



# TOWN OF SIDNEY

## REPORT TO COUNCIL

**TO:** Mayor & Council

**FROM:** Tim Tanton, Director of Development Services, Engineering, Parks & Works

**DATE:** March 21, 2018 **FILE:** 5240-20

**SUBJECT:** REAY CREEK POND & DAM UPDATE

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### PURPOSE:

To provide Council with an update on the Reay Creek Pond and Dam remediation.

### BACKGROUND:

Historical studies and sampling programs have confirmed the presence of high levels of cadmium, chromium, lead and zinc in the sediments of Reay Creek Pond. Transport Canada has accepted responsibility for the cleanup, and is currently studying options for remediation of the Pond. A project to remediate the Pond is expected to occur in 2019.

In 2013, the Town hired the geotechnical engineering firm Thurber Engineering Ltd. to assess the condition of Reay Creek Dam. Staff reported back to Council when the assessment was complete, and summarized Thurber's findings as follows: "the dam is undersized, seismically vulnerable, and constructed of inappropriate materials to meet the current requirements of the BC Dam Safety Guidelines." Remediation of the Pond and the Dam are clearly linked, and therefore work to address concerns about the dam was put on hold until such time as the remediation of the Pond was scheduled. For information, photos of Reay Creek Dam (taken in 2013) are shown below.



Photo 1: Looking West Along Dam Crest



Photo 2: Spillway #2

## **DISCUSSION:**

As Transport Canada nears a decision about how to proceed with the cleanup of Reay Creek, the Town must make a decision about how to address the safety concerns with the dam. This could be addressed in 3 ways:

1. Remediate the existing dam;
2. Remove the existing dam and build a replacement dam;
3. Remove the dam, eliminate the pond, and reinstate a natural channel.

Staff note that the cost of all these options is expected to be significant. The Town does not have a specific funding source identified for remediation or removal of the dam, and the project would likely be funded by short-term borrowing.

### Engineering Considerations

In early 2018, the Town retained Thurber Engineering to perform preliminary engineering analysis and provide some conceptual cost estimates for the above 3 options. Thurber's 2018 work will include the following:

- Site visit and dam inspection
- Consideration of the new BC Dam Safety Regulation which came into effect in February 2016, and may differ from the rules in effect during Thurber's 2013 review;
- Consideration of the recently updated seismic standards for dams;
- Conceptual design work to determine likely dam geometry and construction quantities
- Preparation of preliminary cost estimates for all 3 options.

### Fishery Considerations

A decision about how to proceed with the Reay Creek Dam will also be influenced by environmental considerations. Staff obtained the attached proposal from LGL Limited to conduct a Fish and Fish Habitat Assessment of Reay Creek. The scope of work would include:

- Desktop review of existing information on Reay Creek fish, fish habitat, past and current hydrology, and status of contamination;
- Field assessment of fish habitat
- Field assessment of fish presence
- Data analysis and potential effects of modifications to dam.

Funding for the cost of the study is within approved budgets.

### Public Consultation

The decision about whether or not to remove the dam will be of interest to residents of the 8 houses that border directly on the pond, as well as other members of public who visit the area around the pond. Taxpayers from other areas of Sidney may also be interested in the outcome, as the costs of any of the options will be significant. Staff therefore propose a period of town-wide public consultation after the completion of the above engineering and biological studies, but prior to a Council decision about how to proceed.

Proposed Process for Decision on Dam:

The following table outlines the process that staff recommend for arriving at a decision on the Reay Creek Dam:

<b>Step</b>	<b>Description</b>	<b>Completion Date</b>
1	Engineering Study by Thurber	May 2018
2	Fishery Study by LGL	May 2018
3	Request Feedback from Public (Town Talk, Facebook, Twitter)	June 2018
4	Deadline for Public Feedback	July 2018
5	Staff Report to Council and Decision on Dam	August 2018
6	Notification to Transport Canada	September 2018

**RECOMMENDATIONS:**

1. That Council direct staff to proceed with the Fish Habitat Assessment by LGL Limited as described in the proposal dated March 14, 2018; and
2. That Council direct staff to proceed with public consultation after the engineering and fish studies are complete, and then report back to Council.

Respectfully submitted:

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