Ribble Valley Borough Council
Development Control
Council Offices Church Walk
Clitheroe
Lancashire
BB7 2RA

Our ref: NO/2021/113708/02-L02
Your ref: 3/2021/0660

Date: 12 August 2022

Dear Sir/Madam

PROPOSED WORKS FOR AND USE OF REPLACEMENT SECTION OF AQUEDUCT, INCLUDING EARTHWORKS AND ANCILLARY INFRASTRUCTURE INCLUDING: A NEW VALVE HOUSE BUILDING WITHIN FENCED COMPOUND WITH PERMANENT VEHICULAR ACCESS PROVISION. WITH THE INSTALLATION OF A TUNNEL PORTAL AND AN OPEN CUT CONNECTION AREA WITHIN A TEMPORARY CONSTRUCTION COMPOUND, TO INCLUDE SITE ACCESSES, STORAGE AREAS, PLANT AND MACHINERY, AND DRAINAGE INFRASTRUCTURE AND A TEMPORARY HAUL ROUTE WITH BRIDGE OVER THE RIVER HODDER. IN ADDITION, A TEMPORARY HAUL ROUTE WITH BRIDGE OVER THE RIVER RIBBLE (AS ONE OF TWO OPTIONS FOR VEHICULAR ACCESS TO THE TEMPORARY CONSTRUCTION COMPOUND); A SERIES OF LOCAL HIGHWAY WORKS TOGETHER WITH A TEMPORARY SATELLITE PARK AND RIDE FACILITY AND A VEHICLE MARSHALLING AREA. FROM LAND NEAR THE CONVERGENCE OF THE HORNBY ROAD, THE ROMAN ROAD AND SHOOTERS CLOUGH TO LAND WEST OF NEWTON IN BOWLAND; WITH HIGHWAY WORKS AT VARIOUS LOCATIONS FROM PIMLICO LINK ROAD, CLITHEROE TO HALLGATE HILL, NEWTON IN BOWLAND VIA CHATBURN ROAD, RIBBLE LANE, GRINDLETON ROAD AND SLAIDBURN ROAD; A HAUL ROUTE FROM LAND SOUTH OF WEST BRADFORD BRIDGE TO WEST BRADFORD ROAD, WEST OF HEALINGS FARM, WEST BRADFORD; A VEHICLE MARSHALLING FACILITY ON LAND AT THE RIBBLESDALE CEMENT WORKS, WEST BRADFORD ROAD, CLITHEROE AND A PARK AND RIDE FACILITY AT THE EXISTING RIBBLESDALE CEMENT WORKS CAR PARK TO THE WEST OF WEST BRADFORD ROAD.

Thank you for consulting us on the above application which we received 16 March 2022.

We have reviewed the documents accompanying the application in so far as they relate to our remit, including the Environmental Statement (Volume 2, Haweswater Aqueduct Resilience Programme – Proposed Bowland Section, reference, LCC_RVBC_BO-ES-001, Rev. 0, dated June 2021).

Environment Agency position

We have no objection to the proposed development however, we wish to make the following comments and we request that any subsequent approval includes the conditions recommended below:

Waste management

The Environmental Statement (ES), for the Proposed Bowland Section of the Haweswater Aqueduct Resilience Programme (HARP), provides incomplete information on materials, waste impact assessment and mitigation measures.

The materials assessment contains no information on; the drilling/boring fluid composition, the types and quantities of chemicals used in the project and how those are going to be managed, the volumes and source of water to be used in drilling/boring. There is also no information on the measures considered for the minimisation of volumes/quantities of materials required. Attention should be given to the potential impact on the environment and communities of the materials brought, produced, used, and managed at the shafts and other remedial works, site compounds and laydown areas (i.e. construction materials, chemicals, fuels, oils) et al.

The estimate of the volumes/quantities of hazardous, non-hazardous and inert waste generated by tunnelling should be reviewed and it should be understood that inert waste can be hazardous. Paragraph 42 states that United Utilities soil sampling identified ratios to identify the type of surplus excavated materials and estimate inert, hazardous, and non-hazardous waste quantities. It is assumed that the surplus excavated materials consist of 95% inert, 1% hazardous and 4% non-hazardous. There is no information on what exactly has been sampled and how it was assessed so an extrapolation of the sampling data to the whole waste arising from tunnelling was considered appropriate. Information from the type of ground/soil/subsoil it will be bored through, information about the boring fluid, and about the general waste management principles, procedures and practices used on site would have probably given a better understanding of the tunnel waste nature and composition.

Chapter 12 of the ES provides little information on types and quantities of waste generated other than waste arising from excavation. It goes on to assess the impact of this section of the project and the project overall on the combined inert waste capacity of the North-West, Yorkshire and the Humber regions up to 2030.

It is anticipated that surplus materials management for the Proposed Bowland Section would align closely to the Proposed Marl Hill Section. Waste and surplus materials from the Proposed Marl Hill Section have also been considered in Chapter 12 - Materials and Waste. A key basis of assessment is that surplus materials from the Newton-in-Bowland compound serving the Proposed Bowland Section launch portal, and surplus materials from the Braddup and Bonstone compounds serving the Proposed Marl Hill Section, would be directed to the same final destination, Waddington Fell Quarry or used in landscaping at Lower Houses Shaft (6000 mc) under an MMP.

The revised restoration scheme of Waddington Fell Quarry is driven by the need to source an appropriate and sustainable location for the arising from the HARP. This suggests the infilling of the Waddington Quarry with the tunnel arising is actually a waste disposal activity where an environmental permit would be required, and the excavated material sent there would be waste. Given the nature and scale of the project, it is expected that the regulations governing the disposal of tunnel waste at Waddington Fell Quarry would be dealt with through the environmental permitting regime. In addition, further clarity will need to be provided regarding the landscaping proposed at the Lower Houses compound (6000mc), it is likely that an environmental permit will also be required for this activity.

In the event that disposal at Waddington Fell Quarry, which is subject to a separate planning application through LCC, is not possible, the applicant will need to consider alternative sources for disposal of the tunnel waste.

Waste should be disposed of locally in the first instance so the effect on the North-West region inert waste capacity should be considered first, and the associated costs and impacts of disposal outside the North-West region would then need to be assessed.

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The Environmental Statement states that no major infrastructure projects or developments have been identified within the regions discussed in this assessment, that would impact the capacity of the regional waste infrastructure. It would be useful to include what this investigation consisted of and what steps have been taken to identify other developments that might have a cumulative impact with HARP. It should be considered that the landfill capacity in the regions looked at receiving waste as far away as the Midlands and London so may even be impacted by major developments in those areas.

Further consideration of the impacts of waste arising from the project will be required. A thorough understanding of waste types and quantities that might be generated should be considered along with any further measures/actions to minimise the waste generated and ensure that all waste management options are considered. The effectiveness of the identified mitigating measures should be also assessed and updated should more detailed information require them to be reviewed.

Given the above, we recommend that any subsequent approval is conditioned as follows:

Condition Prior to the commencement of construction work a Materials Management Plan shall be submitted to and approved by, the Local Planning Authority. For the purposes of this condition the term 'construction work' shall be taken to include any works to prepare the site for development including site access points, haul roads and compound areas but excluding site investigation. The materials management plan shall be developed following the site investigations and risk assessments and shall:
a. Identify all locations from which material will be excavated
b. Utilising the information contained within the contaminated land investigation, identify those areas of excavation which are contaminated
c. For areas of excavation which may be subject to contamination estimate the volume of material arising, the approximate volumes of material to be remediated on site and provisional volume to be disposed of off-site
d. Illustrate where and how the remediation of contaminated material would take place
e. Illustrate where and how remediated material would be re-used, including volumetric calculations to demonstrate that the material can be accommodated within the proposed area of use and any measures for containment for this material
f. Detail the frequency of testing and testing specification for soils generated during the cut and fill operations, including how the materials are to be segregated and stored
g. Identify screening criteria for assessment of whether the materials can be reused without treatment or mitigation
h. For areas of excavation which are not subject to contamination provide the volume of material arising and illustrate where and how non-contaminated material would be re-used including volumetric calculations to demonstrate that the material can be accommodated within the proposed area.

Once approved the materials management plan shall be implemented in its entirety.

Reason To ensure the proposed development does not pose an unacceptable risk of pollution to controlled waters

Condition Prior to the commencement of construction work, a Site Waste Management Plan (SWMP) shall be submitted to and approved by the Local Planning Authority. For the purposes of this condition the term 'construction work' shall be taken to include any works to prepare the site for development including site access points, haul roads and compound areas but excluding site investigation. The Site Waste Management Plan shall include details of:
a. the anticipated nature and volumes of waste that will be generated by construction work
b. the measures to minimise the generation of waste resulting from the proposed works
c. measures to maximise the re-use on-site of such waste
d. measures to be taken to ensure effective segregation at source of other waste arising during the carrying out of such works, including the provision of waste sorting, storage, recovery and recycling facilities as appropriate

The approved SWMP shall be implemented throughout the period of construction work on site

Reason To ensure the construction activities associated with the proposed development do not pose an unacceptable risk of pollution to controlled waters through the inappropriate management of waste on site

Advice to applicant
Where a development involves any significant construction or related activities, we would recommend using a management and reporting system to minimise and track the fate of construction wastes, such as that set out in PAS402: 2013, or an appropriate equivalent assurance methodology. This should ensure that any waste contractors employed are suitably responsible in ensuring waste only goes to an appropriate disposal facility. Site Waste Management Plans (SWMP) are no longer a legal requirement, however, in terms of meeting the objectives of the waste hierarchy and your duty of care, they are a useful tool and considered to be best practice. The developer must apply the waste hierarchy as a priority order of prevention, re-use, recycling before considering other recovery or disposal options. Government guidance on the waste hierarchy in England can be found here: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf

If materials that are potentially waste are to be used on-site, the applicant will need to ensure they can comply with the exclusion from the Waste Framework Directive (WFD) (article 2(1) (c)) for the use of, 'uncontaminated soil and other naturally occurring material excavated in the course of construction activities, etc…' in order for the material not to be considered as waste. Meeting these criteria will mean waste permitting requirements do not apply. Where the applicant cannot meet the criteria, they will be required to obtain the appropriate Environmental Permit or exemption from us for waste storage, treatment, transfer, use or disposal.

More information on the definition of waste can be found here: https://www.gov.uk/government/publications/legal-definition-of-waste-guidance

The law requires anyone dealing with waste to keep it safe and make sure it's dealt with responsibly and only given to businesses authorised to take it. The code of practice can be found here: https://www.gov.uk//uploads/system/uploads/attachment_data///waste-duty-care-code-practice-2016.pdf
The code of practice applies to you if you produce, carry, keep, dispose of, treat, import or have control of waste in England or Wales. The Environmental Protection (Duty of

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Care) Regulations 1991 for dealing with waste materials are applicable to any off-site movements of wastes.

Waste must be classified using the correct code from Technical guidance WM3: waste classification.The guidance can be found here https://www.gov.uk/government/publications/waste-classification-technical-guidance It is a comprehensive reference manual for anyone involved in producing, managing and regulating waste.

More information on the Waste Framework Directive can be found here: https://www.gov.uk/government/publications/environmental-permitting-guidance-the-waste-framework-directive

More information on permitting https://www.gov.uk/guidance/waste-environmental-permits

For local advice or guidance please contact your local Environment Agency office:

Surface water quality

The ES identifies an increased risk posed to surface water receptors from fine sediment input (silt), however the mitigation section does not provide a detailed plan for the avoidance and management of this risk. This is a key risk from the project that has been highlighted at an early consultation stage and a robust management plan needs to be in place with monitoring and mitigation actions specified in advance so that the risk to surface water quality as well as ecological receptors (fish migration routes, eels, salmonids, coarse fish and crayfish) can be assessed to ensure that smothering of aquatic habitats does not occur.

Flood risk provisions in the proposed Construction Code of Practice submitted suggest the use of stand by pumps to remove surface water from working areas but there is no consideration of where any silty water arising from these working areas would be disposed of. While various options exist (treatment, removal from site or discharge to a local watercourse), the impacts of each option need to be considered to identify an appropriate solution.

During the works to pump water from the existing aqueduct, chlorine will need to be removed before any is discharged to watercourses. However, the ES states if storage on site is exceeded, the water would be discharged without removing the chlorine. This could have adverse effects on the receiving watercourses including fish and crayfish. United Utilities have provided assurances that chlorinated water will not be sent to watercourses, however assessment should be made and submitted for review which ensures sufficient storage capacity is available to evidence how this impact will be avoided.

Within the surface water management scheme further detail should be supplied detailing how any elevated flow rates into receiving watercourses from compounds will be managed. This detail should include how these flows will be attenuated using the drainage ponds to ensure that scour and erosion does not damage existing bankside and in-channel habitat within the receiving watercourses, impacting fish and crayfish. More detail will be required from the applicant to establish a sustainable flow rate for the receiving watercourses that does not result in these adverse impacts, a drainage plan should be developed to ensure discharges from the proposed works do not exceed this level.

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Condition Prior to the commencement of construction work a scheme detailing how surface water flows and quality will be controlled and managed during the construction phase of the development shall be submitted to and approved by the Local Planning Authority. For the purposes of this condition the term 'construction work' shall be taken to include any works to include works to prepare the site for development including site access points, haul roads and compound areas but excluding site investigation. The construction phase surface water management plan shall include the following and be implemented before construction starts:

a. An assessment of potential flows that would need to be managed during construction, including flows from the existing aqueduct, construction compounds and access roads and as a result of any groundwater dewatering or tunnelling activities.

b. Details of the measures which would be put in place to capture, manage, treat and discharge flows from the component parts of the site identified in part a.

c. A programme for the installation, maintenance and removal of the measures set out in part b. This should include provision for adapting the mitigation if it proves not to be effective.

d. An assessment of potential contaminants which may be present in surface water runoff, and measures to segregate this surface or ground water from clean runoff

e. Assessment of potential options to retain, test and treat or remove potentially contaminated surface water runoff during the works

f. Details of a monitoring scheme to be implemented to confirm that no contaminants are present in runoff from the site intended for discharge to controlled waters (before, during and post construction)

g. Details of how existing surface waters will be protected from any surface and ground waters generated

Once approved, the construction phase surface water management plan shall be implemented in its entirety and remain for the duration of the development. Should a need for amendments to the plan be required as a result of changing conditions, these must be submitted to and approved by the LPA.

Reason To ensure the construction activities associated with the proposed development do not pose an unacceptable risk of pollution to controlled waters and associated species and habitats

Dependant on the nature of discharges from the site, an Environmental Permit may be needed at the compounds to enable discharges to occur.

The project may need one or more Environmental Permits or Abstraction licences, issued under the Environmental Permitting Regulations and Water Resources Act respectively. The applicant should be aware that it can currently take around 10 months for such permits/licences to be issued, and we would recommend that an exercise to identify which permits are needed is completed as soon as possible and that applications are lodged with the Environment Agency well in advance of the permits being required.

We would welcome the opportunity to review and provide comment on the pollution prevention and environmental mitigation measures submitted to satisfy the above condition.

Fisheries and biodiversity

River Hodder Crossing

The principle of an open span bridge to carry the haul road across the River Hodder has been established in the submitted plans. These design principles have particular significance as the crossing near Newton-in-Bowland has the potential to cause significant disturbance/damage to bank side and in-channel habitats, affecting fish, otter and geomorphological processes on this section of the River Hodder. The use of an open span bridge is welcomed but the proposed works, which also includes surface water outfalls to the Hodder, still pose a significant risk to the river habitat at this point. This location has high fisheries value providing salmonid and eel migratory routes and habitat for sea trout, brown trout, bullhead and lamprey.

The impact of silt discharge to the River Hodder from proposed surface water runoff from the haul road via outfalls should be considered as locally significant from these proposed works. It is currently unclear exactly how adverse impacts will be prevented/minimised. Currently the application relies on generic mitigation embedded into the wider scheme Construction Code of Practice. Once the detailed designs have been finalised, the applicant will be required to apply for a Flood Risk Activity Permit from the EA and at this stage, the applicant must provide more specific mitigation. The proposed mitigation should address the key risks of habitat damage, disturbance and silt pollution at this location, for example through the use of siltbuster, settlement ponds and treatment of runoff prior to discharge.
The permit application should outline the actual mitigation measures proposed to avoid these adverse effects.

Gamble Hole Farm Pasture

We agree with the conclusion of the GWDTE report which states that the impacts to Gamble Hole Pasture, even with mitigation, are significant, therefore a bespoke compensation package is needed and should be agreed with the local authority. We support the proposed temporary access bridge solution over the Gamble Hole Farm GWDTE site and working in collaboration with Lancashire Wildlife Trust should minimise any adverse effects to this sensitive habitat site.

In addition, the identified impacts to the GWDTE at River Hodder North, including impacts to tufa forming springs and fen habitat, also require a bespoke compensation package to be agreed with the local authority. The impact to this area is assessed as major adverse and we would welcome consultation on the type of compensation proposed.

Wider Bowland Tunnel Works

It is currently unclear in the submitted reports (as design is ongoing) exactly which areas will be affected and which habitats will be lost / altered in some locations, this is essential to ensure the habitats currently at these locations are assessed for impact in the ES and the effect of their loss / change picked up in net gain assessments. This includes:

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1. Determining how many drainage ponds will be needed, their size and their final position. Assurance should be provided that there is sufficient storage capacity preventing the need to directly discharge to watercourses without treatment and also understand the areas of existing habitat disturbed

2. The decommissioning of the old aqueduct pipe is predicted to cause some changes to groundwater flows along its route, this could affect habitat quality in the vicinity. The applicant proposes a monitoring plan and mitigation if the impacts are detected. It would be appropriate to take a precautionary approach and ensure that mitigation options are explored and consulted on in advance. This is to ensure that mitigation is indeed possible if monitoring in the future shows it is required. The reports highlight that further assessment of impacts to GWDTE's are ongoing, these should be provided for consultation when available.

3. Several watercourses are flagged for impacts to base flow due to dewatering/pumping activities as part of the proposed works. The impacts of this are not clear in the submitted reports, especially when they act in combination with surface water and decommissioning discharges. The scheme for surface water monitoring should provide detail as to the predicted impacts on the habitat quality and species within these watercourses caused by changes to base flow.

4. The Aquatic Ecology section of the ES identifies the sediment risk to crayfish as significant, however doesn't pick up the same risk as significant for fish. We recommend this is updated and the impact assessed.

5. The mitigation section of the ES specifies the timing of in channel works as May to September to avoid impacts to fish, however as white clawed crayfish may also be present in some watercourses, the timing of works in these locations should also indicate that July to September is the best working window. The mitigation tables should be checked and updated for this timing adjustment where applicable.

6. Bankside vegetation should be reinstated along watercourses using native species of local provenance as soon as possible to reinstate habitat and prevent bankside erosion. This should occur following disturbance during the construction phase and following the removal of temporary culvert extensions and temporary outfalls.

7. The ES acknowledges that silt is likely to be generated from the construction areas and run off likely into watercourses. Wherever possible, wide margins of rough/tall vegetation should be retained along watercourses adjacent to working areas to help filter out silt before it reaches watercourses. Consideration should also be given to the use of silt mats/siltbuster equipment to reduce the amount of silt pollution reaching local watercourses.

8. Air valves are proposed every 500 metres along the aqueduct length requiring a buried chamber and access cover, localised ground raising and grassed bank, but these locations are not specified and the works are not covered in the ES.

9. Some of the topsoil storage areas are marked on plans as provisional (if needed) but it is unclear whether the ES and the net gain assessment have picked up these areas for impact assessment or whether they are currently not included in the submitted assessments and will require clarification.

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10. The waste management strategy mentions reuse of excavated soil may be used for landscaping rather than transported for disposal via the road network. The locations proposed for this should be identified and the existing habitats should be assessed for impacts in the ES and the net gain assessment.

11. The submitted planting schedule indicates that it will be resolved at detailed design. There is currently no information regarding seed mixes for reinstatement areas, therefore it is difficult to determine if these areas will be improved or decline in habitat quality after the works, this affects the Net Gain assessment. Please provide an updated planting schedule when available and cross reference with the Biodiversity Net Gain assessment.

12. The highway access enabling works (widening and passing places) will lead to additional habitat losses not yet quantified in this assessment, therefore no mitigation plans are provided for review at this stage. We recommend that the applicant should provide updated information to capture these additional impacts and ensure the mitigation section is also updated along with the Biodiversity Net Gain assessment. This may affect the area of habitat creation needed off site.

13. The net gain assessment submitted has not assessed river units, nor has it used full botanical survey information, therefore once the designs are finalised and impact areas known, an updated Biodiversity Net Gain assessment should be submitted and provided for consultation. If required, an updated off site mitigation plan to ensure at least 10% net gain is achieved should be submitted.

14. Biosecurity measures should be highlighted in the Code of Construction Practice due to the presence of invasive species such as Japanese Knotweed. It should also promote good practice such as “Clean, Check Dry” to prevent transferring disease risk between watercourses in the application area.

Given the above, we would recommend the following condition:

Condition No development shall take place until a scheme for the provision and management of any compensatory habitat necessary to mitigate the impacts of the project has been submitted to, and agreed in writing by, the local planning authority and implemented as approved. Thereafter, the development shall be implemented in accordance with the approved scheme.

Reason To ensure the protection of wildlife and supporting habitats and secure opportunities for enhancing the site’s nature conservation value in line with local and national planning policy

Flood risk

The planning application is accompanied by a Flood Risk Assessment (FRA) prepared by Jacobs referenced, LCC_RVBC-BO-TA-008-001, titled; Proposed Bowland Section Environmental Statement, Volume 4 Appendix 8.1: Flood Risk Assessment, June 2021).

We have reviewed the FRA in so far as it relates to our remit, and we are satisfied that the development would be safe without exacerbating flood risk elsewhere if the proposed flood risk mitigation measures are implemented.

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The proposed development must proceed in strict accordance with this FRA and the mitigation measures identified as it will form part of any subsequent planning approval. Any proposed changes to the approved FRA and / or the mitigation measures identified will require the submission of a revised FRA. Our detailed comments can be found below.

The submitted FRA confirms that the site is located within Flood Zones 2 and 3, which are defined as having a medium and high risk of flooding from rivers. The proposed development will include the construction of an access road over the River Hodder and sections of the road will be located in Flood Zone 3. It has been confirmed in the FRA that the proposed development located within Flood Zone 3 will be constructed at ground level and no ground raising will occur. The remaining proposed site compounds will be located in Flood Zone 1.

The main source of flood risk arises from the proposed crossing over the River Hodder, associated with Flood Zone 3. The FRA is supported by detailed hydraulic modelling and concludes that during the design flood event there is an increase in flood risk associated with the crossing. The increase is temporary in nature and located on third party agricultural land and within the UU Waste Water Treatment Works (WwTW) site. The applicant has accepted the increased risk within the site in its ownership (WwTW) and provides details of the proposed approach to the increase on third party land. Given the temporary nature of the increase, the applicant has proposed to contact the affected third parties and compensate for the anticipated increased risk. As shown in the outputs from the modelling, no other residential or commercial properties are affected by the proposed development. Given this and the applicant's approach, we have no objection to the proposed development but wish to include a recommendation/informative to the local planning authority on this matter

Flood Risk – Advice to LPA
The submitted FRA acknowledges that there is an increase in flood risk associated with the crossing over the River Hodder, on third party agricultural land which is outside of the proposed site boundary. To mitigate against the increased risk, the applicant has stated that they will discuss the temporary increase in flood risk and compensate affected parties as necessary. We recommend that the Local Planning Authority confirms with the applicant that all affected parties have been made aware and arrangements are in place for the compensation. Where the temporary increase in flood risk is not accepted by the affected parties, the applicant is required to provide sufficient flood risk mitigation as part of the proposed development to ensure flood risk is not increased. In this scenario, a revised flood risk assessment would be required to be submitted to the local planning authority.

Environmental permit - advice to applicant

The proposed development includes a number of outfalls into the River Hodder, alongside the proposed single-span bridge which will be subject to a Flood Risk Activity (Environmental) Permit, see detailed advice below.

The Environmental Permitting (England and Wales) Regulations 2016 require a permit or exemption to be obtained for any activities which will take place:
· on or within 8 metres of a main river (16 metres if tidal)
· on or within 8 metres of a flood defence structure or culverted main river (16 metres if tidal)

· on or within 16 metres of a sea defence
· involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
· in a floodplain more than 8 metres from the river bank, culvert or flood defence structure (16 metres if it's a tidal main river) and you don't already have planning permission

For further guidance please visit https://www.gov.uk/guidance/flood-risk-activities-environmental-permits or contact our National Customer Contact Centre on 03708 506 506 (Monday to Friday, 8am to 6pm) or by emailing enquiries@environment-agency.gov.uk.

The applicant should not assume that a permit will automatically be forthcoming once planning permission has been granted, and we advise them to consult with us at the earliest opportunity.

Once detailed designs of these structures are confirmed, we recommend that the applicant should contact us as soon as possible to begin this process. All structures on or within close proximity to the main river should be designed in such a way to ensure that flood risk is not increased, is mitigated and managed where there is increased risk, and no harm to the environment or damage to land drainage occurs as a result.

We have undertaken a basic review of the hydraulic modelling supplied thus far, however submission of the full hydraulic model for review, will be required once the bridge and outfall designs are finalised as part of the process of determining the Flood Risk Activity Permit.

Ground Water and Contaminated land

Activities associated with the proposed development can result in risks to potable supplies from, for example, pollution/turbidity, risk of mobilising contamination, drilling through different aquifers and creating preferential pathways. Mitigation measures for groundwater are described in Section 7.7.2 and if the proposed development proceeds it must be in strict accordance with the mitigation methods identified. In addition, further information will be required to consider the following points:

1. The ES has identified 16 private water supplies (PWS). We note that little information is provided about these and therefore a detailed assessment cannot be completed. However, it is noted that field surveys and site visits are included in the mitigation section. The local authority listing should be obtained to check against, although this will only identify abstractions for human consumption and does not include other private water users. The BGS Waterwells database on Geoindex should also be checked for records. Some of the sources identified were previously licensed but deregulated as part of the 2003 Water Act changes. It is recommended that once field surveys and site visits are completed, a further assessment of the impacts on the PWS from all stages of the development takes place and if necessary, measures that mitigate the development are developed.

2. The ES states that there are no SPZs, however every potable groundwater supply has a default 50 metre Zone 1 designation.

3. A detailed Groundwater Dependent Terrestrial Ecosystems (GWDTE) assessment has been completed for 8 GWDTEs. We agree with the conclusions of the assessment of impacts on the GWDTEs given the uncertainties described. It is noted that that the significance of effects is large or very large on 2 of the

sites, including the potential complete loss of the GWDTE habitats at Gamble Hole Farm Pasture which is designated as a CBS.

4. With regards to the Proposed Temporary Gamble Hole Farm Pasture BHS Crossing, we agree that the proposal will substantially reduce the magnitude of impact on the GWDTE. It is noted that a dewatering assessment may need to be carried out for the excavations related to the bridge, and that if dewatering is needed, then an abstraction licence may be required.

5. The summary of effects for the GWDTEs assessed in Appendix B3 are agreed with, however as stated, they are based on a high-level desk study at this stage. Therefore, the recommended hydrogeology walkover surveys noted in Paragraph 14 of section 3 should be completed to refine the groundwater dependency classifications, and so that site-specific mitigation measures can be identified for remaining significant effects. The monitoring strategy identified in mitigation WE27 will need to be consulted on and agreed prior to the works going ahead.

Given the above, we would recommend the following condition:

Condition No development shall take place until a scheme to ensure that:

1. All private water supplies that may be impacted by the proposed development have been identified and any measures necessary to mitigate the impacts of the development on them have been agreed with the LPA

Thereafter, the development shall be implemented in accordance with the approved scheme.

Reason To ensure that the proposed development does not harm the water environment in line with paragraph 174 of the National Planning Policy Framework

Advice to applicant

An abstraction licence is required for dewatering during all phases of the works when this is from a borehole, shaft or wellpoint system where >20m3/d of water is abstracted.

The dewatering exemption for small scale engineering works does apply when abstracting <100m3/d for up to 6 months but only if this dewatering is from a sump or excavation. If this dewatering is within 250 metres of a spring, well or borehole that is used to supply water for any lawful use then the exemption volume is reduced to 50 m3/d.

Paragraph 201 details the dewatering required for the tunnel construction and states that additional details are in Appendix 7.8, however this appendix is not available. It is unclear from the description as to whether the calculated inflows are going to be removed / dewatered and therefore potentially require an abstraction licence. The additional details referred to should be provided. The applicant will need to be aware that if volumes are found to be above the threshold, then an abstraction licence will be required.

Please be aware that there may be a delay of 6-8 months between applying for and receiving a licence and therefore a precautionary approach is recommended in case volumes are found to exceed those anticipated

Yours faithfully

Carole Woosey
Planning Advisor

e-mail clplanning@environment-agency.gov.uk

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