also apply to small and micro sized businesses, however the impacts on their organisations are mitigated due to the charge structure banding. A small and micro sized business assessment is included in the wider impacts section below.

Table 3: Street Manager charge structure for works promoters and LHAs (2019 prices)

### Banding for works promoters

| Band | Bottom of band<br>(Number of works) | Top of band<br>(Number of works) | Band rate<br>(Annual charge) |
|------|-------------------------------------|----------------------------------|------------------------------|
| A    | 200,001                             | N/A                              | £300,000                     |
| B    | 100,001                             | 200,000                          | £150,000                     |
| C    | 50,001                              | 100,000                          | £75,000                      |
| D    | 30,001                              | 50,000                           | £50,000                      |
| E    | 20,001                              | 30,000                           | £35,000                      |
| F    | 10,001                              | 20,000                           | £30,000                      |
| G    | 7,501                               | 10,000                           | £27,500                      |
| H    | 5,001                               | 7,500                            | £25,000                      |
| I    | 2,501                               | 5,000                            | £17,500                      |
| J    | 501                                 | 2,500                            | £10,000                      |
| K    | 51                                  | 500                              | £5,000                       |
| L    | 1                                   | 50                               | £1,000                       |

### Banding for Local Highways Authorities

| Band | Bottom of band<br>(Number of works) | Top of band<br>(Number of works) | Band rate<br>(Annual charge) |
|------|-------------------------------------|----------------------------------|------------------------------|
| A    | 20,000                              | N/A                              | £30,000                      |
| B    | 10,000                              | 19,999                           | £22,500                      |
| C    | 6,000                               | 9,999                            | £15,000                      |
| D    | 5,000                               | 5,999                            | £10,000                      |
| E    | 1                                   | 4,999                            | £7,500                       |

Using the number of work promoters and local authorities by band<sup>13</sup>, it is possible to estimate the weighted average charge. This equates to an average charge per small works promoter of approximately £15,000 per year, large works promoter of approximately £122,000 and an average charge per Local Highways Authority of approximately £16,000 per year. This is broken down in table 4 below.

Table 4: Average annual Street Manager charges by organisation and size (2019 prices)

| Organisation   | Average annual charge |
|--|-----------------------|
| Local Authority                                      | £16,000               |
| Smaller Utility Companies (up to 40k works per year) | £15,000               |
| Larger Utility Companies (40k - 300k works per year) | £122,000              |

### 8.2.3 User groups and transition period

The transition period will be open from 1<sup>st</sup> November 2019 to 31<sup>st</sup> March 2020. Some organisations may only use EToN during this period (as it is still mandated in regulation until 31<sup>st</sup> March 2020), whereas other organisations may use both systems. Those organisations who operate across the UK will use both systems, as Street Manager is only available for works in England. Organisations that use both systems are expected to be included in the Street Manager private beta or are keen to start using Street Manager before it is mandatory.

After the transition period closes, organisations that continue to use both systems may face additional costs when compared to the baseline scenario. Whether an organisation continues to use EToN past the transition end date will depend upon their existing EToN licence agreement expiration date, whether an organisation uses EToN linked services (as these are not products included in Street Manager) or whether an organisation works across devolved regions that are continuing to use EToN. In some cases, EToN agreements can last for several years. However, organisations have been aware of Street Manager since roadshows began in autumn 2018. Therefore, organisations should already have mitigating actions and agreements with EToN in place to prevent paying for both systems simultaneously. As noted in section 8.2.1, the 5% of organisations that continue to use EToN from financial year 22/23 onwards are those who operate across the UK.

Take up and usage estimates across the transition period are shown below, using feedback from consultation responses and road show events. The Street Manager take-up and usage column refers to the proportion of organisations who are registered to Street Manager and are using it for street works.

Table 5: Proportion of all organisations taking-up and using Street Manager, using EToN and paying Street Manager charges during the transition period

| Financial Year (1 <sup>st</sup> April – 31 <sup>st</sup> March) | Street Manager take-up and usage | EToN usage | Organisations paying Street Manager charges |
|---|----------------------------------|------------|---|
| 19/20   | 25%                              | 100%       | 0%  |
| 20/21   | 100%                             | 75%        | 100%  |
| 21/22   | 100%                             | 50%        | 100%  |
| 22/23 onwards   | 100%                             | 5%         | 100%  |

In 2019, EToN is still mandated in legislation. Those using Street Manager will be participating in the private Beta or are keen to use Street Manager when it opens in the November 2019 public Beta. Note that organisations using Street Manager will not pay any charges until 1<sup>st</sup> April 2020.

<sup>13</sup>The number of works promoters by number of works is sourced from ELGIN, 2016-18 street works data; this data reveal the total number of works completed in England and Wales. This data has been shared by ELGIN with DfT to help inform this Impact Assessment. Whilst able to use high-level summary figures to inform, we are not at liberty to present a further breakdown, as this is not our intellectual property, and is commercially sensitive, as individual organisations can be identified. However, we believe the data is high-quality and robust, and is utilised by highway authorities, utility companies and contractors across the UK. For more detail, please see <https://www.elgintech.com/about-us> (last accessed 30/10/19)

Street Manager is mandated in legislation from 1<sup>st</sup> April 2020 so all organisations will be using and paying charges from this date. The use of EToN begins to fall as EToN licence agreements expire and organisations switch over to Street Manager. From April 2022, all organisations will continue to be using and paying charges for Street Manager. A small proportion of organisations will continue using EToN and linking to Street Manager via an API for the foreseeable future.

55 organisations (mixture of utilities and LAs) took part in the private beta, with 23 of these testing the API links. Since 1 November and the start of public Beta, 180 (as of 09/12/19) organisations are now registered in Street Manager and are starting to use it (initially the Sandbox test environment). That leaves just under 70 organisations, with more joining each week. The Department are in touch with all organisations who know about Street Manager, and of the need to be registered by 31 March 2020. Between now and the end of March, users will primarily be using the Sandbox to help them manage transition and to familiarise themselves with the new service. The regulatory change will require that they are all using the production environment by 31 March 2020, and submitting data either via the user interface or via an API from another system. The assumptions in table 5 about take-up have not been changed by the take-up/registration into the Sandbox.

#### 8.2.4 Street Manager charges

Organisations may start using Street Manager from November 2019, however they will not pay any charges until 1<sup>st</sup> April 2020. The table below shows the annual cost to organisations to use Street Manager during the transition period.

Table 6: Annual costs of Street Manager to organisations (2019 prices, £ millions)<sup>14</sup>

|  | Financial Year<br>19/20 | Financial Year<br>20/21 | Financial Year<br>21/22 | Financial Year<br>22/23 onwards |
|--|-------------------------|-------------------------|-------------------------|---------------------------------|
| Organisation take-up of Street Manager | 25%                     | 100%                    | 100%                    | 100%                            |
| Organisations paying for charges       | 0%                      | 100%                    | 100%                    | 100%                            |
| Local Authorities                      | £0.0                    | £2.4                    | £2.4                    | £2.4                            |
| Larger Utility Companies               | £0.0                    | £1.0                    | £1.0                    | £1.0                            |
| Smaller Utility Companies              | £0.0                    | £1.3                    | £1.3                    | £1.3                            |
| <b>Non-business cost</b>               | <b>£0.0</b>             | <b>£2.4</b>             | <b>£2.4</b>             | <b>£2.4</b>                     |
| <b>Business cost</b>                   | <b>£0.0</b>             | <b>£2.3</b>             | <b>£2.3</b>             | <b>£2.3</b>                     |

Street Manager annual costs to organisations is around £4.7 million. This is split equally between local highways authorities (non-business costs of £2.4 million per year) and utility companies (business costs of £2.3 million per year).

#### 8.2.5 Operational costs and cost recovery to Government

The Government has already invested £10 million into the development of Street Manager. This is a sunk cost, and is not additional against the baseline. As such, it is not considered any further in this assessment. Street Manager is centrally operated on a cost recovery basis. All charges paid by organisations (shown in table 6 above) will be used for maintenance, service support and continuous development of Street Manager. Therefore, the cost to Government to operate Street Manager is equal to the charges received from organisations. During the transition period (FY 19/20), Street Manager is operational but organisations are not charged. 25% of organisations are estimated to use Street Manager during this time, so the operational cost to Government is equal to the fees that these organisations would have paid, estimated at around £500,000.

This £500,000 cost to Government to initially run Street Manager is funded by DfT programme spend. Operational costs from April 2020 onwards are directly recoverable from Street Manager charges.

<sup>14</sup> Totals may not sum due to rounding

## 8.2.6 Cost-savings from EToN licence fees and Street Manager charges

There are 3 groups of organisations affected:

1. Organisations that switch straight away from EToN to Street Manager. They have no additional costs and may have cost-savings due to switching to a less expensive system.
2. Organisations that switch to Street Manager from EToN over time once their EToN licence agreement has expired. This is predicted between 2020 and 2022 and there may be some additional costs in the short term from using two systems.
3. Organisations that continue to use EToN alongside Street Manager for the foreseeable future. They use API and additional EToN services or work across devolved regions and may face additional costs of Street Manager charge in the long-term, until they stop using EToN.

Organisations that completely switch from EToN to Street Manager may see cost-savings as Street Manager charges are significantly cheaper than EToN licence fees. Organisations that continue to use EToN as well as Street Manager may face additional costs. It is estimated that aggregate additional costs to organisations arise during the transition period only. This is summarised in the table below:

Table 8: Cost impacts to organisations of introducing Street Manager (2019 prices, £ millions)<sup>15</sup>

| FY 19/20 – 1 <sup>st</sup> April 2019 to 31 <sup>st</sup> March 2020<br>(no charges for Street Manager) |              |  |  |
|---|--------------|--|--|
|   | Baseline     | Do-something<br>(EToN 100% usage, SM<br>25% take-up) | Difference<br>(Do-something minus<br>baseline) |
| <b>EToN</b>   | <b>£10.5</b> | <b>£10.5</b>   | <b>£0.0</b>                                    |
| Business  | £5.0         | £5.0   | £0.0   |
| Non-business  | £5.5         | £5.5   | £0.0   |
| <b>Street Manager</b>   | <b>£0.0</b>  | <b>£0.0</b>  | <b>£0.0</b>                                    |
| Business  | £0.0         | £0.0   | £0.0   |
| Non-business  | £0.0         | £0.0   | £0.0   |
| <b>Total</b>  | <b>£10.5</b> | <b>£10.5</b>   | <b>£0.0</b>                                    |
| Business  | £5.0         | £5.0   | £0.0   |
| Non-business  | £5.5         | £5.5   | £0.0   |

| FY 20/21 – 1 <sup>st</sup> April 2020 to 31 <sup>st</sup> March 2021<br>(Street Manager charges from April) |              |  |  |
|---|--------------|--|--|
|   | Baseline     | Do-something<br>(EToN 75% usage, SM<br>100% take-up) | Difference<br>(Do-something minus<br>baseline) |
| <b>EToN</b>   | <b>£10.5</b> | <b>£7.9</b>  | <b>-£2.6</b>                                   |
| Business  | £5.0         | £3.8   | -£1.3  |
| Non-business  | £5.5         | £4.1   | -£1.4  |
| <b>Street Manager</b>   | <b>£0.0</b>  | <b>£4.7</b>  | <b>£4.7</b>                                    |
| Business  | £0.0         | £2.3   | £2.3   |
| Non-business  | £0.0         | £2.4   | £2.4   |
| <b>Total</b>  | <b>£10.5</b> | <b>£12.6</b>   | <b>£2.1</b>                                    |
| Business  | £5.0         | £6.0   | £1.0   |
| Non-business  | £5.5         | £6.6   | £1.1   |

<sup>15</sup> Totals may not sum due to rounding

| FY 21/22 – 1 <sup>st</sup> April 2021 to 31 <sup>st</sup> March 2022 |              |  |  |
|--|--------------|--|--|
|  | Baseline     | Do-something<br>(EToN 50% usage, SM<br>100% take-up) | Difference<br>(Do-something minus<br>baseline) |
| <b>EToN</b>  | <b>£10.5</b> | <b>£5.3</b>  | <b>-£5.3</b>                                   |
| Business   | £5.0         | £2.5   | -£2.5  |
| Non-business   | £5.5         | £2.8   | -£2.8  |
| <b>Street Manager</b>  | <b>£0.0</b>  | <b>£4.7</b>  | <b>£4.7</b>                                    |
| Business   | £0.0         | £2.3   | £2.3   |
| Non-business   | £0.0         | £2.4   | £2.4   |
| <b>Total</b>   | <b>£10.5</b> | <b>£10.0</b>   | <b>-£0.6</b>                                   |
| Business   | £5.0         | £4.8   | -£0.3  |
| Non-business   | £5.5         | £5.2   | -£0.3  |

| FY 22/23 onwards– 1 <sup>st</sup> April 2022 to 31 <sup>st</sup> March 2023<br>(and each financial year onwards) |              |  |  |
|--|--------------|--|--|
|  | Baseline     | Do-something<br>(EToN usage only by<br>utility companies who<br>operate across the UK,<br>SM 100% take-up) | Difference<br>(Do-something minus<br>baseline) |
| <b>EToN</b>  | <b>£10.5</b> | <b>£1.8</b>  | <b>-£8.8</b>                                   |
| Business   | £5.0         | £1.8   | -£3.3  |
| Non-business   | £5.5         | £0.0   | -£5.5  |
| <b>Street Manager</b>  | <b>£0.0</b>  | <b>£4.7</b>  | <b>£4.7</b>                                    |
| Business   | £0.0         | £2.3   | £2.3   |
| Non-business   | £0.0         | £2.4   | £2.4   |
| <b>Total</b>   | <b>£10.5</b> | <b>£6.5</b>  | <b>-£4.1</b>                                   |
| Business   | £5.0         | £4.0   | -£1.0  |
| Non-business   | £5.5         | £2.4   | -£3.1  |

There are additional costs of around £2.1 million to organisations in financial year 2020/21 as they transition from EToN to Street Manager. This is because organisations may take-up Street Manager whilst continuing to use EToN. These additional costs are recovered in cost-savings in financial years 2021/22 and 2022/23. Only a small number of organisations that continue to use EToN for the foreseeable future will have additional costs from financial year 2022/23 onwards.

### 8.2.7 Licence cost-savings per organisation if all organisations switch to Street Manager

Table 9: Aggregate costs per organisation (2019 prices)<sup>16</sup>

| Organisation             | EToN licence cost | Street Manager charge | Change in costs per organisation | Change in costs for all organisations (£m) <sup>17</sup> |
|--------------------------|-------------------|-----------------------|----------------------------------|--|
| Local Authorities        | £36,000           | £16,000               | -£20,000                         | -£3.1  |
| Larger Utility Companies | £200,000          | £122,000              | -£78,000                         | -£0.6  |

<sup>16</sup> Totals may not sum due to rounding

<sup>17</sup> Multiplies changes in costs by the number of organisations listed in table 2

|                           |         |         |          |       |
|---------------------------|---------|---------|----------|-------|
| Smaller Utility Companies | £40,000 | £15,000 | -£25,000 | -£2.2 |
|---------------------------|---------|---------|----------|-------|

|                                 |              |
|---------------------------------|--------------|
| <b>Total licence costs (£m)</b> | <b>-£5.8</b> |
| Non-business                    | -£3.1        |
| Business                        | -£2.8        |

On average, local authorities can save £20,000 a year, larger utility companies can save £78,000 a year and smaller utility companies can save £25,000 a year by switching from EToN to Street Manager. If all organisations switched, there would be an annual cost saving of around £5.8 million. All Local Authorities and most (82 out of 86) small utility companies are expected to switch so for these organisations, there is an annual cost saving of around £5.1 million<sup>18</sup> (£3.1 million cost savings to local authorities and £2.1 million cost savings to businesses).

These cost-savings are estimated to be underestimated as organisations can purchase multiple licences for multiple users for EToN, whereas Street Manager will require one charge for all users.

### 8.2.8 EToN upgrade costs

Street Manager charges are inclusive of any upgrades and future development. When organisations stop using EToN, they no longer have to pay for costly upgrades to EToN software and technical specifications. As EToN is becoming out of date over time, upgrade costs are becoming more frequent and more expensive. The last update to technical specifications was in 2013<sup>19</sup>.

Table 10: EToN upgrade costs (2019 prices)<sup>20</sup>

| Organisation              | Cost per organisation | All organisations (£m) <sup>21</sup> |
|---------------------------|-----------------------|--------------------------------------|
| Local Authorities         | £15,000               | £2.3                                 |
| Larger Utility Companies  | £500,000              | £4.0                                 |
| Smaller Utility Companies | £50,000               | £4.3                                 |

|                                    |              |
|------------------------------------|--------------|
| <b>Total cost per upgrade (£m)</b> | <b>£10.6</b> |
| Non-business                       | £2.3         |
| Business                           | £8.3         |

It is estimated that upgrades occur every 5 years, so from the start of this policy, upgrades will conservatively occur in financial year 2023/24 and 2028/29. If all organisations switch to Street Manager there is a potential maximum cost-saving of £10.6 million per upgrade (£2.3 million non-business savings and £8.3 million business savings). The organisations that fully switch from EToN to Street Manager (i.e. all but the 8 large utility companies, and 4 smaller utility companies) will benefit from upgrade cost savings of around £6.4 million per upgrade. This is shown in table 11 below.

Table 11: Upgrade cost savings to those organisations that switch fully to Street Manager per upgrade (2019 prices, £ million)

| Organisation | Upgrade cost savings (£m) |
|--------------|---------------------------|
| Non-business | £2.3                      |
| Business     | £4.1                      |

<sup>18</sup> Totals may not sum due to rounding

<sup>19</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/181675/eton-6-technical-specification.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/181675/eton-6-technical-specification.pdf)

<sup>20</sup> Totals may not sum due to rounding

<sup>21</sup> This takes the upgrade costs and multiplies by the associated number of organisations listed in table 2



Therefore, in financial years 2023/24 and 2028/29, businesses could save an additional £4.1 million and local highways authorities in England could save an additional £2.3 million in EToN upgrade costs.

### 8.2.9 Familiarisation costs

As organisations transition from EToN to Street Manager there may be some familiarisation time costs. Organisations may require some time to understand the change to regulation and employees may require extra time and training to familiarise with the new system. This is on top of the training provided by Street Manager directly. These assumptions are sourced directly from responses to the consultation.

#### Time cost to organisations to familiarise with regulations

It is expected that familiarisation time costs will be minimal, as affected organisations are already aware of the policy change, having been involved in stakeholder engagement, workshops and road shows since the initial development of the policy in autumn 2018. This assumption has been upheld with responses from the consultation as organisations are aware of Street Manager and when it will come into force. It is estimated to take 2, 4 and 6 hours for an organisation to understand the regulation change in the low, central and high scenarios respectively. Monetising this, the time cost per organisation per hour is £16.61<sup>22</sup>, the adjusted mean hourly wage for an administrative and secretarial occupation. These costs occur in financial year 2019/20 only.

Table 12: Time cost to organisations to familiarise with regulation change (2019 prices)<sup>23</sup>

| Scenario | Hours to familiarise (per organisation) | Business costs | Non-business costs | Total costs    |
|----------|---|----------------|--------------------|----------------|
| Low      | 2                                       | £3,000         | £5,000             | <b>£8,000</b>  |
| Central  | 4                                       | £6,000         | £10,000            | <b>£16,000</b> |
| High     | 6                                       | £9,000         | £15,000            | <b>£25,000</b> |

#### Additional training and familiarisation time costs to employees

Training for employees is included in the Street Manager annual charge. Street Manager will also replicate the existing EToN system so familiarisation time costs will be minimal. Consultation responses from organisations indicated that a small amount of additional time and training may be required for employees to adapt to using Street Manager when it is first introduced. This has now been incorporated into the analysis.

It is estimated to take 8, 12 and 16 hours per employee per organisation in the low, central and high scenarios respectively. This reflects between 1-2 days of working time. Stakeholder research has also identified the average number of employees per organisation that will use Street Manager software. The time cost per employee per hour is estimated to be £16.61<sup>24</sup>, the mean adjusted hourly wage for an administration and secretarial occupation. Costs will occur in the financial year 2019/20 only.

Table 13: Employees per organisation

| Organisation             | Employees per organisation | Employees in all organisations |
|--------------------------|----------------------------|--------------------------------|
| Local Authority          | 3                          | 459                            |
| Larger Utility Companies | 6                          | 48                             |

<sup>22</sup> ONS, ASHE 2018 – Mean adjusted hourly wage for an administrative and secretarial occupation, uplifted for non-wage labour costs (26.5%) in accordance with WebTAG.

<sup>23</sup> Totals may not sum due to rounding

<sup>24</sup> ONS, ASHE 2018 – Mean adjusted hourly wage for an administrative and secretarial occupation, uplifted for non-wage labour costs (26.5%) in accordance with WebTAG

Table 14: Time cost to organisations for employees to familiarise with Street Manager (2019 prices)<sup>25</sup>

| Scenario | Hours per employee | Business cost | Non-business cost | Total cost |
|----------|--------------------|---------------|-------------------|------------|
| Low      | 8                  | £18,000       | £61,000           | £79,000    |
| Central  | 12                 | £27,000       | £91,000           | £118,000   |
| High     | 16                 | £36,000       | £122,000          | £158,000   |

### Further implementation costs

This subsection refers to further implementation costs outlined in the RPC guidance on implementation costs<sup>26</sup>. This is to provide as complete an overview of such costs, as is proportionate.

The Department does not have firm-level data to estimate the cost of disseminating information from Street Manager throughout the organisations. However, Street Manager has been designed using the Government Digital Service's design patterns, so the website is familiar; therefore it is argued that this aspect of familiarisation costs will be negligible.

As mentioned in section 3.1, users will be able to either use Street Manager's user interface via a website, or they will be able to send in data via an API with other asset management or works management systems they may have. As such, it is argued there will be minimal, if any, possible changes to the internal IT systems needed to use Street Manager. Therefore, we expect this aspect of costs to be negligible.

There should be minimal changes to businesses' internal processes, as the process for applying for street works permits is the same in terms of the information that needs to be provided and in planning the work. This aspect of costs is also argued to be negligible.

### **8.2.10 Benefits**

Street Manager is expected to provide a range of benefits to businesses, local authorities, policy makers and road users. These are described below:

#### Monetised benefits

Street Manager will transform the planning, management and co-ordination of works on England's road network. Street Manager is mandated in regulations, ensuring all organisations input data onto a single system. This maximises the data input into a single source, ensuring greater efficiency and consistency of data with less duplication. Local authorities can use this data to plan, manage and join up similar works so that they happen at the same time, reducing disruption on the roads.

Data provided will also be up-to-date and as 'real-time' as possible, providing information on both live and planned works. Local authorities therefore have more accurate information at hand for planning purposes and journey planning apps have live information for road users. This can reduce the time spent in congestion and road users can plan alternative routes to avoid live works or road closures.

To monetise these impacts to road users, we have estimated the 'work-days saved' and measured the congestion cost savings from this. This is explained further below.

#### Non-monetised benefits

Street Manager data will be owned by the Department and can be easily accessed and used by policymakers. This can allow effective targeting of policy and a robust data source to evaluate street works policy interventions.

<sup>25</sup> Totals may not sum due to rounding

<sup>26</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/827926/RPC\\_short\\_guidance\\_note\\_-\\_Implementation\\_costs\\_August\\_2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/827926/RPC_short_guidance_note_-_Implementation_costs_August_2019.pdf)

Street Manager data will be open-source, allowing access to software developers and journey planning applications. This can increase competition in the market by removing entry barriers to new developers, increasing the availability of software to consumers and potentially reducing prices.

These benefits cannot be monetised and so have been qualitatively assessed.

No benefits impact scenario

We have also modelled a ‘no impact scenario’ as part of our sensitivity analysis. This indicates that the introduction of Street Manager, even when excluding any potential measurable benefits of a reduction in work days, may still provide value for money. This is because Street Manager provides cost savings to organisations that switch from EToN.

**8.2.10.1 Work days saved due to grouping of works**

Street Manager will enable local authorities to better plan, manage, co-ordinate and communicate works with utility companies and road users. Works conducted by the same utility company in the same local authority can be grouped and completed at the same time. This can lead to a reduction in the total number of work days experienced per year, reducing disruption and congestion on the road network.

**8.2.10.2 Live data benefits to road users**

Street Manager will provide live data to software developers and journey planning apps that road users can use to inform them of planned and ongoing road works. Street Manager data provides a single version of the truth, informing users of live updates and disruption alerts. Road users using journey planning and traffic management applications will therefore have advance notice of road works and can avoid the area therefore improving overall journey quality, reliability and time. This can lead to a reduction in congestion and disruption on the road network.

**8.2.10.3 Quantification of benefits**

There are an estimated 2.5 million road works per year in England<sup>27</sup> this equates to around 12.42 million work days per year.

A small reduction in work days has been modelled to display the likely benefits incurred due to the introduction and use of Street Manager due to more coordinated and joint works (compared to the counterfactual where only EToN is in use). Durations could be reduced as Street Manager would enable data-driven decisions, impact assessments and better planning. Data on live and planned works could reduce congestion as an informed travelling public could avoid the site or travel at different times.

Due to a lack of evidence on the reduction in the duration of road works from Street Manager, illustrative assumptions are used. These assumptions were listed in the ‘DfT Street Manager: Beta- Business Case’, which has undergone director level clearance and internal peer review through the Centres of Excellence in the Department. It is assumed that Street Manager will result in a 0.05%, 0.10% and 0.15% reduction in work days per year (the low, central and high scenarios respectively). These are small behavioural changes that indicate the likely benefits that Street Manager can provide to local authorities, utility companies and road users. These assumptions were tested at consultation, with no consultees objecting against these. Data that is received by Street Manager will be used to assess the effectiveness of these benefits upon review.

Table 15a: Baseline number of work days by work type

| Type of works | Number of work days (million) <sup>28</sup> |
|---------------|---|
|---------------|---|

<sup>27</sup> Using updated ELGIN road works data from 2016-18. This data reveal the total number of works completed in England and Wales. The 2.5 million figure is the result of summing the number of works across local authorities and utility companies in England. This data has been shared by ELGIN with DfT to help inform this Impact Assessment. Whilst able to use high-level summary figures to inform, we are not at liberty to present a further breakdown, as this is not our intellectual property. However, we believe the data is high-quality and robust, and is utilised by highway authorities, utility companies and contractors across the UK. For more detail, please see <https://www.elgintech.com/about-us> (last accessed 30/10/19)

|                                 |              |
|---------------------------------|--------------|
| <i>Local Highways Authority</i> |              |
| Major                           | 1.66         |
| Standard                        | 0.91         |
| Minor                           | 1.13         |
| Immediate                       | 0.27         |
| <b>Total</b>                    | <b>3.97</b>  |
| <i>Utility Company</i>          |              |
| Major                           | 1.76         |
| Standard                        | 1.62         |
| Minor                           | 2.94         |
| Immediate                       | 2.14         |
| <b>Total</b>                    | <b>8.45</b>  |
| <i>Total work days</i>          |              |
| <b>Total</b>                    | <b>12.42</b> |

Table 15b: Rounded reduction in work days due to planning and co-ordination benefits of Street Manager

| Type of works                   | Reduction in work days (low scenario, days) | Reduction in work days (central scenario, days) | Reduction in work days (high scenario, days) |
|---------------------------------|---|---|--|
| <i>Local Highways Authority</i> |   |   |  |
| Major                           | 830   | 1,660   | 2,490  |
| Standard                        | 453   | 907   | 1,360  |
| Minor                           | 567   | 1,133   | 1,700  |
| Immediate                       | 134   | 269   | 403  |
| <b>Total</b>                    | <b>1,984</b>                                | <b>3,968</b>                                    | <b>5,953</b>                                 |
| <i>Utility Company</i>          |   |   |  |
| Major                           | 878   | 1,755   | 2,633  |
| Standard                        | 812   | 1,624   | 2,436  |
| Minor                           | 1,468                                       | 2,936   | 4,404  |
| Immediate                       | 1,068                                       | 2,136   | 3,204  |
| <b>Total</b>                    | <b>4,226</b>                                | <b>8,451</b>                                    | <b>12,677</b>                                |
| <i>Total work days</i>          |   |   |  |
| <b>Total</b>                    | <b>6,210</b>                                | <b>12,420</b>                                   | <b>18,630</b>                                |

Table 15c: Summary of reduction in work days due to planning and co-ordination benefits of Street Manager

| Scenario | Reduction in work days (%) | Reduction in work days (days) |
|----------|----------------------------|-------------------------------|
| Low      | 0.05%                      | 6,210                         |
| Central  | 0.10%                      | 12,420                        |
| High     | 0.15%                      | 18,630                        |

#### 8.2.10.4 Congestion cost savings

<sup>28</sup> Rounded values

We can monetise the benefits of a reduction in work days using congestion cost impacts per day, calculated from the Evaluation of Street Works Permit Schemes report 2018<sup>29</sup>.

Table 16: Congestion cost impact per day by works type (2019 prices)<sup>30</sup>

| Type of works                   | Congestion Impact (per work day) |
|---------------------------------|----------------------------------|
| <i>Local Highways Authority</i> |                                  |
| Major                           | £1,545                           |
| Standard                        | £472                             |
| Minor                           | £381                             |
| Immediate                       | £260                             |
| <i>Utility Company</i>          |                                  |
| Major                           | £466                             |
| Standard                        | £191                             |
| Minor                           | £119                             |
| Immediate                       | £174                             |

Using a breakdown of average work types using ELGIN data, we can estimate the total reduction in congestion costs to road users and wider society. This is done by using the estimated reduction in work days (presented in table 15b), multiplied by the congestion cost impact by work type (table 16). This results in estimated congestion cost savings due to a reduction in work days, for which the total amount is presented in table 17 below.

Table 17: Congestion cost savings due to a reduction in work days (2019 prices)

| Scenario | Reduction in work days | Reduction in congestion costs (£m) |
|----------|------------------------|------------------------------------|
| Low      | 6,210                  | £2.7                               |
| Central  | 12,420                 | £5.3                               |
| High     | 18,630                 | £8.0                               |

Due to the nature of congestion cost estimates, even a small reduction in total work days can produce large congestion benefits to road users.

### 8.2.10.5 QUADRO modelling

The Queues and Delays at Roadworks programme (QUADRO) was developed by the Department to calculate the total cost of road maintenance works to road users (business and non-business). These include journey time and journey reliability, road accident costs and fuel carbon emission costs.

Journey reliability proportions have been uplifted by 10% in line with the Department's guidance on moderate impact road schemes<sup>31</sup>. The assessment of changes in reliability of journeys are based upon changes in 'stress' – the ratio of traffic flows to congestion flows. This has been defined as 'moderate stress' for these impacts, and therefore an uplift of 10% has been applied. This is also used for sensitivity analysis. The QUADRO outputs below were produced by the local authority of Kent and reported in the Lane Rental Impact Assessment<sup>32</sup>. These can be used as a proxy for England as the Annual Average Daily Flow (AADF) on roads in Kent are akin to those across England as a whole.

<sup>29</sup> <https://www.gov.uk/government/publications/street-works-permit-schemes-evaluation-of-effectiveness>

<sup>30</sup> Rounded values

<sup>31</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/267296/vfm-advice-local-decision-makers.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/267296/vfm-advice-local-decision-makers.pdf)

<sup>32</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/640877/road-works-the-future-of-lane-rental.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/640877/road-works-the-future-of-lane-rental.pdf)

The total reduction in congestion costs (as seen in table 17 above) are broken down by the QUADRO benefit proportions shown in table 18 below. This allows us to estimate the benefits attributed to business and those attributed to non-business.

Table 18: QUADRO breakdown of congestion benefits (2019 prices, £ million)<sup>33</sup>

| Road user type                                  | Proportion of all benefits | Reduction in congestion costs (£m) |             |             |
|---|----------------------------|------------------------------------|-------------|-------------|
|   |                            | Low                                | Central     | High        |
| <b>Total</b>                                    | <b>100%</b>                | <b>£2.7</b>                        | <b>£5.3</b> | <b>£8.0</b> |
| Business- Journey Time Savings and Reliability  | 50.5%                      | £1.3                               | £2.7        | £4.0        |
| Consumer - Journey Time Savings and Reliability | 44.4%                      | £1.2                               | £2.4        | £3.6        |
| Wider Society - Road Accidents                  | 4.4%                       | £0.1                               | £0.2        | £0.3        |
| Wider Society - Fuel Carbon Emissions           | 0.8%                       | £0.0                               | £0.0        | £0.1        |

### 8.2.11 No impact scenario

Street Manager is a cost-saving initiative for organisations. Even without the congestion benefits that it may provide, Street Manager still provides good value for money and a positive net present value of around £28.7 million over the 10-year appraisal period. This highlights the positive impact that Street Manager will have on all organisations when introduced.

### 8.2.12 Direct vs Indirect Benefits

This subsection will outline whether the benefits accrued by the introduction of Street Manager are direct or indirect. This is done for EANDCB reporting purposes. This subsection shall use guidance from the RPC's Case History document for classifying direct and indirect impacts<sup>34</sup>. The document outlines that an impact can be thought of as direct if:

1. The measure bans, restricts, liberalises, increases or decreases the cost of a business activity, and if the impact falls on those businesses subject to the regulation and accountable for compliance
2. The impacts are generally immediate and unavoidable ('first round'), perhaps involving a shift in the supply and/or demand curve to a new equilibrium immediately following the measure. There are relatively few 'steps in the logic chain' between the introduction of the measure and the impact taking place. Impacts that occur subsequent to this adjustment to a new equilibrium, for example as a result of a significant reallocation of resources or innovation, are likely to be indirect
3. The impacts are in the market being regulated (a 'partial equilibrium effect'). These impacts are sometimes sufficiently large to result in further impacts in related markets and/or the wider economy ('general equilibrium effects'). These further impacts are likely to be indirect.

This subsection shall use the above three classifications to conclude whether the benefits from Street Manager are direct or indirect. As highlighted in section 8.2 of this assessment, benefits can be realised due to reduced congestion. This broadly comes from two sources:

- **Source 1:** Local authorities and/or utility companies being able to conduct coordinated and joint works, or using data to make better decisions, which speed up road works, resulting in fewer days of increased congestion;
- **Source 2:** Live data allowing for an informed public to make better travelling decisions, reducing congestion on roads

<sup>33</sup> Totals may not sum due to rounding

<sup>34</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/790016/RPC\\_case\\_histories\\_-\\_direct\\_and\\_indirect\\_impacts\\_March\\_2019\\_1.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790016/RPC_case_histories_-_direct_and_indirect_impacts_March_2019_1.pdf)

Source 1 impacts are not 'first round'. EToN will be replaced by Street Manager. This could then lead to local authorities and/or utility companies reallocating resources such that street works take less time to complete, which may lead to congestion cost savings. As such, impacts are the result of potential reallocation of resources, implying these are indirect effects. Source 2 depends directly on behaviour change for impacts to be realised. As such, Street Manager itself does not result in fewer days of congestion, but facilitates the actions which do. Both of these sources for benefits violate the second condition to be considered a direct impact. Therefore, it can be concluded that the benefits accrued from Street Manager are indirect.

## 8.3 Summary table

### 8.3.1 Summary of costs and benefits

Table 19: Costs and benefits summary table (2019 prices, £ millions)<sup>35</sup>

|                           | Street Manager scenarios (reduction in work days) |  |  |
|---------------------------|---|--|--|
|                           | Low<br>(0.05% reduction in work days)             | Central<br>(0.1% reduction in work days) | High<br>(0.15% reduction in work days) |
| <b>Costs</b>              |   |  |  |
| <b>Business</b>           |   |  |  |
| Familiarisation costs     |   |  |  |
| <i>FY 19/20</i>           | £0.0  | £0.0                                     | £0.0                                   |
| Street Manager charges    |   |  |  |
| <i>FY 19/20</i>           | £0.0  | £0.0                                     | £0.0                                   |
| <i>FY 20/21</i>           | £2.3  | £2.3                                     | £2.3                                   |
| <i>FY 21/22</i>           | £2.3  | £2.3                                     | £2.3                                   |
| <i>FY 22/23 onwards</i>   | £2.3  | £2.3                                     | £2.3                                   |
| EToN licence fees         |   |  |  |
| <i>FY 19/20</i>           | £0.0  | £0.0                                     | £0.0                                   |
| <i>FY 20/21</i>           | -£1.3   | -£1.3                                    | -£1.3                                  |
| <i>FY 21/22</i>           | -£2.5   | -£2.5                                    | -£2.5                                  |
| <i>FY 22/23 onwards</i>   | -£3.3   | -£3.3                                    | -£3.3                                  |
| EToN upgrade costs        |   |  |  |
| <i>FY 23/24 and 28/29</i> | -£4.1   | -£4.1                                    | -£4.1                                  |
| <b>Non-business</b>       |   |  |  |
| Familiarisation costs     |   |  |  |
| <i>FY 19/20</i>           | £0.1  | £0.1                                     | £0.1                                   |
| Street Manager charges    |   |  |  |
| <i>FY 19/20</i>           | £0.0  | £0.0                                     | £0.0                                   |
| <i>FY 20/21</i>           | £2.4  | £2.4                                     | £2.4                                   |
| <i>FY 21/22</i>           | £2.4  | £2.4                                     | £2.4                                   |
| <i>FY 22/23 onwards</i>   | £2.4  | £2.4                                     | £2.4                                   |
| EToN licence fees         |   |  |  |
| <i>FY 19/20</i>           | £0.0  | £0.0                                     | £0.0                                   |
| <i>FY 20/21</i>           | -£1.4   | -£1.4                                    | -£1.4                                  |
| <i>FY 21/22</i>           | -£2.8   | -£2.8                                    | -£2.8                                  |
| <i>FY 22/23 onwards</i>   | -£5.5   | -£5.5                                    | -£5.5                                  |

<sup>35</sup> Totals may not sum due to rounding





## 8.4 Non-monetised costs and benefits

Measures 4,6,7 and 8 are qualitatively assessed for this impact assessment as it is disproportionate to monetise them. The impacts of these measures are expected to be negligible, and given a lack of data and limited time for analysis, it is not appropriate to provide an accurate and robust quantitative assessment. Consultation respondents were asked to provide additional data that could be used to assess these measures quantitatively. Only a small number of responses included data, and therefore there was not a sample large enough to assess the impacts for this impact assessment. After the introduction of Street Manager, data held on the system is expected to quantitatively assess these measures in the post-implementation review.

### 8.4.1 Measure 4: Definition of major works

This measure proposes to remove 'Annual Operating Programme' (AOP) works (forward look plans) from the definition of major works. Currently, including AOP works in the definition of major works means that:

- AOP works may be incorrectly defined as a 'major' work when they are in fact 'standard' or 'minor' works.
- Promoters may therefore be discouraged to submit AOPs as they may be subject to higher permit fees and longer notice periods.
- LHAs may be unable to plan ahead if they receive a low number of AOPs. Forward look plans that are submitted may hinder planning of street works as the work type cannot be correctly defined.

Current street works data does not identify the number of AOP works that are submitted. It is also unclear what proportion of these works could be re-categorised into either 'standard' or 'minor' works. This measure is aimed at encouraging the submission of AOPs that may then ensure street works data is accurate, increasing the effectiveness of Street Manager, and is useful for LHA planning.

Removing AOPs from the definition of major works should encourage promoters to submit forward look plans without being penalised with higher permit fees and longer notice periods. Forward look plans are particularly important for LHAs as they provide advanced notice of works taking place. LHAs will also be able to identify the type of works that are submitted in forward look plans, rather than works simply being defined as 'major'. This means that the LHA has more time to plan, co-ordinate and join up works in order to reduce disruption on the roads.

Additional costs to business are expected to be negligible. Promoters that currently submit AOPs will continue to do so without any additional costs. These promoters may benefit from reduced permit fees and shorter notice periods as works are redefined from 'major' into 'standard' or 'minor' types. Analysts are unable to quantify these impacts as data on AOPs is not held on current street works systems. New submissions of AOPs are encouraged but are voluntary and it is unknown how many more AOPs may be submitted.

This measure is amending the definition of major works, to prevent them from being incorrectly classified. Simply an awareness of the change is needed, and Street Manager includes the definitions, so users will know what they are. As such, familiarisation costs will be minimal.

Overall, the impacts of this measure are negligible. AOP submissions will continue as usual, however the use of their data will be used more effectively. This will enhance LHA street works planning which can lead to reduced congestion and disruption on the road network. Due to a lack of data, it is unclear how many AOPs are submitted per year and the number of major works that are from AOP submissions.

### 8.4.2 Measure 6: Form of fixed penalty notices

This will remove the requirement for a Fixed Penalty Notice (FPN) to be sent to organisations in the form set out in the regulations. Currently, regulations require FPNs to be sent to organisations in a fixed format and must include certain information. This creates the following problems:

- Production of an FPN is inflexible and does not suit the needs for LHAs and promoters. It is an administrative burden to issue and receive using the current format.
- The FPN form is outdated. Street Manager software will not be able to produce an FPN in the current format when it comes into force.

Current street works and industry data does not provide an estimate for the number of FPNs issued or the time taken to administer. Engagement with stakeholders has identified that the vast majority of FPNs are currently issued using EToN systems and do not follow the format requirements. Organisations use a variety of formats such as email or post to issue and process FPNs.

Removing the FPN format in regulations will allow organisations the flexibility they require to issue and process FPNs using Street Manager software, whilst also being compliant with regulations. Street Manager will be able to automatically generate the FPN, reducing administrative burden for LHAs, and it can be processed electronically, reducing the need for mail merges and postal services. This will likely also make it easier for businesses to pay the FPNs.

The impacts of this measure are unmeasurable and expected to be negligible. Data is not available to quantify the number of FPNs that are issued per year (though, this is expected to be a small number); however organisations have notified that they are not following the format in regulations currently. Therefore, there will be a negligible change in the current way that organisations process FPNs, the measure will simply make them compliant with regulations and ensure that FPNs can be processed using Street Manager software.

This measure regards removing a schedule which specifies the form that should be used for sending FPNs. This form has not been used by the industry for several years. This measure seeks to remove it from legislation so that it is not reproduced in Street manager. There are no familiarisation costs involved in this.

### **8.4.3 Measure 7: Amend permit scheme national conditions**

#### **NCT09c - Signal removal from operation when no longer required**

This measure updates the current permit scheme national conditions to clarify the regulations surrounding the removal of temporary traffic lights. Currently, the condition can be interpreted differently amongst organisations meaning that compliance rates could be low. Temporary traffic signals may be left at works locations after works have been completed, leading to unnecessary disruption and congestion on the roads. Data from the current street works database does not identify the number of works using temporary traffic signals or how long traffic signals are in place for. This means that the impacts of this measure cannot be quantified. It should also be noted that organisations should already be compliant with the existing permit conditions and only a very small proportion of organisations may be non-compliant. This measure is simply clarifying the existing conditions so, the impacts are expected to be negligible.

Clarifying the condition may ensure that organisations interpret the conditions correctly, reducing ambiguity and therefore increasing compliance rates. This may lead to reduced congestion on the roads and improvements in journey times and journey quality. Wider benefits may include the potential for traffic signals to have a quicker turnaround time therefore increasing revenue for traffic signal contractors.

Organisations that become compliant due to the clarification may face additional operational costs in order to remove traffic signals at a faster pace. However, these organisations should already be compliant with existing conditions and so these additional costs are not quantifiable. Additional costs for non-compliant organisations are not included in the BIT calculations, following the Better Regulation Framework guidance<sup>37</sup>.

### **8.4.4 Measure 8: Section 58 road restrictions**

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[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/790024/RPC\\_case\\_histories\\_other\\_BIT\\_specific\\_issues\\_March\\_2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790024/RPC_case_histories_other_BIT_specific_issues_March_2019.pdf)

This measure will be introduced to decrease the timeframes for prohibiting works on newly re-surfaced or rebuilt roads. This will support the increase in demand for new utility infrastructure, including full fibre networks and reduces the current over prescriptive timeframes in place.

The behaviour change of utility companies and the number of works carried out on newly re-surfaced or rebuilt roads is expected to be negligible and therefore have a negligible impact. This was supported with responses from the consultation as stakeholders highlighted that section 58 road restrictions are rarely used in current conditions and are not expected to change with this measure. There are negligible (if any) familiarisation costs associated with this measure, just an awareness of the reduction in timeframes.

New utility infrastructure can already be put in place within 20 days with existing regulations, so therefore, these works will continue to go ahead but without the 20 day restriction. There is no evidence to suggest that there will be an increase in the number of works that will take place with this measure, and local authorities are able to plan and manage works in order to prevent damage to the road asset.

## 9 Rationale and Evidence

### 9.1 Street Manager measures

It is proportionate to monetise impacts for Street Manager measures where data and metrics are available. Where data is unavailable, assumptions have been made and are upheld using stakeholder engagement and consultation responses.

The analysis uses the most relevant and up to date data provided by departmental research and external sources. Street works data for 2016-18 is provided through the ELGIN database, updated from the consultation stage figures from 2012-13.

Monetised benefits are calculated from departmental congestion cost impact estimates<sup>38</sup> and broken down using QUADRO outputs produced from the local authority of Kent<sup>39</sup>.

Cost estimates are sourced from consultant research and based upon stakeholder feedback from Street Manager roadshows and consultation responses. A new charge structure and EToN upgrade costs have been included in the final stage IA to provide a more robust assessment on overall cost implications.

### 9.2 Non-monetised measures

It is not proportionate to monetise measures that have limited or no data available and are estimated to have a negligible impact on behavioural change. Responses from the consultation did not provide any further information that would enable a quantitative assessment to be made. When Street Manager is fully operational, it will collect data that is accessible in order to quantify the impacts from these measures.

## 10 Risks and Assumptions

### 10.1 Risks

We have identified the following risks and mitigations.

| Risk  | Mitigation   |
|---|--|
| User needs are not met and issues with EToN are not resolved. | Continuous user research, iteration and testing. Commitment to continuous improvement of the |

<sup>38</sup> Evaluation of Street Works Permit Schemes report - DfT

<sup>39</sup> QUADRO outputs can be used for England, as Kent traffic flow estimates are akin to traffic flows in England. These were reported in the lane rental impact assessment.

|   |   |
|---|---|
|   | service.  |
| Issues with performance and availability of Street Manager.                     | Service has been fully tested and performance tested. Tools in place to monitor performance. Service support in place to deal with incidents.   |
| Benefits are not realised due to changes in working practices not taking place. | KPIs and service monitoring in place to inform continuous improvement of the service. Supporting guidance and comms in place.   |
| All LAs will not be operating a permitting scheme by 31 <sup>st</sup> March.    | Street Manager user interface can still be used to enter data. Data can be submitted via APIs. LAs affected have been contacted.  |
| Transition will disrupt operations.   | Transition plans and support in place. Some organisations have joined private Beta to assist their transition. Others can join from 1 November 2019. Transitional rules in place to cover in-flight works. Industry stakeholders also providing support and guidance. Ongoing engagement and comms with users via range of methods. |

## 10.2 Assumptions

| Assumption  | Description   | Source   |
|---|---|--|
| Take-up and usage of Street Manager and EToN software | <p>Take-up of Street Manager and usage of EToN are assumptions made over the transition period.</p> <p>Organisations will take up Street Manager when necessary and as close to the transition end date as possible. Use of EToN is assumed to fall as take-up of Street Manager increases. A small number of organisations that purchase additional EToN products will continue to use EToN alongside Street Manager.</p>  | <p>Stakeholder feedback from Street Manager road shows</p> <p>Consultation responses</p> |
| Street Manager efficiency savings                     | <p>Assumptions made on the reduction in the number of work days due to Street Manager are sourced from the Street Manager business case. Illustrative scenarios and sensitivity analysis has been used and low/central/high estimates produced. The impact on the number of work days is very small when compared to the total number of work days currently in scope. Therefore the overall impacts are expected to be minimal and will be mitigated against any risks using sensitivity modelling.</p> <p>A no benefits impact scenario has also been presented to show the positive impact that Street Manager has even without quantifying the congestion benefits.</p> | Street Manager business case   |

|                  |   |  |
|------------------|---|--|
| Transition costs | <p>Assumptions have been made to estimate the transition costs to organisations, based on feedback from stakeholders and consultation responses.</p> <p>Assumptions include the time taken for an organisation to familiarise with the regulation change and the administrative time taken to train staff to use Street Manager when it is introduced. Sensitivity analysis has been used to produce low, central and high estimates.</p> | <p>Stakeholder engagement from Street Manager road shows</p> <p>Consultation responses</p> |
|------------------|---|--|

### 10.3 Sensitivity analysis

Low, central and high scenario estimates are produced to mitigate against potential variations in key input variables. Scenarios are also used in the analysis to explore uncertainties, which may affect the outcome and success of the policy intervention. These give a range of outputs that may be expected in different policy outcomes.

No impact analysis has also been generated to show the cost-saving benefits to organisations and the value for money Street Manager generates.

## 11 Wider Impacts

### 11.1 Impacts on street works industry, LHAs, overall market competition

Street works in England are conducted by utility companies. The majority of utility companies are large organisations, that work across multiple local authorities. They conduct the majority of works and may outsource to smaller utility companies and contractors. Large utility companies in England may also conduct works in devolved nations such as Wales and Scotland.

The street works software industry is formed of four main developers. One developer is in-house for a large utility company and the other three produce a range of products, one of which is EToN. One developer has notified the Department that their EToN product is now at the 'end-of-life'. This has produced an oligopoly market with little investment in current EToN products and high prices.

When Street Manager is introduced, large utility companies that conduct works for local authorities in devolved nations will be required to use both EToN and Street Manager software. This is because local authorities in Wales and Scotland are continuing to use EToN software to manage their works. It is expected that they will transition over to Street Manager over time.

Street Manager open source data will open up the current software oligopoly market to new software developers, encouraging increased competition, more products and lower prices for users. Existing EToN developers will be able to link to Street Manager using an API and have already informed the Department that they are developing products that will link directly to Street Manager.

### 11.2 SaMBA and mitigating actions

Small and micro sized businesses are not exempt from the impacts of this policy. The EANDCB figure for Street Manager is below the +/-£5m threshold, therefore a low-impact SaMBA has been conducted.

The ELGIN data set<sup>40</sup> provides us with the names of the organisations within scope. From here, we searched the government's Companies House data base<sup>41</sup> for each organisation that will be charged for Street Manager. Within this data base are the organisation's accounts, from which an indication into employee numbers can be found. In order to estimate the number of utility companies who are within scope of the SaMBA, we summed those organisations who are listed as small (7 of the 94 utility companies) or micro (5 of the 94 utility companies). Therefore, around 12.8% of utility companies (12 out of 94) are defined as small or micro sized businesses in this study.

Currently, small and micro sized businesses (SMBs) are not excluded from the EToN licence fees that they must pay for to be compliant with regulations. SMBs will therefore not be excluded from Street Manager charges, however costs will be mitigated against by using a banding structure based upon usage (number of works conducted). The charge system is fair and proportionate to the size of the business, mitigating against any undue burdens to small and micro sized organisations. The charge structure will be reviewed once Street Manager is fully operational to ensure that an appropriate charge system is in place that does not disproportionately burden SMBs.

The Street Manager charging structure is based on the number of works completed. This is in line with legislation, which links the Secretary of State's power to charge with the legal requirements related to notices and registrations needed to carry out street and road works. Small and micro sized businesses have the lowest number of works in scope (less than 1,000 works per year) so are expected to pay a Street Manager charge in the bottom three bands, from £1,000 per year, up to a maximum of £10,000 per year. This is around £30,000 per year cheaper than the average cost for EToN licencing and is therefore beneficial to SMBs. The charge structure has also been communicated to organisations following the closure of the consultation, giving organisations ample time to prepare for Street Manager charges. As such, it is argued that even though the charging structure is based entirely on number of works, it does mitigate the impacts on SMBs as defined by number of employees too.

Beyond the charging structure, SMBs may face additional familiarisation time costs as they transition to the Street Manager software. These are shown in section 8.2.9. This has been considered and mitigated against by the Department throughout the development of Street Manager. A transition period has been implemented from 1<sup>st</sup> November 2019 to 31<sup>st</sup> March 2020, where Street Manager will be free to use for all organisations. Organisations have also been aware, since road shows began in autumn 2018 that Street Manager will be introduced in 2019. Road show events have included introductions to the software and demonstrations of how to use the system. Therefore, initial familiarisation costs to SMBs are expected to be minimal.

Training and resources for organisations are included in the Street Manager annual charge, so SMBs will not incur additional costs for formal training. Training costs are not included in the EToN licence fee, so this is a cost-saving for SMB organisations.

All organisations are required to use Street Manager from 1<sup>st</sup> April 2020. This ensures that a single system will be used by all organisations, therefore there is no need for SMBs to use two systems simultaneously. The organisations that are expected to use EToN alongside Street Manager for the foreseeable future are large organisations that use API and additional EToN services or work across devolved nations that continue to use EToN. None of the SMBs in scope (the 12 highlighted above) will continue to use EToN beyond the financial year 2022/23.

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<sup>40</sup> ELGIN, 2016-18 street works data; this data reveal the total number of works completed in England and Wales. The 2.5 million figure is the result of summing the number of works across local authorities and utility companies in England. This data has been shared by ELGIN with DfT to help inform this Impact Assessment. Whilst able to use high-level summary figures to inform, we are not at liberty to present a further breakdown, as this is not our intellectual property. However, we believe the data is high-quality and robust, and is utilised by highway authorities, utility companies and contractors across the UK. For more detail, please see <https://www.elgintech.com/about-us> (last accessed 30/10/19)

<sup>41</sup> <https://beta.companieshouse.gov.uk/> [last accessed 01/11/19]

### 11.3 EToN developer revenue

Guidance from the RPC's 'Resources used in complying with regulation'<sup>42</sup> document has been used to inform this section of the impact assessment.

EToN developers generate revenue by creating EToN products that organisations purchase a licence to use. EToN developers therefore receive payments from other organisations for providing software necessary for organisations to comply with regulation. The payments received are not included in the EANDCB or NPV calculations.

When the reference to EToN is removed from regulations and replaced with Street Manager, EToN developers revenue may fall as organisations are no longer legally required to use their products. The value of this is equal to the reduction in licence fee costs that organisations face. However, EToN developers have informed the Department through consultation responses and informal engagement that they are developing products to link to the new Street Manager software. Revenue lost due to EToN can be recovered through revenue generated from the development of new Street Manager products.

Developers (existing and new entrants) can use the open-source Street Manager data to develop their own products for organisations to use. As these developers will receive payments from organisations for providing software that allows them to comply with regulations, this is also excluded from the EANDCB and NPV.

### 11.4 Existing interventions in the street works industry

Informal advice from the RPC asked the Department to discuss how the policy proposals may interact with existing street works regulations.

Street Manager will provide the Department with the tools to produce an assessment of street works regulations and interventions. This is currently not possible with EToN software as data is inaccessible and inflexible. The Department will own the data submitted to Street Manager so policy makers and analysts can easily access data at regular periods. This also means that variables can be changed in order to capture the impacts of policies and to assess the effectiveness of existing schemes. The wealth of data provided should be able to clearly differentiate the impacts of each policy, and highlight areas where regulation or de-regulation is required.

Within this impact assessment, benefits have only been monetised for the measures regarding Street Manager efficiency savings. Therefore, benefits from measures 4, 6, 7 and 8 are qualitatively assessed and have not been 'double counted'.

## 12 Trade Implications

|          |  |           |
|----------|--|-----------|
| <b>A</b> | <p><b>Does this measure have potential impacts on [the value of] imports or exports of a specific good or service, or groups of goods or services?</b><br/> <b>Examples of what to consider include:</b></p> <ul style="list-style-type: none"> <li>• <b>Industries, firms and markets affected</b></li> <li>• <b>Market structure and composition – who and where are the consumers and producers? Are there other stakeholders?</b></li> <li>• <b>Supply chain involved – imports and exports are equally important (include Intellectual Property)</b></li> <li>• <b>Factors of production – land, labour, capital</b></li> </ul> | <b>No</b> |
|----------|--|-----------|

<sup>42</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/790024/RPC\\_case\\_histories\\_other\\_BIT\\_specific\\_issues\\_March\\_2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/790024/RPC_case_histories_other_BIT_specific_issues_March_2019.pdf)

|          |  |     |
|----------|--|-----|
| <b>B</b> | Does this measure have a potential direct or indirect impact on the value of overall trade or investment flows between two or more countries?<br>Examples of what to consider include: <ul style="list-style-type: none"> <li>• Purpose/intention of the measure</li> <li>• Current or strategic trading relationship</li> <li>• Business environment in affected industries, firms and markets</li> <li>• Supply chain involved – in terms of flow/logistics</li> </ul> | No  |
| <b>C</b> | Does this measure include different requirements for domestic and foreign businesses? <ul style="list-style-type: none"> <li>- i.e. are imported and locally produced goods/services treated equally?</li> <li>- i.e. are any particular countries disadvantaged compared to others?</li> </ul>  | No  |
| <b>D</b> | If the answer to C is Yes, is the basis for different treatment anything other than that it enables foreign businesses to operate on a level playing field in the UK?  | N/A |

## 13 Summary: Preferred Option and Implementation Plan

The preferred option is to proceed with the implementation of the Street Manager digital service and to make it mandatory for local authorities and utilities to submit data by 31<sup>st</sup> March 2020. The implementation plan involves transition for most organisations starting on 1 November 2019 which is the start of the public Beta for the service. Support and training is being provided by DfT.

We also plan to proceed with measures 2-8, apart from the condition on pavement working which was not supported by the consultation. These changes will also come into force on 31<sup>st</sup> March 2020 and will be supported by associated changes to guidance.

## 14 Post Implementation Review

### 14.1 PIR plan

Once Street Manager is in full use, the Department will have a wealth of data to help monitor and evidence the success of the service. We will review 3 years after all users have transitioned in March 2020. This will also inform ongoing support and development of Street Manager and it's future strategic direction.

As a Government Digital Service, we will also report to it's platform the mandatory KPIs. These concern digital take up, user satisfaction, completion rate and cost per transaction. In addition, we will monitor and report a set of performance criteria to help assess that the service it meeting the overall objectives. These include:

| Strategic Objective                                     | Metric   |
|---|--|
| Encourage permit applications being approved first time | Total granted permits<br>Total permits granted without revision<br>Average works notice period             |
| Encourage stakeholder collaboration and communication   | Total collaborative works<br>Total deemed permits<br>Average permit assessment time<br>Total comments left |



|                                     |   |
|-------------------------------------|---|
| Increase compliance with regulation | Total fixed penalty notices issued<br>Total inspections failed<br>Average difference between proposed and actual work start/stop dates<br>Average time between interim and permanent reinstatements |
| Streamline user journeys            | Average journey completion time   |
| Increase data quality and quantity  | Total files uploaded  |
| Improve information                 | Number of open data customers   |

As part of the continuous improvement commitment, we will also continue with user research and other forums to capture user feedback.