

Management Plan

Siegrist - Private Moorage Tenure Application

February, 2016

(Revision 1)

There are two different section "b's" in the Frontcounter bc private moorage applications management plan requirement, I have included information for both as to not miss any required information

The following "Section b" is listed as a requirement in the 'private moorage application requirements list – marine'

Section B – Project Details

- **Description of existing structures such as type (dock, wharf, etc.), construction (pilings, floats, etc.), and materials (include any preservatives);**
There are no existing structures at the proposed project site.

- **Size and dimensions of planned (and/or existing) improvements including floating docks, wharves, boathouses, retaining walls, pilings or areas to be filled or dredged as well as construction material used;**
 - One 5' x 4' x 2' concrete abutment.
 - One 4' x 58' aluminum approach.
 - Two driven 12" steel bearing piles
 - One 4' x 50' aluminum gangway.
 - A 12' x 32' private moorage float.
 - Four lengths of galvanized moorage chain.
 - Two concrete anchor blocks.
 - Two anchor pins.

- **Include dimensions and distances from property lines**
All system structures are to be greater than 5m from property line projections.

- **If other docks are located within 25 meters of the site plan, please include these docks on the site sketch;**
There are no other docks located within 25m of the proposed site plan

- **Indicate how public access is maintained along the beach;**

At high tide the location is an undesirable place for public to access along the bedrock. At low tide there is ample space for the public to walk under the structure.

- **Type of use - number of boats, seasons, etc., and**

This proposed moorage system will be used exclusively by the owners of the upland property and their guests. There will be no services to the float. The float will not be used for commercial purposes and no income will be generated by the facility. The float will typically provide moorage for the owner's single boat. The float will be in place year round.

The following "section b" is listed as a requirement in the provided specific information template required 'http://www.for.gov.bc.ca/land_Tenures/documents/management_plan.pdf'

Section B – Proposed Use Description

Information on these topics below may be required as part of the application processing and if further detail is necessary that is not part of the application and management plan received, you will be contacted and requested to provide additional information.

I. Background

Proposed use – what is proposed including any phased development details – should sync with "Purpose" chosen:

- Installation of a private moorage system for use by upland lot owner.
- Float will allow moorage space for the owner's private boat year round.
- The upland owner will not charge money for moorage or any other amenity provided by the float system.

Why here and now:

As there is no bridge or car ferry that services the island Mr. Siegrist wants to be able to access his property on the island via water.

Details of any preliminary investigative work and any other approvals obtained:

Written confirmation from Islands Trust has been obtained. No other approvals have been obtained.

Current zoning:

Water fronting lot – CR1 / Upland Lot – CR1

For commercial activity – the location of competition, potential market statement:

Not Applicable.

II. Location

General description of:

The moorage system will front Lot 7, DL 1594/1595, B15, NWD, Plan – 10378, PID: 005-740-851 on the east shore of Keats Island, B.C.

Access plans – how will you or your clients be accessing the parcel:

- Upon completion the mooring system will be accessed from the water and from the upland lot.
- During installation the proposed mooring system location will be accessed by boat and barge.

Traffic including volume of traffic and phase or season:

-The tenure area will see little vessel traffic. The moorage will only be use by the proponent's private boat and occasional guests. The moorage will see a slightly larger volume of traffic in the summer season.

Seasonal expectations of use:

The moorage will stay in year round as they rely on their boat to access the mainland. The moorage will see a slightly larger volume of traffic in the summer season.

Land use on parcel, adjacent parcels and surrounding area

Upland Lot is zoned CR1 residential.

Confirmation of Safety plan including first aid – probably needs to be a tick box on Appn form

- Moorage installation contractor to have Health and safety plans.
- Proponents boat is equipped with required Transport Canada safety equipment.

III. Infrastructure

New facilities or infrastructure proposed and any ancillary uses:

Description of Structures to be Installed

Mr. Siegrist proposes to install a 12' x 32' concrete float for private moorage use. The float will front Lot 7, DL 1594/1595, B15, NWD, Plan – 10378, PID: 005-740-851 on the east shore of Keats Island, B.C.. One 4' x 58' aluminum approach will extend to a two pile bent. A 4' x 50' gangway will extend from there and rest on the float. Cedar decking or aluminum grate decking will be installed on the gangway. The float is to be anchored using moorage chain, two concrete anchor blocks set seaward, and two anchoring pins below the low water line.

Size and Dimensions of planned improvements

- One 5' x 4' x 2' concrete abutment.
- One 4' x 58' aluminum approach.
- Two driven 12" steel bearing piles.
- One 4' x 50' aluminum gangway.
- A 12' x 32' concrete private moorage float.
- Four lengths of galvanized moorage chain.
- Two concrete anchor blocks.
- Two anchor pins.

Existing and proposed roads and their use by season, and any proposed connections to public or FSR roads:

N/A

Utility (power, electrical, telecommunications) requirements and sources:

N/A

Water supply; (use and quantity if known) and,

N/A

Waste disposal (note if septic system required), sewage, sanitation facilities and refuse disposal.

N/A

IV. First Nations

Describe any contact you may have had, including the name of the First Nation(s) and individuals contacted. Provide copies of or a description of any information you may have acquired from or provided to the First Nation(s) (potential benefits, partnership opportunities, special interests, concerns, etc.) and any information regarding archaeological resources and areas of cultural significance you are aware of in the vicinity of the proposed project.

-We have not had any contact with First Nations. We are not aware of any areas of cultural significance close to the proposed moorage site.

Section C – Additional Information:

V. Environmental

Describe any significant impacts and proposed mitigation with respect to:

a. Land Impacts

Cutting of vegetation:

-No vegetation is planned to be cut as a result of the moorage system project.

Soil disturbance:

-The improvements will be installed on bedrock or on the water. Minimal seafloor disturbance will occur with the placement of the float anchors. There will be no soil disturbance on the land.

Riparian encroachment:

-The moorage system will be located on the ocean as seen on the plans. There is no fresh water streams or lakes in the immediate area.

Management of pesticides, herbicides:

N/A

Visual impacts:

-The moorage system has been kept as low and short as possible to avoid visual impacts. The approach height shown on the drawings is necessary to avoid structural damage during high tides involving weather. The length of the structure is necessary to gain adequate water depth as to not contact the seafloor during low tides.

Known archaeological sites:

-We are not aware of any archaeological sites in the area.

Types of construction methods and materials used:

-We anticipate minimal land impact.

-All system components will be transported in by barge with no impact to the foreshore or sea floor.

-No machinery will work in the intertidal zone.

- The float will have greater than the minimum clearance from the sea floor of 1.5m at low water (0' chart datum).
- Anchor pins will be set into the sea floor below the low water line.
- The anchor blocks will be set on the sea floor (not dragged) minimizing environmental impact.
- All applicable Best Management Practices, Operational Statements, and Timing Windows will be followed during all build and installation phases.
- Construction materials to be used for the project are noted in previous sections.

b. Atmospheric Impacts

Sound:

- There are no audio impacts at the proposed moorage site now.
- Besides the proponents personal boat there will be no audio impacts at the moorage site after installation.
- Minimal sound impacts will occur throughout the installation process (system installation time estimated – 24 working hours).
- Work will be conducted in an efficient and timely manner minimizing sound impacts.

Odor:

- There are no odor impacts at the proposed moorage site now.
- Besides the proponents personal boat there will be no odor impacts at the moorage site after installation.
- Minimal odor impacts will occur throughout the installation process (system installation time estimated – 24 working hours).
- Work will be conducted in an efficient and timely manner minimizing odor impacts.

Gas:

- minimal fuel emissions and welding gases are the only gases that will be produced during installation and from the proponent's private boat after installation.

Fuel emissions:

- minimal fuel emissions are the only gases that will be produced during installation and from the proponent's private boat after installation.

Explain current conditions, source, type and range of emission:

- minimal fuel emissions from the tug boat, crane, and small tools are the only gases that will be produced during installation and from the proponent's private boat after installation.

c. Water or Land covered by water Impacts

Drainage effect:

N/A

Sedimentation:

- Minimal water turbidity expected when the anchor blocks are installed.
- Water quality will remain the same.

Water diversion:

N/A

Water quality:

- Minimal water turbidity expected when the anchor blocks are installed.
- Water quality will remain the same.

Public access:

Public access will be maintained at all times along the foreshore.

Flood potential:

N/A

d. Fish and Wildlife Habitat

Provide current status of fish or wildlife habitat:

No eelgrass was observed during our site visit. Fish and wildlife habitat is currently undisturbed.

Disturbance to wildlife habitat:

- No drainage effect will occur.
- Minimal water turbidity expected when the anchor blocks are installed.
- Water quality will remain the same.
- All machinery and tools present on site during installation will be inspected for fluid leaks and be deemed in good working order prior to arrival to minimize the chance of a spill.
- The anchor blocks will be set on the sea floor (not dragged) minimizing water turbidity.

- All applicable Timing Windows, Operational Statements and Best Management Practices (BMP's) will be followed during all build and installation phases.
- All mandatory mitigation measures noted in the BMP's will be taken to ensure the least amount of negative effects on fish and wildlife habitat.
- The addition of the approach, float, piles, anchor blocks, and anchor chain will introduce habitat for wildlife and marine organisms to accumulate on.

Disturbance to fish habitat or marine environment:

- No drainage effect will occur.
- Minimal water turbidity expected when the anchor blocks are installed.
- Water quality will remain the same.
- All machinery and tools present on site during installation will be inspected for fluid leaks and be deemed in good working order prior to arrival to minimize the chance of a spill.
- Emergency spill kits are to be located on installation barges.
- The anchor blocks will be set on the sea floor (not dragged) minimizing water turbidity.
- All applicable Timing Windows, Operational Statements and Best Management Practices (BMP's) will be followed during all build and installation phases.
- All mandatory mitigation measures noted in the BMP's will be taken to ensure the least amount of negative effects on fish and wildlife habitat.
- The addition of the approach, float, piles, anchor blocks, and anchor chain will introduce habitat for wildlife and marine organisms to accumulate on.

Threatened or endangered species in the area:

We are not aware of any threatened or endangered species in the area.

Seasonal considerations:

All applicable Timing Windows, Operational Statements and Best Management Practices (BMP's) will be followed during all build and installation phases.

VI. Socio- Community

a. Land Use

Land management plans:

N/A

Public recreation areas:

The Siegrist property is located adjacent to a location zoned P1 (Natural Area Community Park).

b. Socio-Community Conditions

Provide a description of the demand on fire protection or emergency services:

The private moorage addition will increase the demand on emergency services by a negligible amount.

A handwritten signature in black ink, appearing to read 'A. Thomsen', is written on a light-colored rectangular background.

Adam Thomsen
Green Wave Marine Services Inc.

Feb. 29, 2016

Date