BC Act Five-part Test

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species, or their habitats are outlined below.

	Southern Myotis	Eastern Bentwing-bat, Little Bentwing-bat	Green Turtle
(a) in the case of a Threatened Species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction	Potential roosting habitat for this species occurs within the wharf structure. Were the species to occur in the wharf, this may include lactating females with dependent young, or recently fledged pups. The species is known to give birth to two litters per year (in late October and late February) (Gonsalves and Law, 2015). The wharf forms part of a complex of known roosts within the locality. As the species is highly mobile, and the work will be take place outside of the breeding period, it is considered unlikely that the proposal would have an adverse effect on the life cycle of the species such that a viable local population is likely to be placed at risk of extinction.	Limited foraging habitat for these species exists within the proposal site. Known roost habitat for these species exists immediately adjacent to the proposal site, within the proposal site (Hoye and Spence, 2004). These species mate in April – July (Churchill, 2009), and implantation occurs in August - September. These species congregate within maternity roosts from August onwards, and young are born in December to January. The species would utilise the tunnels as an overwintering resource and as such may be subject to disturbance during the overwintering period which has potential to deplete fat stores, stressing animals and leading to failed breeding attempts. However, through avoidance of high disturbance work during the overwintering period, it is considered unlikely that the work would have an adverse effect on the life cycle of the such that the a viable local population of the species is likely to be placed at risk of extinction.	No habitat for resting or feeding. Any occurrence of the turtle would be vagrant. The activity would not impact the lifecycle of the species.
(b) in the case of an endangered ecological community or critically endangered ecological community,	Not applicable		

	Southern Myotis	Eastern Bentwing-bat, Little Bentwing-bat	Green Turtle
whether the proposed development or activity: ***(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or*** ***(ii) is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction***			
(c) in relation to the habitat of a threatened species or ecological community: ***(i) the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and*** ***(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and*** ***(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality***	Potential roosting habitat will be removed as a result of the proposal. The roost habitat is considered to be low quality, and would form part of a network of higher quality roost sites within and surrounding the proposal site. The format of habitat within the Port Jackson estuary is currently fragmented, being composed of wharves, tree hollows and stormwater drains. While the proposal will remove a small area of lower quality roost habitat, the amount of fragmentation and isolation between habitat resources is not considered to be major, given the high mobility of the species. The species is not considered likely to be dependent on the habitat within the proposal site as key roosting habitat, as the habitat is considered to be of marginal quality, and forms a part of a larger complex of better quality habitat within the locality.	Known roosting habitat has potential to be indirectly impacted through construction-related noise and vibration. As the work will avoid the overwintering period of the species, habitat is considered unlikely to be impacted. Should work extend outside this period, mitigation measures will be put in place to ensure that impacts are minimal. The proposal will not fragment or isolate any areas of habitat. The habitat to be removed is not considered important to the species as it does not constitute suitable foraging habitat for the species, and indirect impacts to know roosting habitat will be avoided and mitigated.	No habitat for resting or feeding. Any occurrence of the turtle would be vagrant. The activity would not impact the availability, extent, or continuity of habitat in the vicinity of the proposal site

	Southern Myotis	Eastern Bentwing-bat, Little Bentwing-bat	Green Turtle
(d) whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly)	Not applicable – No Areas of Outstanding Biodiversity Value exist within the proposal site		
(e) whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.	Although potential habitat features were observed for the species within the wharf, surveys did not identify any individuals where at most the wharf may present potential foraging habitat. No key threatening processes are considered to be exacerbated by the proposal.	Although potential habitat features were observed for the species within the wharf, surveys did not identify any individuals where at most the wharf may present potential foraging habitat. No key threatening processes are considered to be exacerbated by the proposal.	The proposal would not substantially increase use and traffic at the site given the context of the adjacent naval base and Sydney Harbour. The proposal is unlikely to increase the creation of anthropogenic debris in marine and estuarine environments. The proposal site does not contain the noxious weed *Caulerpa taxifolia*. However, *C. taxifolia* has the potential to introduced to the site if not adequately managed. Management measures have been provided in Section 6.2.5 to avoid the spread of this noxious weed.

FM Act Seven-part Test

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species, or their habitats are outlined below.

	Blackrock Cod	Grey Nurse Shark	White's Seahorse /	Cauliflower Soft Coral
(a) in the case of a Threatened Species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction	The activity would not impact the lifecycle of the species.	The activity would not impact the lifecycle of the species.	The activity would not impact the lifecycle of the species	The activity would not impact the lifecycle of the species
(b) in the case of an endangered population, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction	No endangered population has been identified within the proposal site, nor is considered likely to occur. Therefore, the activity would not impact an endangered population of the species.	No endangered population has been identified within the proposal site, nor is considered likely to occur. Therefore, the activity would not impact an endangered population of the species.	Unmitigated activities would adversely impact the lifecycle of the species that constitutes an endangered population if present in such numbers within the proposal site.	Unmitigated activities would adversely impact the lifecycle of the species that constitutes an endangered population if present in such numbers within the proposal site.
(c) in the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity— **is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or**	Not applicable			

	Blackrock Cod	Grey Nurse Shark	White's Seahorse /	Cauliflower Soft Coral
is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction				
(d) in relation to the habitat of a threatened species, population or ecological community— **the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and** **whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and** **the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the threatened species, population or ecological community in the locality.**	Limited suitable habitat was identified in the proposal site. The proposal's development extent is limited to a small area and would occur above the water line. The proposed activity would not result in any habitat fragmentation due to all work being carried out above the water line. No submerged structures would be removed. The long-term survival of the species in the locality would not be impacted by the proposed activity.	No suitable habitat for resting or feeding. Any occurrence of the shark would be vagrant as an opportunistic forager. The proposed activity would not result in any habitat fragmentation due to all work being carried out above the water line. No submerged structures would be removed. The long-term survival of the species in the locality would not be impacted by the proposed activity.	Suitable habitat is present along the piles, and potentially within any Cauliflower Soft Coral if present at the base of the piles or nets or rock revetment. The proposed work would not remove the submerged section of the piles. These would remain intact and in place. As such no impact from the make safe and retrieval work will occur. Sydney Harbour has had sporadic observations of this species; thus it is unlikely that suitable habitat exists to an extent that would be fragmented by the activity. Due to the limited observations of the species within Sydney Harbour, it is unlikely that the proposal site supports a significant population. Furthermore, the proposed work does not require the removal of the piles as such modification/ fragmentation/ or isolation to the long-term survival of the species is not expected to be impacted by the activity.	The coral typically inhabits sandy seabed. Propeller wash would be minimised and anchoring/spud legs would be limited to a small area outside the safety net. These activities would not modify the habitat. Sydney Harbour has had sporadic observations of this species; thus it is unlikely that suitable habitat exists to an extent that would be fragmented by the activity. Due to the limited observations of the species within Sydney Harbour, it is unlikely that the proposal site supports a significant population. Furthermore, the proposed work does not require dredging or piling or any other form of sediment removal, as such modification/ fragmentation/ or isolation to the long-term survival of the species is not

	Blackrock Cod	Grey Nurse Shark	White's Seahorse /	Cauliflower Soft Coral
				expected to be impacted by the activity
(e) whether the proposed development or activity is likely to have an adverse effect on any critical habitat (either directly or indirectly)		Not applicable – No critical habitat exists within the proposal site		
(f) whether the proposed development or activity is consistent with a Priorities Action Statement.	The activity is consistent with the species Priorities Action Statements and would not result in negative impacts to their efforts.	The activity is consistent with the species Priorities Action Statements and would not result in negative impacts to their efforts.	White's Seahorse will not be harmed during make safe and retrieval work. The activity is therefore consistent with the species Priorities Action Statements and would not result in negative impacts to their efforts.	Cauliflower Soft Coral will not be harmed during make safe and retrieval work. The activity is therefore consistent with the species Priorities Action Statements and would not result in negative impacts to their efforts.
(g) whether the proposed development constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.	The proposed work does not constitute a key threatening process to the species.	The proposed work does not constitute a key threatening process to the species.	The proposal would not involve the removal of marine habitat. Piles designated for retrieval would be cut at the waterline, thereby retaining the pile below and hence potential marine habitat. Some areas of macroalgae on piles may be incidentally removed where the proposal has the potential to increase the impact of this KTP. However, the contribution of this proposal would be relatively minor given the minimal amount of habitat to be removed, the degraded and low quality nature of the marine habitat and the extent of habitat that would remain in the proposal site.	The proposed work does not constitute a key threatening process to the species

EPBC Act Seven-part Test

The factors to be considered when determining whether an action, development or activity is likely to significantly affect threatened species, or their habitats are outlined below.

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:	**Blackrock Cod**	**Grey Nurse Shark**	**Green Turtle**	**Indo-Pacific Humpback Dolphin**	**White's Seahorse**	**White's Seahorse / Cauliflower Soft Coral**
(a) lead to a long-term decrease in the size of an important population of a species?	Not applicable – no important population of the species is within the proposal site nor surrounding area.					
(b) reduce the area of occupancy of an important population?	Not applicable – no important population of the species is within the proposal site nor surrounding area.					
(c) fragment existing important population into two or more populations?	Not applicable – no existing important populations to fragment into two or more.					
(d) adversely affect habitat critical to the survival of a species?	The survival of the species would not be adversely affected by the activity.					
(e) disrupt the breeding cycle of an important population?	Not applicable – no important population of the species is within the proposal site nor surrounding area.					

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:	**Blackrock Cod**	**Grey Nurse Shark**	**Green Turtle**	**Indo-Pacific Humpback Dolphin**	**White's Seahorse**	**White's Seahorse / Cauliflower Soft Coral**
(f) modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline?	Due to the limited habitat availability, the activity would not decrease the quality of habitat to the extent that this species is likely to decline.				Although habitat (piles) is available for the species, the activity would not remove the submerged section of the piles. AS such the activity will not decrease the quality of habitat to the extent that this species is likely to decline as there are established populations elsewhere.	Although habitat is available for the species, the activity would not decrease the quality of habitat to the extent that this species is likely to decline as there are established populations elsewhere.
(g) result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat?	The invasive macroalgae *Caulerpa taxifolia* was not identified within the proposal site at the time of survey. Due to the nature of the work, establishment of invasive species is not expected to result. The proposed work has measures in place to minimise spread of invasive species.					