Project title	AHEP	Job number
Meeting name and number	AHEP Blasting Meeting	File reference
Location	AHB Office	Time and date
Purpose of meeting		11 January 2017
Present	Keith Young (AHB) Douglas Fairley (AHB) Katherine Harris (AHB) Ian Taylor (AHB) Zoe Crutchfield (Arup) Phil Bloor (Arup) Craig Hynd (Dragados) Kate Brookes (MS Science) Tracy Mccollin (MS Science) Rania Sermpezi (MS LOT) Mike Bland (MS LOT) Caroline Carter (SNH)	
Apologies	Sue Lawrence (SNH)	

Action

1. Introduction

Circulation

KH & ZC welcomed everyone to the meeting and discussed agreed agenda and purpose.

2. Piling Method

KH summarised the construction methodology. No impact piling is proposed, but rotary piling will be utilised for construction works on the open quays. ZC confirmed that a separate meeting will be

Prepared by Craig Hynd

Date of circulation

Date of next meeting

Those present

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arranged to discuss the various types of piling in more detail.

ZC

3. Marine Mammal Activity

PB summarised the current data as presented in the ES. KB confirmed that this was consistent with other datasets held by MSS.

4. ES Predictions relating to blasting

PB summarised the predictions in the ES underwater noise modelling relating to blasting (which assume no mitigation is in place). Permanent and temporary threshold shift is only predicted to occur in relatively close proximity to the blast site. Level B harassment and low level disturbance are predicted over distances approx. 1.7 - 7.2 m respectively.

5. Additional Monitoring

ZC noted that additional underwater noise modelling will be undertaken once a dredging contractor has been appointed and the detailed blasting methodology is known. ZC added that many of the charges will be buried deeper than the 2.5m that was modelled in the ES, and deeper charges will absorb more energy within the blast hole.

6. Blasting Period

KH explained that while the 3-7 months of blasting presented in the Additional EI Report was based on the best available information available at the outline design stage during Dragados detailed design development it has come to light that two shorter periods of blasting may be required over two years, with the total not exceeding 7 months (eg 3 months in 2017 then 4 months in 2018). One of the main risks highlighted being the risk to personnel and plant during poor weather conditions as well as amendments to the overall blasting and dredging schedule. Of course this remains only a possibility. MB requested a narrative explaining the engineering reasons for the potential change in the blasting programme. Dragados to submit narrative.

Dragados

7. Programme

CC asked for a programme of activities to allow blasting to be considered in the context of other construction activities. MB noted that this was a requirement of the CEMD. ZC confirmed this is currently in preparation.

8. Population Viability Modelling

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PB summarised the findings of the PVA modelling undertaken by MSS to support the Appropriate Assessment, which assesses the impacts of various development scenarios on the bottlenose dolphin population over 17 years. PB has highlighted the precautionary nature of the model inputs and assumptions. KB explained that the vortex framework was used for the modelling and acknowledged that it is not particularly flexible and required assumptions to be made that aren't necessarily realistic.

PB noted the following assumption:

'Blasting works are modelled to all occur in one calendar year. Aberdeen harbour expect them to take between 3 & 7 months, and so in all likelihood this will be correct. However depending on timelines, it is possible that blasting work could be spread over two calendar years.

It would be possible to re-run the assessment to apply the same level of effect in two years but we consider that scenario F already models more effect than is likely to take place and therefore is sufficient to cover this eventuality'.

PB interpreted this to mean that the PVA modelling already accounts for blasting being undertaken over 2 years. KB acknowledged that the wording is ambiguous, and confirmed that the modelling assumes that the blasting will be undertaken continuously but may span two calendar years. KB stated that the modelling does not account for the proposed blasting over two years.

KB & CC raised a concern that blasting over two years may affect the same biological process twice. KY stated that while Dragados could aim to achieve blasting without overlap, weather conditions and availability of plant may render this impossible. KB and CC highlighted that June is a sensitive month for the bottlenose dolphin.

ZC noted that some of the assumptions in the model regarding construction dates for other projects (Forth & Tay offshore wind farms for example) were highly unlikely to be achieved due to the current status of the projects but acknowledged that MSS can only use the most recent info provided to them by the developers.

KB offered to provide the vortex model to Dragados/AHB.

KB

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Dragados will interrogate the model to identify the implications of blasting over two calendar years.

ZC/PB

ZC noted that after the first year of blasting, monitoring data from near and far field hydrophones would be available, which could be used to inform future assessments of underwater noise propagation rom blasted buried charges.

9 Next Steps

If required Dragados will submit a 'NEWT' assessment to MS LOT with a request to vary the marine licence condition that restricts blasting to 7 consecutive months This will be supported by the results of the additional modelling and any other relevant information.

MB confirmed that if assessment concluded that the proposal is not worse than what has been assessed, and SNH and MSS agree with this conclusion, it is unlikely that a public consultation would be required.