

# ENVIRONMENTAL IMPACT ASSESSMENT SCREENING (DETERMINATION)

## Step 1: Consideration of Annex I and II screening thresholds

<b>Name of Project</b>	<b>Location (including national grid reference)</b>
Smart Motorway Programme M56 Junction 6 to 8	M56 between Junction 6 A538, Manchester Airport (SJ803851) and Junction 8 A556 (SJ740852)

**Description of development**  
 The Proposed Scheme involves the upgrading of a 6.5km long stretch of the M56 Motorway between Junction 6 (Manchester Airport) and Junction 8 (A556) to a Smart Motorway. The Proposed Scheme will include All Lane Running along this section by permanently converting the hard shoulder into a live lane. The Proposed Scheme aims to relieve congestion and smooth traffic flow; improve journey times and journey time reliability; maintain safety levels for all road users; and support the economic development of the nation. The scheme covers an area of 48.4ha. There will be no land take beyond Highways England boundaries.

**Anticipated consenting route**

Planning Act 2008 <input type="checkbox"/>	Highways Act 1980 <input checked="" type="checkbox"/>	Other (please specify e.g. TCPA) <input type="checkbox"/>
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**Annex I thresholds**

Planning Act 2008 and Highways Act 1980			Other (please specify)
Construction of a motorway or an express road. <input type="checkbox"/>	Construction of a new ≥4 lane road of ≥10km in length (e.g. dual carriageway) <input type="checkbox"/>	Realignment/widening of an existing ≤2 lane road to provide ≥4 lanes of ≥10km length (e.g. single carriageway road to dual carriageway or larger) <input type="checkbox"/>	(insert threshold(s)) <input type="checkbox"/>

Note: If an Annex I threshold is identified move to sign off procedure. Otherwise proceed to Annex II thresholds

**Annex II thresholds**

Planning Act 2008	Highways Act 1980		Other (please specify)
All roads <input type="checkbox"/>	Construction or improvement project not included in Annex I above and occupying >1ha <input checked="" type="checkbox"/>	Project located (in whole or in part) in a 'sensitive area' <input type="checkbox"/>	In the view of a Competent Expert, there are other impacts which may result in significant effects. <input type="checkbox"/>

**Sign off procedure**  
 Given the information included above, I support the conclusion that (HE Project Manager to tick as appropriate):

Environmental Impact Assessment is mandatory for the named project, on the basis that it meets the relevant thresholds within Annex I of Directive 2014/52/EU (amending Directive 2011/92/EU) and any specific requirements of the relevant EIA Regulations (Step 2 not required).

Environmental Impact Assessment is not mandatory for the named project, on the basis that it does not fall within the relevant thresholds of Annex I or II of Directive 2014/52/EU (amending Directive 2011/92/EU) or any specific requirements of the relevant EIA Regulations (Step 2 not required).

The named project falls within the relevant thresholds of Annex II of Directive 2014/52/EU (amending Directive 2011/92/EU) and any specific requirements of the relevant EIA Regulations and therefore screening against the Annex III criteria is required to determine if there are likely significant effects (Step 2 required).

Signature Highways England Project Manager: \_\_\_\_\_ Date: 15/8/18

Signature Highways England (SES) Environmental Advisor: \_\_\_\_\_ Date: \_\_\_\_\_

**EIA Screening (Determination) Audit**  
 This Environmental Impact Assessment screening (determination) is saved in the following location in SHARE:  
<http://share/share/llisapi.dll?func=it&objaction=overview&objid=50346168>

Note: HE project manager to complete audit tool in this link

## Step 2: Annex III screening of Annex II projects

### A. Characteristics of the project

The Proposed Scheme will provide a hardened central reserve with a new rigid concrete barrier (RCB) to replace the existing deformable metal vehicle restraint system (VRS), across the whole of the Proposed Scheme. A widened RCB will be provided to the east of Sunbank Lane bridge to accommodate new lighting columns within the central reserve.

The Proposed Scheme will comprise the design and construction of All Lane Running between J6 and J8, in both directions, by installing 10 new gantries (7 existing gantries will be retained and upgraded where possible). The gantries will be fitted with Advanced Motorway Indicators (AMIs), New Message Signs and/or Advanced Directional Signs (ADS), strategic signs (MS3s), Variable Messaging Signs (MS4) and emergency refuge areas (ERAs).

Construction of the Proposed Scheme is scheduled to commence in September 2018 for the enabling works and October 2018 for advanced works. The main works will follow the advanced works with all works planned to end by March 2020. A breakdown of enabling works and advanced works is as follows:

#### Enabling Works: September 2018 – October 2018:

- Ground Investigation Works
- Pavement Coring Works
- Site Clearance Works
- Geotechnical Walkthrough
- Topographical Surveys – will be planned around the site clearance works
- Drainage CCTV surveys – will be planned around the GI works.

#### Advanced Works: October 2018 – January 2019:

- Hard Shoulder Pavement Works
- NRTS Bypass Interrupter
- TASCAR & CCTV Establishment
- Traffic Management Layout Establishment
- Site Compound Establishment

The Proposed Scheme covers an area of 48.4ha and is approximately 6.5km long, including slip roads and mainline from Marker Post (MP) 20/1 to MP13/0. This is non-inclusive of site compound areas, which are to be confirmed at PCF 5.

### B. Location of the project

The M56 forms the South Pennines Strategic Route, linking North Wales, Liverpool, Greater Manchester and Leeds. The motorway serves both short commuting trips between key locations as well as long distance traffic. It also serves Manchester Airport at Junction 6. Significant sections of this strategic route suffer from low peak hour speeds, poor journey time reliability and high traffic flows.

Figure 1 attached to the end of this Determination provides an overview of the Proposed Scheme.

A brief description of the environmental baseline assessed within the M56 J6 to 8 Environmental Assessment Report is as follows.

#### Air Quality

For the cumulative core case (three North West SMP Schemes (M62 J10-12, M56 J6-8 and M60 J24-4 all proceed), there are five AQMAs within the air quality study area (defined based on the Affected Road Network, for those links which have relevant receptors within 200m of either side of road carriageways), all declared for exceedances of the annual mean NO<sub>2</sub> UK AQS objective. These are all adjacent to the affected road network. There are four designated ecological sites within the same study area (none within the M56 geographical study area) For the M56 'scheme only case', there are three Air Quality Management Areas within the M56 J6-8 geographical study area declared for exceedances of the annual mean NO<sub>2</sub> UK AQS objective: two of these are adjacent to the M56 J6-8 Proposed

Scheme. There are no ecologically designated sites within 200m of the Affected Road Network for the 'M56 only' DS scenario.

### **Noise**

There are 6 Noise Important Areas within the study area for operational noise, defined as 600m around the Proposed Scheme and any affected roads located within 1km of the Proposed Scheme. Only 2 of these Noise Important Areas are located adjacent to the section of the M56 that will be altered by the Proposed Scheme. Presently there are 4 properties estimated to experience noise levels in excess of the daytime Significant Observed Adverse Effect Level, located in close proximity to the M56 and other heavily trafficked local roads.

### **Biodiversity**

This section of the M56 carriageway lies within a largely semi-rural landscape setting. The area becomes more urbanised around Junction 6 with Manchester Airport situated approximately 250m to the east of the junction. Surrounding landscape habitats include woodland (ancient, semi-natural and plantation), arable and pastoral farmland with hedgerows and waterbodies including flowing and standing water. Of particular note is Rostherne Mere Ramsar and Site of Special Scientific Interest (SSSI), situated approximately 300m south of Junction 8 This lies within the 2km Study Area, but not within the 200m Ecological Zone of Influence. Thirteen non-statutory designated sites for nature conservation are situated within the 2km Study Area. Seven of these lie within the 200m Ecological Zone of Influence or are hydrologically linked to the Proposed Scheme.

Three areas of ancient woodland are present within the 200m Study Area and within 15m the Ecological Zone of Influence of the Proposed Scheme for Ancient Woodland; namely Warburton Wood, Hancock's Bank North and Hancock's Bank South. Four habitats of Principal Importance have been identified adjacent to the Proposed Scheme including deciduous woodland, hedgerows, ponds and rivers.

The following notable and protected species were recorded or are considered potentially present within the 500m study area: great crested newt, bats, water vole, otter, white-clawed crayfish, breeding birds and hedgehog.

### **Landscape and visual amenity, including the Setting of Cultural Heritage Assets**

The motorway runs through predominantly open agricultural areas of green belt with a pattern of hedgerow field boundaries. Within the study area of 1km, there is one locally designated landscape of special value; Bollin Valley and Parklands, one scheduled monument and three Grade II Listed Buildings. For cultural heritage, only assets with exceptional sensitivity were considered beyond 300m up to 1km. Residential receptors are generally limited to scattered properties or small groups of properties adjacent to the Proposed Scheme; the largest group being properties to the edge of Warburton Green. Five public rights of way also run adjacent or cross the Proposed Scheme.

### **Road Drainage and the Aquatic Environment**

Records indicate groundwater Source Protection Zones are not located within the study area.

Works may be undertaken to improve one priority outfall subject to further engineering investigations to contribute to the objectives of the Water Framework Directive. A further two outfalls are classified as of Not Determined status. Both are on a watercourse targeted for water quality improvement.

Surface water abstraction is located within 275m on east side of motorway and on south side of Junction 8 is closely located to the Not Determined category outfall asset reference SJ7584\_3978d.

The Proposed Scheme may necessitate temporary construction works within the floodplain, these will be minor as no key infrastructure is proposed within the floodplain.

### C. Type and characteristics of potential impacts

An environmental assessment of the Proposed Scheme has been undertaken in accordance with applicable Highways England guidance and the M56 J6-8 Environmental Scoping Report issued in July 2017.

As the Proposed Scheme does not give rise to likely significant adverse effects, currently consultation has been limited to Natural England on the M56 J6-8 Habitat Regulations Assessment Report, which confirmed that the Proposed Scheme would have no likely significant effect on Rostherne Mere Ramsar site and no further stages of the HRA will be considered necessary.

Public information events will take place in Design Fix 4 and Project Control Framework Stage 5 and the M56 J6-8 Environmental Assessment Report and this Determination document will be available on the Highways England website.

Potential impacts as reported in the M56 J6 to 8 Environmental Assessment Report are as follows.

#### Air Quality

For the cumulative case (three North West SMP Schemes: M62 J10-12, M56 J6-8 and M60 J24-4 all proceed), the assessment uses the traffic flows and predictions initially developed for four North West SMP Schemes (cumulative worst case). There are 2 medium increases and 8 small increases at locations that exceed the annual mean NO<sub>2</sub> UK AQS objective in the future with the SMP NW Schemes. There are also 5 small decreases (improvements) at locations that exceed. Two of the small increases are in the M56 J6-8 geographical study area (around J20). All other perceptible changes are in the M62 J10-12 geographical study area. Overall no significant adverse effect on local air quality is anticipated under the cumulative three scheme case.

For the M56 'scheme only' case, no significant adverse effect on local air quality is anticipated. In the M56 J6-8 geographical study area there were 37 exceedances of the annual mean objective for Nitrogen Dioxide in the base year (2015) (mostly between Junction 6 to Junction 3A), while in the opening year there would be 11 exceedances without the Proposed Scheme and 13 exceedances with the Proposed Scheme. Where exceedances would occur in the opening year without the Proposed Scheme, the change from the Proposed Scheme would be 'imperceptible'. There are not expected to be any DEFRA Pollution Climate Mapping links that exceed the annual mean NO<sub>2</sub> EU limit value in 2020 and changes in concentrations as a result of the M56 J6-8 Proposed Scheme would not result in exceedances. There is therefore not expected to be a compliance risk due to the M56 J6-8 Proposed Scheme.

#### Noise

During the noisier phases of construction, such as building ERA retaining walls and gantry foundations, construction noise and vibration could give rise to localised temporary (non-significant) adverse impacts at up to 7 properties. These impacts would be managed via the Construction Environmental Management Plan and the use of best practicable means to ensure that they are reduced to the lowest levels and durations possible. No significant noise or vibration effects are predicted from the construction phase.

When operational, in the short-term, 1 dwelling is predicted to experience a minor perceptible increase in noise level. Conversely, 24 dwellings are predicted to experience perceptible minor decreases in noise level. All other dwellings and other sensitive receptors are predicted to experience negligible noise impacts or no change in noise level. The decreases in noise level are due to the inclusion of a new low noise surface on lanes 1 and 4 of the motorway as part of the Proposed Scheme. In the long term (by 2035), all receptors are predicted to experience negligible noise impacts or no change in noise level. By the design year there would be a decrease in the number of properties with noise levels above the significance threshold, although the changes in noise are shown not to be perceptible.

No significant noise or vibration effects are predicted and the Proposed Scheme results in an overall neutral effect during the operational phase. Additional noise mitigation is not proposed.

#### Biodiversity

There would be no construction or operational impacts arising from the Proposed Scheme on designated sites, notable habitats or other habitats and no mitigation is required for these receptors.

Construction impacts on ecological receptors include temporary habitat loss, potential pollution of aquatic habitats, disturbance through increased noise, light and vibration, and direct mortality or injury of wildlife. Mitigation for

construction impacts include habitat re-instatement, implementation of pollution control measures, appropriate lighting during night time working, prevention of injury and mortality of individuals through precautionary working method statements and development licences where applicable.

Operational impacts on ecological receptors include pollution events, disturbance from lighting and permanent loss of terrestrial habitat. Mitigation for operational impacts include appropriate lighting design and appropriate drainage design.

Following the implementation of the mitigation measures outlined in the Environmental Assessment Report and Outline Environmental Management Plan there will be no significant residual impacts on ecological receptors arising from the Proposed Scheme.

#### **Landscape and visual amenity, including the Setting of Cultural Heritage Assets**

There would be no permanent significant effect on landscape, visual amenity or the setting of cultural heritage features. During construction, potentially significant localised effects have been identified for 11 key visual locations, this will be reduced to 7 locations at Year 1 and no locations following establishment of mitigation at Year 15. At each stage when the Proposed Scheme is considered as a whole, it is concluded that the overall effect would not be significant.

Mitigation proposals include replacement planting of a similar or improved nature, together with enhancement measures along the route to improve the existing motorway corridor. Overall in the long term, the Proposed Scheme is considered to have a residual neutral effect in terms of landscape, visual amenity and the setting of cultural heritage assets.

#### **Road Drainage and the Aquatic Environment**

The topic of Road Drainage and Aquatic Environment is scoped out of further assessment on the basis of negligible impact on water quality, the ecological status of local watercourses, flood risk, groundwater conditions, surface and groundwater abstractions as well as existing motorway drainage outfalls and culverts.

#### **Cumulative effects**

Whilst the topic assessments have in many cases considered the same receptors, it is considered that there would be no combined effects that would be significant due to the mitigation measures proposed. No significant cumulative effects are expected with other relevant developments, principally due to the distance from the Proposed Scheme and that illustrative receptors were already assessed within the study area of the Proposed Scheme.

#### **Sufficiency of evidence and limitations**

This Determination is based on the conclusions of the M56 J6-8 Environmental Assessment Report, produced by qualified and competent experts. There has been consultation amongst the design team as well as liaison with Highways England and other environmental Joint Venture partners at discipline and coordinator/technical leadership level to agree consistent approaches.

The assessment of the Proposed Scheme has been undertaken on the Design Fix 3 therefore it is based on assumed construction and design information, which is subject to change and development. Should any material change to the Proposed Scheme be made that would alter the M56 J6-8 Environmental Assessment Report, conclusions within this Determination would be revised.

Information presented within the M56 J6-8 Environmental Assessment Report, is based on readily available online databases and mapping data. Site surveys have been undertaken in a targeted way, which was considered to be proportionate to the Proposed Scheme. For health and safety reasons, access to the verge was restricted to areas behind permanent barriers and avoiding access from the live carriageway.

Consultation has been limited to Natural England on the M56 J6-8 Habitat Regulations Assessment Report, which confirmed that the Proposed Scheme would have no have no likely significant effect on Rostherne Mere Ramsar site and no further stages of the HRA will be considered necessary.

- An appraisal under WebTAG has also been carried out.

#### Project Manager Sign off procedure

Given the information included in Step 2, I support the conclusion that *(Project Manager to tick as appropriate)*:

- Environmental Impact Assessment is required for the named Annex II project, on the basis that likely significant effects have been identified using the Annex III criteria in Directive 2014/52/EU (amending Directive 2011/92/EU)
- Environmental Impact Assessment is not required for the named Annex II project, on the basis that likely significant effects have not been identified using the Annex III criteria in Directive 2014/52/EU (amending Directive 2011/92/EU)

On this basis *(Project Manager to tick as appropriate)*:

- (For Highways Act 1980 projects) I hereby request a determination for the named project.
- (For Planning Act 2008 projects and those falling under other consenting regimes) I hereby request confirmation of agreement with the screening conclusion for the named project.

Signature Highways England Project Manager:

Date: 15/8/18

NOTE: HE Project manager to update the audit tool and seek the necessary technical approval sign off

#### Technical approval sign off procedure

Given the information included above, in accordance with the requirements of the Directive 2014/52/EU (amending Directive 2011/92/EU) I have reached the following conclusion: *(Highways England Nominee to complete applicable section)*

- There is sufficient uncertainty or an absence of evidence to support the conclusions that the project team has reached and on that basis I refer this back to the project team.

Environmental Impact Assessment is required for the named project due to the following:

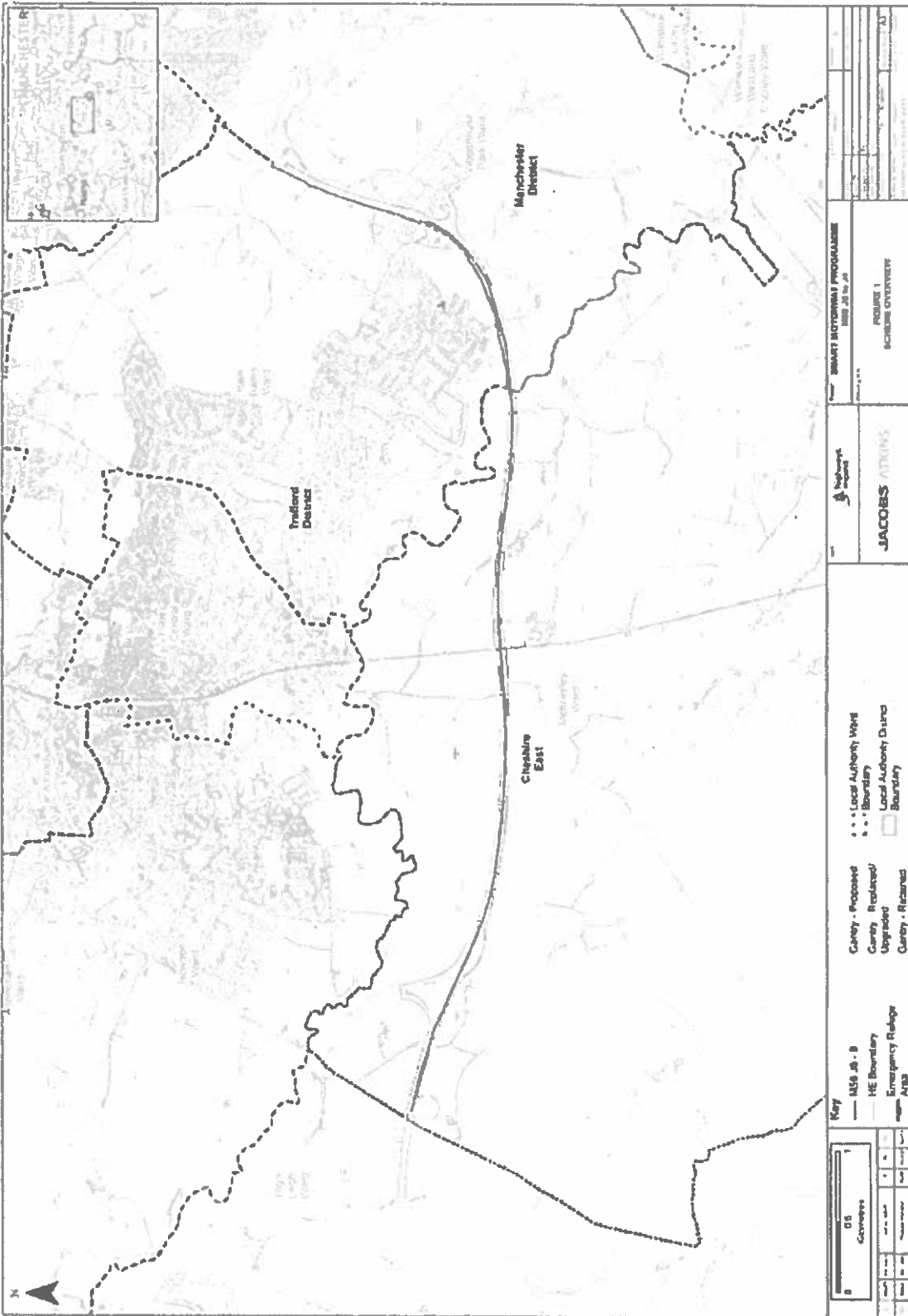
- There are topic(s) where the project team have predicted likely significant effects.
- Sufficient evidence has been provided by the project team to support the conclusion.

Environmental Impact Assessment is not required for the named project due to the following:

- There are no topics where the project team have predicted likely significant effects.
- Sufficient evidence has been provided by the project team to support the conclusion.

Signature Strategic Highways Company Nominee:

Date: 22-8-18



<b>Key</b> MSB 08 - B HE Boundary Emergency Route A133		<b>Carey - Proposed</b> Carey - Replaced/Upgraded Carey - Retained		<b>Local Authority Writ</b> Boundary Local Authority District Boundary		<b>SMART MOTORWAY PROGRAMME</b> M60 J16 to J17 PHASE 1 SCHEDULE 07/2017		<b>JACOBS ATKINS</b>	
08 Greater Manchester									