

Regional Investment Programme M25 Junction 10/A3 Wisley Interchange Preliminary Environmental Information Non-technical Summary

Status: A1 Signed off - Publication
Document Ref: HE551522-ATK-EAC-RP-LM-000002.docx



Notice

This document and its contents have been prepared and are intended solely for Highways England's information and use in relation to M25 Junction10/A3 Wisley Interchange

Atkins Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

This document has 15 pages including the cover.

Document history

Job number: HE551522			Document ref: HE551522-ATK-EAC-RP-LM-000002				
Revision	Status	Purpose description	Originated	Checked	Reviewed	Authorised	Date
C02	A1	Issue for Consultation	JB	NDW	AMB	GB	08/02/18
C01	A1	For HE Review	JB	NDW	AMB	AEM	06/02/18



Table of contents

Chapter **Pages** 1. Introduction 5 1.1 Background to the non-technical summary 5 1.2 5 Overview of project 1.3 Purpose of the PEIR 7 1.4 Need for the project 8 1.5 Consultation 8 1.6 Environmental Impact Assessment (EIA) 9 2. **Air Quality** 9 3. **Noise and Vibration** 10 4. **Biodiversity** 10 5. **Road Drainage and the Water Environment** 11 6. Landscape 12 7. **Geology and Soils** 12 8. **Cultural Heritage** 12 9. **People and Communities** 13 10. **Climate Change** 14 11. Consultation 14 12. After the consultation 14

Drawings

Scheme Layout Environmental Constraints



Page left blank



1. Introduction

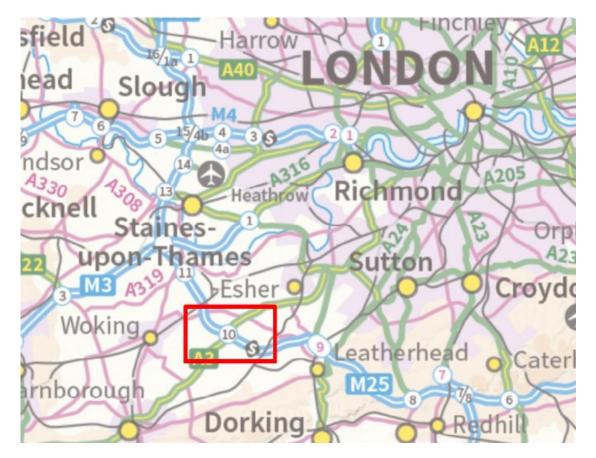
1.1 Background to the non-technical summary

1.1.1 Highways England has commissioned this Non-Technical Summary of Preliminary Environmental Information Report (PEIR) to be prepared as part of the Environmental Impact Assessment (EIA) consultation material for the M25 Junction10/A3 Wisley Interchange Improvement ("the Scheme"). The aim of the PEIR is to set out to stakeholders, landowners and statutory environmental bodies how each Environmental Impact Assessment (EIA) topic is being assessed, the potential environmental effects of the scheme (which may be predicted at this time) and the measures proposed to reduce those effects, to enable an informed response to the consultation. It should be noted that the scheme design is currently being developed and environmental information is still being assembled and impacts are being identified. The information contained within the PEIR should be regarded as a preliminary account of the principal environmental issues. It details a number of uncertainties and assumptions, and may be subject to change as the EIA work progresses. The EIA will be detailed within the Environmental Statement (ES) which will be submitted as part of the Development Consent Order (DCO) application to the Planning Inspectorate in winter 2018.

1.2 Overview of project

- 1.2.1 In December 2014 the Government announced its Road Investment Strategy (RIS) for 2015–2020. The RIS sets out the list of schemes that are to be delivered by Highways England over the period covered by the RIS (2015 2020). The RIS identified improvements to the M25 Junction 10/A3 Wisley Interchange as one of the key investments in the Strategic Road Network (SRN) for the London and south-east region.
- 1.2.2 The M25 Junction 10/A3 Wisley Interchange lies in the south west quadrant of the M25 London Orbital Motorway. At Junction 10 the A3, a key radial route from London to Portsmouth, crosses the M25 motorway. Just to the north of Junction 10 on the A3 is the Painshill Junction with the A245. Together with M25 Junction 10/A3 Wisley Interchange, the junctions in the current configurations restrict traffic flow through the area and a package of options is required to improve junction performance and safety. The location of the M25 Junction 10/A3 junction is shown in below.





- 1.2.3 The Scheme proposed provides increased capacity at the M25 roundabout by elongating the existing roundabout, providing additional lanes to provide more circulatory capacity and enabling more traffic to discharge the roundabout whilst providing dedicated free–flowing left turns. The elongated roundabout would use the existing bridges under the A3 and new bridges over the M25, with additional lanes and capacity between the traffic signals and dedicated left–turn filters at the traffic signals. Most of the existing roundabout and slip roads would be broken out and removed, with the existing structures over the M25 remaining in place.
- 1.2.4 The Scheme includes widening the A3 from Ockham to M25 Junction 10 and M25 Junction 10 to Painshill from three lanes to four lanes in both directions to improve safety and capacity of the A3. There would also be widening of the A245 to three lanes between the Painshill junction and the B365 Seven Hills Road junction. As the A3 will be widened to four lanes the current access to it from side roads and private properties will need to be closed and alternative arrangements will be put in place to provide access to the road network for the properties affected. The Scheme layout is shown at the back of this document.
- 1.2.5 Because the Scheme will take land from around the existing junction which is designated as common or access land and for its ecological value parcels of land would be acquired to replace and compensate for the losses. The existing footpath and bridleway network will be altered by the Scheme and new rights of way will be put in place to maintain and enhance connectivity around the junction. Alterations to signage and improvements to drainage are also included in the Scheme. Highways England expects to start construction in September 2020.



1.3 **Purpose of the PEIR**

- 1.3.1 The purpose of the Preliminary Environmental Information Report (PEIR) is to provide consultees with the information compiled by Highways England to date about the predicted environmental impacts of the Scheme and the proposed mitigation measures, and to inform the pre-application statutory consultation on the proposals. The report describes the Scheme, including construction details as currently proposed, timescales for delivery and alternatives considered.
- 1.3.2 The report constitutes the formal PEIR for the Scheme as required by Regulation 10 of the Infrastructure Planning (EIA) Regulations 2009 (as amended). The PEIR will be made available to prescribed consultees, local authorities, landowners and to members of the public and the wider community likely to participate in the public consultation. This will enable the consultees, including the local community, to understand the main environmental effects and implications of the Scheme to inform their responses to consultation.
- 1.3.3 Following the completion of the consultation, Highways England will take account of all comments and suggestions received from the consultees and integrate them into the scheme design and EIA work as required and finalise the Environmental Statement (ES) which will form part of the application for the Development Consent Order (DCO). The application will also annex a Consultation Report which will document the outcomes of the consultation and how this has informed the final Scheme.
- 1.3.4 The aim of EIA is to protect the environment by ensuring that the Planning Inspectorate, when deciding whether to grant planning consent for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision—making process. The aim of EIA is also to ensure that the public have the information to enable them to ensure they can be given early and effective opportunities to participate in the decision—making procedures.



1.4 Need for the project

- 1.5 This section of the SRN, through Junction 10, carries around 270,000 vehicles per day, making it one of the busiest in the country. About one third of all traffic approaching Junction 10 on both the A3 or the M25 use the roundabout to interchange between the two roads. Given the limited capacity of the existing roundabout to accommodate these large flows, significant delays and congestion occur in most peak periods. The junction is therefore a major impediment to the smooth flow of traffic on the SRN at this point. Journey time reliability is poor, with some journeys taking more than 2.5 times longer than expected in the peak periods. With forecast traffic growth and significant planned housing and economic development in the area, the problems at the junction are expected to deteriorate further unless an improvement scheme is undertaken. Further detail on the problems at Junction 10 are included in other project reports that are available if necessary.
- 1.6 Junction 10 is also ranked as having one of highest collision rates of junctions nationally. During the period of 2012-2016 (inclusive), Highways England reported accident data included 244 accidents (just under 50 per year on average) on and around the M25 Junction 10 and the A3 between Painshill and Ockham. This is partly attributable to the high levels of congestion at the junction, but is also due to there being a significant number of side roads and private accesses which connect directly to the A3 between Painshill and Ockham, thus reducing safe weaving distances for traffic.

1.7 Consultation

- 1.7.1 During the Option Selection Stage a public consultation period was held from 5 December 2016 to 6 February 2017 in which two options were presented Option 9 and Option 14. Stakeholders and members of the public were invited to complete a questionnaire on the proposals (or write in separately) where they could express a preference for either of the Scheme options and give their views. Of the two options presented during the public consultation, Option 9 gained the most support (64% vs. 29% for Option 14). However, concerns were raised about its scale and the impact it would have on the land around the junction. Stakeholders had a more mixed view, with the majority (26 of 39) preferring to give no preference at this stage
- 1.7.2 Further discussions were held with stakeholders during the development of the scheme to inform the choice of option, resolve conflicting issues and develop proposals for side roads and local accesses. At the end of the Option Selection Stage a variation of Option 14 was chosen as the preferred scheme and further design and assessment work was undertaken to refine the design. Works needed to enable the introduction of a Smart Motorway scheme between junction 10 and junction 16 of the M25 were also included in the Scheme.
- 1.7.3 Under Section 47 of the Planning Act 2008, Highways England are required to consult with the local community before submitting an application for a DCO so that the public can have their say and help shape the Scheme. Highways England is also required to consult with the relevant local authorities (Surrey County Council, Elmbridge Borough Council, Guildford Borough Coundil) about



the consultation approach. Public consultation on the Scheme is planned to be held between 12th February and 26th March 2018.

1.7.4 Following the consultation period, Highways England will produce a consultation report to summarise the views and comments received, and outline how they have been taken into consideration in refining the Scheme. The consultation report will be available on the Highways England website and at the public viewing locations used to promote the consultation materials.

1.8 Environmental Impact Assessment (EIA)

- 1.8.1 EIA is a process for identifying the likely environmental effects (positive and negative) of proposed developments, and their significance, before development consent is granted. The aim of EIA is to ensure that the following are undertaken:
 - a thorough assessment of likely effects of a proposed development on the environment; and
 - consideration of mitigation measures and alternatives in light of potential environmental effects.
- 1.8.2 Through this process, the development should include measures to prevent, reduce or offset any significant, adverse environmental effects of the proposals, and enhance the positive impacts. The findings of the assessment are presented in an ES. The PEIR is an early version of the ES and as the name suggests is a preliminary version of that document reporting effects that are known at this time until the full assessments are carried out on the final scheme that will emerge from the consultation period and design development. The assessments in the PEIR are based on established and agreed methodologies set out in Highways England's Design Manual for Roads and Bridges.
- 1.8.3 The following sections set out the findings of the environmental topic assessments so far. Existing environmental constraints are shown on the drawing at the back of this document.

2. Air Quality

- 2.1.1 There are four Air Quality Management Areas (AQMAs) areas where national air quality objectives have been breached within the local area which could potentially be affected by the Scheme, depending on the resulting changes in traffic. Monitored concentrations of nitrogen dioxide (NO₂), a key pollutant associated with traffic, are currently exceeding the annual average objective at a number of roadside sites along other roads in the area but these are not representative of exposure.
- 2.1.2 The assessment to date has shown that there are expected to be exceedances of the annual mean NO₂ objective at three receptors both with and without the Scheme in the opening year. One of these receptors was expected to have a medium increase, and the other two a small increase in concentrations. The changes in annual mean NO₂ concentrations at other receptors in the area are expected to be small or imperceptible and are due to the expected changes in traffic with the Scheme. It is anticipated that the changes in emissions once the Scheme is open to traffic would not have a significant effect on local air quality within the study area.



- 2.1.3 However, the risk of a potentially significant adverse effect on sites designated for their ecological value in the local area has not yet been ruled out. Further assessment work will be required to investigate this and, if necessary examine mitigation options.
- 2.1.4 During construction air quality effects may arise from dust emissions due to earthworks and other construction activities associated with the scheme. Mitigation measures would be put in place to reduce the effect of construction dust. There could also be changes to traffic during the construction period. The effect on air quality will be examined once this information is available.
- 2.1.5 Further detail on the air quality effects of the scheme are included in Chapter 5 of the Preliminary Environmental Information Report.

3. Noise and Vibration

- 3.1.1 Noise levels in the local area are badly affected by traffic on the A3 and M25 as well as other local roads. This affects local people in their homes or places of work and also in the common land which surrounds the junction, spoiling their enjoyment of the countryside here. Noise surveys are taking place to accurately measure the current noise levels near people's houses and in the surrounding land to inform our assessments.
- 3.1.2 Several areas on the roads have been designated by the government as Noise Important Areas where there is a commitment to try to reduce noise levels. There are currently a number of environmental barriers alongside the M25 which help to reduce the effect of noise in the adjoining land.
- 3.1.3 Because the existing noise levels are high it is not expected that the Scheme would result in a significant change in noise. There would generally be small increases and small decreases in noise across the local area when the Scheme is built but in the longer-term noise effects would be lower than if the Scheme were not built.
- 3.1.4 The widened sections of road would be surfaced in a 'low noise surface' which would help reduce noise levels and the environmental barriers on the M25 would be replaced. A detailed noise assessment is being undertaken and this will allow mitigation measures to be designed and located to be most effective in reducing noise. Construction work will be carefully planned and regulated to minimise the effect of construction noise on people in the local area. Further detail on the noise effects of the scheme are included in Chapter 6 of the Preliminary Environmental Information Report.

4. Biodiversity

4.1.1 The area around the junction is highly valued for its biodiversity with a large area to the south of the M25 forming part of the Thames Basin Heaths Special Protection Area which is an internationally protected site that supports threatened bird species. The land around the junction is also designated as a Site of Special Scientific Interest for the heathland habitats and associated plants and animals that it supports. As well as these designated sites there are ancient woodlands and veteran trees in the area, along with protected species such as bats and great crested newts.



- 4.1.2 Based on the preliminary environmental assessment carried out so far it has been established that the Scheme has the potential to have a significant adverse effect on the Thames Basin Heaths SPA, the Ockham and Wisley Commons SSSI and three ancient woodlands. In addition, the Scheme is likely to have slight effects on populations of some notable and protected species.
- 4.1.3 Because of the effect that the Scheme could have on the protected land and species we have consulted with Natural England, Royal Society for Protection of Birds, Surrey Wildlife Trust, the Forestry Commission and other stakeholders to explore ways that these harmful effects could be mitigated or compensated for. At this stage, details of the mitigation and compensation measures that would combine to form the necessary mitigation have not yet been finalised. However, initial proposals under consideration include the provision of new habitats on land around the junction, enhancement of existing habitats, provision of green corridors, creating new, linked habitats and the potential provision of green bridge or bridges to facilitate the movement of existing notable and legally protected species populations across existing barriers (A3 and M25).
- 4.1.4 Consultation with stakeholders will continue, and will guide the final mitigation and compensation strategy for the Scheme. Further detail on the biodiversity effects of the scheme are included in Chapter 7 of the Preliminary Environmental Information Report.

5. Road Drainage and the Water Environment

- 5.1.1 A number of important rivers surround the Scheme. To the east and west of the Scheme lie, the River Mole and the River Wey, to the south at the Ockham Park junction the Stratford Brook passes under the A3 and to the south at Ripley Guileshill Brook also pass under the A3. The sandy soils of the area are free draining but adjacent to the A3 between Ockham and Junction 10 lies Boldermere, a large area of open water which forms a valuable aquatic habitat. There are a number of other ponds and small watercourses in the area surrounding the junction.
- 5.1.2 The A3 and M25 form large areas of hard surface that can quickly discharge water during periods of heavy rain causing localised flooding. There is also the potential for harmful spillages of pollutants into the local environment if there are accidents on these roads. As part of the Scheme and if required new pollution prevention measures will be built to make sure that pollutants are prevented from reaching local rivers and groundwater. There will also be new balancing ponds that will hold back surges in water from the roads discharging too quickly into watercourses. New flood storage capacity will be created at Stratford Brook to compensate for the floodplain lost through construction of the new Wisley Lane access.
- 5.1.3 With the mitigation measures that are proposed it is considered that the Scheme would have a neutral effect on the water environment when it has been built and traffic is using the roads. During the construction phase good working practices would be adopted to make sure that there would be no damage to local water resources. Further detail on the effects of the scheme on drainage and the water environment are included in Chapter 8 of the Preliminary Environmental Information Report.



6. Landscape

- 6.1.1 The Scheme lies within the greenbelt and is surrounded by large areas of mature woodland and heath as well as areas of agricultural land. At either end of the A3 section of the Scheme are two Registered Parks and Gardens, RHS Wisley to the south near the Ockham Park junction and Painshill Park to the north. It is an attractive area which provides a rural setting for the M25 and A3 whilst the woodland helps to limit the visual impact of these roads and traffic on the local area.
- 6.1.2 The Scheme has been designed to limit the impact on the local area with the improvements generally kept close to the existing roads. Some losses of the trees and woodland around the Scheme are unavoidable but this will be kept to a minimum. However, the losses will open up views of the widened roads and traffic leading to increases in visual impact on local houses, open space and visitor attractions. The Scheme will include proposals for the replacement of lost vegetation and new areas of planting to screen views of the road. Further detail on the landscape effects of the Scheme are included in Chapter 9 of the Preliminary Environmental Information Report.

7. Geology and Soils

- 7.1.1 The Scheme is located in an area of heathland with sandy free draining soils and is underlain by a Bedrock geology anticipated to comprise the Bagshot Formation, Claygate Member and London Clay Formation. Potential sources of contamination have been identified in the area, including a number of historical landfill sites, other areas of infilled land and potentially contaminative land uses, including the former Wisley Airfield and other commercial activities.
- 7.1.2 Ground conditions will be investigated over the coming months to gain a comprehensive understanding of site conditions and inform the scheme design. The construction and operational phases of the scheme have the potential to introduce new sources of contamination, expose areas of contamination, if present, and introduce new pathways for the migration of contamination. Where necessary and as required, mitigation measures will be implemented through design and through the construction phase to ensure there are no significant impacts on the area. Further detail on the effects of the scheme on geology and soils are included in Chapter 10 of the Preliminary Environmental Information Report.

8. Cultural Heritage

8.1.1 The area around the junction is rich in historical features and contains fifty–five designated heritage assets including four Scheduled Monuments, two registered parks and gardens, many listed buildings and two Conservation Areas. There are also a large number of non–designated heritage assets within the study area. These include possible prehistoric earthworks, the London to Winchester Roman Road, medieval or post–medieval enclosures, parish boundaries and earthworks, as well as post–medieval domestic, agricultural and industrial buildings, and post–medieval and modern gardens and parkland.



- 8.1.2 Although many of the historic features in the area are already affected by the M25 and A3 there is potential for further adverse effects including potentially significant effects during construction and operation of the Scheme. A detailed impact assessment will be carried out as part of the EIA alongside a review and input into the mitigation design proposals to reduce or possibly even remove these significant effects where possible.
- 8.1.3 Consultations with Historic England and the county archaeologist will take place to further inform the understanding of the heritage assets and the Scheme effects and to develop mitigation proposals. Further details on the heritage effects of the Scheme are given in Chapter 11 of the Preliminary Environmental Information Report.

9. People and Communities

- 9.1.1 The area around the Scheme has a number of towns, villages and small communities as well as individual properties agricultural holdings and small businesses. Much of the surrounding area at junction 10 is designated as common land, access land or public open space where the public can freely walk and enjoy the countryside. The area is also well used by horse riders and cyclists. There are a network of footpaths, bridleways and other paths that cross the area as well as a paved route that runs alongside the A3.
- 9.1.2 The presence of the A3 and M25, the traffic on these roads and the noise it generates detracts from the amenity of the surrounding area. The large traffic volumes on the A3 and the sub-standard accesses onto it make it hazardous and stressful for motorists and for pedestrians, cyclists and horse riders wanting to use it or get across it. Although there are crossings over the main roads the A3 and M25 form a barrier to access around the junction and routes close to these roads are unattractive for users.
- 9.1.3 The Scheme will require areas of common and access land to accommodate the new junction, widening and new accesses. This will need to be replaced and new areas of land in the local area would be acquired to compensate for the losses. These areas would be landscaped and managed for the enjoyment of walkers, cyclists and horse riders and would also be managed to compensate for the loss of ecologically valuable land. In addition to this, new and replacement paths and bridleways would be created, along with new crossings over the M25 and A3 to enhance connections around the junction.
- 9.1.4 There would be temporary adverse effects during construction for many local people and adverse effects on some businesses, farms and landholders who would lose land. With the mitigation measures in place and with safer road arrangements and new signing on the main roads there would be benefits to the local community and road users once the Scheme was open and in the long term. Further detail on the anticipated effects of the scheme on people and communities are included in Chapter 13 of the Preliminary Environmental Information Report.



10. Climate Change

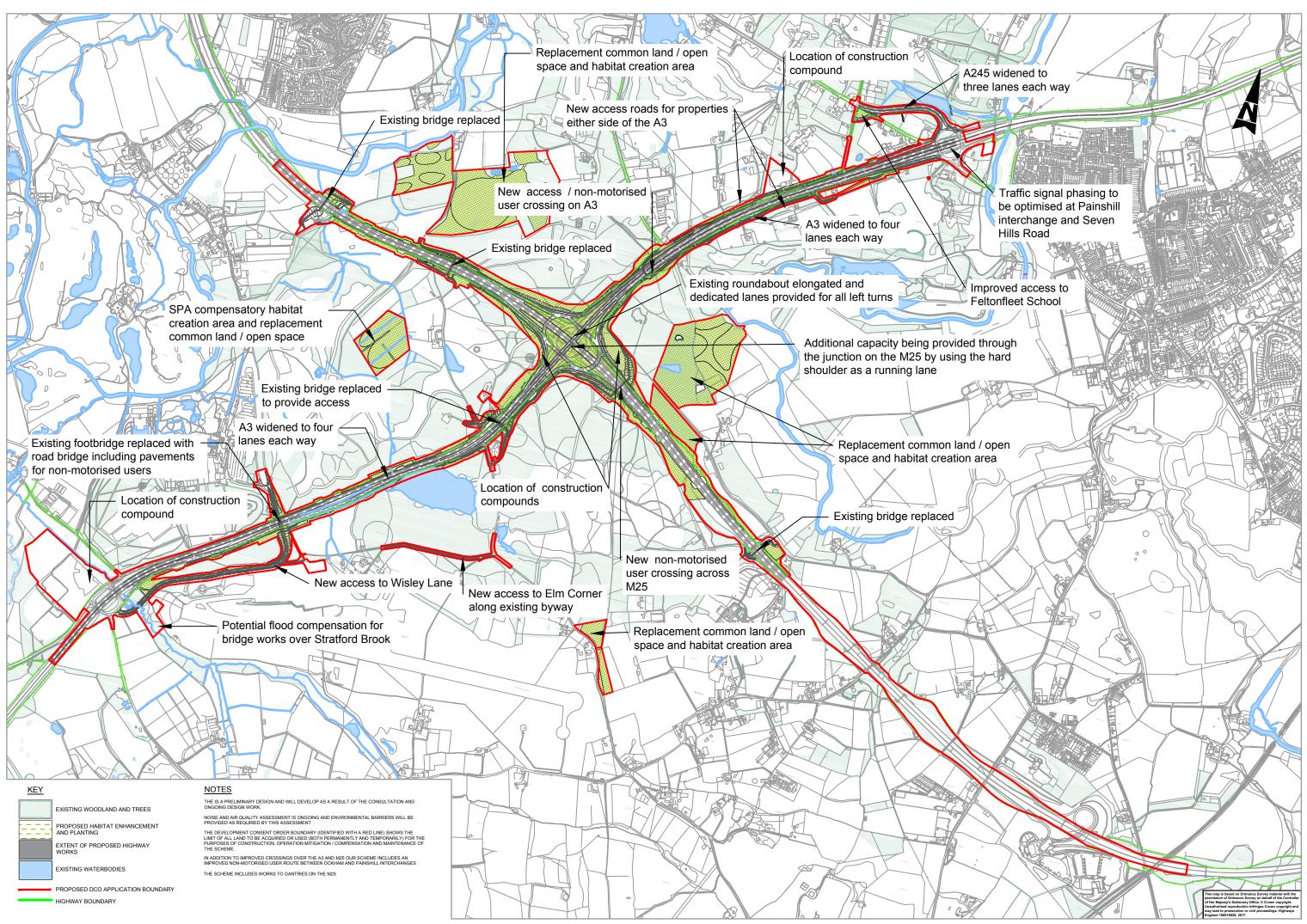
- 10.1.1 The PEIR considers what effect the Scheme could have on climate change through changes in carbon emissions. These can arise through changes in the number of vehicles on the road due to the Scheme and also through the amount of CO² that is in the materials used for the construction of the scheme itself.
- 10.1.2 It also considers how the Scheme could be affected by climate change and how vulnerable it might be to extreme weather events. Measures to reduce this vulnerability and make the Scheme more resilient to extreme events are being developed. Further details on climate change are included in Chapter 14 of the Preliminary Environmental Information Report.

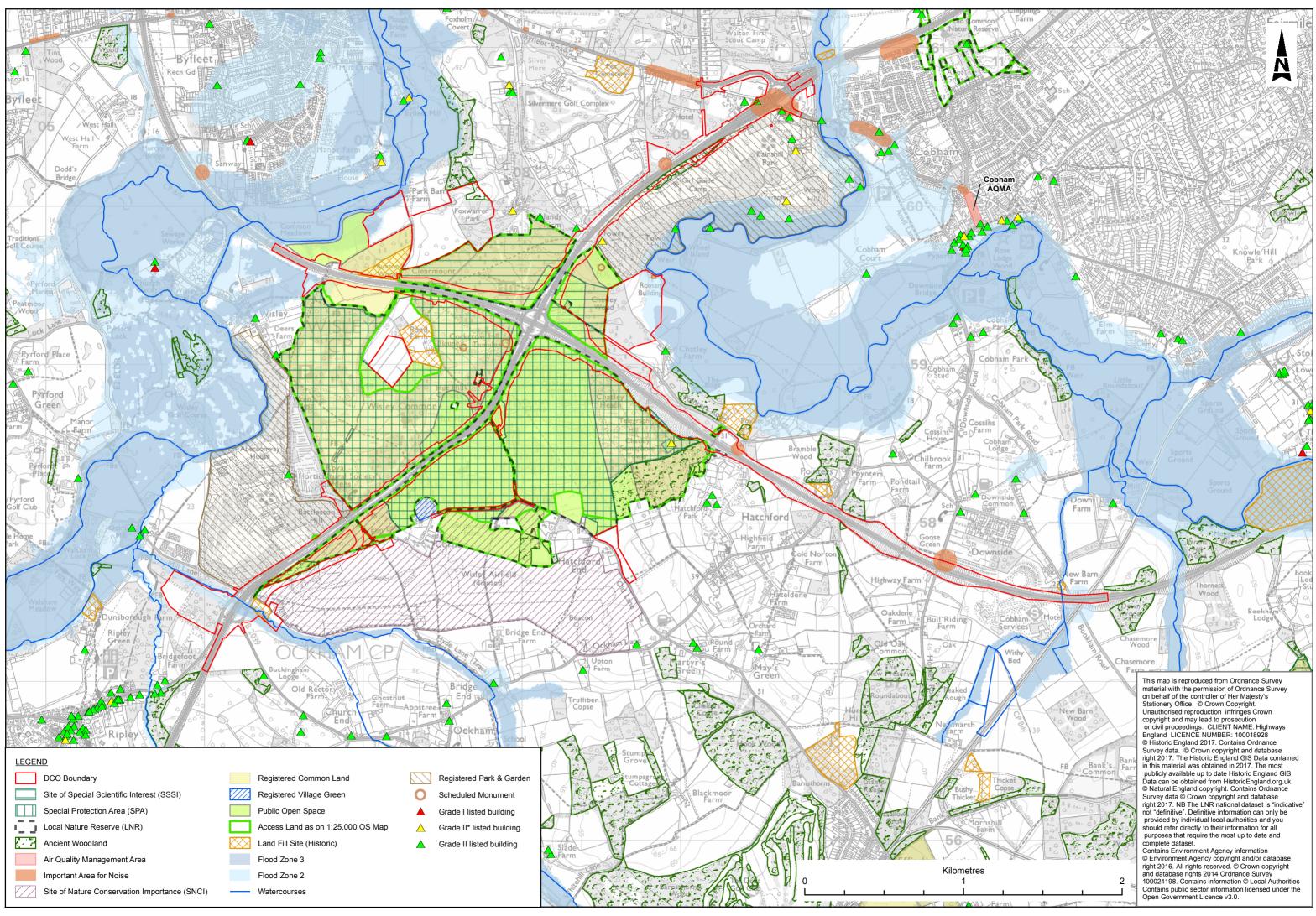
11. Consultation

11.1.1 Highways England wishes to obtain the views of the public on the draft proposals for the Scheme, taking into account the potential environmental effects of the Scheme. Those views will then be taken into account in finalising the design and refining the EIA and ES. There will be a six-week period from the 12 February to 26 March 2018 for members of the public and stakeholders to respond to the consultation. Responses can relate to the preliminary environmental information set out in the report or to any other aspect of the Scheme. This will provide an opportunity for stakeholders to give views on our proposals.

12. After the consultation

12.1.1 After the consultation period, all responses will be considered in finalising the scheme design and the ES. A report will be prepared on the responses received and how they have been taken into account, including whether or not they led to changes to the Scheme. Highways England is required to seek authorisation to construct the Scheme through an application to the Secretary of State through the Planning Inspectorate (as responsible agency) for a DCO. The ES will be submitted with the DCO application, which is expected to be made in late winter 2018. Once accepted by the Planning Inspectorate on behalf of the Secretary of State, the public will have further opportunity to comment on the application. Details of how the process works can be found on the National Infrastructure Planning website and information is also provided in the M25 J10/A3 Wisley Interchange Improvement Consultation Brochure.





ENVIRONMENTAL CONSTRAINTS PLAN

© Crown copyright (2017).

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence:

visit **www.nationalarchives.gov.uk/doc/open-government-licence/** write to the Information Policy Team, **The National Archives, Kew, London TW9 4DU**, or email **psi@nationalarchives.gsi.gov.uk**.

Printed on paper from well-managed forests and other controlled sources.

Registered office Bridge House, 1 Walnut Tree Close, Guilford GU1 4LZ Highways England Company Limited registered in England and Wales number 09346363