

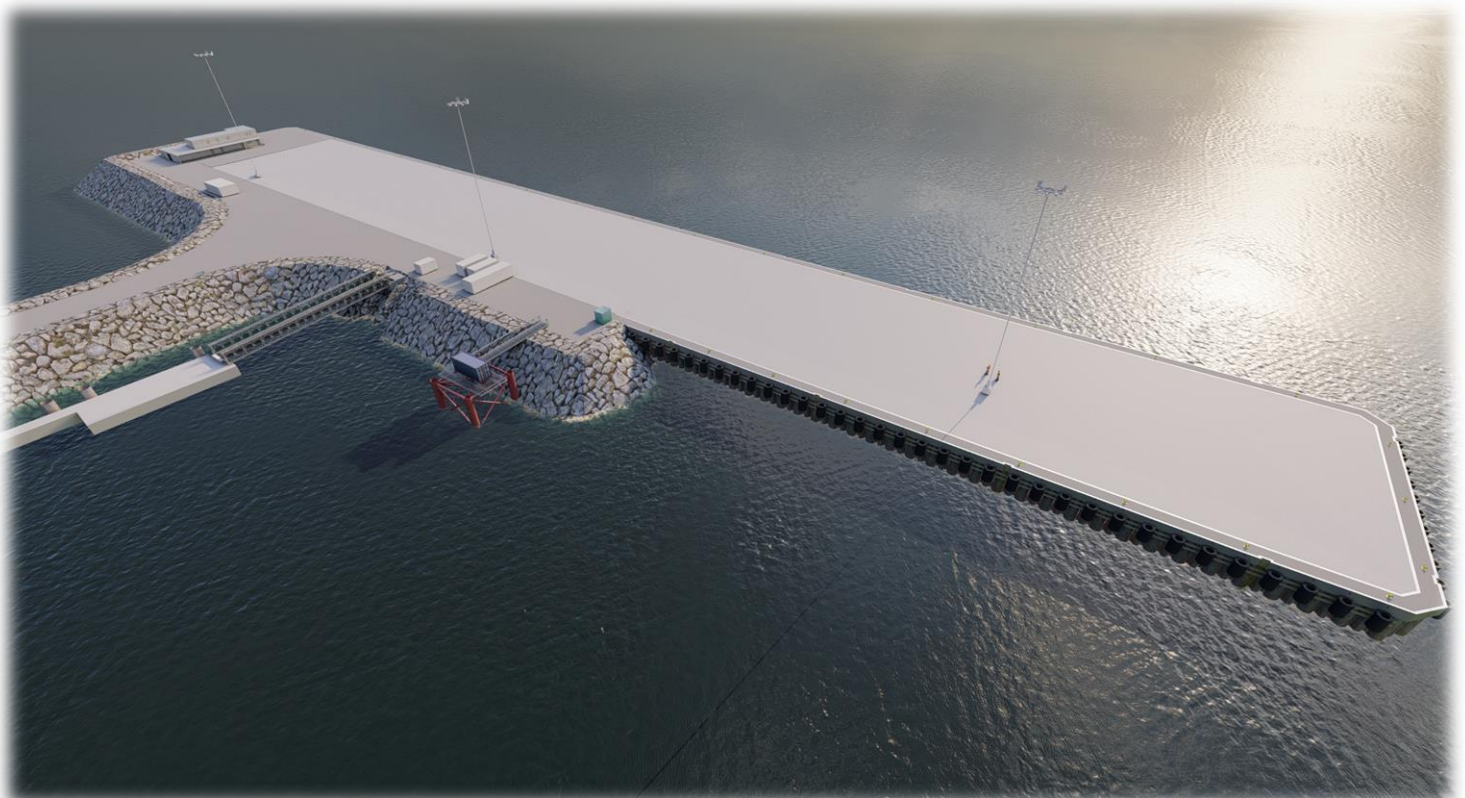


New Port Facility Falkland Islands

Responses to comments from Falklands Conservation

Revision	Date	Description	Prep	Check	App
P02	17-Feb-2022	Responses to comments from Falklands Conservation	JL	SR	MS

	Contract No:	Doc No:	Status	Revision
BAM	BAS.2051	BAS2051- RHD-ZZ-ZZ-FN-YE-5020	S4	P02
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Hold Record

Hold No.	Section	Description of Hold

Revision Tracking

Revision	Description of Revision
P01	Issue to BAM
P02	Issue to FIG Planning Team

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A1.0 Introduction

Falklands Conservation submitted a letter to F.I.G. on 14th February 2022 in response to the planning application for the new port facility. In summary, Falklands Conservation raised a number of concerns on the Environmental Impact Statement (EIS) (Ref. 1) and F.I.G. Planning and Building Services have requested a response to the concerns raised to inform the determination of the application. Specifically, F.I.G. Planning and Building Services requested that the comments within the appendix to the letter from Falklands Conservation are addressed.

The comments which have been raised are detailed in Table 1.1 alongside our response.

Table 1.1 Comments within the appendix of the letter received from Falklands Conservation, alongside responses to the comments received

BAM ref	Comment	Response
Information		
1	The EIA has not used the most recent and comprehensive data that Falklands Conservation have collected on sei whales and right whales over the last 3 years, nor have we been approached for information regarding the latest data and an outdated 2017 report has been used in favour of the most up to date information. Although our data on sei and right whales for 2019-2021 has not been mentioned, our cetacean officer has been referenced as a pers com. for 2021 humpback whale sightings when they were not contacted.	At the time of writing, the baseline understanding and impact assessments were based on the most up-to date publicly available data. .Reference documents were checked and verified at the EIS scoping stage of the process. Since the work was undertaken, further information has been made publicly available online, including the data referred to by Falklands Conservation. The new information that is publicly available is unlikely to alter the overall outcomes of the assessments, which were based on a precautionary approach.
2	The EIA consistently refers to the Berkeley Sound KBA which does not exist, the entire inshore waters, including Stanley harbour are a designated KBA for sei whales, as such population estimates used in the report are outdated and it has used a sei whale population estimate from a 2007 IUCN Red List estimate which has since been updated therefore conclusions drawn from this number could be wrong. In table 9.3 the population estimates for the sei whale are wrong. There is a peer-reviewed published paper on abundance of sei whales in one part of the Falklands.	At the time of writing, the publicly available information identified that the protected site was the candidate Berkeley Sound KBA. As noted above, further information has now been made available, which confirms that the designated site is now the Falkland Islands Inner Shelf Waters KBA. The population estimate for sei whales provided in the EIS is for the west coast of the Falklands, and not relevant for the Stanley Harbour area. An initial review of the new information has been undertaken to understand whether this would materially change the potential significance of impact to marine mammals reported in the EIS. This has indicated that the new information would alter the predicted numbers of marine mammals that could be impacted, but it would not increase the population impact sufficiently to alter the overall significance of the predicted impact (i.e. there would still be a negligible percentage of each population impacted).
3	On page 145, the photo ID estimates used for Berkeley Sound are wrong (out of date), as it the statement “There is no evidence to support the site being a calving or nursery ground (Weir, 2017)” it is an outdated reference and has since been shown to support mother-calf pairs.	See response to comment 1. The new information that is publicly available is unlikely to alter the overall outcomes of the assessments or mitigation requirements, which were based on a precautionary approach.
4	In Table 9.6 Peale’s and commerson’s dolphins are referred to as mid-frequency which they are not, they are narrow band high frequency species.	This refers to the species grouping of all dolphin species (as mid-frequency cetaceans) under the underwater noise threshold guidance by NOAA (NMFS, 2018). It does not refer to the vocalisations of the species themselves.
5	There is a statement on page 167 where it says there are no known collisions with sei whales in the Falklands however in a 2018 report there is a confirmed collision with a sei whale. There has also been a documented strike of a right whale just outside of Port William. Right whales are highly vulnerable to vessel strike and right whales are frequently seen in PW between June and August, so considerations of increased shipping related to the harbour expansion should include potential collision with this species.	See response to comment 1. The recommendation for vessels to follow the ‘ <i>Cetacean code of conduct for the Falkland Islands</i> ’ will reduce the risk of vessel collisions for all marine mammal species, including sei and right whales. This provision to follow the new code of conduct will be within the EMP (BAM mitigation measure already committed to in the EIS already) to be issued for approval by FIG Environmental Team. This is an expected planning condition
Impacts		
6	For the soft start procedures it is stated on page 109 that “Other JNCC guidelines that were deemed unnecessary for the proposed works included soft-starts and the use of Passive Acoustic Monitoring (PAM).” This needs to be clarified as on page 163 it lays out the procedure for how soft starts will occur. Soft starts are best practice procedure all over the world, and are usually implemented regardless of whether marine mammals have been observed or not, or whether it is daylight or dark.	The reference to soft-start and PAM on Page 109 of the EIS is in relation to the short-term drilling activities that were undertaken to inform the design of the proposed scheme. This work is complete. As stated within the comment, soft-start procedures will be undertaken for piling required to construct the new port facility (detailed in Section A9.3.5.1) – the specific approach to soft-start is detailed within the Marine Mammal Observation Plan (MMOP), which is contained in Appendix 7.

BAM ref	Comment	Response
		<p>The MMO plan in appendix 7 is comprehensive and is further development of the mitigation and is as reviewed with FIG Fisheries and Environmental Team in January 2022.</p>
7	<p>Best practice is also to use TTS what are these? as an impact range and not PTS, therefore it should be used, page 163 mentions the motioning zone “will be greater than the instantaneous PTS impact range and would therefore reduce the potential for any impact to all marine mammal species.”</p> <p>And table 9.9 states the risk of TTS is negligible due to the mitigation for piling activities set out on page 163 however they are not using TTS range as the monitoring zone. We would like to see the TTS range as the monitoring zone.</p>	<p>Best practice that BAM will use is to ensure that there are no marine mammals within the potential PTS ranges.</p> <p>The MMOP has been produced to reduce the risk of injury to marine mammals. As a precautionary approach for any potential injury, this has been based on the impact ranges for Permanent Threshold Shift (PTS) when there is a potential risk of permanent change in hearing sensitivity.</p> <p>Temporary Threshold Shift (TTS) is when there is the potential for a temporary change in hearing sensitivity but would not result in auditory injury.</p>
8	<p>In relation to the soft start procedures we have some concerns, we do not believe one observer will be enough to cover the entire impact zone given the structural obstructions that are present at FIPASS.</p>	<p>The mitigation measures in Section A9.3.5.1 refer to ‘at least one dedicated MMOB’ this is at any one time on site not one trained person – refer to Appendix 7. Further detail regarding this is provided in Section A5.2.1 of the MMOP (Appendix 7), which states: “<i>There will be sufficient trained MMOB to allow monitoring of the entire MZ when required, taking into account the shifts / periods of work, including back-up candidates who are able to take the place of anyone who is not available due to illness or other circumstances. For every shift, dedicated MMOB will be required to cover the entire mitigation zone, with good viewing platforms to allow for 360° coverage.</i>”</p> <p>The proposed approach to monitoring set out in the MMOP is considered appropriate.</p>
9	<p>It is stated “if any marine mammal in within the monitoring zone after 20 minute watch period, the soft-start procedure will commence to encourage them to move out of the area” a soft start should not be implemented if there is a marine mammal in zone and should only start once the animal has left the impact zone as laid out in the JNCC guidelines. If a marine mammal enters the mitigation zone once the soft start has commenced it is best practice to cease operations until it has moved out of the zone, however this is not always feasible, as stated in the JNCC guidelines we would at least like to see no further increase in power until the animal has been seen to have exited the mitigation zone or 20 min has elapsed.</p> <p>It is stated that PAM will not be required however this is best practice and is especially effective for the detection of high-frequency dolphins such as Commerson’s and Peale’s within the mitigation zone, we also do not understand how the zone will be lit to allow for visual observations in poor visibility conditions as stated on page 163.</p>	<p>The MMOP and Mitigation Protocol has been based on the maximum potential impact ranges for instantaneous PTS for piling to cetaceans, this includes all hearing groups of marine mammal species and therefore all marine mammal species.</p> <p>The JNCC (2010) guidance has been used as the basis for the MMOP and Mitigation Protocol. However, it has been adapted, where relevant, to take into account the location, potential impact range, water depth and sei whale dive time. It was therefore determined that 20 minutes for the pre-piling monitoring was appropriate in this case, rather than the JNCC (2010) guidance which “recommends that the pre-piling search duration should be a minimum of 30 minutes” based on the JNCC seismic survey guidance.</p> <p>Pre-piling watches will be undertaken for at least 20 minutes prior to soft-start and ramp-up procedure and piling. This is based on the average dive time of 10 – 15 minutes recorded for sei whales in shallow water. The soft-start and ramp-up procedure will consist of a gradual increase in construction noise in the aquatic environment, commencing with the starting of land-based plant such as cranes and hydraulic piling generators, proceeding to low power piling and culminating in piling at full power.</p> <p>Therefore, the proposed procedure includes gradual increase in construction noise in the aquatic environment, prior to the soft-start for piling. Starting processes allow any marine mammals to move out of the area before there is a risk of instantaneous PTS from the maximum hammer energy. Taking into account the relatively small impact ranges for instantaneous PTS from the maximum hammer energy, the proposed mitigation is determined to be suitable to reduce the risk to marine mammals.</p> <p>PAM was not considered a required mitigation measure, taking into account the shallow site, the adjoining working port at FIPASS and the relatively small impact ranges for instantaneous PTS. Experience on other similar projects indicates that PAM is not very effective in these conditions.</p> <p>If piling is to commence in low light conditions, the monitoring area will be lit up to allow visual observations of the area (and to allow safe working on site).</p>

BAM ref	Comment	Response
10	<p>There is no reference to southern-right whales throughout the document which are the most likely to be impacted by noise disturbance and ship strike and have been known to have been seen within the harbour.</p> <p>There is also no mention of increased risk to dolphins during port operations when there has been a documented fatal incident of boat strike on a dolphin at FIPASS.</p>	<p>Southern-right whales have been considered within the EIS – please refer to Section 9.2.3, particularly subsection A9.2.3.2. Based on the predicted number of southern right whales present in the area (which was informed by the publicly available information at the time of writing), it was considered that further assessment of impact to this species was not required. The proposed mitigation to manage the risk of underwater noise to sei whales would also be applicable to manage potential impacts to southern right whales.</p> <p>The recommendation for vessels to follow the '<i>Cetacean code of conduct for the Falkland Islands</i>' will reduce the risk of vessel collisions for all marine mammal species, including dolphins, sei and right whales. As per Question 5 answer the new code of conduct will be within the EMP</p>

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