

The Planning Inspectorate
National Infrastructure Directorate
Crown Building Cathays Park
Cardiff
South Glamorgan
CF10 3NQ

Our ref: WA/2015/120640/09-L01
Int. Party ID: 10031668
Your ref: TR010019
Date: 27 January 2016

Dear Examining Authority,

**Deadline 6 (29 January 2016) – Comments on information submitted for deadline 5
Development Consent Order Application M4 - Junctions 3-12 (Smart Motorway)**

Following the Highways England submissions for Deadline 5 we have reviewed several documents with regards to our remit. We wish to note the following comments on the topics of flood risk, Highways England responses to the Examining Authority (ExA) second round of written questions and the draft DCO.

Statement of Common Ground (SoCG)

A signed SoCG between Highways England and the Environment Agency was included as part of the deadline 5 submissions. As all parties are aware, this sets out what issues had been agreed and what differences still remained between the parties at that point in time. This was based on the information available and submitted to the ExA. We do not intend to submit a revised SoCG for deadline 6 (29 January 2016). However, our comments below do provide an update on some of the matters not agreed and therefore, should be taken as the Environment Agency's current position.

Flood Risk

We have reviewed the updated flood risk assessment (FRA) dated January 2016 and the revised Construction Environmental Management Plan (CEMP) submitted by Highways England to the ExA for deadline 5.

Within the updated FRA submitted for deadline 5 there are 4 incorrect or missing drawings from appendices F and H. However, HE did provide copies of these maps to us in an email dated 28 January 2016 and we have included these as part of our review. We understand that HE will be providing these maps to the ExA for the next deadline.

We are pleased that Highways England (HE) has undertaken significant work in relation to fluvial flood risk since the last hearings in November 2015. As during the DCO application process we have continued to engage with HE on matters within our remit.

We acknowledge that the outline floodplain compensation (FpC) scheme has been assessed for all flood events up to and including the 1% annual exceedance probability (AEP) plus an appropriate allowance for climate change. This is also confirmed within paragraph 1.5.3 of the updated FRA clearly notes. We welcome this confirmation.

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Appendix D Table D.1: 'Floodplain Storage Loss and Compensation Assessment' of the FRA sets out a gains and losses chart of FpC for each location where flood plain storage mitigation is required – i.e. development located within the 1% AEP plus 20% allowance for climate change flood extent.

In many of the locations where FpC is required, the submitted calculations show that HE are proposing to provide additional compensation volumes over the required amount. We welcome this measure as it gives some confidence to us and possibly other interested parties, that the FpC volumes can be provided at detailed design stage even where calculations have been based on the 'more crude' Lidar information rather than detailed topographical surveys.

Furthermore, seven sites where FpC works are proposed now have alternative compensatory storage areas. This provides a degree of flexibility at detailed design so that if the proposed route is horizontally realigned or upon further detailed site investigation works the full amount of FpC cannot be provided at the preferred area, that a suitable alternative location has been identified and safeguarded. We are pleased that HE have taken this idea onboard. We also recommend that if during the detailed design stage the alternative sites identified are found to be the better option for flood compensation then the alternative sites would be taken forward following detailed assessment.

Within the FRA submitted for deadline 5 there are three locations where a small loss shown in flood plain storage is shown. These locations are:

- Site ref. E6-B1 at Junction 8/9 - 7 (5.0m³)
- Site ref. R28 at Junction 8/9 - 7 (0.6m³)
- Site ref. E3-B1 at Junction 5 - 4 (0.1m³)

The FRA states that these small volumes can be accommodated by minor adjustments to existing or proposed embankments during the detailed design stage. We accept this approach for sites R28 (0.6m³) and E3-B1 (0.1m³) given the very low volumes stated. However, we would expect full details of the minor adjustments to be made to ensure that amounts will be satisfactorily compensated, to be included within the detailed flood compensation scheme as required within the draft DCO.

We do not accept that the provision of the FpC for E6-B1 (5m³) should be left to this approach.

However, at a recent meeting between the parties on 26 January 2016, HE explained that site E6-B1 had now been assessed and FpC for this site would now be supplied. We are pleased that further work has been undertaken.

Also further assessment work had been undertaken at sites RA18 and 19 which showed that the previously proposed westbound compensation area would not be required. However, it was agreed that this area would still be indicated as an alternative FpC option. It is understood that these details will be provided in the next updated FRA submitted to the ExA.

Although we agree in principle with the outcomes of the discussions we wish to refrain from agreeing fully with them until we have reviewed the updated information to ensure the FRA fully reflects the expected outcomes. However, both parties have agreed to submit a meeting note relating to the issues of flood risk as part of the deadline 6 submissions to indicate our intentions. A copy of the meeting note from the 26 January 2016 is included within Appendix 1 of this statement.

The FRA and Construction Environment Management Plan (CEMP) state that construction compound 5, north east of junction 8/9 and construction compound 7, south of junction 6, are located within the 1% AEP plus 20% allowance for climate change flood extent. Section 14.7 of the CEMP states that the areas within compound 5 and 7 located within the 1% AEP plus 20% allowance for climate change flood extent will not be used for storage, contain only permeable fencing and that there will be no raising of land levels.

In previous submissions we have raised concerns with regards to the hydraulic connectivity of the proposed FpC areas. The January 2016 FRA sets out hydraulic connectivity on maps provided in Appendix F, detailed in the calculations spreadsheet in Appendix D and an example long section drawing number: 514451-MUH-00_ZZ-DR-DR-400192 for the site reference R18/R19 has been submitted in Appendix E, showing how the hydraulic link will work.

The FRA sets out that hydraulic connectivity for the FpC areas will be achieved using culverts and ditches, that will work under gravity and will be able to drain back towards watercourses after a flood event has receded. The FRA confirms that the proposed hydraulic links to floodplain are 'principally in the form of new ditches and pipe culverts that contain and convey flood waters during 1% AEP plus 20% allowance for climate change flood events.' Although noted correctly elsewhere in the document we would recommend that this sentence be revised to note that the hydraulic connectivity should be provided 'up to and including' not 'during' the 1% AEP plus 20% allowance for climate change flood events.

We are pleased that HE proposes to include a 300mm freeboard provision where culverts and/or pipes will provide the hydraulic link between the FpC area and the existing floodplain or watercourse. This is in accordance with industry best practice and will allow for additional height and capacity above the 1% AEP with an allowance for climate change levels.

We are concerned that in some instances the hydraulic connectivity between the proposed FpC area and the floodplain's primary watercourse could be an existing drainage ditch. However, we are content that HE will be fully inspecting the ditch and its' function during the detailed design stage to ensure that it has sufficient capacity to convey floodwaters and any existing flood or surface water that it may already contain. We understand the final arrangements in relation to hydraulic links will be subject to further site specific topographic survey data during detailed design and are content that their methodology allows flexibility to be able to achieve satisfactory hydraulic connectivity at detailed design within the order limits of the scheme. Where existing ditches cannot be used due to constraints for example the ditch is currently used to attenuate surface water, then an alternative connection will be sought via culvert or establishment of a new ditch to convey flood water to the compensatory storage areas. HE note that ditches may be modified or an alternative/ additional pipe/ box culverts may be used to provide the required capacity. Where possible, we would encourage the use of open ditches and watercourses. This will help to retain a natural watercourse and contribute to the aims and objectives of the Water Framework Directive (WFD).

We have been informed that HE are considering the details of the FPC area near Monkey Island Lane in order to minimise the loss of vegetation screening. If a variation is pursued we understand that these details will be included in the next issue of the FRA at Deadline 7. We have seen any information relating to this variation and therefore are unable to comment at this time. If new information is included in a further update to the FRA we will review and respond accordingly in due course.

Overall, we are generally satisfied with the methodology and the proposed mitigation measures, including the outline flood compensation scheme, within the FRA. Based on the submitted information and our available records, subject to the further revisions noted in our meeting note dated 26 January 2015 and appropriate DCO wording we anticipate that we

will not be raising an objection to the proposed works on the flood risk grounds within our remit.

Examining Authorities 2nd round of written questions and CEMP

HE response to 4.3.1 – We welcome that a revised FRA has now been submitted for deadline 5. This contains further evidence requested by the Environment Agency relating to floodplain compensation. The FRA also confirms that the outline floodplain compensation scheme as noted in the FRA and the associated appendices does assess all flood events up to and including the 1% AEP plus a 20% allowance for climate change flood extent.

HE response to 4.3.3i – We welcome the further information submitted and have reviewed it with regards to our remit. From a flood risk perspective this primarily relates to fluvial flood risk. We are generally satisfied subject to small additions to the information. These are noted in the paragraphs above and in the accompanying meeting note (Appendix 1).

HE response to 4.3.3iii – We welcome that HE have confirmed they are seeking no increase in flood levels up to and including the 1% AEP plus 20% allowance for climate change flood extent. This is not only an Environment Agency aspiration but also is supported by national planning policy including paragraph 5.99 of the National Policy Statement for National Networks (NPSNN).

CEMP - We welcome the further detailed included within the updated Construction Environment Management Plan (CEMP) submitted for deadline 5. In particular we are pleased to note the wording change in paragraph 14.7.1 from avoiding 'any significant increase of flood risk' to avoiding 'any increase in flood risk' and the additional paragraphs on page 129 relating to the contractor ensuring that flood compensation can be provided.

Draft Development Consent Order (DCO)

We have reviewed the updated draft DCO and the accompanying updated explanatory note submitted for deadline 5.

We note there are 2 requirements relating to flood risk – requirement 23 and 26. Several exchanges have taken place and we are liaising with Highways England on the wording of these requirements and potentially the merging them. We will keep the ExA informed on the progress of these negotiations.

We have agreed wording for the protective provisions relating to the Environment Agency. This was finalised and agreed between the parties on 28 January 2016 and we understand the updated wording will be included in the next revision of the DCO.

We do have concerns with the procedure for the discharge of requirements as detailed within Part 2 of Schedule 2 of the draft DCO. Although we do not have a strong preference as to whether the discharging body is the Secretary of State (SoS) or a joint planning board of the local planning authorities, we would wish to see a provision for noting a minimum period of how long consultees should have to respond when approval of requirements is in consultation with another party.

Currently as noted in the draft DCO Schedule 2, part 2, section 1 states that the SoS has a period of 8 weeks to determine the information submitted for the discharge of the requirement. However, section 2, paragraph 2 notes that the SoS must request any further information deemed to be necessary for the discharge of the requirement within 21 working days of receipt of the application. Furthermore, paragraph 12 of the updated explanatory note (REP5-002) notes that an 8 week period 'is an appropriate amount of time for the discharge of requirements' and 'even were a 4 week period allowed for consultation of third parties, which is standard period for consultation, for example under s.42 and s.56 of the Planning Act 2008...this would allow sufficient time for a decision to be taken, without

compromising the timely delivery of the Scheme.’ However, if the SoS is minded to consult various consultees referenced in the requirements, such as the Environment Agency’, and for some unknown reason this is not done on the day of receipt of the information (or day plus 1) by the SoS, then it is quite possible that given the standard for consultation of 4 weeks with those bodies that the initial 21 days for requesting additional information may have passed.

Additionally, if for an undisclosed reason the SoS decides to consult a party towards the end of the 8 week period and Highways England do not agree an extended time frame for considering the discharge of the condition, this could result in the said party having a very limited time to satisfactorily review, what may be, quite a substantial piece of information.

Section 1 of Schedule 2 of part 2 makes it clear that the 8 week consultation period with the SoS is not prescriptive. This is also noted in Paragraph 13 of the explanatory note. However, we believe that including a timeframe provision for consulting relevant parties referenced in the requirements does not increase any burden on the SoS but rather ensures that an adequate review period for full consideration of the submitted information is provided. By including this within the requirement wording, all parties will be aware of the information from the outset and this will help ‘to ensure the delivery of the Scheme is not subject to undue delay’.

Schedule 2, Part 2, section 1, paragraph 3(c) notes that 3 separate criteria apply for the discharge of a requirement to be taken as refused by the SoS if no formal written decision has been received within the 8 week period. Although we welcome the principle of the paragraphs we believe that it may be unlikely for such circumstances to arise as there is no requirement to submit a report contemplating environmental impact with an application to discharge.

We are also concerned with the wording of Schedule 2, Part 2, section 4 which states that the recommendations of any parties referenced in the requirements may only be reflected in the discharge details if it is ‘appropriate, reasonable and feasible to do so, taking into account considerations including but not limited to cost and engineering practicality.’ For the requirements related to our remit we are required to have regard to viability when undertaking our assessments. On that basis we advise that any measures we identify will be vital to ensure that any potential adverse impacts on flood risk, water quality, biodiversity and the environment generally, are satisfactorily addressed. We do not therefore see the need for the wording in paragraph 2 of section 4.

Final Comments

As previously notified we will be in attendance at the hearings on the 10, 11 and 12 February 2016.

However, in the interim if you have any queries or would like further information on any of our responses please feel free to contact us.

Yours faithfully

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Sustainable Places | Planning Specialist

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Appendix 1

creating a better place



Meeting date: 26th January 2016 (14:00)

Location: KMH, Reading – EA Offices

M4 J3-12 Smart Motorway Meeting Notes Regarding Flood Risk Assessment

Attendance:

Jonathan Fleming - Environment Agency

Neil Landricombe – Environment Agency

Lynne Stinson – Highways England

Henry Penner – Highways England

Grant Paxton – M4 Alliance

Steve Werrett – M4 Alliance

Highways England confirmed that the floodplain extents and compensation was not shown on the Deadline V Flood Risk Assessment (FRA) drawings at ERA's E6-B1, E3-B1 as the volumes of compensation were only 0.6m³, and 0.1m³, which can easily be accommodated by minor adjustments to existing or proposed embankments during the detailed design stage. EA confirmed they were content with this approach given the very low volumes.

Highways England advised that since Deadline V the FRA had been updated to include the assessment of ERA E6-B1 (EB) (10m³) and suitable compensation provided (assessment using the latest 1m LIDAR data) and that the new version would be submitted at Deadline VII.

Highways England advised that Compound 7 is partly located in the flood plain and noted that a small section of the northern and eastern part of compound 5 was also in the flood plain. It was agreed that these sections within the compounds were small amounts and on perimeters of the flood extents. Therefore Highways England's contractor would be required to not increase ground levels in the flood plain, not to store materials or machinery in these locations and to only use open fencing in this area as not to impede flood water flows or increase flood risk.

Highways England advised that they were reviewing the details of the flood compensation near Monkey Island Lane in order to minimise the loss of vegetation screening and that details (possibly including below ground storage culverts) would be included in the next issue of the FRA at Deadline VII.

Highways England confirmed that further assessment works had been undertaken at sites RA18 and 19 which showed that the previously proposed westbound compensation area would not be required however this area would still be indicated as an alternative option.

On the review of the information to date, it was agreed between Highways England and the Environment Agency that the FRA submitted at Deadline V was deemed to be satisfactory subject to the modifications detailed above. It is agreed that a detailed flood compensation design/scheme would be created and implemented as set out in the DCO requirements prior to the commencement of the authorised works.

Although other issues were discussed at the meeting this note is intended to only summarise the flood risk discussions.

End

