



AQUIND Limited

AQUIND INTERCONNECTOR

Environmental Statement – Volume 3 – Appendix 19.1 Consultation Responses

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – Regulation 5(2)(a)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

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APPENDIX 19.1 CONSULTATION RESPONSES

1.1. SCOPING OPINION RESPONSES

Table 1 – Scoping Opinion Responses

Scoping Opinion Ref	Summary of Comment Received	How this has been Addressed by the Applicant
4.17.2	The Scoping Report identifies that surface water features up to a minimum of 0.5 km from the Proposed Development and features of hydraulic connectivity within 1 km of the Proposed Development will be considered. The impact assessment should consider all sensitive receptors within the Zone of Influence ('Zol') for the Proposed Development, particularly where hydrological links occur.	Walkover surveys were undertaken on the 19 th December 2018, (Sections 1-3 to inspect karst features), and again on the 9 th July 2019 (surface water features along the whole Onshore Cable Corridor). The purpose of the site visits was to help establish potential hydraulic connectivity at surface between the development and groundwater receptors at greater distance. In addition to the site walkover, the assessment in the Environmental Statement considered published information on sub-surface linkages, e.g. between karst features and public water supply sources.
4.17.3	The Inspectorate notes that this paragraph defers the assessment of groundwater quantity, groundwater flows and release of contaminants to Chapter 19 (Groundwater) of the Environmental Statement ('ES')	Consultation with Portsmouth Water ('PW') to provide any groundwater water quality data where development area falls within Source Protection Zone ('SPZ') ¹ was undertaken and data received

Scoping Opinion Ref	Summary of Comment Received	How this has been Addressed by the Applicant
	<p>(document reference 6.1.19). As noted in Table 4.16 of the Opinion, there is no reference to the assessment of groundwater quality. This must be included in the ES. Where the Water Resources and Flood Risk aspect chapter informs the groundwater aspect chapter (and vice versa), appropriate cross-references should be included.</p>	<p>from PW was included in the ES assessment. No on site-specific groundwater water quality data has been collected because drilling activities did not encounter the water table and WSP were instructed to backfill boreholes by Portsmouth Water ('PW'). A qualitative assessment of the impact to groundwater quality, groundwater flow and contamination is included in Chapter 19 (Groundwater) of the ES (document reference 6.1).</p>
<p>4.17.7</p>	<p>The ES and Flood Risk Assessment ('FRA') should assess likely significant impacts associated with temporary works, such as dewatering and working compounds in the flood plain.</p>	<p>Methodologies have been confirmed with engineering team and an assessment provided at DCO Application stage.</p>
<p>4.17.9</p>	<p>The Scoping Report refers to outdated legislation: The Environment Permitting (England and Wales) Regulations 2010 which has been superseded by the Environmental Permitting (England and Wales) Regulations 2016, which should be used when interpreting the Environmental Permitting requirements for the Proposed Development in the ES.</p>	<p>Environmental Statement refers to the Environmental Permitting (England and Wales) Regulations 2016.</p>

1.2. PEIR CONSULTATION

Table 2 – PEIR Consultation

Consultee	Summary of Comment Received	How this has been Addressed by the Applicant
Environment Agency ('EA')	Further consideration is required of the impact of the development in relation to the Karst features and locations within the Source Protection Zone 1	<p>Groundwater team has conducted a site visit and the embedded mitigations include for grouting of the two karsts features located within the Converter Station footprint.</p> <p>No other karst features are known to be present within the remaining Onshore Cable Corridor.</p>
EA	Detail regarding pollution prevention measures during construction and operation need to be provided to ensure robust protection of groundwater	This has been addressed in Chapter 19 (Groundwater) of the ES (document reference 6.1).
EA	<p>Area to the North part of Section 2 and South part of section 3.</p> <p>This area will have high groundwater levels. Dewatering maybe required for any excavation, particularly at a time of high groundwater. Significant groundwater flows may occur. We would advise specialist hydrogeological assessment of potential requirements in this area, particularly for the installation/construction phase of the development.</p>	<p>Preliminary design shows the Proposed Development (with the exception of HDD-5) will be built within 1.5 m of surface during late summer and early autumn when groundwater levels are low. Groundwater levels will therefore be below the proposed installation depth removing the need for a specialist hydrogeological assessment.</p> <p>Addressed qualitatively in Chapter 19 (Groundwater) of the ES (document reference 6.1).</p>

Consultee	Summary of Comment Received	How this has been Addressed by the Applicant
EA	<p>Re constriction dewatering. An abstraction licence is likely to be required for any dewatering (under section 24 of the Water Resource Act 1991), unless an exemption applies under the Water Abstraction and Impounding (Exemptions) Regulations 2017. Small scale dewatering may be exempt.</p> <p>The Applicant should note that is our policy not to disapply by way of consent any requirement for abstraction licences, and therefore the Applicant is advised to consult with us at the earliest opportunity in relation to an application for an abstraction licence.</p>	<p>This has been addressed in Chapter 19 (Groundwater) of the ES (document reference 6.1).</p>
EA	<p>The converter station is within the Source Protection Zone 1 for Bedhampton and Havant Springs public water supply abstraction. It is imperative that the Applicant consults with Portsmouth Water regarding any potential for increased turbidity in supply associated with disturbance in the chalk.</p> <p>The Applicant must consider the potential for Karst features and rapid pathways to the abstraction. Due to the nature of the abstraction (the largest spring supply in Europe), the abstraction can be particularly impacted/affected by Karstic flow. There are a number</p>	<p>This has been addressed in Chapter 19 (Groundwater) of the ES (document reference 6.1).</p> <p>PW has also been consulted.</p>

Consultee	Summary of Comment Received	How this has been Addressed by the Applicant
	<p>of known Karst features that have been shown to have rapid transit time to the abstractions. Other features with rapid transit will almost certainly be present. Current understanding of Karst flow within the Source Protection Zone are limited, and works are ongoing to further understand the flow pathways within the wider Source Protection Zone. As such the sensitivity of this Source Protection Zone is considered to be particularly high.</p>	
<p>EA</p>	<p>We are aware that following historic acidation work around 1 km from the proposed transformer site, there was a significant and rapid drop in pH in some of the boreholes associated with the Bedhampton and Havant Springs abstraction. This is evidence that Karstic systems to the springs may extend to beneath the transformer site. This further highlights the level of sensitivity of the Area. If the Applicant wishes to have sight of the data, please contact Portsmouth Water who own the relevant data.</p>	<p>This has been addressed in Chapter 19 (Groundwater) of the ES (document reference 6.1).</p> <p>PW and the EA have also been consulted.</p>
<p>EA</p>	<p>This section states that within Karst Zone 2, there are few hydraulically active stream sinks. It also states that this means there are no flow of water through the system. While there may not be a continuous active flow of surface water through the karst system within Karst Zone 2, this does not mean that rapid transit</p>	<p>This has been addressed in Chapter 19 (Groundwater) of the ES (document reference 6.1).</p> <p>PW and the EA have also been consulted.</p>

Consultee	Summary of Comment Received	How this has been Addressed by the Applicant
	<p>from this zone to the abstractions will not occur. Karstic pathways within the system can be interconnected, and there can still be rapid transit of surface water through the system to the springs associated with the Source Protection Zone. This should be acknowledged within the ES.</p>	
<p>EA</p>	<p>This section states that “A geophysical survey undertaken as part of the ground investigation between the 28th August and 6th September 2018 and identified two solution features within the footprint for the Converter Station.” We would need more details on the location, assessment and potential mitigation to manage risk of all solution features. Although geophysical surveys are capable of identifying Karst features/dolines, we would need robust confidence that in higher risk area, all relevant Karst features have been identified. This particularly applies in areas where there are significant superficial deposits (which can add greater uncertainties on any geophysical survey results).</p>	<p>Geophysical survey data has been appended to Chapter 19 (Groundwater) of ES (document reference 6.1). Please also see Appendix 21.3 of the ES for the Geophysical Survey Report (document reference 6.3.21.3).</p>
<p>EA</p>	<p>We note comments on the source(s) of water in Kings Pond. This is likely to be at least seasonally groundwater dependent, as water in the chalk is mapped as being seasonally (at least) at surface</p>	<p>Pond inspection walkover completed and presented in Appendix 19.3 (The Hydrogeology of Kings Pond and Denmead Meadows) of the ES Volume 3 (document reference 6.3.19.3).</p>

Consultee	Summary of Comment Received	How this has been Addressed by the Applicant
	levels. Ephemeral chalk streams to the North of the pond are also present.	
EA	While we have no in principal objection to overall assessment of the groundwater risk as found in this section, far more information is required before accepting any final conclusion. In particular we would need to see detailed assessment of potential for rapid pathways, detailed specific assessments of sources on site, and specific source pathway receptor models associated with potential sources.	<p>Preliminary Design released since response has alleviated the EA's concerns regarding the construction contamination to Karst features.</p> <p>This has been addressed in Chapter 19 (Groundwater) of the ES (document reference 6.1).</p>
EA	Assessment of the risks to groundwater quality from piling would need to be included in the ES. Given the sensitivity of the groundwater in the area, CFA (Continuous Flight Augering) methods for piling may be preferable if appropriate.	<p>Preliminary Design released since response has alleviated the EA's concerns regarding the construction contamination to Karst features.</p> <p>Addressed in Chapter 3 (Description of the Proposed Development) of the ES Volume 1 (document reference 6.1.3).</p>

1.3. POST-PEIR CONSULTATION

- 1.3.1.1. Consultation with the EA, PW, Portsmouth City Council ('PCC') and Hampshire County Council ('HCC') has been undertaken following PEIR in support of the preparation of the ES chapter within the table provided.
- The EA and PW requested design information on HDD-5 to confirm alignment does not enter the Chalk aquifer. The revised alignment ensures HDD5A does not enter the Chalk and this is confirmed in the ES (document reference 6.1).
 - The EA raised the requirement for all discharged groundwater within Section 1 to not be contaminated.
 - The EA highlighted any abstraction licenses will not be disapplied unless exemption applies.
 - The EA and Portsmouth Water would like an understanding of the Chalk Karst network developing in the design stage of works.
 - PCC raised issues regarding groundwater flooding.
- 1.3.1.2. Full details of consultation undertaken to date is presented within the Consultation Report (document reference 5.1).

