

Donnison, Nick

From: Kourra, Andrea
Sent: 07 February 2023 11:27
To: Donnison, Nick
Cc: Lear, Nicola; Hartley, Nicola; Dudley Bow, Vita; Hawkins, Mark
Subject: FW: [Request for advice] Borehole drilling works - Marine Licence application

Hi Nick,

Please see the latest correspondence from APEM below.

Please let me know how you'd like to proceed.

Kind Regards
Andrea

From: Anya Fisher <A.Fisher@apemltd.co.uk>
Sent: 01 February 2023 16:59
To: Kourra, Andrea <andrea.kourra@arcadis.com>
Cc: Richard Wells <R.Wells@apemltd.co.uk>; Lorna Rowe <L.Rowe@apemltd.co.uk>; Lear, Nicola <nicky.lear@arcadis.com>; Hartley, Nicola <nicky.hartley@arcadis.com>
Subject: RE: [Request for advice] Borehole drilling works - Marine Licence application

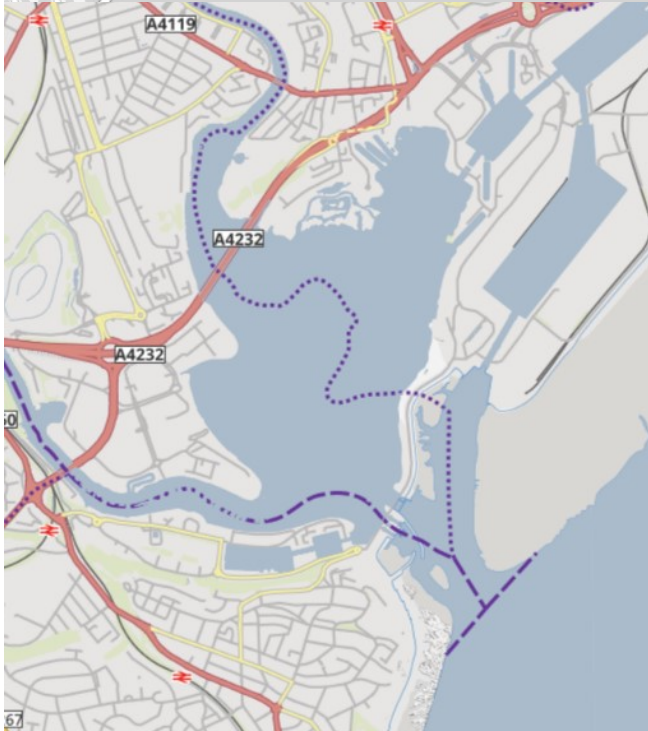
Hi Andrea,

Thanks for confirming about the boreholes – I can see that the extent of the Saltmarsh habitat layer in MagicMap does appear to extend into the River Taff, over the location of boreholes 3 and 4.

However, this dataset appears to be from 2003, around the time when the major Cardiff Bay Redevelopment occurred (Image on the left).

Looking on NRW's geo-portal, under the layer 'Saltmarsh Extents', this same area is not shown to be Saltmarsh – this data is from 2008 (image on the right).

<http://lle.gov.wales/catalogue/item/SaltmarshExtents?lang=en>



In addition, APEM's Phase 1 habitat survey did not find any coastal saltmarsh at the Site, and logically, the area is no longer a tidal environment, since the installation of Cardiff Bay Barrage, which impounds freshwater within Cardiff Bay.



Our suggestion, therefore, is to consult with NRW, to discuss the evidence which indicates that coastal saltmarsh is no longer present at the site, to understand what implications this has on a marine licence application.

Please do let me know if you think a call to discuss this would be useful, and if you would like APEM to support in any consultation.

Thanks,
Anya

Anya Fisher BSc (Hons) MCIWEM C.WEM
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Registered in England No. 2530851 Registered address: A17 Embankment Business Park, Heaton Mersey, Manchester SK4 3GN

From: Kourra, Andrea <andrea.kourra@arcadis.com>

Sent: 01 February 2023 14:51

To: Anya Fisher <A.Fisher@apemltd.co.uk>

Cc: Richard Wells <R.Wells@apemltd.co.uk>; Lorna Rowe <L.Rowe@apemltd.co.uk>; Connor Markham

<C.Markham@apemltd.co.uk>; Lear, Nicola <nicky.lear@arcadis.com>; Hartley, Nicola <nicky.hartley@arcadis.com>

Subject: RE: [Request for advice] Borehole drilling works - Marine Licence application

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Hi Anya,

Thank you for your emails. The SI Engineer has advised that the request (in the email chain below) relates to the 'boreholes over water', namely, BH03 and BH04 (please refer to the attachment sent previously which is titled: 'EHP – COMPILED' – it shows the locations of these boreholes).

It's understood that the extent of the Coastal Saltmarsh extends into the river (i.e. as shown on MagicMap).

If you have any further queries and/or require any further info, please let me know.

Kind Regards
Andrea

Please note that my working days are Tuesday to Thursday inclusive. w/c 30th January, I'm working Monday to Wednesday inclusive.

From: Anya Fisher <A.Fisher@apemltd.co.uk>

Sent: 31 January 2023 15:17

To: Kourra, Andrea <andrea.kourra@arcadis.com>; Lear, Nicola <nicky.lear@arcadis.com>; Hartley, Nicola <nicky.hartley@arcadis.com>

Cc: Richard Wells <R.Wells@apemltd.co.uk>; Lorna Rowe <L.Rowe@apemltd.co.uk>; Connor Markham <C.Markham@apemltd.co.uk>

Subject: RE: [Request for advice] Borehole drilling works - Marine Licence application

Hi All,

Following on from my email yesterday, I have liaised with Lorna, our Principal Terrestrial Ecologist, who delivered the Phase 1 Habitat mapping exercise.

The area surveyed as part of the Phase 1 habitat exercise only went as far as the A4232 road crossing. Within this area, no coastal saltmarsh was identified.

The Preliminary Ecological Report does state, however, *'The data search shows that coastal saltmarsh (an NRW Priority habitat) is present on Site. This habitat was not identified during the phase 1 survey and so direct impacts are not anticipated. Due to hydrological connectivity from the Site, there is the potential for indirect (through pollution) impacts to coastal saltmarsh, should it exist downstream of the River Taff/ Afon Taf.'*

Our Phase 1 survey does not confirm whether saltmarsh is present to the south of the A4232 crossing, however the habitat mapping on Magic Map does indicate this to be the case.

Looking at the source of the data, it was last updated in 2004, which is around the same time as the Cardiff Bay redevelopment, when Hamadryad Park was developed/reclaimed; this may mean the dataset has not been updated since the habitat in this area changed.

Therefore the question is, which areas does NRW consider to be Coastal Saltmarsh – I'd suggest this needs to be discussed and concluded, before we can accurately support on a Marine License for borehole drilling in the Taff.

Happy to organise a call about this with the relevant specialists – noting your original request date for a proposal.

Thanks,
Anya

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From: Anya Fisher
Sent: 30 January 2023 12:42
To: Kourra, Andrea <andrea.kourra@arcadis.com>
Cc: Lear, Nicola <nicky.lear@arcadis.com>; Hartley, Nicola <nicky.hartley@arcadis.com>; Richard Wells <R.Wells@apemltd.co.uk>
Subject: RE: [Request for advice] Borehole drilling works - Marine Licence application

Hi Andrea,

Apologies for the delay in responding to this, we have had some internal discussions on this.

The area of saltmarsh shown in your provided map covers the area of Hamadryad Park, which was a survey area for the Phase 1 Habitat mapping undertaken by APEM.

Within this survey exercise, the area in question was not identified as coastal marsh, but a mixture of amenity grassland, dense scrub, hardstanding and broadleaved woodland, as shown below.

It may be that the Magic Map priority layer may not be up to date?



Thanks,
Anya

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Registered in England No. 2530851 Registered address: A17 Embankment Business Park, Heaton Mersey, Manchester SK4 3GN

From: Kourra, Andrea <andrea.kourra@arcadis.com>

Sent: 26 January 2023 15:35

To: Anya Fisher <A.Fisher@apemltd.co.uk>; Richard Wells <R.Wells@apemltd.co.uk>

Cc: Lear, Nicola <nicky.lear@arcadis.com>; Hartley, Nicola <nicky.hartley@arcadis.com>

Subject: [Request for advice] Borehole drilling works - Marine Licence application

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Hi Anya and Richard,

Re: Channel View Footbridge (now known as: Proposed Pedestrian and Cycle Bridge between The Marl and Hamadryad Park)

Background

As part of the marine licence application process, a method statement must be submitted to NRW for the borehole drilling works in the River Taff.

The proposed overwater borehole locations are located within an area of saltmarsh (an image showing the location of the saltmarsh is attached). We have 3no. boreholes to drill in the River Taff, these will be progressed via dynamic sampling/rotary methods positioned on a barge and then through a 'moonpool' allowing the casing/core barrel to be lowered through.

(Please find attached a photo of how the barge was positioned on another project as well as a set of technical drawings.)

NRW has stated: *'The method statement will need to include information on activities that are conducted within a sensitive area and must describe the works being undertaken. We would also need relevant mitigation activities within the method statement to reduce damage/disturbance to the feature [i.e. the saltmarsh].'*

Taking the above into account, the in-house SI Engineer has advised that the drilling processes (and associated methods and materials/substances) are to be as follows:

- Biodegradable lubricants
- Food grade grease/vegetable oil
- Spill kits
- Fuel containers are banded
- Flushing method when drilling – we will be using water flush – for another project we recirculated river/dock water – water was drawn from the dock/river then recirculated via a hose lowered down between the casings.
- Backfill material is inert – bentonite pellets are manufactured clay pellets that rehydrate once in the borehole.

Request for advice: Input/advice re the method statement

- Further to the above, please can you advise on any concerns and likely risks (associated with the proposed works and the saltmarsh), and appropriate (and best practise) mitigation/control measures to reduce any damage/disturbance to the saltmarsh (to ensure that a robust method statement is produced)?
Re the bullet point list above, is there anything else that needs to be added to the method statement in terms of mitigation/control measures?
- As the above is outside of your current remit, please can you provide a fee proposal for this **by COP on Tuesday 31st January.**
- NB: Upon acceptance of the fee proposal, your input/advice would be required immediately as we're aiming to submit the marine licence application in early Feb.

If you have any queries and/or require any further info, please let me know. In my absence, please contact Nicky Lear (copied in).

I look forward to hearing from you.

Thank you
Andrea

Andrea Kourra MSc PIEMA
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