

# REGIONAL DISTRICT OF NANAIMO

## P O L I C Y

SUBJECT: <i>Retaining Walls - Marine</i>	POLICY NO: B1.9
	CROSS REF.:
EFFECTIVE DATE: October 26, 2004	APPROVED BY: Board
REVISION DATE:	PAGE: 1 of 3

### PURPOSE

To provide guidelines regarding the consideration of Development Permit, Development Variance Permit and Bylaw No. 843 applications for seawalls adjacent to the ocean for erosion protection purposes such that potential impacts to adjacent properties and the natural environment are considered and recommendations to resolve impacts are detailed.

### BACKGROUND

Pursuant to the Regional District of Nanaimo Land Use and Subdivision Bylaw No. 500, 1987 a retaining wall is considered a structure where it is over 1.0 m in height retaining more than 1.0 m of earth. New retaining walls or the approval of existing retaining walls over 1 metre in height and retaining 1 metre of soil shall require a building permit where the property is within the building inspection area. Pursuant to the *Local Government Act*, local governments can establish development permit areas to protect development against hazardous conditions and to protect the natural environment. This requirement is triggered where land alteration is proposed to take place.

Federal Fisheries and Oceans (DFO) has developed a Best Management Practices (BMP) document that is intended to provide the property owner with the criteria necessary to ensure the works are being done with due diligence thereby avoiding the harmful alteration, disruption or destruction of fish habitat pursuant to Section 35(1) of the *Fisheries Act*. These BMPs have been incorporated into the policies and procedures outlined below.

### POLICY

This policy applies to Development Permit and Development Variance Permit applications for the construction of new marine retaining walls or legalization of existing marine retaining walls for the purposes of erosion protection. A staff report will be prepared and will include recommendations to be approved by the Regional Board.

1. All marine retaining walls shall be designed by a professional engineer qualified in geotechnical matters.
2. Erosion protection devices utilizing bio-engineering methods shall be encouraged.
3. Wherever possible, shoreline vegetation necessary to sustain the ecological functions of the shoreline shall be protected, retained and restored.

4. Marine retaining walls shall be less than 1 metre in height unless otherwise required by a professional engineer.
5. Marine retaining walls shall be located on the subject property, above the present natural boundary of the marine foreshore, unless existing conditions or an existing wall cannot or should not be altered or modified as recommended by the engineer's report. If any portion of a retaining wall is proposed to be located below the present natural boundary, permission is required from Land and Water BC (LWBC) and the Ministry of Water, Land and Air Protection (MWLAP) in the event that the subject property is adjacent to a Wildlife Management Area, established pursuant to Section 4 of the BC *Wildlife Act*, or otherwise protected as a provincial reserve.
6. Marine retaining walls shall be constructed of rip rap. Other methods/materials shall only be used if deemed necessary by a professional engineer. Flat faced cast-in-place concrete walls and lock block walls are discouraged and preservative treated lumber or timber is not permitted.
7. Marine retaining walls constructed for the purposes of reclaiming land shall not be permitted unless otherwise required by a professional engineer.
8. Heavy equipment shall not be permitted on the beach unless existing conditions do not permit upland access and, if required, mitigation methods acceptable to the RDN shall be identified as part of the application.

## **PROCEDURES**

Applications for new retaining walls or the approval of existing retaining walls shall include the following information.

1. A survey completed by a British Columbia Land Surveyor (BCLS) that shows the following:
  - a) the location of the present natural boundary;
  - b) the location and description of any present shoreline structures;
  - c) where there has been erosion or accretion, the natural boundary as per the plan of subdivision;
  - d) elevations and representative cross sections showing the top of bank and toe of the bank; and
  - e) height and cross-section of any proposed or existing retaining wall or other shoreline protection system.
2. A report sealed by a professional engineer qualified to carry out retaining wall design and to assess geotechnical matters is required and shall include recommendations with regards to the following:
  - a) Necessity of the proposed retaining wall
  - b) Potential impacts to adjacent properties with or without the installation of a retaining wall.
  - c) Mitigation methods to reduce negative impacts to the natural environment and to adjacent properties.
  - d) Potential impacts to continued public access of the foreshore.
  - e) Where the proposed works involve repairs to an existing retaining wall, the engineer shall evaluate potential negative impacts and make recommendations to mitigate these negative impacts.
  - f) Description of the construction details, materials and methods to be used including cross sectional drawings.

- g) Supervision and inspection requirements of the proposed works.
  - h) Certify that the site is safe for the intended use.
  - i) Acknowledge that the RDN may rely upon the report when making a decision regarding the development of the land.
3. Where a section 219 covenant is registered on the title restricting removal of vegetation, alteration of land and/or construction within the area where the retaining wall is proposed to be located, the application shall include permission from the covenant holder(s).
  4. If works are proposed to be undertaken on the beach the following conditions apply:
    - a) Confirmation how access is going to be achieved and any required permissions (for example, if through an adjacent property, including the Wildlife Management Area or other shoreline reserve, permission from the property owner, if through a MOT beach access, permission from MOT);
    - b) Confirmation that the machinery will not adversely impact the beach environment and mitigation methods to reduce negative impacts must be detailed.
  5. Details of vegetation species that may be affected or removed, both within the intertidal zone and immediately upland, a proposed replanting plan, and other methods to mitigate the loss of vegetation.
  6. Confirmation that DFO will be informed of the proposed works and advised of the name of selected contractor(s) and when the proposed works are to be undertaken.
  7. Be aware that the development site is in compliance with the ***Heritage Conservation Act***.
  8. The name of the contractor, if any, who will do the work.
  9. The date when the proposed works are to be undertaken. The timing of works shall consider fisheries and wildlife sensitive periods (such as late summer bird migration).