from Southern Water

The Planning Inspectorate
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Date

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Contact

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Dear Sir / Madam

RAMPION 2 OFFSHORE WIND FARM
INTERESTED PARTY REFERENCE NUMBER: 20043512

Please find set out below Southern Water Services Ltd's (SWS) response to the Examiner's First Written Questions.

Question TE.1.8

In response to a concern raised by West Sussex CC in its LIR [REP1-054], the Applicant has confirmed that open cut trenching method is proposed through tree group G887 which West Sussex CC state would temporarily sever connections from the adjacent ancient woodland site, Olivers Copse, from the nearby woodland, Kitpease Copse. West Sussex CC further state that using a trenchless crossing in this area would significantly reduce impacts on the tree group, and consequently reducing negative impacts on landscape character and the visual amenity of users of the PRoW. The Applicant responded in [REP2-020] to say an open cut trenching method in this location has been specified as it lies within a Source Protection Zone (SPZ) for potable groundwater.

a) Confirm which category of SPZ this location falls within, SPZ1 or another?
b) Comment on the risk, if any, HDD could have to the public water supply at this location

SWS's Response

WSCC are suggesting that the Applicant uses a no dig methodology to avoid removing some woodland, which would be through our SPZ2, not far to the east of our SPZ1 between Kitpease Copse and Olivers Copse. The geospatial route of the proposed trenchless digging location is presently unknown. The British Geological Society maps show the site to be located on the Spetisbury Chalk Member.

SWS's Littlehampton abstraction is located approximately 250m from the proposed location and it abstracts groundwater from the unconfined Chalk, via enhanced fissure development associated with the overlying Palaeogene deposits of the Chichester Syncline. This area of the Chalk has also been mapped as having a high frequency of karstic features which further increases the groundwater vulnerability. The proposed trenchless digging location is hydrogeologically very sensitive and there could be severe adverse impacts to our groundwater abstraction should the proposed construction

methodology not include the correct mitigation to eliminate or reduce impacts to our public groundwater supply.

SWS request a Hydrogeological Risk Assessment (HRA) of the proposed trenchless placement methodology be completed. This would detail:

- the proposed depth of placement and its relationship with groundwater;
- methods to prevent lateral and vertical connectivity losses;
- materials to be used and demonstration that these would not cause unacceptable groundwater pollution;
- consideration of turbidity risk, both from fine particulate muds (bentonite) if any and potential mobilisation of natural materials;
- the proposed construction timeframe to ensure construction during high groundwater levels is avoided.

Once the assessment is finalised, SWS will require review and approval of the document to confirm it's suitability. The trenchless methodology statement will need to be included in or appended to this assessment. The Environment Agency will also require review and approval of the HRA.

Prior to development, a Construction Environmental Management Plan (CEMP) would be required to be agreed to detail communications and actions between the developers and our sites to minimise any potential for impacts. Southern Water will require review and approval of this document.

For the broader environment, the main risks and concerns arising from HDD (if this method of trenchless excavation is selected) are as follows:

- launch and reception areas direct physical impact. This is mitigated by careful location selection – we recently completed the water main installation to Isle of Sheppey with launch and reception locations within an SSSI as it was unavoidable but identifying an appropriate location and close liaison with Natural England and the EA made it possible. In this case, the launch and reception could be in arable fields which tend to be of low environmental importance;
- chemical additives to drilling muds and their potential effects – often avoided by using non-petrochemical materials;
- drilling mud 'breakout' which can physically smother an area. This tends to be of an increased concern when crossing watercourses. Identifying and using a sufficient depth of drill and careful monitoring can provide mitigation for this.

SWS is aware that HDD techniques are used to mitigate sensitive area crossings. HDD proposals need to be based on a case by case assessment of the detail of the proposals and/or specific method statements. In this specific case, ignoring the SPZ water supply issue, some drilling mud in the ground would not be an environmental or ecological issue. Breakout to surface could however effect protected species if any are present in the woodland but we note that the Development proposes a reduced impact to a 40m wide area felled and soil stripped, and four sets of 1m wide trenches dug across it. The open cut through the area would reduce connectivity of habitats and loss of the area of woodland habitat.

SWS is still considering any impacts of the Applicant's proposed open cut method on its network and what provisions or mechanisms are needed to ensure it is not adversely impacted in any way by the project. Please note that our response above as regards our concerns with the HDD proposals, should not be interpreted as SWS being in support of the open cut methodology as proposed by the Applicant, as we are considering these impacts as well.

Yours sincerely

Southern Water Services Limited