

Management Plan for Private Moorage

fronting 1160 Ecclestone Road, Bowen Island. Lot B, District lot 1911, Plan 12596, Group 1, New Westminster Land District.

I. Background:

The proposed work is a fixed elevated walkway, a counterbalanced ramp assembly, and a float for private boat launching and water access. The proposed use is for private moorage in front of the owners property located at 1160 Ecclestone Road on Bowen Island. The owners request timely approval so they can begin construction and have the dock in place for the spring of 2021 for the family's use. Other installations of private moorage have been reviewed, preliminary discussions have been held, and the required documents for the approval access have been obtained. The current zoning for the upland property is RS(e) and the water in front of the subject property is zoned CS. This dock will be for private non commercial use. It is a seasonal residence, the owners boat will be present at the dock when the owner is there.

Current bylaw information has been provided by Bowen Island Planning, and the proposed dock should be able to meet their requirements. The upland owner is working with Bowen Island Municipality to resolve some property legacy issues that exist, and a Development Variance Application has been submitted.

II. Location:

Deep Bay, Bowen Island, BC, fronting on Civic Address 1160 Ecclestone Road, Legal address Lot B, District lot 1911, Plan 12596, Group 1, New Westminster Land District. Land access will be from the owners upland property. Water access will be from Deep Bay and is near shore, and is not located within any vessel channels. Vessel traffic will not be affected. The moorage will be mostly summer use, with limited use in the other seasons. The water based traffic will be pleasure craft, perhaps one or two vessels. The adjacent land and water parcels in the surrounding area are zoned similarly to the applicant, the upland property is RS(e) and the water in front of the subject property is zoned CS. From a Safety perspective, Bowen Island is well served by Fire Rescue and Emergency Services, and all pleasure craft operators have their operator card.

III. Infrastructure:

The owner is proposing to construct a new 13.7 m long x 1.2m wide welded aluminum elevated fixed approach pier that will rest on a small precast pedestal at shore and a support column at the other end. The ramp is a 13.4 m x .9m wide welded aluminum counterbalanced ramp with perforated grate decking that is supported by a 760mm diameter reinforced precast concrete column that is keyed

into rock at the waters edge. The counterbalanced ramp will touch down on the 3.7 m X 10.0 m float in front of the owners residence. The construction materials will be limited to a small amount of concrete for the column construction, which will be set on top of existing rock (primarily precast concrete will be used for the pillar itself to minimize contact with ocean water), welded aluminum pier section and ramp with perforated decking (manufactured offsite) and a wood float made of CCA treated Fir dimensional lumber stringers encased in plastic, with Thruflow composite decking, and using Stryrofoam buoyancy encased in 3mm HDPE to protect the foam (all manufactured offsite). The methods to construct are elemental and will involve a small barge and crane for final placement for piers and ramps. The float will be secured using concrete anchors and 19mm galvanized chain. There are no roads required for this dock, as access to the dock is from the owners property. This structure will be for private use only. There will be no power required for the operation of this dock, and there will be no water supply or waste disposal required. The fixed approach pier will be constructed 2.0 metres above the high water line, allowing free access beneath the structure, and will not restrict access along the foreshore.

IV. First Nations:

We have had no contact with the First Nations, and the proposed dock is not expected to negatively affect First Nations interests. The owner will be conducting a Preliminary Field Reconnaissance with a Qualified Professional to confirm site conditions.

V. Environmental:

This is a small private family moorage, which will not have any significant environmental impact. The attached Environmental Assessment summarizes the potential impacts. The work will be scheduled in consultation with Fisheries and Oceans Canada to avoid any sensitive timing issues.

a. Land Impacts:

The fixed approach pier will rest on a small precast pedestal at shore, and on a precast 760mm reinforced concrete column that is keyed into rock at the waters edge. This approach will eliminate the requirement to cut vegetation, disturb soil, or encroach on riparian areas. There will be no use of pesticides and herbicides in the construction of the moorage. The visual impact of the moorage will be nominal, and will be consistent with other private moorages in the area. There are no known archaeological sites. The construction materials will be limited to a small amount of concrete for the column construction, which will be set on top of existing rock (primarily precast concrete will be used for the pillar itself to minimize contact with ocean water), welded aluminum wharf and ramp (manufactured offsite), wood float made of CCA treated Fir dimensional lumber stringers encased in plastic, with Cedar decking, and using Stryrofoam buoyancy encased in 3mm HDPE to protect the foam

(all manufactured offsite). The methods to construct are elemental and will involve a small barge and crane for final placement for piers and ramps.

b. Atmospheric Impacts:

There will be no atmospheric impact in the construction of our dock with the exception of periodic noise associated with assembly of a dock during the several days of assembly of the components. Fuel emissions from vessels utilizing the proposed float will be minimal, and will not significantly increase other existing atmospheric impacts.

c. Water or Land covered by water Impacts:

Potential impacts to the environment during the construction phase will be mitigated and managed by a series of steps. In water works consist only of placing clean, sound mooring anchors. Works within the intertidal zone will be carried out during periods of low tide. The support column will be constructed of precast elements, filled with concrete. All fuels and deleterious liquids will be contained to prevent any spills from entering any aquatic environment. The proposed dock will maintain the required 10m set back from the neighbours existing dock.

The construction of the proposed dock will have no effect on drainage, will not create sedimentation, cause any water diversion, or affect the water quality. It will also not impede public access or cause any flood potential. While it is understood that there is potential for impacts to water quality as a result of fuel spills or materials entering the environment, these impacts will be minimized by sound boating practices. Impacts to the surrounding marine area during the operation of the dock would be nominal compared to the existing operations of marinas and other recreational vessels in the Howe Sound area.

d. Fish and Wildlife Habitat

In July of 2019 and again in February 2021 Kingfisher Docks Ltd. retained qualified divers and Biologists to conduct an underwater biophysical survey of the intertidal and subtidal zones within the vicinity of the proposed installation in Deep Bay. As outlined in the attached reports from Aquaterra, the survey consisted of recording detailed observations and videographs along three underwater 1.0 m wide belt transects, and one reference transect. There was a subsequent dive transect added recently to confirm conditions in a fifth area, as the dock position was relocated during design development. The results of this survey is summarized in the attached report, and concludes there are no negative environmental effects to the proposed installation.

VI. Socio-Community

a. Land management plans

The bay in front of the owners property is zoned CS and the lot is zoned RS(e), there are no requirements to change any of this zoning. The property will continue to be used as residential, and will be maintained by the upland owner. The private moorage will not impact any public recreation areas. The fixed approach pier will be constructed to provide 2.0 metres clearance, allowing free access beneath the structure, and will not restrict access along the foreshore.

b. Socio-Community Conditions

The proposed dock will not affect or influence existing community services or infrastructure. The demand on fire protection or emergency services will be not increase as a result of the installation. There is a large, well run fire department on Bowen Island as well as an existing Health Clinic, and an ambulance service for emergencies.