



Pender Harbour Environmental Study Summary

In March 2018, Biological Consultants M.C. Wright and Associates Ltd. (MCW) concluded a two-phased environmental study in Pender Harbour, BC. This study was designed to review the potential impacts of docks on the marine environment, to characterize intertidal and subtidal habitats and community composition, and to identify evidence of dock development impacts to these habitats and communities.

There are currently 321 authorized docks and marinas, as well as many unauthorized docks in the approximately 2,300 hectare Pender Harbour Area. In their study, MCW found evidence that increasing numbers of docks (including marinas) had adverse impacts to marine habitats and community composition in Pender Harbour. Increased number of docks had adverse effects on algae diversity, kelp cover percentage, fish abundance, and eelgrass presence.

In particular, MCW found that increasing numbers of docks correlated with a decrease in the amount of kelp cover and relative number of fish. The study showed that eelgrass, a critical habitat component in marine ecosystems, was not growing under docks or areas where boats might be moored, due to shading. One exception was the case of a single eelgrass bed found underneath a dock that was newly constructed after 2014; in spite of this, the size of this eelgrass bed had already been negatively impacted by the shading effect from the dock. It was noted that the affected area of eelgrass underneath a dock ranged from 2.6 to 5.4 times larger area than the dock itself.

Due to the negative effects of dock density on marine habitats and community composition that were observed, MCW states that a successful dock management approach must combine protection of critical habitats, dock design regulations, public education/engagement, and regulatory oversight. MCW recommends more stringent dock design regulations in the Province's Dock Management Plan (DMP), with particular reference to light penetrating dock materials, dock orientation, maximum dock width, pile installation, restrictions on boathouses, and Styrofoam.

Specific design regulations suggested by MCW include construction using light penetrating materials with a minimum of 43% open space to allow for light penetration to the ocean floor, as well as a dock width limit of 1.2 meters. MCW further recommends a restriction on the size and number of boathouses and on the use of Styrofoam for dock construction, due its tendency to break down over time and pollute the marine environment. MCW also recommends that the long axis of docks be aligned in a north-south direction to the maximum extent that is practical and that pile driving be used as the preferred method of pile installation.

MCW further suggests that Bargain Bay be removed from Zone 3 and placed in a more stringent zone, due to the high abundance of eelgrass and critical fish species such as Rockfish in this area. The loss of eelgrass beds in the vicinity of docks within Bargain Bay was conservatively estimated by MCW to be 2337 square metres, or 11% of the total eel grass in Bargain Bay.

MCW highlights the need for public education with regards to Pender Harbour's marine environment, particularly in reference to eelgrass and its importance in providing critical habitat for fish while mitigating against climate change. MCW also notes that eelgrass is protected from destruction under the federal *Fisheries Act*.

To access the full report by M.C. Wright and Associates Ltd., entitled *Impacts of Docks in Pender Harbour: Phase 2 Assessment January 2018* please visit the following link:

<https://arfd.gov.bc.ca/ApplicationPosting/getfile.jsp?PostID=43285&FileID=66586&action=view>