

**M4 JUNCTIONS 3 TO 12 SMART MOTORWAY**

**The M4 Motorway (Junctions 3 to 12)(Smart Motorway)  
Development Consent Order 201[ ]**

**Planning Inspectorate Scheme Reference: TR010019**

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**STATEMENT OF COMMON GROUND**

**between**

**(1) HIGHWAYS ENGLAND**

**and**

**(2) THE ENVIRONMENT AGENCY**

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**STATEMENT OF COMMON GROUND**

**This Statement of Common Ground has been prepared and agreed by (1) Highways England Company Limited and (2) the Environment Agency.**

**Signed**



**Lynne Stinson  
Project Manager**

**on behalf of Highways England**

**Date: 7 January 2016**

**Signed**



**Jeanne Capey  
Environment Planning and  
Engagement Manager**

**on behalf of the Environment Agency**

**Date: 8 January 2016**

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## 1 Introduction

### Purpose of Statement of Common Ground

- 1.1 This Statement of Common Ground ("SoCG") has been prepared in respect of an application ("Application") made by the Highways Agency (which has now become "Highways England Company Limited" known as "Highways England") to the Secretary of State for Transport ("Secretary of State") for a Development Consent Order ("DCO") under section 37 of the Planning Act 2008 ("PA 2008").
- 1.2 The draft DCO is referred to as The M4 Motorway (Junctions 3 to 12) (Smart Motorway) Development Consent Order 201[\*] (the "Order"). The Order would grant powers to improve the M4 motorway ("M4") to a smart motorway between junction 3 (Hayes) in west London and junction 12 (Theale), which is near Reading (the "Scheme").
- 1.3 Guidance on the purpose and possible content of SoCGs is given in paragraphs 58 - 65 of the Department for Communities and Local Government's "Planning Act 2008: Guidance for the examination of applications for development consent" (March 2015).
- 1.4 Paragraph 58 confirms the basic function of SoCGs:

*"A statement of common ground is a written statement prepared jointly by the applicant and another party or parties, setting out any matters on which they agree. As well as identifying matters which are not in real dispute, it is also useful if a statement identifies those areas where agreement has not been reached. The statement should include references to show where those matters are dealt with in the written representations or other documentary evidence."*

### Parties to this Statement of Common Ground

- 1.5 This SoCG has been prepared by (1) Highways England as the Applicant and (2) the Environment Agency.
- 1.6 The Application was made by the Highways Agency. On 1 April 2015, the Highways Agency became a government-owned Strategic Highways Company, limited by shares, with the Secretary of State as sole shareholder. Highways England is the new company. It is established as the highway authority in England for the strategic road network and has the necessary powers and duties to operate, manage, maintain and enhance the network. Regulatory powers remain with the Secretary of State. The

legislation establishing Highways England made provision for all legal rights and obligations of the Highways Agency, including in respect of the Application, to be conferred upon or assumed by Highways England.

- 1.7 The Environment Agency is an Executive Non-departmental Public Body responsible to the Secretary of State for Environment, Food and Rural Affairs. The Environment Agency's aim is to protect and improve the environment and to promote sustainable development.

### **Summary of the Scheme**

- 1.8 The M4 is the main strategic route between London and the west of England, and on to South Wales. Major towns and cities along the M4 include London, Reading, Swindon, Bristol, Newport, Cardiff and Swansea.
- 1.9 The M4 between junctions 3 and 12 carries over 130,000 vehicles per day, and more in places. At peak times, traffic flows on many links are close to or exceed the total flow that the link is designed to handle. This causes heavy congestion on the M4, which can lead to unpredictable journey times.
- 1.10 The Scheme will help to relieve congestion by permanently converting the hard shoulder of the M4 to a running lane and using technology to vary speed limits and manage traffic. Signs and signals will be used to inform drivers of conditions on the highway network, when and where variable speed limits are in place, and when lanes are closed.
- 1.11 The Scheme is some 51 km (32 miles) in length and will have a number of principal elements:
- 1.11.1 conversion of the hard shoulder to a permanent running lane and, where no hard shoulder is in place at present, the construction of a new lane. This will mainly take place between junction 4b and junction 8/9;
  - 1.11.2 replacement of overbridge structures where portals are too narrow to accommodate the improved motorway;
  - 1.11.3 extension of underbridges and other structures such as culverts and subways to accommodate the improved motorway;

1.11.4 changes to junctions and slip roads needed to accommodate traffic joining and leaving the improved motorway, and to allow use of the hard shoulder as a running lane, as well as allowing "through junction running" ("TJR");

1.11.5 provision of new gantries and signs to allow the motorway to function as a smart motorway with a variable speed limit, and to provide messages to road users; and

1.11.6 other infrastructure needed for the improved motorway, such as Emergency Refuge Areas ("ERAs"), enhanced communication systems, closed circuit television ("CCTV") and electrical supplies, as well as works to accommodate statutory undertakers' apparatus and other parties who may be affected by the Scheme.

1.12 The works are more particularly described in Part 1 of Schedule 1 of the Draft DCO (Application Document Reference 3.1).

1.13 The Application was submitted to the Planning Inspectorate on 30 March 2015, and the Planning Inspectorate, on behalf of the Secretary of State, accepted the Application on 27 April 2015.

### **Structure of this Statement of Common Ground**

1.14 This SoCG has been prepared for the purposes of the Examination to be held by the Secretary of State in accordance with PA 2008. In this SoCG, Highways England has provided a summary of its assessment for each issue addressed, as recorded in the Application documentation and subsequent reports.

1.15 Throughout this SoCG the phrase "It is agreed..." is used as a precursor to any point of agreement that has been specifically stated to be agreed between (1) the Applicant and (2) the Environment Agency. The phrase "It is not agreed..." is used as a precursor to any point that (1) the Applicant and (2) the Environment Agency have not yet agreed. Points that are "not agreed" will be the subject of ongoing discussion wherever possible to resolve, or refine, the extent of the disagreement between the parties.

1.16 This SoCG considers the items raised by the Environment Agency in their relevant representation on the Application. The SoCG has also been drafted having regard to the list of principal issues set out at Annex B of the Examining Authority's Rule 6 letter dated 7 August 2015. However, only the principal issues of concern the Environment Agency are addressed in this SoCG. Any of the principal issues identified which are

not specifically referenced in this SoCG are to be taken to be agreed between the parties provided that no further information becomes available that cause additional concerns.

1.17 This SoCG considers the following items:

1.17.1 Need for the Scheme;

1.17.2 Flood mitigation;

1.17.3 Works to culverts;

1.17.4 Water Framework Directive compliance; and

1.17.5 Biodiversity impact.

1.18 This SoCG considers data and assesses them in respect of the topics addressed in the SoCG and the methodologies set out in:

1.18.1 The Environmental Statement ("ES") (Application Document Reference 6.1);

1.18.2 Appendix 4.2A of the ES, Outline Construction Environmental Management Plan (Application Document Reference 6.3);

1.18.3 The Flood Risk Assessment (Application Document Reference 5.3);

1.18.4 The Engineering and Design Report (Application Document Reference 7.3);  
and

1.18.5 The Water Framework Directive Compliance Assessment ("WFDCA") (Application Document Reference 7.6).

Where items in the ES (Application Document Reference 6.1) and/or the accompanying technical reports are agreed, this is stated with the relevant document reference. Where items of data are new or represent an agreed variation presented in a technical report or other document, then a list of those documents is provided in Appendix 1 to this SoCG. These assessments include a combination of desk based studies, site investigations and technical assessment work.

## 2 Overview of Previous Engagement

2.1 A summary of key meetings, workshops and consultation undertaken between (1) Highways England and (2) the Environment Agency can be found in the following tables:

**Table 2.1.2: Pre-application Engagement**

Date	Form of Contact	Summary
10 March 2014	Invitation to attend a Preview Public Information Exhibition, to be held on 18 March 2014	Preview Public Information Exhibition as part of initial stakeholder engagement and information exercise
18 March 2014	Preview Public Information Exhibition	EA unable to attend
2 May 2014	Letter from Highways Agency requesting completion of land ownership questionnaire	Requesting land interest details for identified areas of land which may be affected by the Scheme
12 May 2014	Email response from the Environment Agency to email dated 2 May 2015	Request for electronic copy of land ownership questionnaire and plans. These were provided
8 August 2014	Invitation to attend an Environmental Information Workshop – Scoping (1), to be held on 20 August 2014	Invitation to an information meeting to discuss the Environmental Impact assessment (“EIA”) Scoping Report
20 August 2014	Environmental Information Workshop – Scoping (1)	EA unable to attend meeting but offered alternative meeting dates in response to HA. No reply from HA and no subsequent meeting arranged.
1 September 2014	Invitation to attend an Environmental Information Workshop – Scoping (2), to be held on 12 September 2014	Invitation to an information meeting to discuss the EIA Scoping Report
10 September 2014	EA Scoping Opinion Response	Key issues raised: flood risk, water quality and nature conservation. Agree with the proposal to include a Flood Risk Assessment and Water Framework



Date	Form of Contact	Summary
		Directive assessment as part of the ES
12 September 2014	Environmental Information Workshop – Scoping (2)	Did not attend. EA replied on 8 September 2014 stating it would not be of benefit to attend as the Environment Agency would be providing comments on the EIA scoping report by HA's requested date (10 September 2014).
23 October 2014	Letter from Highways Agency requesting completion of land ownership confirmation questionnaire	Questionnaire to obtain confirmation that the details previously provided regarding the Scheme are still valid and to offer the opportunity to provide any updates
10 November 2014	Planning Act 2008 Section 47 Notification Letter	Details of the pre-application consultation to be held between 10 November and 21 December 2014
10 November 2014	Planning Act 2008 Section 42: Notice of statutory pre-application consultation period	Notification of the formal pre-application consultation between 10 November and 21 December 2014 about the Scheme in accordance with Section 42 of the Planning Act 2008. Delivery of the Preliminary Environmental Information Report and Non-Technical Summary
20 November 2014	Planning Act 2008 Section 42. Notice of statutory pre-application consultation period.	<p>Notification of the formal pre-application consultation between 10 November and 21 December 2014 about the Scheme in accordance with section 42 of the Planning act 2008.</p> <p>A further delivery of the Preliminary Environmental Information Report and Non-Technical Summary were provided as several</p>

Date	Form of Contact	Summary
		documents were missing/corrupted in the originally supplied information (10 November 2014).
18 December 2014	Planning Act 2008 Section 42 Consultation Response	Key issues raised: flood risk; biodiversity; Water Framework Directive; contaminated land; water quality – groundwater and surface water; water resources; waste; and River Thames closure at Bray
6 January 2015	Invitation to attend an Environmental Information Workshop – Preliminary Environmental Information Report, to be held on 20 January 2015	Invitation to an information meeting to discuss the Preliminary Environmental Information Report
20 January 2015	Environmental Information Workshop – Preliminary Environmental Information Report	Did not attend as EA had provided written comments on the PEI report within the statutory timeframes (please refer to 18 December 2014 above).
23 January 2015	Email from Highways Agency to the Environment Agency	Request for cost recovery time quote and availability for a conference call in relation to the Statement of Common Ground (“SoCG”)
5 February 2015	Email to Highways Agency – cost recovery agreement	Provision to Highways Agency of cost recovery agreement, programme of works and availability for a conference call in relation to SoCG. Agreement not accepted and subsequently expired after 30 days.
25 February 2015	Letter from Highways Agency requesting confirmation of Interests	Request for confirmation that the information on the Environment Agency held by Highways Agency was correct at the time of writing as outlined in the Book of Reference. Request for confirmation of information

<b>Date</b>	<b>Form of Contact</b>	<b>Summary</b>
		by 6 March 2015
9 March 2015	Response to request for land ownership confirmation questionnaire (requested 23 October 2014) and request for confirmation of Interests (requested 25 February 2015)	Completed questionnaire on request for Environment Agency land ownership details
22 April 2015	Email from Highways England to the Environment Agency	Provided update on the Scheme and that Highways England is seeking to confirm (or otherwise) that the Environment Agency agrees with the information contained in the Preliminary Environmental Information Report
23 April 2015	Email response from the Environment Agency to email dated 22 April 2015	Confirmation that the Environment Agency did provide a Planning Act 2008 Section 42 Consultation Response. A large number of Environment Agency specialists reviewed the Preliminary Environmental Information Report and that input formed the basis of the response

**Table 2.1.2: Post-application Engagement**

<b>Date</b>	<b>Form of Contact</b>	<b>Summary</b>
6 May 2015	Letter from Highways England to the Environment Agency	Provision of link to Consultation Report
11 May 2015	Email from Highways England regarding survey access	Access request for ecology surveys within Environment Agency land
14 May 2015	Email response from the Environment Agency to	No objections to survey access

Date	Form of Contact	Summary
	email dated 11 May 2015	
28 May 2015	Section 56 notice of acceptance of an application for a Development Consent Order	Copy of the Section 56 letter sent to the relevant local planning authorities for information
8 June 2015	Letter from Highways England regarding property negotiation	Requesting confirmation whether the Environment Agency is willing to enter into negotiating terms relating to the purchase of land
9 June 2015	Repeat email request from Highways England regarding SoCG meeting	Request for availability for meeting. Previous EA cost recovery meeting (5 February 2015) had expired due to no response from HE.
18 June 2015	Email response from Environment Agency to email dated 9 June 2015	Environment Agency is working through the Environmental Statement. EA request for draft SoCG.
2 July 2015	Relevant Representation sent to National Casework Unit and copied to Highways England.	Key issues raised: flood risk; works to culverts; Water Framework Directive Compliance Assessment; and biodiversity. EA advise HE that their relevant representation should be used to inform the draft SoCG being prepared by HE.
6 July 2015	Email acknowledgement from Highways England to Relevant Representation	Thanking the Environment Agency for providing a relevant representation and confirmation that a draft SoCG is being prepared.
29 July 2015	Repeat letter from Highways England regarding property negotiation (originally sent 8 June 2015)	Request from Highways England to negotiate the terms of purchase of the required land by agreement in advance of

<b>Date</b>	<b>Form of Contact</b>	<b>Summary</b>
		the DCO being granted.
29 July 2015	Letter from Highways England regarding leasehold land interests	Requesting confirmation whether Environment Agency is willing to enter into negotiating terms relating to the purchase of land
12 August 2015	Email from Highways England to the Environment Agency	HE requested flood data information and products along the Scheme route from EA Customers and Engagement team.
10 September 2015	Email from the Environment Agency to Highways England	Provided flood level data for the Scheme corridor for 12 datasets. Remaining 2 datasets to follow.
13 September 2015	Email from Highways England to the Environment Agency	Provision of 1 <sup>st</sup> draft of Statement of Common Ground for review
14 September 2015	Email from the Environment Agency to Highways England	Confirmation of new key contact at the Environment Agency
16 September 2015	Email from the Environment Agency to Highways England	EA confirmed receipt of draft SoCG and requested copy of Appendix 1 Flood Data Progress Report
16 September 2015	Email from Highways England to the Environment Agency	Request for a meeting with Environment Agency to discuss the draft SoCG and Written Questions 4.3.1(adequacy of Flood Risk Assessment) and 4.4.3 (ecology and nature conservation)
17 September 2015	Email from Highways England to the Environment Agency	Provided copy of Flood Data Progress Report
18 September 2015	Email from the Environment Agency to Highways England	Offered date and venue to discuss outstanding matters not agreed
18 September 2015	Email from the Environment Agency to	Environment Agency requested information on

<b>Date</b>	<b>Form of Contact</b>	<b>Summary</b>
	Highways England	the EMP/CEMP/HEMP and contact details for DLA Piper
18 September 2015	Email from Highways England to the Environment Agency	Provided contact details for DLA Piper
21 September 2015	Email from Highways England to the Environment Agency	Confirmed that Highways England is able to attend a meeting on 25 September 2015
24 September 2015	Email discussion between Highways England and the Environment Agency	Finalising arrangements for a meeting on 25 September 2015
25 September 2015	Meeting between Highways England and the Environment Agency	Discussed flood risk assessment, water quality, ecology and legal issues
30 September 2015	Email from Highways England to the Environment Agency	Provision of information requested at the meeting held 25 September 2015, including: Highways England environmental sign-off process; Interim Advice Note 183/14; Memorandum of Understanding between Highways England and the Environment Agency; and Highways England's drainage design philosophy standard
1 October 2015	Email from Highways England to the Environment Agency	Provided clarification on: the Water Framework Directive methodology; habitats adjacent to culverts; inclusion of the draft 2014 update of the Thames River Basin Management Plan Annex B; and an explanation the term 'mitigation' in the Water Framework Directive Compliance Assessment
1 October 2015	Email from the Environment Agency to	Provided legal comments

Date	Form of Contact	Summary
	Highways England	on draft DCO
2 October 2015	Email discussion between Highways England and the Environment Agency	Environment Agency provided initial comments on the information provided by Highways England on 1 October 2015. Comments covered the Water Framework Directive, ecology and nature conservation, flood risk, site visit and provision of flood data. Highways England confirmed the comments were being actioned
6 October 2015	Email discussion between Highways England and the Environment Agency	Highways England confirmed that flood data for the River Loddon and Colne Brook. Environment Agency agreed provide this.
8 October 2015	Email from the Environment Agency to Highways England	Provision of feedback and comments on the draft SoCG
8 October 2015	Email from Highways England to the Environment Agency	Provided Environment Agency with Flood Risk Assessment flood compensation calculations for the first 5 sites
8 October 2015	Email from the Environment Agency to Highways England	Environment Agency confirmed receipt of flood calculations and noted that their response to PINS Written Questions was based on information available up to 6 October 2015
8 October 2015	Email discussion between Highways England and the Environment Agency	Confirmed receipt of marked up draft SoCG and agreed it could not be finalised for submission on 8 October 2015. Agreed to continue working on resolving remaining matters not agreed

<b>Date</b>	<b>Form of Contact</b>	<b>Summary</b>
15 October 2015	Email from Highways England to the Environment Agency	Requested meeting to discuss outstanding issues
16 October 2015	Email discussion between Highways England and the Environment Agency	Environment Agency further flood data covering the Colne Brook. Remaining River Loddon dataset to follow.
16 October 2015	Phone and email discussion between Highways England and the Environment Agency	Making arrangements for a follow up meeting to discuss flood risk assessment, ecology and legal issues
26 October 2015	Email from Highways England to the Environment Agency	Provided Environment Agency with Flood Risk Assessment flood compensation calculations for all sites excluding the River Loddon
28 October 2015	Meeting between Highways England and the Environment Agency	Discussed flood risk assessment, ecology and legal issues
28 October 2015	Email from Highways England to the Environment Agency	Provided copy correspondence regarding requests for flood data covering the River Loddon
2 November 2015	Email from Highways England to the Environment Agency	Issue of revised draft SoCG to Environment Agency
3 November 2015	Email from the Environment Agency to Highways England	Environment Agency request for Highways England to re-issue revised Flood Risk Assessment files (Original files issued on 26 October 2015 were not accessible to internal Environment Agency teams - IT issues)
4 November 2015	Email from Highways England to the Environment Agency	Issue of revised Flood Risk Assessment and associated Annexes to Environment Agency



<b>Date</b>	<b>Form of Contact</b>	<b>Summary</b>
5 November 2015	Email from the Environment Agency to Highways England	Provided copy of brief statement sent to Planning Inspectorate regarding progression of SoCG
5 November 2015	Email from the Environment Agency to Highways England	Request to hold telephone conference to discuss Environment Agency review of revised Flood Risk Assessment
6 November 2015	Email discussion between Highways England and the Environment Agency	Progress update on provision of remaining flood risk data set.
6 November 2015	Emails (8no) from Highways England to the Environment Agency	Issue of revised Flood Risk Assessment Annex H drawings to include the red line order boundary and key scheme features in the flood plain
6 November 2015	Telephone conference between Highways England and the Environment Agency	Discussion relating to the Flood Risk Assessment and particularly hydraulic connectivity between floodplain and compensation sites based on revised report issued by Highways England on 4 November 2015
10 November 2015	Email from the Environment Agency to Highways England	Environment Agency provided outstanding data set for the River Loddon
11 November 2015	Telephone conference between Highways England and the Environment Agency	Discussion relating to the Flood Risk Assessment and particularly hydraulic connectivity between floodplain and compensation sites
12 November 2015	Email from Highways England to the Environment Agency	Issue of additional Flood Risk Assessment calculations and drawings
13 November 2015	Telephone discussion between Environment Agency and Highways England	EA provided verbal initial feedback on HE information provided on 12 November 2015. Requested further

Date	Form of Contact	Summary
		telephone conference to discuss issues and outstanding information in more detail.
15 November 2015	Email from Highways England to the Environment Agency	Agreeing to Environment Agency request for a further discussion regarding the Flood Risk Assessment
16 November 2015	Telephone conference between Highways England and the Environment Agency	Discussion relating to the Flood Risk Assessment following issue of additional information by Highways England on 12 November 2015
17 November 2015	Discussion between Highways England and the Environment Agency	Discussion relating to the Flood Risk Assessment during a break in the Issue Specific Hearing
18 November 2015	Discussion between Highways England and the Environment Agency	Discussion during a break in the Issue Specific Hearing - agreed to a meeting (23 November 2015) to discuss the further flood risk evidence required by Highways England.
23 November 2015	Meeting between Highway England and the Environment Agency	Discussed flood risk assessment, flood plain compensation, hydraulic connectivity, maintenance, land ownership and other related issues.
24 November 2015	Email from the Environment Agency to Highways England	Environment Agency provided comments on the draft SoCG issued on 2 November 2015
2 December 2015	Email from the Environment Agency to Highways England	Discussion of progress on SoCG.
4 December 2015	Email from Highways England to the Environment Agency	HE provided comments on the draft SoCG provided by the Environment

Date	Form of Contact	Summary
		<p>Agency.</p> <p>HE also informed EA that a revised flood risk assessment was not submitted for deadline 4 (26 November 2015). It was hoped that a revised flood risk assessment would be submitted for deadline 5 (8 January 2016).</p>
13 December 2015	Email from Highways England to the Environment Agency	Request for further flood data products from EA Customers and Engagement team.
16 December 2015	Email from Highways England to the Environment Agency	Seeking update on the provision of the additional flood data requested 13 December 2015.
18 December 2015	Email from Environment Agency to Highways England	Request for payment by EA Customers and Engagement for flood data requested by HE on 13 December 2015.
24 December 2015	Highways England email and telephone communication with EA	Payment received for flood data requested 13 December 2015.
4 January 2016	Email from Highways England to the Environment Agency	Discussion of progress on SoCG.
5 January 2016	Telephone discussion between Highways England and the Environment Agency	Availability for meeting to discuss the revised flood risk assessment due to be submitted for deadline 5 (8 January 2016). Provisional meeting dates agreed for 20 or 21 January 2016.
5 January 2016	Email from the Environment Agency to Highways England	Provision of flood risk data to HE from EA Customers and Engagement team (relates to 24 December 2015)

<b>Date</b>	<b>Form of Contact</b>	<b>Summary</b>
5 January 2016	Email from the Environment Agency to Highways England	EA provided comments on draft SoCG provided by the Highways England on 4 December 2015.
6 January 2016	Discussion between Highways England and the Environment Agency	Making arrangements for a meeting to discuss the revised Flood Risk Assessment and Drainage Strategy
7 January 2016	Email from Highways England to the Environment Agency	Amended SoCG issued to EA for Signature

2.2 It is agreed that this is an accurate record of the key meetings, workshops and consultation between (1) Highways England and (2) the Environment Agency up to and including the 7 January 2015. The tables do not include contact between Highways England and the Environment Agency on legal matters associated with the application.

### **3 Matters Agreed**

#### **3.1 Need for the Scheme**

3.2 It is agreed that there is a need for the Scheme in order to alleviate the traffic problems along the existing route and to provide an efficient national transport link.

3.3 It is agreed that, with the exception of the issues raised in Section 4 of this SoCG, the Environment Agency has no substantial concerns in relation to significant adverse impacts on the environment that cannot be addressed through appropriate mitigation measures, provided that no further information becomes available that cause additional concerns

#### **3.4 Flood Risk and Mitigation**

3.5 It is agreed that a new flood risk assessment ("FRA") will be submitted as part of the application. This will refer to and assess all development (including proposed compound areas) within the 1% annual exceedance probability (AEP) plus a 20% allowance for climate change flood extent (flood zone 3 plus climate change allowance) rather than solely flood zone 3.

3.6 Highways England agree that they are seeking no increase in flood risk in accordance with paragraph 5.99 of the National Policy Statement for National Networks ("NPSNN") and will not be providing floodplain compensation as set out in the Design Manual for Roads and Bridges which permits a variation of  $<+/-10\text{mm}$  in flood levels after mitigation has been considered. It is agreed that satisfactory flood plain compensation is required and will be provided for all development within the 1% AEP plus 20% allowance for climate change flood extent to ensure that fluvial flood risk is not increased. 'Level for level' compensation is the preferred method. However, where this is not achievable, 'volumetric' compensation is acceptable.

3.7 It is agreed that Highways England has used the Environment Agency's detailed flood modelling data) to undertake a desktop study to identify potential areas where floodplain compensation could be provided. It is agreed that the majority of this work has been informed by LiDAR topography information. A total of 48 sites (both off-line and along the main M4 carriageway and construction compounds 5 and 7) are shown on the Environment Agency Flood Map for Planning to be potentially at risk of fluvial flooding. It is agreed that 27 of the 48 sites have been confirmed as not encroaching into the 1 in 100 year plus climate change floodplain (Flood Zone 3 plus 20%

allowance for climate change flood extent). Therefore the works at these locations will not require fluvial flood plain compensation.

- 3.8 To some degree, the Environment Agency considers that the Flood Risk Assessment amendments presented to them by Highways England on 30 September 2015, 26 October, 5 November and 12 November 2015 in Appendix 1 help to assess the impact of the Scheme on flood risk and quantitatively demonstrate that appropriate mitigation for the loss of storage for all flood events up to the 1 in 100 year event with an allowance for climate change could be provided on land within the order limits. In the Scheme's current form, it appears that there is enough land within the Order limits for the Scheme to provide either 'level for level' or 'volumetric' floodplain compensation for works within the 1 in 100 year plus climate change floodplain. However, it is not agreed that the identified areas can be satisfactorily hydraulically linked and therefore, the viability of the proposed compensation areas is called into question (please refer to paragraph 4.5 to 4.9 below). It is agreed that discussions between the parties on this issue will continue.
- 3.9 Highways England acknowledges the Environment Agency's assessment of the hydraulic linking of the flood compensation sites and notes that further work has been undertaken to address this. The revised proposals are included within a new FRA which will be submitted for deadline 5 (8 January 2016). A meeting between Highways England and the Environment Agency's is scheduled to take place before deadline 6 (29 January 2016) to review the revised FRA and the Environment Agency position may subsequently change upon review of this information.
- 3.10 It is agreed that the precise arrangement of any required floodplain compensation will be confirmed following further assessment including site specific topographical surveys during the detailed design phase. All floodplain compensation measures will be submitted and agreed in writing with the Environment Agency and implemented as detailed within a new DCO requirement. The wording of this requirement has yet to be agreed between HE and the EA. All floodplain compensation areas will be provided on land within the applicant's ownership. They will be retained in Highways England's ownership and appropriately maintained by Highways England for the lifetime of the development.
- 3.11 It is agreed that where satisfactory floodplain storage compensation cannot be provided at the detailed design stage in accordance with the current submitted details, that alternative precise arrangements will be submitted for approval and that

satisfactory floodplain compensation will be provided for all flood events up to and including the 1% AEP plus a 20% allowance for climate change flood level.

### 3.12 Works to Culverts

3.13 The Environment Agency agrees that the lengthening of the two culverts is designed so as not to increase flood risk providing appropriate flood storage compensation is provided. It is agreed that the impacts on biodiversity by reducing connectivity of habitats and the ability of aquatic species and water dependent species to migrate can be appropriately mitigated through satisfactory mitigation measures.

3.14 It is agreed that only two culverts will be lengthened, Chalvey Culvert and Ashley's Arch and the dimensions are provided in the DCO Application documents, as follows:

3.14.1 Chalvey Culvert will be lengthened by approximately 4m at both ends.

3.14.2 Ashley's Arch Culvert comprises two structures, a 6.1m wide reinforced concrete box culvert and a 1.5m diameter pipe. It is the smaller of the two structures, the 1.5m the diameter pipe, which will be lengthened by approximately 1.5m on the north side only. This smaller structure acts as a relief channel to convey higher flows. The larger culvert will remain unchanged.

3.15 These works are explained in paragraphs 7.6.34 to 7.6.35 and 7.7.44 respectively of the Engineering and Design Report (Application Document Reference 7.3). The General Arrangement Drawings are provided in Annex F2 of the Engineering and Design Report (Application Document Reference 7.4). As noted in paragraphs 5.1.39 and 5.1.48 of the updated Flood Risk Assessment, the extensions will take the same form as the existing structures and will be designed so as to take account of any potential increases in flood risk.

3.16 It is agreed that there will be no culverting or diversion of Frog's Ditch to accommodate ERA E1-A1 shown on Sheet 59 of the General Arrangement Drawings (Annex F1 to the EDR) (Application Document Reference 7.4). This drawing will be updated before the end of the Examination.

3.17 Highways England agrees that extensions to culverts can also impact on biodiversity by reducing connectivity of habitats and the ability of aquatic and water-dependent species to migrate. The Environment Agency considers that works to culverts also present an opportunity to enhance connectivity where it is currently a barrier to

migration.

- 3.18 It is agreed that Highways England has minimised the need for extending culverts and limited the necessary works to culverts to only two of them. Highways England, in paragraph 9.4.121 of the ES (Application Document Reference 6.1), proposes to incorporate otter ledges in culverts or under bridges where no ledge is currently present, in accordance with Design Manual for Roads and Bridges, Volume 10, Section 4, Part 4. This will improve habitat connectivity for otters and water vole under the Scheme and allow for adaptation for climate change. This is provided for in a requirement in the DCO.
- 3.19 It is agreed that consents required under the Water Resources Act 1991 (as amended), the Thames Water Authority Land Drainage Byelaws 1981 (as amended) and the Thames Conservancy Act 1932 (as amended) will not be dis-applied.
- 3.20 Where works requiring consent are required, an application will be submitted to the appropriate party. Furthermore, the contractor will prepare method statements to be approved by the Environment Agency prior to the start of works as required by paragraph 14.2.2(d) of the Outline Construction Environmental Management Plan (Appendix 4.2A of the ES) (Application Document Reference 6.3). The contractor will also comply with the Environment Agency's Pollution Prevention Guidelines to avoid pollution of watercourses as detailed in paragraph 14.3.1, the storage of oils and chemicals as per paragraph 14.4.1, and the management and control of foul waters as per paragraph 14.5.1 of the Outline Construction Environmental Management Plan (Appendix 4.2A of the ES) (Application Document Reference 6.3).
- 3.21 Water Framework Directive
- 3.22 Upon further clarification from Highways England including information submitted as part of deadline 3 (5 November 2015) the Environment Agency considers the Water Framework Directive Compliance Assessment ("WFDCA") to be adequate.
- 3.23 It is agreed that the Highways England comparative review of the 2009 and 2014 Environment Agency Water Framework Direct ("WFD") monitoring data for the 19 surface waterbodies assessed within the WFDCA, found that the new data did not significantly alter any of the conclusions in the WFDCA.
- 3.24 The WFDCA used the legal baseline data from the Thames River Basin Management Plan ("RBMP") Annex B: water body status objectives for the year 2009. This is set out



in paragraph 2.1.4 of the WFDCA.

3.25 It is agreed that the correct Chalvey Ditch waterbody (GB106039023550) has now been assessed and included within Appendix B – ‘Comparison of water bodies’ of Highways England response to written representations as submitted for deadline 3 (5 November 2015).

3.26 The Environment Agency notes that the WFDCA scopes out a large number of waterbodies without providing reasoning for this. Highways England confirms that the waterbodies scoped out of Stage 4 of the WFDCA assessment were those located such that no works within or directly adjacent to them are anticipated and these waterbodies have therefore no potential to be directly impacted by the Scheme. Upon further clarification the Environment Agency agrees with this position.

3.27 It is agreed that the Scheme will not significantly impact the implementation of any proposed WFD measures as recommended within the Thames RBMP.

### 3.28 Construction Environmental Management Plan

3.29 It is agreed that the Environment Agency is content with the overarching framework of the Construction Environmental Management Plan ("CEMP") (Appendix 4.2A to the ES) (Application Document Reference 6.3) However, as a contractor has now been appointed, where possible further detail would be greatly appreciated. Further reassurance on the CEMP approval and implementation process is yet to be agreed. It is expected that this can be appropriately addressed through a suitable DCO requirement.

### 3.30 Other Consents

3.31 It is agreed that consents, licences and notifications required under the Water Resources Act 1991 (as amended), the Thames Water Authority Land Drainage Byelaws 1981 (as amended) and the Thames Conservancy Act 1932 (as amended) will not be dis-applied.

3.32 It is agreed that Highways England will apply to the Environment Agency for flood defence consent as required by the Thames Region Land Drainage Byelaws 1981 (as amended) at least eight weeks prior to work taking place.

3.33 It is agreed that at least eight weeks’ notice will be provided to the Environment Agency for any removal or extinguishing of Environment Agency access rights,

apparatus, etc...

## **4 Matters Not Agreed**

4.1 The following matters are not yet agreed and are subject to on-going discussion between Highways England and the Environment Agency.

### **4.2 DCO Requirements**

4.3 The Environment Agency has reviewed the draft requirements in Schedule 2 to the Draft DCO (Application Document Reference 3.1). Following the removal of the need for the inclusion of Article 3(2) it is agreed that we are closer to agreement than previously noted. The parties agree that amongst others, requirements relating to the topics of floodplain compensation and maintenance, water quality, biodiversity management and the CEMP must be included within the DCO. However, the wording of such requirements has yet to be agreed. The parties will continue to liaise on this matter.

4.4 The Environment Agency wish to reserve their position on the potential mechanism for discharging the DCO requirements as recently proposed within documents submitted for deadline 3 submission (5 November 2015). This option involves the Secretary of State. The Environment Agency wish to wait and review the additional details that will be provided by Highways England to the Examining Authority as part of deadlines 4 (26 November 2015) and 5 (8 January 2016) before establishing a formal position on this matter.

### **4.5 Flood Risk and Mitigation**

4.6 It is not agreed that the submitted flood risk assessment ("FRA") adequately assesses the impacts to and from the Scheme with regards to fluvial flood risk. However, it is acknowledged that a new FRA will be submitted for deadline 5 (8 January 2016) and the Environment Agency position may subsequently change upon review of this information.

4.7 It is not agreed that the indicated areas for floodplain compensation can be satisfactorily hydraulically linked to ensure that flood risk will not be increased either during the proposed construction works or post-construction for the lifetime of development. Further discussions will take place between the parties to ensure that where floodplain compensation is required it can be demonstrated that it is viable, hydraulically linked and on land within the order limits and in Highways England control.

- 4.8 Where floodplain compensation areas cannot be satisfactorily hydraulically linked this will result in the scheme increasing flood risk. This will impact people and the environment. If the current areas are not viable then the parties will continue to discuss suitable alternative areas.
- 4.9 It is not agreed that an increase in 10mm of flood levels as noted within Annex IV of the Design Manual for Roads and Bridges ("DMRB") is acceptable or that such an increase could be assessed as having negligible impact as noted within the submitted Environmental Statement. Other sections of the DMRB including paragraphs 2.37, 3.29 and 5.46 refer to 'the compensation storage [being] designed to provide at least the same volume at every level as is occupied in the existing situation'. It has been acknowledged by Highways England at the issue specific hearings on 18 November 2015 and in a meeting between the parties on 23 November 2015 that they are seeking no increase in flood risk (refer to paragraph 3.6 above). This position is welcomed by the Environment Agency and it is hoped that the revised FRA to be submitted for deadline 5 (8 January 2016) will reflect this position and may subsequently change the Environment Agency's stance.

## Appendix 1: Supplementary Technical information

<b>Date</b>	<b>Form of Document</b>	<b>Summary</b>
30 September 2015	Excel Spreadsheet	Flood Data Progress Report
26 October 2015	Word document and PDF appendices	Flood Risk Assessment Interim Update
5 November 2015	Word document and PDF appendices	Flood Risk Assessment Update
12 November 2015	Word document and PDF appendices	Flood Risk Assessment Update