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The Planning Inspectorate
Environmental Services
Central Operations
Temple Quay House
2 The Square
Bristol
BS1 6PN

Our ref: HA/2020/122667/01
Your ref: TR010055-000100

Date: 19 November 2020

Dear Sir or Madam,

M3 JUNCTION 9 IMPROVEMENT - EIA SCOPING NOTIFICATION AND CONSULTATION REG 11.

Thank you for consulting the Environment Agency on the above Scoping Opinion. Our comments are set out below.

Introduction

Overall, we are generally pleased with the scope of the report and the range of topics that have been proposed to be included within the Environmental Statement (ES).

Our primary concerns regarding the scheme relate to the protection of groundwater, and protection/enhancement of the ecological balance and species within the River Itchen and surrounding areas (including biodiversity net gain). The River Itchen is a designated Main River, and the river and the associated floodplain is a Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI).

In regard to flood risk, the majority of works are to take place in Flood Zone 1 areas. It seems that only minor works are taking place within the section of road that is located in Flood Zone 3 (i.e. the section of road crossing the River Itchen). Therefore, flood risk is of lesser concern to us at this stage. This may change if later design stages determine that more extensive work will be required within Flood Zone 3.

Our more detailed comments are split into the following three categories based on matters of most concern to us:

1. Protection of groundwater
2. Ecology/biodiversity – River Itchen
3. Flood risk

1. Protection of groundwater

It is our understanding that the applicant proposes to change various aspects of the project including improvements/construction of new bridge structures and reconfiguration of roundabouts and highways.

The proposed operational area rests upon the Seaford, Lewes Nodular, Holywell Nodular and Zig Zag Chalk formations, designated as Principal Aquifers by us. These formations are overlain by Head and Alluvial deposits in some locations, designated as unproductive and Secondary A aquifers respectively by us.

The north east operational area intersects Source Protection Zones 1 and 2 for the Easton public groundwater supply, as well as numerous smaller, private abstraction nearby.

Hydrogeological Risk Assessment

Given the sensitivity of the groundwater environment beneath the IAB, we would expect the Applicant to produce a Hydrogeological Risk Assessment for the development. This assessment would focus on groundwater and receptors that are dependent upon groundwater and potential risks of contamination (land contamination, drainage, piling and excavation).

We note that the Applicant has installed monitoring wells around the proposed site to obtain groundwater levels and groundwater quality. The data sets obtained by these wells could provide the basis for a hydrogeological risk assessment.

Land contamination

With the increased scope for excavation and penetrative works, there is a risk of the mobilisation of potentially contaminated material. There is a risk that unknown contamination could be mobilised into shallow groundwater. Groundwater may then act as a potential pathway to sensitive receptors, in this case ecological receptors or public water supply boreholes.

In addition to the findings of the phase 2 site investigation. We would expect an extensive watching brief around any significant earthworks to ascertain contaminated material and initiate remediation and verification of the site prior to any intrusive works occurring.

Drainage

We support the proposal to assess the use of SuDS in the drainage strategy and hope to see further information within the ES.

Whilst we would not object to the use of SuDs at this site, we expect the Applicant to incorporate a suitable level of pollution prevention measures into the drainage design to ensure that groundwater and drinking water supplies are protected.

With regards to clean roof water, we have no objection to this being discharged to ground. However surface water drainage from car parking areas and roads has the potential to contain pollutants and hazardous substances. We would expect a risk assessment to be carried out to determine the level of treatment required prior to the water from these areas being discharged to ground.

In Section 14.2.24, the Applicant discusses the travel times in groundwater based upon Source Protection Zone designations. We would remind the Applicant that groundwater travel times in Chalk can be a lot faster than conventional flow rates and that any contamination released in a Source Protection Zone 2 could travel to a sensitive receptor, through groundwater in much shorter period than the prescribed 400 days.

Piling and excavation

It is assumed that with the changes in the proposal that there will be the need for piled foundations and excavations to support the new, proposed structures and reconfigurations. As explained in the comments on land contamination above, these works can liberate contaminated material into groundwater, putting sensitive receptors at risk.

Additionally, they also increase the risk of turbidity. Piling operations and excavations can induce sediment loads into groundwater, this sediment then moves with groundwater flow and had the potential to carry harmful bacteria, and can result in the shutdown of a public water supply.

As such we would expect the Applicant to produce a Foundation Risk Assessment, focusing on the potential hazards of piling/excavation activities on local groundwater, and the methods that might mitigate the risk of those hazards having a detrimental impact.

Dewatering

The scoping report suggests that temporary de-watering may be required in order for construction activities to take place and mentions permits may be required. For information, dewatering is generally no longer exempt from needing an abstraction licence. However there still remains a small scale dewatering exemption in place under Section 5, Part 2 of the Water Abstraction and Impounding (Exemptions) Regulations 2017. Details on this exemption can be found on the following web page: https://consult.environment-agency.gov.uk/environment-and-business/removing-previously-exempt-abstraction-activities/user_uploads/dewatering-application-advice-1.pdf

If the exemption cannot be complied, with then an abstraction licence will need to applied for. The licensing process can be fairly lengthy, therefore we recommend early pre-application discussions with us.

An environmental permit may also be required to cover the discharge from the scheme.

Additionally an abstraction licence and/or environmental permit may be required if the cuttings or other works are assessed to intercept groundwater on a longer term basis, and if more permanent passive or active groundwater management mitigation measures will be required. It is understood that groundwater levels are currently being monitored which could be used to assess groundwater levels extremes at the site (if taken over a number of years). As above, we recommend early pre-application discussions with us.

2. Ecology/biodiversity – River Itchen

In relation to Chapter 9 of the report (entitled 'Biodiversity'), we have the following comments:

Table 9-1 (Freshwater Fish and Invertebrates)

We have previously made available to Highways England a copy of a report regarding a Brook Lamprey Condition Assessment for the River Itchen SAC. This should be utilised in regard to the ES. In addition, Environment Agency fish and macroinvertebrate data is now available as open data on the gov.uk website (<https://data.gov.uk/>).

Table 9-1 (Otter)

We have previously discussed with the Applicant reports we have received about recent otter deaths reported on motorways where open central reservation barriers have been replaced with closed concrete ones (M27 and M4/5). Given the close proximity of a recent report of an otter death (on the M27), we strongly recommend that there is scoped in further assessments of otter and other mammal movements in the project area, and the risk of them crossing the roads, with a view to minimising the risks of injuries and fatalities.

Section 9.3

Potential impacts during construction should also include changes in surface water flows (quantity and quality) which lead to or are connected to aquatic habitats.

Section 9.4

We welcome the aim of delivering biodiversity net gain, but feel this shouldn't be an aim but a requirement of the scheme to deliver against the Applicant's own commitments in their biodiversity plan, alongside the aims of national planning policy.

We would welcome further opportunities to discuss biodiversity net gain possibilities in the area of the project. There have been historic discussions about this aspect, with other organisations in attendance (Natural England, South Downs National Park Authority and the Hampshire & Isle of Wight Wildlife Trust), but these did not reach any conclusion as such.

Drainage designs should also ensure no likelihood of detrimental changes in quantity of surface water entering the River Itchen and associated wetland habitat, not just focus on quality of the surface water.

Section 9.5.4

The ES should include changes to surface water flows as a potential for significant effect on the River Itchen SSSI/SAC and other priority habitats.

Section 9.6.10

We welcome the use of the Biodiversity Net Gain metric when assessing biodiversity net gains and losses and that this will be made available to consultees.

If a Flood Risk Activity Permit (or other permits are required from us), then we will become a Competent Authority under the Habitat Regulations. We request, therefore, that the findings of the Habitats Regulation Assessment (HRA) are presented to us and we are able to review the HRA at the earliest possible opportunity.

In relation to Chapter 16 (entitled 'Cumulative Effects') we have the following comments:

Table 16-1

We consider that there are a number of 'Potential interrelationships between topics' that have been missed from this table. For example, the potential receptor of statutory designated sites has a potential interrelationship with soils and geology, yet this is not ticked (and yet it is for the River Itchen). Climate also has a potential interrelationship with biodiversity with regards to changes in rainfall (and therefore run-off/flooding patterns). This should be re-assessed for the purposes of the cumulative effects chapter of the ES.

3. Flood Risk

As set out in the introduction, we understand that relatively minor works (such as changing road markings) will be undertaken in the section of road within Flood Zone 3 (i.e. the section of the road crossing the River Itchen). Should this change during the detailed design phases, then further considerations will need to be taken account to ensure that flood risk is not increased elsewhere, and we would expect to be specifically consulted in this regard.

We are pleased that a Flood Risk Assessment will be undertaken (Section 5.4.1 of the report), and we would recommend that the 'worst case scenario' is considered for the Flood Risk Assessment (Section 2.6.1 of the report). It should be borne in mind that Climate Change Allowances have been updated in accordance with UKCP18, and the Flood Risk Assessment is likely to need to take account of those.

The latest information and guidance about UKCP18 can be accessed here – <https://www.metoffice.gov.uk/research/collaboration/ukcp>.

Guidance of when and how local planning authorities, developers and their agents should use climate change allowances in flood risk assessments can be found here - <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>.

In addition to the above, our updated flood model for the River Itchen was completed in 2019.

Both new climate change allowances and the new model should be taken account of in terms of the baseline information for the Flood Risk Assessment, and we would encourage the Applicant to consult with us further in this regard.

Flood Risk Activity Permit

In the report, there is mention of possible works on or near the River Itchen (Sections 9.4.2 and 14.2.20). Any proposed works or structures in, under, over or within 8 metres of the river bank is likely to require a Flood Risk Activity Permit from us under the Environmental Permitting (England and Wales) Regulations 2016.

Further details about Flood Risk Activity Permits can be found on the GOV.UK website using the following link - <https://www.gov.uk/guidance/flood-risk-activities-environmental-permits>.

As construction details are developed, we would recommend early consultation with us regarding any applications for any Flood Risk Activity Permits.

Final comments

Pollution Prevention

All precautions must be taken to avoid discharges and spills to the ground both during and after construction. Ultimately, we would expect to see a Construction Environmental Management Plan (CEMP) specifying any pollution prevention measures that will be incorporated into any works.

Further details regarding pollution prevention for the long-term maintenance of the road post construction should also be included within the ES.

Surface Water

It should be noted that responsibility for surface water matters in terms of quantity and flow lies with the Lead Local Flood Authority (Hampshire County Council). We recommend that they are consulted in regard to the drainage proposals related to surface water.

Our considerations in regard to surface water relate to the potential mobilisation of contaminants, which may impact the Main River and/or groundwater.

Please do not hesitate to contact me using the contact details shown below should any queries arise from the above response.

Yours faithfully,

Miss Anna Rabone
Sustainable Places Advisor

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Our opinion is based on the information available to us at the time of the request. If, at the time of the submission of the formal DCO, there have been changes to environmental risk(s) or evidence, and/or planning policy, our position may change.