

Coastal Works Review

**Governor's Harbour – Construction of a Private Residential Dock
Block: 17A Parcel: 230**



PREPARED FOR: MINISTRY OF HEALTH, ENVIRONMENT, CULTURE AND HOUSING

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Project Proposal

The applicant- Joan Link- is seeking permission for the construction of a private residential dock located at Laliqye Quay in Governor's Harbour, as shown on Figure 1. The dock is intended for personal use for owners and guests of the property and for the mooring of a 50ft boat.

The works will directly affect approximately 366 square feet of Crown property. The shore perpendicular dock walkway shall measure 6ft 4in wide by 35ft long and shall connect to the boat slip dock which is already approved with planning permission as it is located within the property boundary (Planning reference number P20-0935). The L-shaped ending shall measure 12ft wide by 12ft long. The end platform shall have stair access to the water and a thatched cabana roof.

The dock will be supported by 8 inch diameter concrete reinforced PVC piles that will be inserted into the seabed by hand from a floating platform. The decking will comprise 6 inch by 2 inch Trex decking with ½ inch spacing between boards and shall be 4ft above mean sea level. Silt screens will be used to contain the entire area of the works to reduce the impact of dispersion of silt on the surrounding area disturbed by the construction. The applicant's submission also states that underwater lighting is proposed at the end of the dock however the DOE recommend this is not permitted (see environmental impacts section below).



FIGURE 1: AERIAL IMAGERY SHOWING PROPOSED LOCATION OF THE DOCK (ORANGE) AND THE BOAT SLIP DOCK WITH EXISTING PLANNING PERMISSION (YELLOW) (SOURCE: DOE 2021, LIS 2018)

Environmental Impacts

The proposed dock is located within Governor's Harbour which is not a Marine Protected Area and was mostly previously dredged; however it is within approximately 300ft of part of the designated North Sound Mangrove Buffer Zone and is over a shallow seagrass area that has not previously been disturbed. Having reviewed the planning history of the site, we note that the Laliqie Quay subdivision included a planning condition that required the retention of coastal mangroves along the boundary of the properties. However, it is evident that some of the mangroves that were previously along the coastline have been removed, in contravention of the planning condition. The DoE has alerted the Department of Planning to this issue. It appears that most remain of the mangroves remain intact on the subject parcel, however they will be impacted by the dock construction landward of the MHW, which was the subject of a recent planning approval. The seabed cover in this location is primarily seagrass and algal cover, therefore the construction of a dock in this location has the potential to directly impact these resource. The environmental impacts of this project are identified as follows:

Loss of Benthic Habitats

The benthic habitat in this area is characterised as dense seagrass beds as can be seen from the aerial imagery (as shown in Figure 1). Long term shading of seagrass beds are a particular concern as the dock structure reduces vital light penetration required for seagrass growth and productivity. Therefore, environmental mitigation fees have been recommended accordingly.

Artificial Lighting Impacts

The applicant proposes to have nine underwater lights near the end of the dock. However, underwater lighting can have a negative impact on marine life particularly the nocturnal behaviour of marine species, causing them to aggregate under the light which therefore increases the rate of predation and stress.



Figure 2: Above, underwater lighting examples from the applicant's proposed lighting fixture manufacturer. Demonstrates the congregation of fish under the point source of light. (Source: www.deepglow.com)

Construction Impacts

Direct environmental impacts will result from the construction of the dock, mainly through the placement of the PVC pipes into the seabed. The fine silts, sediments and sands of the seabed in this area are easily disturbed and suspended in process of installing the pilings, thus resulting in detrimental sediment plumes which can impact surrounding seagrass communities and marine organisms that depend on good water quality. Therefore it will be important to limit the impacts of sediment plumes generated during construction of the dock. The applicant has confirmed the use of silt screens as part of their mitigation measures.

In addition the floating platform has the potential to impact the seagrass beds outside the dock footprint, especially when closer to shore working in shallower waters to install the pilings, therefore it recommended that the floating

platform only operate in areas where water depth is sufficient for the draft of the platform to ensure that the seagrass beds are not impacted by it resting on the seabed.

There is no mention of an excavator or heavy equipment working from shore to install the pilings in the shallower ends. Therefore no heavy equipment should be allowed in the water or a causeway built to allow the machinery to enter the sea to install pilings.

Only the mangroves in the proposed dock footprint should be removed, any others on the property should be retained and only trimmed in accordance with the DOE's trimming guidelines.

Comments & Recommendations

Notwithstanding the above mentioned environmental impacts associated with the proposed dock, on balance the Department **recommends this application for approval** subject to the standard Permit conditions and recommended Permit fees (Royalty, Environmental Mitigation and Administration & Monitoring) outlined in Appendix 1, including the following condition:

- There shall be no lighting which directly illuminates the water, including underwater lighting.

Director of Environment

On behalf of the National Conservation Council