



**District of  
North Saanich**

**STAFF REPORT**

To: Rob Buchan  
Chief Administrative Officer

Date: August 10, 2108

From: Coralie Breen  
Senior Planner

File: 6740-2018

**Re:** Marine Policy Planning  
North Saanich Coastal Mitigation Flooding Bylaw No. 1439 (2018)  
North Saanich Official Community Plan Marine Policy Bylaw No. 1442 (2018)  
For Decision – Dates for Workshop

**RECOMMENDATION:**

That Council:

- A) Approve the proposed workshop date of a November, 2018 date to be determined; and
- B) Approve sole sourcing to Lanarc 2015 Consultants Ltd. in the amount of \$25,000 to complete illustrations for Bylaw 1439 and an accompanying guidebook; AND
- C) Approve an increase in the project budget of \$25,000 to be funded from the Federal Gas Tax reserve.

**OFFICIAL COMMUNITY PLAN & STRATEGIC PLAN IMPLICATIONS:**

This matter relates to the Official Community Plan vision:

***Protect and Enhance Rural, Agricultural, Heritage, Marine and Environmental Resources***

*Official Community Plan (OCP) related policies Sections 4.0 Marine Policies*

**SCOPE:**

- 456** That staff prepare a report to the August 20, 2018 meeting with alternate dates for the marine policy public workshop and for staff to circulate examples of the illustrative work to Council.

**PURPOSE OF THE STAFF REPORT:**

The purpose of this staff report is to request Council's approval to:

- a) proceed with the public workshop in November, 2018; and
- b) approve the \$25,000 to Lanarc Consulting for illustrations for Bylaw 1439 including an accompanying guidebook based on the consideration of examples of Lanarc's work; or
- c) consider Bylaws 1439 and 1442 at the next Council meeting.

Nearly the entire shoreline of the District is exposed to a growing flood hazard related to the expected effects of climate change-related sea level rise. The flood hazard occurs primarily to private properties and differs considerably in character around the shoreline. The most exposed areas of the shoreline are located in the Tsehum Harbour area and along Lochside Drive near the McTavish interchange. In many locations the future flood hazard is concentrated at the toe of steep cliffs and bluffs and in locations where the cliffs or bluffs are grounded on outcropping bedrock. In these latter situations it will be some time before a flooding related hazard materializes. In many other locations, the hazard is concentrated at the toe of existing seawalls and the consequences will be manifested either at or adjacent to the seawall base, on publicly owned foreshore, or at the top of the seawall where overtopping wave action will create an increasing problem either from the flooding by the overtopping volume of water during storms, or from erosion and unravelling of the seawall or from erosion of the land immediately behind the seawall.

North Saanich Official Community Plan Marine Policy Bylaw No. 1442 (2018)

In general terms, the purpose of Amendment Bylaw No. 1442 is to amend Official Community Plan Bylaw No. 1130 (2007) to implement recommendations that the District has obtained from engineering consultants regarding the coastal flooding hazards associated with climate change and sea level rise, including the following:

- Adding a general description of the coastal flooding hazard.
- Amending policies regarding environmentally sensitive areas, marine areas, residential development, commercial development, industrial development, and roads and servicing, and general development policies.
- Amending the scope of development permit exemptions in development permit areas that are subject to coastal flooding hazards.
- Designating the Tsehum Harbour and Lochside-McTavish Interchange areas as “Special Development Areas” within which particular policies to mitigate coastal flooding hazards will apply.

The parcels of land that are affected by the proposed OCP amendments include both those that abut the seashore and those that are adjacent to such parcels and low enough to be affected by coastal flooding.

North Saanich Coastal Mitigation Flooding Bylaw No. 1439 (2018)

In general terms, the purpose of Bylaw No. 1439 is to identify flood level specified for the flood plain for any particular parcel of land, for the purposes of s. 524(6)(a) of the *Local Government Act*.

There are approximately 713 waterfront lots in the District of North Saanich.

For 0.5 m sea level rise (SLR) scenario the wave effects and flooding are confined to the shoreline or the first 15 m of setback (Criteria 1 & 2)\* on approximately 582 lots. Partial flooding, including in some cases, complete inundation (Criteria 3 & 4)\* is expected on 131 lots.

\*Criteria 1 – little or no effect on applicable lots and mainly occurs when the shoreline is steep  
 Criteria 2 – limited flooding or wave interaction provided main building is 15 m or more landward  
 Criteria 3 & 4 – lots may require protective measures

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### **BACKGROUND:**

The following provides an annotated version of the history of the sea level rise project.

In 2014, Council identified in the Strategic Plan the following projects:

*#3 Prepare policies to guide marine and shoreline development (including planning for sea level rise).*

*#4 Bring forward to Council the Marine Task Force recommendations and work plan.*

*#5 Review District bylaws and policies that affect waterfront property owners*

In 2014, Council **535** directed staff compile information on sea level rise impacts, including mapping, on the District of North Saanich to bring to Council and share with the public.

In 2016, the District of North Saanich completed a study of flood construction levels (FCL) for 0.5 m and 1.0 m Sea Level Rise (SLR) (the FCL Report) which informed the review of the Official Community Plan marine policies. 1.0 m SLR is generally regarded as year 2100. The District joined twelve other local governments who began undertaking flood plain mapping in the Province since 2016 with six additional local governments now underway.

In 2017, a draft OCP Marine Policy and Guidelines Recommendations Report (the Marine Policy Report) was completed and Council **404** directed staff to complete the work outlined in the staff report (August 16, 2017) including the Report recommendations consistent with the Provincial Guideline Memorandum Amendment – Section 3.5 and 3.6 – Flood Hazard Area Land Use Management Guidelines (FHALUMG) (January 1, 2018). Specifically, S. 3.5.5.1 that “the Year 2100 FCL should be established for specific coastal areas by a suitably qualified Professional Engineer, experienced in coastal engineering”. (FHALUMG, pg. 5). Further FHALUMG identified that this work could be completed as part of flood plain mapping, sea level rise planning areas or development approval processes.

In November 2017, Council **583** directed staff to provide an update report on the marine policy planning project specifically with regard to the sea level rise study.

In April, 2018 Council **273** directed staff to proceed with the coastal floodplain approach as outlined in the staff report (April 27, 2018) and **274** to accept the \$50,000 Transport Canada grant.

In June, 2018 Council **414** directed staff to organize and host a public workshop on North Saanich Coastal Flooding Mitigation Bylaw 1439 (2018) and North Saanich Official Community Plan Bylaw 1130 (2007) Amendment Bylaw 1442 Marine Policy (2018).

### **DISCUSSION:**

Four years after Council directed staff to initiate the sea level rise study work, and after several public workshops and subsequent changes of approach from a development permit area to a coastal mitigation flooding bylaw, Council now has draft bylaws for OCP marine policy changes and a coastal mitigation flooding bylaw protecting at risk properties. The public response, while favorable to this change in approach, further suggested more information and illustrations to aid the public to understand when the bylaw would be administered and the implications.

To advance this public understanding in the North Saanich context of the dynamic nature of coastal flooding, including storm wave effects, overtopping of shoreline defenses, and associated ponding and flooding staff recommended an illustrated guidebook to accompany Bylaws 1442

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and 1439 to understand coastal flood risk and successful adaptation and when and how the Bylaws would be administered. Illustrators who understand this complexity particularly in the local context are limited. Staff was able to discern one such company, Lanarc Consulting. Lanarc principals have experience with illustrating sea level rise conceptually in the Vancouver Island region for other local governments (e.g. Campbell River). Staff requested a proposal from Lanarc to provide illustrations for Bylaw 1439 and an accompanying guidebook in preparation for a workshop proposed for November, 2018 at the District of North Saanich Municipal Hall. Previously Council defeated the staff recommendation for approval of \$25,000 for the guidebook and communications to support 22 section illustrations for the guidebook and Coastal Flooding Mitigation Bylaw 1439. Lanarc is not available to provide this work until Mid-Late October in preparation for a November, 2018 workshop. Additional resources, such as staff time, are limited.

### **FINANCIAL:**

#### **Current:**

To date the expenditures to SNC-Lavalin has been \$129,699.97 for the Flood Construction Level Reports, the OCP Marine Policy Report (first including the proposed Development Permit Area and then the Coastal Mitigation Flooding Bylaw) and the public consultation workshops.

#### **Proposed:**

In order to accommodate the cost of the guidebook, bylaw illustrations and public workshop, an increase to the project budget of \$25,000 by way of a financial plan amendment would be required. Staff recommend the increase be funded from the Federal Gas Tax reserve.

### **PUBLIC CONSULTATIONS:**

Public consultations were held November 16, 2017, October 19, 2017, January 26, 2017, November 17, 2016 and June 7, 2016.

The most recent public consultations (November 16, 2017 and October 19, 2017 had 18 and 60 attendees respectively, and 13 and 21 completed feedback forms). The October 19, 2017 consultation invited feedback forms to be dropped off or submitted on the District of North Saanich website had some technical glitches in feedback submission therefore, there is not certainty that all submitted forms were received. Every form received was confirmed by email by District of North Saanich staff to the submitter.

Two public consultations followed the August 16, 2017 Council direction:

1. Marine Policy Planning & Development Approval Processes  
 A presentation and discussion of the Draft Report recommendations including the proposed Development Permit Area for flood construction level (October 19, 2017)  
 (60 attendees not including staff/Council)
2. Special Development Areas Fieldtrip and meeting - Special Development Areas  
 Tsehum Harbour and Lochside Drive and Shoal Harbour Bird Sanctuary – Role for the  
 District Public Consultation (November 16, 2017)  
 (18 attendees not including staff/Council)

Feedback on all of the proposed OCP changes was requested at the October 19, 2017 meeting to be submitted online or by mail, or email and on the special development areas at the November 16, 2017 meeting.

The proposed development permit area had the most lengthy response comments (16/21 feedback forms out of 60 attendees); including disagreement/concern with the proposed changes;

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no measurable increase in sea level at Lands End; restriction of flexibility of the land owner; perceived additional costs; lack of certainty on rate of sea level rise and which lots are in which category on the maps; need for a full OCP review; radical approach. Several form responses provided no comment or comments that the DP technical aspects should be commented on by those with scientific knowledge. Feedback from the consultations overall provide little comments on most of the suggested text changes in the OCP marine policy section (6.0). There were few concerns on the proposed special development areas.

The recommended approach moves to a Coastal Flood Mitigation Bylaw from the proposed development permit area which provides more certainty for the owner and it removes the current obligation of owners obtaining costly geotechnical reports. This approach considered comments from public consultation and other advice. In addition, staff have met with PROW representatives to explain the new flood plain bylaw approach. During that meeting, the representatives also noted that after the bylaw is adopted, investigation into mitigation measures should still be undertaken such as green shores, guidelines for seawalls and other such measures.

#### **OPTIONS:**

Council can:

1. Proceed with the workshop in November, 2018 or a date to be determined without supporting illustrations to visually illustrate and communicate Bylaw 1439; or
2. Proceed with the workshop in November, 2018 or a date to be determined and reconsider the sole sourcing for \$25,000.00; or
3. Proceed with Bylaws 1442 Marine OCP and 1439 Coastal Flooding Mitigation without the public workshop.

#### **NEXT STEPS:**

1. Prepare for a public workshop in November, 2018; or
2. Consider Bylaws 1442 Marine OCP and 1439 Coastal Flooding Mitigation.

#### **SUMMARY:**

After four years of research, planning and public consultation the District now reflects on two proposed bylaws to advance the District's Strategic Plan directions to prepare policies on marine planning, consider the marine task force recommendations and consider impacts of sea level rise on property owners. The recommended approach is two bylaws:

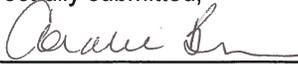
1. North Saanich Coastal Mitigation Flooding Bylaw No. 1439 (2018)
2. North Saanich Official Community Plan Marine Policy Bylaw No. 1442 (2018)

Staff recommends to proceed with the illustrations of the Coastal Mitigation Flooding Bylaw, the guidebook and public workshop as an illustrative guide to advance public administration and understanding. Alternatively, Council may consider proceeding with Bylaws 1442 Marine OCP and 1439 Coastal Flooding Mitigation without the public workshop.

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Respectfully submitted,



Coralie Breen  
Senior Planner

Concurrence,

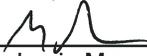


Rob Buchan  
Chief Administrative Officer

Concurrence:



Anne Berry, Director of Planning and Community  
Services



for Stephanie Munro, Director of Financial Services