

From: [Stewart, Robert FLNR:EX](#)  
To: [Bunge, Sara K ENV:EX](#); [Kohlhauser, Randal FLNR:EX](#)  
Subject: RE: Campsite in McTaggart Cowan WMA  
Date: Monday, June 27, 2016 9:03:00 AM  
Attachments: image001.png

---

I've heard of this location. Perhaps a site visit. And some new signs.



**Robert Stewart**  
**Ecosystems Biologist**  
Thompson Okanagan Region | Penticton  
250.490.8253 | 250.490.7464  
**Forests, Lands and Natural Resource Operations**

---

From: Bunge, Sara K ENV:EX  
Sent: Sunday, June 26, 2016 9:09 AM  
To: Kohlhauser, Randal FLNR:EX; Stewart, Robert FLNR:EX  
Subject: Campsite in McTaggart Cowan WMA  
Hi:

Following up on a complaint about a sketchy person in the woods, we checked out an area in the WMA yesterday. There is a cave that someone is using as a dwelling of sorts. There is lots of rock terracing and stairs – which has been there for a few years. Apparently someone has been camping there recently, although no-one was there when we went yesterday. What was there was a tent (in a headp), 2 sleeping bags, a foamie, some candles, etc. The access is through Skaha Bluffs Park, off of the Gillies Creek FSR. UTM is 11, 314603, 5479103. I left a note asking them to call me, which they won't likely do.

I think we can remove the stuff after 2 weeks, is that right?

Rob - is there some kind of signage you would like put there, to help discourage people from camping there and leaving crap?

Thanks,

Sara

Sara Bunge  
Senior Ranger  
BC Parks, South Okanagan  
(250) 490-8223

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Steciw, Julie A FLNR:EX](#)  
**Subject:** Re: request to contract form to sign  
**Date:** Monday, June 20, 2016 3:09:40 PM  
**Attachments:** image001.png  
image002.png

---

No prob

---

**From:** "Steciw, Julie A FLNR:EX" <[Julie.Steciw@gov.bc.ca](mailto:Julie.Steciw@gov.bc.ca)>  
**Date:** Monday, June 20, 2016 at 3:08 PM  
**To:** rob <[Robert.Stewart@gov.bc.ca](mailto:Robert.Stewart@gov.bc.ca)>  
**Subject:** RE: request to contract form to sign

Hey, thanks for letting me know.  
Darn, chose the wrong person.  
All is good, it still got signed off. Yeah.  
Julie

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Monday, June 20, 2016 11:11 AM  
**To:** Steciw, Julie A FLNR:EX  
**Subject:** RE: request to contract form to sign  
Hi Julie. Wrong Stewart. It's been a while since I've received any of Rodger's mail. You've broken the drought



**Robert Stewart**  
**Ecosystems Biologist**  
Thompson Okanagan Region | Penticton  
250.490.8253 | 250.490.7464  
**Forests, Lands and Natural Resource Operations**

---

**From:** Steciw, Julie A FLNR:EX  
**Sent:** Thursday, June 16, 2016 12:01 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** request to contract form to sign  
Hi Rodger, can you please tell me when you have a moment to sign a request to contract form for the installation of cattleguards at Chilanko Marsh.

Thank you,  
Julie

**Julie Steciw**  
Wildlife Biologist, Fish & Wildlife Section  
FLNRO - Natural Resource Operations / Cariboo Region  
400 - 640 Borland Street / Williams Lake, BC / V2G 4T1  
Phone: (250) 398-4671 / Fax (250) 398-4214  
[Julie.Steciw@gov.bc.ca](mailto:Julie.Steciw@gov.bc.ca)



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Elphick, Ryan ENV:EX](#); "[edurance@vip.net](mailto:edurance@vip.net)"  
**Cc:** "[Lisa Scott](#)"; [nburdock@naturetrust.bc.ca](mailto:nburdock@naturetrust.bc.ca)  
**Subject:** RE: poison-ivy cutting?  
**Date:** Monday, June 20, 2016 9:57:00 AM  
**Attachments:** image002.png  
image003.png

---

I've opened discussion with Lisa Hedderson and Rene McKibbin about cutting poison ivy on the SOWMA and CWS lands. I think the boardwalk is on both those, but there might be some in TNT. Ryan. The trail does run through the park and then goes into TNT. Not sure we need any cutting in the park.



**Robert Stewart**  
**Ecosystems Biologist**  
Thompson Okanagan Region | Penticton  
250.490.8253 | 250.490.7464  
**Forests, Lands and Natural Resource Operations**

---

**From:** Elphick, Ryan ENV:EX  
**Sent:** Monday, June 20, 2016 9:36 AM  
**To:** '[edurance@vip.net](mailto:edurance@vip.net)'; [nburdock@naturetrust.bc.ca](mailto:nburdock@naturetrust.bc.ca); Stewart, Robert FLNR:EX  
**Subject:** RE: poison-ivy cutting?  
Don't think it is BC Parks, as the trail is not within Provincial Park boundaries.  
Cheers

Ryan Elphick  
Area Supervisor, East Okanagan  
BC Parks Kootenay/Okanagan Region  
Phone: 250-490-8250  
Fax: 250-490-2231



**BC Parks**

---

**From:** [edurance@vip.net](mailto:edurance@vip.net) [<mailto:edurance@vip.net>]  
**Sent:** Monday, June 20, 2016 9:05 AM  
**To:** [nburdock@naturetrust.bc.ca](mailto:nburdock@naturetrust.bc.ca); Stewart, Robert FLNR:EX; Elphick, Ryan ENV:EX  
**Subject:** poison-ivy cutting?  
Lisa Scott asked me to inquire as to who/which agency would be responsible for cutting back the poison-ivy along the Vaseux boardwalk before the demolition of the blind happens. Thanks.  
Eva  
Eva



From: [Stewart, Robert FLNR:EX](#)  
To: [Marshall, Fred FLNR:IN](#)  
Cc: [Safford, Kirk R ENV:EX](#)  
Subject: RE: Private lands along Kettle River under constant development pressure and inordinate disturbance  
Date: Tuesday, June 14, 2016 9:45:00 AM  
Attachments: image001.png

---

Kirk.safford@gov.bc.ca



**Robert Stewart**  
**Ecosystems Biologist**  
Thompson Okanagan Region | Penticton  
250.490.8253 | 250.490.7464  
**Forests, Lands and Natural Resource Operations**

---

From: Fred s.22  
Sent: Monday, June 13, 2016 4:01 PM  
To: Stewart, Robert FLNR:EX  
Subject: Re: Private lands along Kettle River under constant development pressure and inordinate disturbance

Unfortunately no; but a huge difference between the before and after.

Would you please send me Kirk Stafford's e-mail address and forward my message and photos to him.

thanks,

Fred

From: [Stewart, Robert FLNR:EX](#)  
Sent: Monday, June 13, 2016 3:22 PM  
To: [Marshall, Fred FLNR:IN](#)  
Subject: RE: Private lands along Kettle River under constant development pressure and inordinate disturbance

Thanks Fred. Good to see you too.

Do you have any photos of the site prior to cutting down all the trees?



**Robert Stewart**  
**Ecosystems Biologist**  
Thompson Okanagan Region | Penticton  
250.490.8253 | 250.490.7464  
**Forests, Lands and Natural Resource Operations**

---

From: Fred s.22  
Sent: Friday, June 10, 2016 6:38 PM  
To: Stewart, Robert FLNR:EX  
Subject: Fw: Private lands along Kettle River under constant development pressure and inordinate disturbance

Hi Rob: Nice to have had a chance to catch up a bit on things with you. Hope we can do it again before too long. Lots yet to discuss so if you're ever coming over this way be sure to call ahead so we can arrange a visit.

See below and attached. The Cottonwood/riparian ecosystem along the Kettle Rivers and Boundary Creek and Jewel creek and other smaller ones are severely at risk.

Fred

From: [Fred s.22](#)  
Sent: Friday, May 06, 2016 1:40 PM  
To s.22

**Subject:** Private lands along Kettle River under constant development pressure and inordinate disturbance

I drove past the Kettle River park this AM and took some pictures of the private property located north of and across the river from the park. The area was recently logged and, I believe, still being logged.

The pictures show the logging aftermath next to the Kettle River. The moderately high water has already caused some bank erosion with more likely to come.

Note the stumps sticking out of the water in one of the pictures and the ground disturbance along the bank of the River.

While a bylaw designed to protect the all important Riparian area and Cottonwood ecosystem along the River may not be an easy sell, it should be seriously considered. Without proper protection the integrity of the Riverine ecosystem is seriously threatened.

Crown land riparian ecosystems are protected. Similar, or even better protection should be provided for Private lands.

As noted in my previous memo, many other developments have recently happened along the Kettle River and tributaries (e.g. the recent attempted golf course development in the mid Granby River) and more are under development or planned for the future.

Unconstrained riparian development should not be allowed to continue.

Otherwise people, like s.22 and many youth groups etc., who have worked diligently to restore and improve degraded riparian areas are not given due respect for their efforts and will only continue falling behind!

Also, many people volunteered many hours to develop and now implement the Kettle River Watershed Plan. Without much improved management of the private lands along the many watercourses in the Boundary, much of this work will be for naught.

Fred

From: [Stewart, Robert FLNR:EX](#)  
To: [Leduc, Danya FLNR:EX](#)  
Cc: [Nield, Lora M FLNR:EX](#); [McFarlane, Bruce E FLNR:EX](#)  
Subject: RE: Crown Land File 3412953 Sugar Lake Commercial Dock  
Date: Monday, June 13, 2016 3:25:00 PM  
Attachments: image001.png

---

Thanks Lora

Danya. Lora and I discussed this morning, and following up on your and my discussion last week I think I can provide you a response to address your needs.

Let me know if you still need a response from me based on our discussion last week.

I'll be in the office tomorrow if you want to discuss further.



**Robert Stewart**  
**Ecosystems Biologist**  
Thompson Okanagan Region | Penticton  
250.490.8253 | 250.490.7464  
**Forests, Lands and Natural Resource Operations**

---

s.13,s.16

Page 008 to/à Page 015

Withheld pursuant to/removed as

s.16;s.13

From: [Stewart, Robert FLNR:EX](#)  
To: s.22  
Subject: Fw: SRM-PNW Field Workshop - WELCOME  
Date: Wednesday, June 8, 2016 3:33:49 PM  
Attachments: 2016 PNW Summer Field Workshop (2).pdf

---

**From:** Skinner, Anne E AGRI:EX  
**Sent:** June-06-16 3:51:45 PM  
**To:** Anne  
**Subject:** SRM-PNW Field Workshop - WELCOME

**Welcome** to all participants at 2016 SRM-PNW Summer Field Workshop. We have over 50 registrations and the weather promises to be fine in typical Okanagan style. Following are some last minute details FYI:

**#1. Osoyoos Baptist Church 6210 Highway 97** is the meeting spot for the bus June 9 & 10<sup>th</sup> mornings. Take Hwy 97 South toward the border ~ 1 km from the junction with Hwy 3. We have been allowed to leave vehicles for the day at the far north area of their parking lot (away from the church). Another function is occurring during the day so please be sure to respect the designated area for parking.

**#2. Vehicles for the field workshop on June 9 & 10<sup>th</sup>** there is limited parking space at several of the stops so please ride the bus or use the multi-passenger vehicles, bring your own vehicle only if absolutely necessary - thanks ☺.

**#3. Any vegetarians or needs for special food requirements** – no one has mentioned any but thought I'd double check - let me know asap?

**#4. Dinner at Sonora Community Centre 8505 - 68 Ave June 9<sup>th</sup> 5:30 - 10 pm.** Agenda will include a presentation from Danika Zinger our 2016 High School Forum delegate. Don't forget the traditional silent auction on Thursday evening - please bring an item :)

We look forward to meeting each other **June 8<sup>th</sup> Registration Reception at Troys Grill 8309 - 78 Ave.** WiFi is available at this location.

PS: Email is being sent to almost all participants including speakers but please share with those few that we don't have emails for ie: Alf Bawtree, Andy McDonald etc . . . thank you ☺

---

Anne Skinner P.Ag | Regional Agrologist  
BC Ministry of Agriculture - Kelowna | 250- 861-7272 | Cell: 250-309-2478  
Email: [anne.skinner@gov.bc.ca](mailto:anne.skinner@gov.bc.ca)  
1-888-221-7141 | [AgriServiceBC@gov.bc.ca](mailto:AgriServiceBC@gov.bc.ca)  
*"Wisdom is the reward for listening over a lifetime."*



## SOCIETY FOR RANGE MANAGEMENT- PNW

### 2016 Pacific North West Section Summer Field Workshop “Symphony of Species: Managing Rare and Diverse Ecosystems” June 8 - 10<sup>th</sup> Osoyoos, BC

The BC Chapter welcomes you to the south Okanagan to experience the grasslands beauty & secrets of resilience in Canada's only true desert environment. The two day field tour, will explore the diversity, complexity and challenges of rangeland stewardship in the South Okanagan. Habitat management here is truly art and science, where both ecological and social factors make valued contributions to the symphony.

#### AGENDA

Wednesday, June 8 <sup>th</sup>		
2:00 - 4:30 PM	PNW Section Executive Board Meeting	Troy's Grill Meeting Room 8309 - 78 Ave
4:30 - 9 :00 PM	Registration, Social Reception Bring your silent auction items ☺	Troy's Grill Meeting Room 8309 - 78 Ave
Thursday, June 9 <sup>th</sup> Bus Tour 8:15 AM - 4:30 PM Host - Greg Tegart Social & Ecological Dimensions - Coordinating Management		
Haynes Ecological Reserve, Oxbows River <ul style="list-style-type: none"><li>Land owners &amp; managers working together - South Okanagan Wildlife Management Area</li><li>Managing the needs of Species at Risk</li><li>Historical overview &amp; ranching history</li></ul>	<b>Greg Tegart</b> - Retired Agrologist & Manager Lavington, BC <b>Rob Stewart</b> - Ecosystems Biologist, BC Ministry of Forests, Lands & Natural Resource Operations, Penticton, BC <b>Christine Bishop</b> - Research Scientist, Environment & Climate Change Canada, Pacific Wildlife Research Centre, Delta <b>BC</b> <b>Alex Mclean</b> - Retired Range Agrologist Penticton, BC	
White Lake Basin <ul style="list-style-type: none"><li>Introduction to area grazing lands, history &amp; current jurisdictions.</li><li>Species at Risk; key birds, rattlesnakes &amp; amphibians, their habits &amp; habitats</li><li>Water Developments</li><li>Lunch</li></ul>	<b>Wade Clifton</b> - Rancher, 3 <sup>d</sup> generation Keremeos, BC <b>Christine Bishop</b> - Research Scientist ECCC [see above] <b>Darcy Henderson</b> – Habitat Ecologist Canadian Wildlife Service, Environment & Climate Change Canada, Kelowna <b>Nick Burdock</b> – The Nature Trust of BC's, Okanagan Conservation Land Coordinator, Penticton BC <b>Barb Pryce</b> - Nature Conservancy of Canada, Forester & Area Director, Penticton, BC	
Historical View of Fairview Town Site	Local Resident	
5:30 - 10 PM Sonora Community Centre 8505 - 68 Ave.	Roast Beef Dinner HSYF Student Danika Silent Auction	
Friday, June 10 <sup>th</sup> Bus Tour 8:15 AM - 2:00 PM Host - Rob Dinwoodie Water and the Desert in the Aftermath of Fire		
West Chopaka - desert grasslands <ul style="list-style-type: none"><li>What can monitoring an enclosure tell us</li><li>Water developments &amp; livestock distribution</li><li>Grazing management – history &amp; current</li></ul>	<b>Alex McLean</b> - Retired Range Agrologist Penticton, BC <b>Cy Kelly &amp; John Terbasket</b> - Local Ranchers, Cawston, BC <b>Kirk Safford</b> – Ecosystems Biologist BC Parks, Penticton,BC <b>Rob Dinwoodie</b> – Range Officer, BC Ministry of Forests, Lands& Natural Resource Operations, Vernon, BC	
Kobau Mountain – Elevation sage communities <ul style="list-style-type: none"><li>Grazing History</li><li>Fire recovery consideration &amp; strategies</li><li>Lunch enjoying the view</li></ul>	<b>Kirk Safford</b> - Ecosystems Biologist BC Parks, Penticton,BC <b>Local Rancher(s)</b> - <b>Rob Dinwoodie</b> - Range Officer, FLNRO, Vernon, BC <b>Alex McLean</b> – Retired Range Agrologist Penticton, BC	
Spotted Lake – a rare phenomena	Photo Opportunity	



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Cadieux, Sharon L FLNR:EX](#)  
**Subject:** RE: Conservation lands Filemaker form  
**Date:** Wednesday, June 8, 2016 11:14:00 AM

---

Thanks Sharon. I'll get the information together and then contact you and your group so we can figure out what next.

Robert Stewart  
Ecosystems Biologist  
Penticton

---

**From:** Cadieux, Sharon L FLNR:EX  
**Sent:** Wednesday, June 8, 2016 10:55 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: Conservation lands Filemaker form  
Hi Rob,

s.22

I'm assuming it's nothing

urgent for you by now...but if you need this wrapped up, let me know and I'll pass this on to someone else in our group. Regardless, we would still need the info I requested a while back to populate some of the drop down lists etc.

*Sharon Cadieux*  
(250) 371-3855

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Wednesday, June 8, 2016 10:52 AM  
**To:** Cadieux, Sharon L FLNR:EX  
**Subject:** RE: Conservation lands Filemaker form

Hi Sharon. It's been a few months since your last email. Let me know if you still need information from me and when you'd like it. I expect that you are busy with other things at present.

Robert Stewart  
Ecosystems Biologist  
Penticton

---

**From:** Cadieux, Sharon L FLNR:EX  
**Sent:** Monday, February 1, 2016 9:32 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: Conservation lands Filemaker form

Hi Rob,

Can you forward me the info I requested from our last conversation? I have time this week to work on the form.

Thx, Sharon

---

**From:** Cadieux, Sharon L FLNR:EX  
**Sent:** Thursday, January 21, 2016 8:58 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: Conservation lands Filemaker form

Hi Rob,

Just a heads up that I have not had a chance to work on the form this week – will hopefully have something to you next week sometime.

Sharon

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Wednesday, January 13, 2016 11:54 AM  
**To:** Cadieux, Sharon L FLNR:EX  
**Subject:** RE: Conservation lands Filemaker form  
Great, thanks.

---

**From:** Cadieux, Sharon L FLNR:EX  
**Sent:** Wednesday, January 13, 2016 11:52 AM

To: Stewart, Robert FLNR:EX  
Subject: Conservation lands Filemaker form  
Hi Rob,

Just a reminder to provide me with the following information:

1. List of names for the District observers (data collectors)

The screenshot shows the 'Conservation Lands Assessment' form with the 'Begin - New Record' section. The form has a tabbed interface with tabs: Start, Parcel Components, Land use, Disturbance, Manage Site Assessments, IP, Management Needs, and To. The 'Begin - New Record' section contains the following fields: Region (REGION), District (DISTRICT), Feature Number # (FEAT\_NUM), Common Name (COMMON\_NAME), Parcel Name (Parcel Name), Parcel # (Parcel Number), Location Description (LOCATION), Access Description (ACCESS\_DESCRIP), GPS - Location Data (Get GPS), Lat (LAT), Long (LON), Elevation (ELEV), Observers (OBSERVERS), Observation Time (FEAT\_TIME), and Observation Date (FEAT\_DATE).

2. Descriptive text explaining what to type in the following fields: Ecological Community (possibly a drop down list with specific values?) and Ecosystems General Description

Slope – breakdown of values you want here

The screenshot shows the 'Conservation Lands Assessment' form with the 'Parcel Components' section. The form has a tabbed interface with tabs: Start, Parcel Components, Land use, Disturbance, Manage Site Assessments, IP, Management Needs, and To. The 'Parcel Components' section contains the following fields: Feature Number# (FEAT\_NUM), Common Name (COMMON\_NAME), Ecological Community (WEATHER\_DESCRIP), Ecosystems General Description (WEATHER\_DESCRIP), Slope (Slope), Aspect (Aspect), BEC Zone and Subzone (ZONE), Site Series (SS), Physical Structures on Site Description (DESCRIP\_Physical Structure), and Topography Description (DESCRIP\_Topography).

- 3.
4. Land use Description and Trespass Description



**Conservation Lands Assessment** Version 1.0.2

Start Parcel Components **Land use** Disturbance Manage Site Assessments IP Management Needs

### Landuse

Do land uses other than conservation specific goals occur on the parcel? NOT

Please check all that apply:

<input type="checkbox"/> Logging/Silviculture	
<input type="checkbox"/> Ingrowth/Encroachment	
<input type="checkbox"/> Fire	
<input type="checkbox"/> Wildlife	
<input type="checkbox"/> Recreation	<input type="checkbox"/>
<input type="checkbox"/> Roads/ditches/culverts	<input type="checkbox"/>
<input type="checkbox"/> Feral Horses	<input type="checkbox"/>
<input type="checkbox"/> Flooding	<input type="checkbox"/>
<input type="checkbox"/> Blowdown	
<input type="checkbox"/> Other...	

Land Use Description

DESCRIP\_Land Use

Trespass Description (if Applicable)

DESCRIP\_Trespass

#### 5. Disturbance Description

**Conservation Lands Assessment** Version 1.0.2

Start Parcel Components Land use **Disturbance** Manage Site Assessments IP Management Needs

### Disturbance

Have land uses altered the dynamics of the conservation parcel? NOT

Please check all that apply:

<input type="checkbox"/> Brushing/Clearing
<input type="checkbox"/> Dams
<input type="checkbox"/> Draining
<input type="checkbox"/> Fire
<input type="checkbox"/> Livestock Grazing
<input type="checkbox"/> Mowing
<input type="checkbox"/> Range Structures
<input type="checkbox"/> Seeding
<input type="checkbox"/> Roads/ditches/culverts
<input type="checkbox"/> Other...

Disturbance Description

WEATHER\_DESCRIP

#### 6. Inventory Description

#### 7. Restoration Description

#### 8. Protection Description

**Conservation Lands Assessment**

Start Parcel Components Land use Disturbance Manage Site Assessments IP Management Needs

Inventory	<input type="text" value="Remove old inventory"/>
Restoration	<input type="text" value="restore existing inventory"/>
Protection	<input type="text" value="protect existing inventory"/>

Thanks Sharon

---

*Sharon Cadieux*

GIS Technician  
Forests, Lands and Natural Resource Operations  
441 Columbia Str, Kamloops BC  
(250) 828-4384

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Lacey, Cathy M ENV:EX](#)  
**Cc:** [Nield, Lora M FLNR:EX](#)  
**Subject:** RE: Seclusion Bay Resort Application # 100157429  
**Date:** Friday, June 3, 2016 4:43:00 PM

---

Cathy, Can you prepare a T&C letter for this file. I will have an additional condition listed below, so the automated response letter is probably not sufficient.

**Additional Terms and Conditions**

- This authorization is provided for the works immediately adjacent to or upland of the natural boundary. Works to replace the erosion protection must be completed at or above the natural boundary on private land. Erosion protection works below the natural boundary are not authorized.
- There are additional erosion protection works with fill adjacent to the proposed works. This additional sites have not been assessed by the province and may be unauthorized occupation on crown land below the natural boundary. Works on these sites is not part of the authorized works.

Robert Stewart  
Ecosystems Biologist  
Penticton

---

**From:** Nield, Lora M FLNR:EX  
**Sent:** Friday, June 3, 2016 12:55 PM  
**To:** Maxwell, Andree FLNR:EX; Tobin, Patrick J FLNR:EX; Stewart, Robert FLNR:EX; Lacey, Cathy M ENV:EX; 'jmassing@mdcproperties.ca'; 'Jason Schleppe'  
**Subject:** Seclusion Bay Resort Application # 100157429  
**Importance:** High

Rob and Cathy,

Can you please have the response sent to client and Jason (I have cc'd them both here) via email once Rob Stewart has completed it. Rob has informed me he has completed his review so I am hoping that it can be out this afternoon please.

Thank you,

Lora

Lora Nield, Senior Ecosystem Biologist

Resource Management, Ministry of Forests, Lands, and Natural Resource Operations

Penticton Office

250-490-8212

---

**From:** Maxwell, Andree FLNR:EX  
**Sent:** Friday, June 3, 2016 10:42 AM  
**To:** 'John Massing'; 'Jason Schleppe'  
**Subject:** RE: Request: Seclusion Bay Resort Application # 100157429

The application was accepted by me on May 15, 2016 and then it is reviewed by Ecosystem staff in Penticton.

To be clear, the survey plan provided to the Ministry of Forests, Lands and Natural Resources Operations with the application had to be revised. Once the survey plan was revised and other information supporting the application was labelled correctly, the application was accepted by Front Counter BC. As indicated above, the application is then reviewed by Ecosystem staff in Penticton. Please contact Lora Nield in the Penticton office to find out where your application is at.

---

**From:** John Massing [<mailto:jmassing@mdcproperties.ca>]

**Sent:** Friday, June 3, 2016 10:13 AM

**To:** Jason Schleppe; Maxwell, Andree FLNR:EX

**Cc:** Greg Bird; [bharmata@leg.bc.ca](mailto:bharmata@leg.bc.ca)

**Subject:** RE: Request: Seclusion Bay Resort Application # 100157429

Becky, as our official MLA for the area and as per our discussion of about a month ago, could you please go up the food chain in the Department of Forest, Lands, Natural Resource Operations and

see if we can finally get a Section 9 to complete construction of the rock wall at Seclusion Bay. To summarize:

1. We are simply trying to replace about a 3 foot high, 50 year old rock wall at the resort. Half of the rock wall was approved and is completed.
2. We have pursued best management practices and have engaged professional environmental consultants and land surveyors from the start.
3. We cannot seem to get the other half of the wall approved and my understanding is that the file was not opened and dealt with in a timely fashion just because there is also another concrete wall that was not labelled on the drawing.  
That wall has nothing to do with the application and is totally irrelevant to this application.
4. It is obvious and Jason can verify that there is no HADD to fisheries or to the environment.
5. We now have to move all the rock again at great expense so as not to pose a risk to children visiting the resort.

Contrary to what Andree outlines below this application could have easily been dealt with last January or so. The fact that the other concrete wall was not labelled properly is not an excuse not to open the file. I have heard from several other land owners trying to get things done and we are certainly not the only ones caught up in this bureaucratic maze. Please see what you can do and give me a call if you have any questions. Jason feel free to add your comments. Thank you in advance.

**John Massing**

MDC Realty Advisors USA, Inc.  
#200, 1029 - 17 Avenue SW  
Calgary AB T2T 0A9  
Direct Line: 403.668.7210  
Cell: 403.607.6353  
E-mail: [jmassing@mdcproperties.ca](mailto:jmassing@mdcproperties.ca)  
Website: [www.mdcproperties.ca](http://www.mdcproperties.ca)

---

**From:** Jason Schleppe [<mailto:jschleppe@ecoscapeltd.com>]  
**Sent:** Friday, June 03, 2016 10:18 AM  
**To:** Maxwell, Andree FLNR:EX  
**Cc:** John Massing; Greg Bird  
**Subject:** RE: Request: Seclusion Bay Resort

Thank you.

Can you clarify then where we are at in the review process? Who will be fielding this review, is it Penticton or Kamloops?

Happy Friday!

Cheers

Jason

**JASON SCHLEPPE, M.Sc., R.P.Bio**

**SENIOR NATURAL RESOURCES BIOLOGIST**

**ECOSCAPE ENVIRONMENTAL CONSULTANTS LTD.**

Phone: 250.491.7337 ext. 202 / Fax: 250.491.7772 / Cell: 250.808.3474

><(((o>`...`...><(((o>`...`...><(((o>`...`...><(((o>

This email, and any files transmitted, are confidential and may contain privileged information. Any unauthorized dissemination or copying is strictly prohibited. If you have received this email in error, please notify the sender immediately and delete the email.



Please consider the environment before printing this e-mail

---

**From:** Maxwell, Andree FLNR:EX [<mailto:Andree.Maxwell@gov.bc.ca>]

**Sent:** Friday, June 3, 2016 9:04 AM

**To:** Jason Schleppe <[jschleppe@ecoscapeltd.com](mailto:jschleppe@ecoscapeltd.com)>

**Subject:** RE: Request: Seclusion Bay Resort

I accepted the application on May 19, 2016 and additionally, I notified Rachel Plewes. See attached email.

Typically, when an application is accepted the applicant is notified via email.

---



changed in our work area). The PNB only changed in areas that are now shown as limit of fill, which are outside of the red dashed, proposed work area. However, we can amend accordingly to meet the requirement.

- 3) In the comments, I am not sure what is outstanding. I think you are asking that I prepare a figure that shows the works as they relate to PNB (as shown in the revised Figure 2 emailed to you, but with the old survey. If you visually put the two Figure 2 together, it should be clear the work is well behind PNB). Our works all occur behind the PNB based upon the photos submitted, my site visit, and coordinating the survey (now revised) to what is onsite. The design typical for the rock wall shows a remove and replace of the existing rock mortar wall with one that is more consistent with current BMP's. Can you clarify this is what you need from me? Does the old rock need to be surveyed by Neil, or is what I have provided going to work, once I update figure 2. If so, we may need to move Neil out to complete this next step.

I will revise Figure 2 tomorrow and issue back to FCBC upload. Can you confirm, based upon what is contained in this email, that the description of works is sufficient to prove works are behind PNB, or do we need to get Neil to do this? I thought that the problems with the file related to the PNB in areas outside of our work, but maybe I am misunderstanding, as between all that has been submitted, I thought it was clear enough to confirm works fall behind PNB (given that I have used Neils linework directly in both Figure 2 – Proposed works shown with red dash, and revised Figure 2 (which shows the PNB, but I haven't turned on the proposed works red dash line, but will on the re-submission).

Note, I have Ccd my clients and Neil on this matter, to keep this project moving forward as expeditiously as possible.

Thanks

Jason

**JASON SCHLEPPE, M.Sc., R.P.Bio**

**SENIOR NATURAL RESOURCES BIOLOGIST**

**ECOSCAPE ENVIRONMENTAL CONSULTANTS LTD.**

Phone: 250.491.7337 ext. 202 / Fax: 250.491.7772 / Cell: 250.808.3474

><(((0>`.,.,.,`-`.,.,.,><(((0>`.,.,.,`-`.,.,.,><(((0>`.,.,.,`-`.,.,.,><(((0>

This email, and any files transmitted, are confidential and may contain privileged information. Any unauthorized dissemination or copying is strictly prohibited. If you have received this email in error, please notify the sender immediately and delete the email.



Please consider the environment before printing this e-mail

---

**From:** Maxwell, Andree FLNR:EX [<mailto:Andree.Maxwell@gov.bc.ca>]

**Sent:** Wednesday, May 11, 2016 4:09 PM

**To:** Jason Schleppe <[jschleppe@ecoscapeltd.com](mailto:jschleppe@ecoscapeltd.com)>

**Subject:** Request: Seclusion Bay Resort

Hello Jason

I have discussed the survey information with Jeff Beddoes. Moving forward I have requested more information through vFCBC. Please use the link you received through vFCBC and upload the new survey information into vFCBC. As well, I think this attached document has to be redone since there survey boundary has changed. If you could overlay the new survey information onto Figure 2 and upload this in vFCBC that would be great.

Thanks

---

**From:** Runnalls Denby [<mailto:neil@runnallsdenby.com>]

**Sent:** Friday, May 6, 2016 1:47 PM

**To:** 'Beddoes, Jeff'

**Cc:** Maxwell, Andree FLNR:EX

**Subject:** RE: Seclusion Bay Resort

Hello Jeff,

Further to my onsite investigation today, please find attached a revised Sketch Plan showing the

present natural boundary, titled natural boundary and limit of fill areas.  
I have cc'd Andree Maxwell (FLNRO) who has been adjudicating the environmental consultant's application.

Please contact me with any questions.

Regards,

Neil R. Denby, B.C.L.S.

**RUNNALLS DENBY**  
**british columbia land surveyors**

259A Lawrence Avenue

Kelowna, B.C.

V1Y 6L2

tel. 250.763.7322

fax 250.763.4413

[www.runnallsdenby.com](http://www.runnallsdenby.com)

email: [neil@runnallsdenby.com](mailto:neil@runnallsdenby.com)

These electronic drawing files are being provided as a courtesy to you at your request. The information contained herein is proprietary in nature and may only be utilized for the current project and only by you, the authorized recipient of the information. All drawing information contained herein including, but not limited to, symbol libraries, blocks, details, etc. may not be reproduced, sold, distributed or utilized in any form on other projects or by anyone else, without the express written permission of Runnalls Denby. Due to the unsecured nature of the electronic data transfer and the inability of the originator to establish controls over the use thereof, Runnalls Denby, assumes no responsibility for any consequences arising out of the use of the data. It is the sole responsibility of the user to check the validity of all information contained herein. The user shall at times refer to relevant hard copy or sealed drawings. The information transmitted by this e-mail is intended only for the addressee and may contain confidential and/or privileged material. Any interception, review, retransmission, dissemination, or other use of, or taking of any action upon this information by persons or entities other than the intended recipient is prohibited by law and may subject them to criminal or civil liability. If you received this communication in error, please contact us immediately at (250) 763-7322, and delete the communication from any computer or network system. Although this email and any attachments are believed to be free of any virus or other defect that might negatively affect any computer system into which it is received and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by the sender for any loss or damage arising in any way in the event that such a virus or defect exist.

---

**From:** Runnalls Denby [<mailto:neil@runnallsdenby.com>]

**Sent:** Thursday, May 05, 2016 7:02 PM

**To:** 'Beddoes, Jeff'

**Subject:** RE: Seclusion Bay Resort

Thank you Jeff for your reply.

I agree with your suggestion about the labeling of "present natural boundary follows concrete retaining wall" when the retaining wall is upland of the titled natural boundary.

I am going to further investigate the two areas adjacent to the docks to see if in fact we have a fill situation.

I'll email you a revised sketch once I have been to the property.

Regards,

Neil R. Denby, B.C.L.S.

**RUNNALLS DENBY**  
**british columbia land surveyors**

259A Lawrence Avenue

Kelowna, B.C.

V1Y 6L2

tel. 250.763.7322

fax 250.763.4413

[www.runnallsdenby.com](http://www.runnallsdenby.com)

email: [neil@runnallsdenby.com](mailto:neil@runnallsdenby.com)

These electronic drawing files are being provided as a courtesy to you at your request. The information contained herein is proprietary in nature and may only be utilized for the current project and only by you, the authorized recipient of the information. All drawing information contained herein including, but not limited to, symbol libraries, blocks, details, etc. may not be reproduced, sold, distributed or utilized in any form on other projects or by anyone else, without the express written permission of Runnalls Denby. Due to the unsecured nature of the electronic data transfer and the inability of the originator to establish controls over the use thereof, Runnalls Denby, assumes no responsibility for any consequences arising out of the use of the data. It is the sole responsibility of the user to check the validity of all information contained herein. The user shall at times refer to relevant hard copy or sealed drawings. The information transmitted by this e-mail is intended only for the addressee and may contain confidential and/or privileged material. Any interception, review, retransmission, dissemination, or other use of, or taking of any action upon this information by persons or entities other than the intended recipient is prohibited by law and may subject them to criminal or civil liability. If you received this communication in error, please contact us immediately at (250) 763-7322, and delete the communication from any computer or network system. Although this email and any attachments are believed to be free of any virus or other defect that might negatively affect any computer system into which it is received and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by the sender for any loss or damage arising in any way in the event that such a virus or defect exist.

---

**From:** Beddoes, Jeff [<mailto:Jeff.Beddoes@tsa.ca>]

**Sent:** Thursday, May 05, 2016 12:05 PM

**To:** 'Runnalls Denby'

**Subject:** RE: Seclusion Bay Resort

Hi Neil

This drawing is much more useful from the perspective of determining ownership of the features along the natural boundary.

I have asked a few questions and made some suggestions on the attached for your consideration.

Jeff

**Jeff Beddoes, BCLS, CLS**

Senior Deputy Surveyor General

Surveyor General Division  
Land Title and Survey Authority of British Columbia  
Suite 200 - 1321 Blanshard Street  
Victoria BC V8W 9J3

T: 250 410 0590 | [Jeff.Beddoes@ltsa.ca](mailto:Jeff.Beddoes@ltsa.ca) | [www.ltsa.ca](http://www.ltsa.ca)

This communication and all attachments are intended only for the addressee and are confidential. If you receive this communication in error, please delete it and notify me immediately. Thank you.  
Please consider the environment before printing this email.

---

**From:** Runnalls Denby [<mailto:neil@runnallsdenby.com>]

**Sent:** May-04-16 2:45 PM

**To:** Beddoes, Jeff

**Subject:** RE: Seclusion Bay Resort

Hello Jeff,

Thank you again for your prompt reply yesterday and assistance.

As discussed, we have added the original natural boundary from Plan 17359.

I have also revised the labeling to refer to the present natural boundary from our 2012 survey where applicable and to a limit of fill where there is either a rock or concrete retaining wall.

I believe this is the right approach but any comments you can provide would be great. Thank you.

Regards,

Neil R. Denby, B.C.L.S.

**RUNNALLS DENBY**

**british columbia land surveyors**

259A Lawrence Avenue

Kelowna, B.C.

V1Y 6L2

tel. 250.763.7322

fax 250.763.4413

[www.runnallsdenby.com](http://www.runnallsdenby.com)

email: [neil@runnallsdenby.com](mailto:neil@runnallsdenby.com)

These electronic drawing files are being provided as a courtesy to you at your request. The information contained herein is proprietary in nature and may only be utilized for the current project and only by you, the authorized recipient of the information. All drawing information contained herein including, but not limited to, symbol libraries, blocks, details, etc. may not be reproduced, sold, distributed or utilized in any form on other projects or by anyone else, without the express written permission of Runnalls Denby. Due to the unsecured nature of the electronic data transfer and the inability of the originator to establish controls over the use thereof, Runnalls Denby, assumes no responsibility for any consequences arising out of the use of the data. It is the sole responsibility of the user to check the validity of all information contained herein. The user shall at times refer to relevant hard copy or sealed drawings. The information transmitted by this e-mail is intended only for the addressee and may contain confidential and/or privileged material. Any interception, review, retransmission, dissemination, or other use of, or taking of any action upon this information by persons or entities other than the intended recipient is prohibited by law and may subject them to criminal or civil liability. If you received this communication in error, please contact us immediately at (250) 763-7322, and delete the communication from any computer or network system. Although this email and any attachments are believed to be free of any virus or other defect that might negatively affect any computer system into which it is received and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by the sender for any loss or damage arising in any way in the event that such a virus or defect exist.

---

**From:** Runnalls Denby [<mailto:neil@runnallsdenby.com>]

**Sent:** Tuesday, May 03, 2016 11:22 AM

**To:** 'Beddoes, Jeff LTSA:EX'

**Subject:** Seclusion Bay Resort

Hello Jeff,

Further to my voice message, I won't re-iterate here in the email but could you please call me with respect to the attached sketch. Thank you.

Regards,

Neil R. Denby, B.C.L.S.

**RUNNALLS DENBY**

**british columbia land surveyors**

259A Lawrence Avenue

Kelowna, B.C.

V1Y 6L2

tel. 250.763.7322

fax 250.763.4413

[www.runnallsdenby.com](http://www.runnallsdenby.com)

email: [neil@runnallsdenby.com](mailto:neil@runnallsdenby.com)

These electronic drawing files are being provided as a courtesy to you at your request. The information contained herein is proprietary in nature and may only be utilized for the current project and only by you, the authorized recipient of the information. All drawing information contained herein including, but not limited to, symbol libraries, blocks, details, etc. may not be reproduced, sold, distributed or utilized in any form on other projects or by anyone else, without the express written permission of Runnalls Denby. Due to the unsecured nature of the electronic data transfer and the inability of the originator to establish controls over the use thereof, Runnalls Denby, assumes no responsibility for any consequences arising out of the use of the data. It is the sole responsibility of the user to check the validity of all information contained herein. The user shall at times refer to relevant hard copy or sealed drawings. The information transmitted by this e-mail is intended only for the addressee and may contain confidential and/or privileged material. Any interception, review, retransmission, dissemination, or other use of, or taking of any action upon this information by persons or entities other than the intended recipient is prohibited by law and may subject them to criminal or civil liability. If you received this communication in error, please contact us immediately at (250) 763-7322, and delete the communication from any computer or network system. Although this email and any attachments are believed to be free of any virus or other defect that might negatively affect any computer system into which it is received and opened, it is the responsibility of the recipient to ensure that it is virus free and no responsibility is accepted by the sender for any loss or damage arising in any way in the event that such a virus or defect exist.



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Nield, Lora M FLNR:EX](#)  
**Subject:** RE: Request: Crown Land File 3412953 Sugar Lake Commercial Dock  
**Date:** Friday, June 3, 2016 1:02:00 PM

---

Thanks. I'll respond and copy you.

Robert Stewart  
Ecosystems Biologist  
Penticton  
s.13,s.16

Page 029 to/à Page 033

Withheld pursuant to/removed as

s.16;s.13

From: [Stewart, Robert FLNR:EX](#)  
To: [Heather Hansen](#)  
Subject: Re: Water Act Notification R807969. Storm water outflow works on Vernon Ck  
Date: Thursday, June 2, 2016 5:57:42 AM

---

Thanks Heather. s.22

Will try to close my end on this tomorrow.

On 2016-06-01, 9:03 AM, "Heather Hansen" <[hansenh@ae.ca](mailto:hansenh@ae.ca)> wrote:

>Hi Rob,

>

>We will mitigate any negative impacts of working outside the fish window as per previously submitted measures, submitted by Beckie Rozander on February 17, 2016 and copied below. Works were not completed prior to freshet; however no work will be completed below the wetted perimeter. The work site will be isolated, and a monitor will be onsite during construction to conduct water quality monitoring and ensure no sediment is discharged downstream during work.

>

>If you have any questions please let me know.

>

>Cheers,

>

>

>Heather Hansen, P.Ag.

>Environmental Scientist

>Associated Environmental Consultants Inc.

>#200 - 2800 29th Street, Vernon, BC V1T 9P9

>Tel: 250.545.3672 | Cel: 250.938.4140

>

>

>You may unsubscribe from Associated's electronic communications at any time.

>

>

>

>

>-----Original Message-----

>From: Beckie Rozander [<mailto:rozanderb@ae.ca>]

>Sent: Wednesday, February 17, 2016 2:55 PM

>To: Stewart, Robert FLNR:EX

>Subject: FW: Water Act Notification R807969. Storm water outflow works on Vernon Ck

>

>Hi Rob,

>

>Thanks for getting back to me regarding the Woodsdale Road application. As discussed on the phone yesterday, construction activities to install a storm water outfall to discharge into Vernon creek at its intersection with Woodsdale Road is considered low risk.

>

>The activities associated with this project that may impact Vernon creek include removal of a small amount of riparian vegetation (tall shrubs) and placement of scour protection armouring under the storm water outfall (likely below the high water mark but outside the wetted perimeter of the creek). Although kokanee are known to exist in that section of Vernon Creek, there was no suitable spawning habitat observed at the project site.

>

>To ensure no serious harm to fish is created, this work is intended to be completed prior to freshet when water levels are at their lowest; an environmental monitor will be present for all activities that may affect Vernon Creek; appropriate site isolation techniques will be installed as necessary to minimize

sediment laden water from being discharged downstream from the project site; and, water quality monitoring will be undertaken during construction.

>

>The project will go out to tender in the next couple of weeks and construction is expected to commence in the month following. All construction regarding the Woodsdale Road storm water upgrade project is expected to be completed by June 30, 2016 at the latest.

>

>I have forwarded past communications regarding this application and included the original notification we submitted which requires the amendment for reference. Please don't hesitate to be in touch if you have any additional questions or need further clarification.

>

>Kind regards.

>

>Beckie Rozander, P.Biol.

>Environmental Scientist/Field Biologist

>Associated Environmental Consultants Inc.

>#200 - 2800 29th Street, Vernon, BC V1T 9P9

>Tel: 250.545.3672 | Cel: 250.308.6935 | Ext. 245

>

>

>-----Original Message-----

>From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]

>Sent: Tuesday, May 31, 2016 4:39 PM

>To: Heather Hansen

>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck

>

>Ok. You'll need to ensure that you've addressed any negative impacts that works outside the work window may have. Provide written documentation to this effect.

>Not sure if you have done this already for this file. Lots of files on my desk. Let me know

>

>thanks

>

>

>Robert Stewart

>Ecosystems Biologist

>Penticton

>

>

>

>-----Original Message-----

>From: Heather Hansen [<mailto:hansenh@ae.ca>]

>Sent: Tuesday, May 31, 2016 4:25 PM

>To: Stewart, Robert FLNR:EX

>Cc: Li, Yi FLNR:EX

>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck

>

>Hi Rob, the client just wants to change the work window (again). They were going to postpone to the summer, which would be within the work window. They now want to start the work ASAP (tomorrow, actually).

>

>Thanks,

>

>

>Heather Hansen, P.Ag.

>Environmental Scientist

>Associated Environmental Consultants Inc.

>#200 - 2800 29th Street, Vernon, BC V1T 9P9

>Tel: 250.545.3672 | Cel: 250.938.4140

>

>

>You may unsubscribe from Associated's electronic communications at any time.

>  
>  
>

>-----Original Message-----

>From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]

>Sent: Tuesday, May 31, 2016 3:48 PM

>To: Heather Hansen

>Cc: Li, Yi FLNR:EX

>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck

>

>Heather, I got your voice message today. Can you give us some detail on what changes the proponent wants so we can determine whether Yi or I need to deal with your request.

>

>Thanks.

>

>

>Robert Stewart

>Ecosystems Biologist

>Penticton

>

>

>

>-----Original Message-----

>From: Heather Hansen [<mailto:hansenh@ae.ca>]

>Sent: Monday, April 25, 2016 11:04 AM

>To: Stewart, Robert FLNR:EX

>Cc: Dave Hayward

>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck

>

>That's great, thanks Rob. I will let the client know.

>

>Heather

>

>-----Original Message-----

>From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]

>Sent: Monday, April 25, 2016 11:03 AM

>To: Heather Hansen

>Cc: Dave Hayward; Lacey, Cathy M ENV:EX

>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck

>

>Yes, I can do that extension. I'll get it prepared for you.

>

>-----Original Message-----

>From: Heather Hansen [<mailto:hansenh@ae.ca>]

>Sent: Friday, April 22, 2016 10:22 AM

>To: Stewart, Robert FLNR:EX

>Cc: Dave Hayward

>Subject: FW: Water Act Notification R807969. Storm water outflow works on Vernon Ck

>

>Hi Rob,

>

>You had provided WSP and the District of Lake Country an extension on Water Act Notification R807969 in February (see email chain below). Unfortunately they aren't going to get to the work until next week, which is in the work period as per the extension, but freshet is early again this year and the water levels are too high. I was on site with them this morning and it would be better if they waited until July or August now, when the flows are lower and they can work within the fish window. Can we extend the work period on this notification for work to commence between July 22 and August 31 (which is what you wanted the first time, sorry).

>

>Let me know.  
>  
>Cheers,  
>  
>  
>Heather Hansen, P.Ag.  
>Environmental Scientist  
>Associated Environmental Consultants Inc.  
>#200 - 2800 29th Street, Vernon, BC V1T 9P9  
>Tel: 250.545.3672 | Cel: 250.938.4140  
>  
>  
>You may unsubscribe from Associated's electronic communications at any time.  
>  
>  
>  
>-----Original Message-----  
>From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
>Sent: Monday, February 22, 2016 9:39 AM  
>To: Beckie Rozander  
>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck  
>  
>Great, thanks for the confirmation.  
>  
>-----Original Message-----  
>From: Beckie Rozander [<mailto:rozanderb@ae.ca>]  
>Sent: Monday, February 22, 2016 9:23 AM  
>To: Stewart, Robert FLNR:EX  
>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck  
>  
>Good morning Rob,  
>  
>I just wanted to follow up and say thank you for issuing the amendment to our notification for  
Woodsdale Road last week. In my discussion with the proponent, the decision was reached to include in  
the tender that all works that could potentially impact Vernon Creek with regards to the project will be  
completed prior to the end of April.  
>  
>Cheers,  
>  
>Beckie Rozander  
>250-308-6935  
>  
>-----Original Message-----  
>From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
>Sent: Thursday, February 18, 2016 2:58 PM  
>To: Beckie Rozander  
>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck  
>  
>Thanks.  
>  
>I'm concerned with extending the work window to June 30 2016 because late May and June have  
typical high water conditions. I'd like to limit the work window from now until late April. Can your  
proponent get the work completed during that time frame. If not, we'll have to go back to the standard  
timing window.  
>  
>  
>  
>-----Original Message-----  
>From: Beckie Rozander [<mailto:rozanderb@ae.ca>]  
>Sent: Wednesday, February 17, 2016 2:55 PM

>To: Stewart, Robert FLNR:EX  
>Subject: FW: Water Act Notification R807969. Storm water outflow works on Vernon Ck  
>  
>Hi Rob,  
>  
>Thanks for getting back to me regarding the Woodsdale Road application. As discussed on the phone yesterday, construction activities to install a storm water outfall to discharge into Vernon creek at its intersection with Woodsdale Road is considered low risk.  
>  
>The activities associated with this project that may impact Vernon creek include removal of a small amount of riparian vegetation (tall shrubs) and placement of scour protection armouring under the storm water outfall (likely below the high water mark but outside the wetted perimeter of the creek). Although kokanee are known to exist in that section of Vernon Creek, there was no suitable spawning habitat observed at the project site.  
>  
>To ensure no serious harm to fish is created, this work is intended to be completed prior to freshet when water levels are at their lowest; an environmental monitor will be present for all activities that may affect Vernon Creek; appropriate site isolation techniques will be installed as necessary to minimize sediment laden water from being discharged downstream from the project site; and, water quality monitoring will be undertaken during construction.  
>  
>The project will go out to tender in the next couple of weeks and construction is expected to commence in the month following. All construction regarding the Woodsdale Road storm water upgrade project is expected to be completed by June 30, 2016 at the latest.  
>  
>I have forwarded past communications regarding this application and included the original notification we submitted which requires the amendment for reference. Please don't hesitate to be in touch if you have any additional questions or need further clarification.  
>  
>Kind regards.  
>  
>Beckie Rozander, P.Biol.  
>Environmental Scientist/Field Biologist  
>Associated Environmental Consultants Inc.  
>#200 - 2800 29th Street, Vernon, BC V1T 9P9  
>Tel: 250.545.3672 | Cel: 250.308.6935 | Ext. 245  
>  
>  
>You may unsubscribe from Associated's electronic communications at any time.  
>  
>-----Original Message-----  
>From: Beckie Rozander  
>Sent: Thursday, February 11, 2016 10:20 AM  
>To: 'Stewart, Robert FLNR:EX'  
>Subject: FW: Water Act Notification R807969. Storm water outflow works on Vernon Ck  
>  
>Good morning Robert,  
>  
>To follow-up with the voice message I left for you this morning, I would like to discuss the Woodsdale Road application with you as soon as possible as the client intends to put that job out to tender next week.  
>  
>If it is determined that a new application is required in order to work outside the approved window for Vernon Creek, as specified in your email below (July 22 to Sep 10 2016), then I would appreciate being able to address this with my client prior to the project going to tender.  
>  
>I have included our original Front Counter application to assist with your review of this project. Please contact me with questions.  
>  
>Kind regards,

>  
>Beckie Rozander  
>250-308-6935  
>  
>-----Original Message-----  
>From: Beckie Rozander  
>Sent: Thursday, February 04, 2016 12:42 PM  
>To: 'Stewart, Robert FLNR:EX'  
>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck  
>  
>Good afternoon Robert,  
>  
>I am writing to follow-up with you regarding your proposed reassessment of this file, to see if you would like to arrange for a discussion of the project or whether we have the go ahead to proceed with the preferred timing of works prior to freshet.  
>  
>As mentioned previously, the client intends to put this job out for tender mid to late February. As such, prompt attention to this would be greatly appreciated.  
>  
>Kinds regards,  
>  
>Beckie Rozander, P.Biol.  
>Environmental Scientist/Field Biologist  
>Associated Environmental Consultants Inc.  
>#200 - 2800 29th Street, Vernon, BC V1T 9P9  
>Tel: 250.545.3672 | Cel: 250.308.6935 | Ext. 245  
>  
>  
>You may unsubscribe from Associated's electronic communications at any time.  
>-----Original Message-----  
>From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
>Sent: Thursday, January 28, 2016 4:40 PM  
>To: Beckie Rozander  
>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck  
>  
>Yes, the timing could be modified but you'll need to assess and confirm that you can adequately mitigate or negate any impacts such that there will not be a HADD equivalent,. I'll look at the file again and we should have a discussion so I'm comfortable with the risk. I'm not familiar with that specific location and what the potential impacts may be.  
>  
>-----Original Message-----  
>From: Beckie Rozander [<mailto:rozanderb@ae.ca>]  
>Sent: Thursday, January 28, 2016 2:13 PM  
>To: Stewart, Robert FLNR:EX  
>Subject: RE: Water Act Notification R807969. Storm water outflow works on Vernon Ck  
>  
>Hello Robert,  
>  
>Thank you for your message.  
>  
>Our client intends to tender this project mid to late-February so that works can be completed prior to freshet.  
>  
>The stormwater outlet will be installed above the HWM; however, some scour protection work is required below the HWM. The design incorporates a series of stormceptors to ensure that flows only exist during larger storm events and to separate the water from any grit and/or oil prior to its release into Vernon Creek. We will be onsite to ensure complete isolation of flowing water during construction, and to monitor turbidity so that water quality remains within the guidelines relative to background levels.  
>



>Can the approved timing of works be adjusted to accommodate this? Please don't hesitate to call if you would like to discuss the project in further detail.

>

>Kind regards,

>

>Beckie Rozander, P.Biol.

>Environmental Scientist/Field Biologist

>Associated Environmental Consultants Inc.

>#200 - 2800 29th Street, Vernon, BC V1T 9P9

>Tel: 250.545.3672 | Cel: 250.308.6935 | Ext. 245

>

>

>You may unsubscribe from Associated's electronic communications at any time.

>

>-----Original Message-----

>From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]

>Sent: Thursday, January 28, 2016 11:25 AM

>To: Beckie Rozander

>Subject: Water Act Notification R807969. Storm water outflow works on Vernon Ck

>

>Becky. I'm going to give you an extension for these works. Same T&C as last year. Timing of works will be July 22 to Sep 10 2016

>

>Let me know if this is what you want.

>

>

>

>

---

Robert Stewart

>Ecosystems Biologist

>Forest, Lands and Natural Resource Operations Penticton

>

>

>You may unsubscribe from Associated's electronic communications<<mailto:unsubscribe@ae.ca?subject=Unsubscribe+from+AE+-+CASL>> at any time.

>You may unsubscribe from Associated's electronic communications<<mailto:unsubscribe@ae.ca?subject=Unsubscribe+from+AE+-+CASL>> at any time.

>You may unsubscribe from Associated's electronic communications<<mailto:unsubscribe@ae.ca?subject=Unsubscribe+from+AE+-+CASL>> at any time.

>You may unsubscribe from Associated's electronic communications<<mailto:unsubscribe@ae.ca?subject=Unsubscribe+from+AE+-+CASL>> at any time.

>You may unsubscribe from Associated's electronic communications<<mailto:unsubscribe@ae.ca?subject=Unsubscribe+from+AE+-+CASL>> at any time.

>You may unsubscribe from Associated's electronic communications<<mailto:unsubscribe@ae.ca?subject=Unsubscribe+from+AE+-+CASL>> at any time.

>You may unsubscribe from Associated's electronic communications<<mailto:unsubscribe@ae.ca?subject=Unsubscribe+from+AE+-+CASL>> at any time.

From: [Stewart, Robert FLNR:EX](#)  
To: [Reimer, Shaun FLNR:EX](#)  
Subject: Re: Water Act Authorization 8003518 Keremeos Ck Baynes Dike erosion protection works  
Date: Thursday, June 2, 2016 5:56:41 AM

---

Thanks Shaun

---

**From:** "Reimer, Shaun FLNR:EX" <[shaun.reimer@gov.bc.ca](mailto:shaun.reimer@gov.bc.ca)>  
**Date:** Wednesday, June 1, 2016 at 10:30 AM  
**To:** "Li, Yi FLNR:EX" <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)>  
**Cc:** rob <[Robert.Stewart@gov.bc.ca](mailto:Robert.Stewart@gov.bc.ca)>  
**Subject:** Re: Water Act Authorization 8003518 Keremeos Ck Baynes Dike erosion protection works

Hi Yi, I have spoken to Mr. Baynes about this before. Although there is a berm at the site, it doesn't meet the definition of dike under the Act. This is a bank protection issue. Shaun

Sent from my iPhone

On Jun 1, 2016, at 10:22 AM, Li, Yi FLNR:EX <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)> wrote:

Hi Shaun,  
This application proposes to repair an orphan dyke on Keremeos Creek.  
Is there any regulation by Provincial Government on orphan dykes? Any special issues related orphan dykes we need to take about?  
Regards  
Yi

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Tuesday, May 31, 2016 4:00 PM  
**To:** Li, Yi FLNR:EX  
**Cc:** Lacey, Cathy M ENV:EX  
**Subject:** Water Act Authorization 8003518 Keremeos Ck Baynes Dike erosion protection works  
Provided they follow the attached terms and conditions the work is acceptable  
The least risk work window is July 22 to October 31

**Robert Stewart**  
**Ecosystems Biologist**  
Thompson Okanagan Region | Penticton  
250.490.8253 | Cell 250.490.7464  
**Forests, Lands and Natural Resource Operations**

From: [Stewart, Robert FLNR:EX](#)  
To: [Li, Yi FLNR:EX](#)  
Cc: [Lacey, Cathy M ENV:EX](#)  
Subject: Water Act Authorization 8003518 Keremeos Ck Baynes Dike erosion protection works  
Date: Tuesday, May 31, 2016 4:00:00 PM  
Attachments: Terms and Conditions April 2011.pdf  
image001.png

---

Provided they follow the attached terms and conditions the work is acceptable  
The least risk work window is July 22 to October 31



**Robert Stewart**  
**Ecosystems Biologist**  
Thompson Okanagan Region | Penticton  
250.490.8253 | Cell 250.490.7464  
**Forests, Lands and Natural Resource Operations**

**Habitat Officer's Terms and Conditions for changes in and about a stream specified by  
Ministry of Environment Habitat Officers, Okanagan Region**

Section 42 (1) of the *Water Regulation* gives authority to a Habitat Officer to add specific conditions to ensure the protection of habitat in addition to the conditions of general application. Under this authority, Ministry of Environment (MoE) Habitat Officers, Okanagan Region, require the following mandatory terms and conditions:

***42 (1) To protect habitat, a person making a change in and about a stream<sup>1</sup> under this regulation, other than under section 44(1)(o) to (s) or (2), must make that change in accordance with terms and conditions specified by the habitat officer with respect to***

---

***a) The timing window or the period or periods of time in the year during which the change can proceed without causing harm to fish, wildlife or habitat,***

Windows of least risk for fish and wildlife, including some species at risk, in Okanagan Region can be found on the work windows webpage:

<http://www.env.gov.bc.ca/wsd/regions/okr/wateract/workwindows.html>

**Fish and Fish Habitat:**

1. All activities in fish streams, as well as tributaries that have a risk of depositing sediment into fish streams, must be undertaken within a window of least risk to fish and fish habitat. Windows of least risk are designed to protect all fish species known to occur in a stream.
2. **If works are proposed outside the listed windows the proponent must engage a qualified professional** to assess species and habitats present and determine if a site specific plan can be developed to ensure compliance with the *Fisheries Act*.
3. The recommendations and the technical rational for the plan must be developed, signed and sealed by an appropriately qualified professional(s). A report must be maintained by the proponent in the event the works are monitored or a compliance inspection is conducted.
4. If impacts cannot be mitigated to avoid the potential for a harmful alteration, disruption or destruction to fish and/or fish habitat, and the proponent wishes to continue to seek approval for the operations to proceed, the proponent must proceed with the process for obtaining an authorization from the Federal Department of Fisheries and Oceans (outlined in section (h) below).
5. Notwithstanding the above, the fisheries timing window is not applicable if the stream channel is naturally dry (no flow), or frozen to the bottom, at the worksite and the instream activity will not adversely impact fish habitat (e.g. result in the introduction of sediment into fish habitat or damage to fish habitat).

---

<sup>1</sup>. A "stream" is defined in the *Water Act* as "a natural watercourse or source of water supply, whether usually containing water or not, ground water, and a lake, river, creek, spring, ravine, swamp and gulch". For the purposes of this document, the definition of "stream" includes all those watercourses that are considered to be fish habitat, including channelized streams, and ditches that are fish habitat.

**Wildlife:**

1. Most species of wildlife are at their highest risk for disturbance during the period where they raise their young.
2. Some may be at risk during their dormant or hibernating period.
3. Wildlife observation records can be obtained through the Conservation Data Centre <http://www.env.gov.bc.ca/cdc> for species at risk.
4. Habitat Wizard <http://www.env.gov.bc.ca/habwiz/> provides observation records for other species.
5. The absence of an observation record does not confirm that a species is not present.
6. **A qualified professional may be able to determine minor variances to these least risk work windows based on the location in the region and species presence.**

**NOTE:** In all cases, minimize the amount of time the work site is in a disturbed state by completing work as quickly as possible, while considering worker safety and minimizing environmental risk.

***b) The minimum instream flow or the minimum flow of water that must remain in the stream while the change is being made,***

The natural rate of water flow must be maintained upstream and down stream of the worksite during all phases of instream activity.

***c) The removal of material from the stream or stream channel in connection with the change,***

1. In fish streams, the permanent removal of stable, naturally occurring material from the stream or stream channel is not permitted.
2. In non fish streams with a species at risk, or habitat of a species at risk, the permanent removal of stable, naturally occurring material from the stream or stream channel is not permitted.
3. In non-fish bearing streams without species at risk, the permanent or temporary removal of stable, naturally occurring material must be minimized and completed only as necessary to make the change in accordance with Part 7 of the *Water Regulation*.
4. The removal of material must not lead to stream channel instability or increase the risk of sedimentation into the watercourse.
5. Any spoil materials must be placed in a manner that ensures that sediment, or debris, does not enter the watercourse.
6. The spoil must be placed where it will not impact riparian habitats or impact habitats of species at risk

***d) The addition of substance, sediment, debris or material to the stream or stream channel in connection with the change,***

1. Instream activities must be conducted in the dry (no water present within the worksite) and the worksite must be isolated from water flowing in the stream channel.
2. Measures must be taken to ensure that no harmful material (e.g. fuel and other hydrocarbons, soil, road fill, or sediment), which could adversely impact water quality, fish and other aquatic life, species at risk and/or fish habitat (including riparian and or emergent vegetation), can enter the wetted perimeter as a result of the project activities.
3. All equipment must be located and operated outside of the wetted perimeter of the stream unless operated from a barge where deleterious substances will not enter the water and in a manner that will not result in grounding of the barge.
4. Equipment used in close proximity to the wetted perimeter must be free of deleterious material (e.g. hydrocarbons) and in good mechanical condition (e.g. no fuel or hydraulic leaks).
5. Erosion and sediment control structures are to be available onsite and utilized as necessary.
6. Do not work in weather conditions likely to substantially increase the risk of sediment introduction to the stream
7. If approved, beaver dam removal must occur slowly, a portion at a time, in order to minimize scouring and the addition of silt to downstream areas. A dam breach should normally not exceed 0.2 square metres in area (i.e., a typical breach could measure 1.0 metre x 20 centimetres in size). All material removed from a beaver dam must be disposed of in such a manner that it cannot re-enter the stream.

***e) The salvage or protection of fish or wildlife while the change is being made or after the change has been made,***

1. If dewatering of the worksite is necessary, fish salvage must occur on a fish-bearing stream prior to commencing works. A fish salvage permit must be obtained from the Ministry of Environment prior to commencing salvage activities  
([http://www.env.gov.bc.ca/pasb/applications/process/scientific\\_fish\\_collect.html](http://www.env.gov.bc.ca/pasb/applications/process/scientific_fish_collect.html))
2. If an area is de-watered as a result of beaver dam removal or modification and results in the stranding of fish, then these fish must be salvaged and returned to the stream.
3. Measures must be taken to ensure that operating equipment (e.g. water pumps) does not harm aquatic life.
4. **NOTE** – if you are undertaking an activity in a **red zone** based on known western ridged mussel (*Gonidea angulata*) occurrences (see LLP<sup>1</sup>), salvage mussels and relocate them to an areas with similar site conditions. Salvage must be undertaken by a qualified professional and must be consistent with the Department of Fisheries and Oceans (DFO) Salvage Protocol (contact MOE Ecosystems Staff to obtain this protocol). Follow up monitoring is to be conducted for 2 years post relocation and reports provided to the Habitat Officer annually.

***f) The protection of natural materials and vegetation that contribute to habitat or stream channel stability,***

Minimize disturbance to natural materials and vegetation that contribute to habitat or stream channel stability. In addition to fish habitats this includes protection of riparian habitats for wildlife.

***g) The restoration of the work site after the change has been made, and***

1. Complete restoration activities (including erosion control), as soon as possible following construction/disturbance.
2. Any disturbed areas must be restored to function as they did in their pre-disturbance condition (e.g. riparian areas, including grasslands). Appropriate native seed/plant/tree species must be used to restore the site to pre disturbance conditions.
3. Restoration must be completed in a manner that will minimize colonization and spread of invasive plants.

***h) The requirement to obtain an approval from the federal Department of Fisheries and Oceans in connection with the change.***

1. **Proponents are responsible for complying with the federal *Fisheries Act*.** No “harmful alteration, disruption, or destruction” (HADD) of fish habitat is authorized by this document.
2. If a qualified professional or Habitat Officer determines a potential HADD may occur as a result of the works, a review for formal “authorization” from DFO is required.
3. If requested, the proponent will need to provide the Habitat Officer more information (including assessments by qualified professionals) to determine if an “authorization” is required from DFO.

**NOTE: If you are constructing a dock** (as defined in the Okanagan Large Lake Foreshore Protocol<sup>1</sup>) **the following applies:**

(A) An approval from DFO is **not required** when:

1. The structure is proposed on a water body not identified in the Okanagan Large Lake Foreshore Protocol<sup>(1)</sup> (LLP) or in a **no colour or yellow zone** (as identified in the LLP). In addition, dock construction and design must meet **all** of the conditions and measures outlined in the *Fisheries and Oceans Canada Pacific Region Operation Statement for Dock and Boathouse Construction in Fresh water System*<sup>2</sup> (ROS). If some of the conditions or measures of the ROS cannot be met then you **must** engage a qualified professional (fish biologist) to assist you in your design and construction to ensure a HADD does not occur.
2. The structure is proposed in a **red zone** (as identified in the LLP) where there is no shore spawning habitat, and a qualified professional (fish biologist) has been engaged to ensure all of the conditions and measures outlined in the ROS have been followed and that a HADD will not occur.

3. The structure is proposed in a **red zone** (as identified in the LLP), and
- All ROS conditions and measures will be adhered to, except for Measure 3 (i.e. dock is in a known spawning habitat); and
  - A qualified professional (fish biologist) has been engaged to ensure that a HADD will not occur, and
  - All of the design criteria identified below are adhered to.

Design Criteria:

- All instream works must occur during the least risk timing window;
- Piles are not to be placed within known or potential spawning substrates;
- The spanning structure (gangway) of spawning area must be no greater than 1.5m in width;
- The spanning structure (gangway) over the spawning area must be made with light penetrating materials;
- Dock must be no less than 0.5m above the high water mark, or the Geodetic Survey of Canada datum (if available);
- Batter boards are not to be used on the dock; and
- There will be no floating structures.

(B) An approval from DFO is **required** when:

- 1) A qualified professional or a Ministry of Environment Habitat Officer has indicated a **HADD** will likely occur as a result of your works, regardless of what lake or zone you are in.
- 2) The structure is proposed in a **black zone** on any of the lakes identified in the LLP (see section 6.1 of the LLP).
- 3) The structure is proposed in a **red zone** (as identified in the LLP) where there is no shore spawning habitat and the ROS will not be adhered to.
- 4) The structure is proposed in a **red zone** (as identified in the LLP) where there **is** shore spawning and ROS (except Measure 3), and all design criteria (listed above), will not be adhered to.

---

<sup>1</sup> Okanagan Region Large Lakes Foreshore Protocol <http://www.env.gov.bc.ca/okanagan/esd/ollp/ollp.html>

<sup>2</sup> Fisheries and Oceans Canada Pacific Region Operation Statement for Dock and Boathouse Construction in Fresh water Systems  
([http://www-heb.pac.dfo-mpo.gc.ca/decisionsupport/os/operational\\_statements\\_e.htm](http://www-heb.pac.dfo-mpo.gc.ca/decisionsupport/os/operational_statements_e.htm))



From: [Stewart, Robert FLNR:EX](#)  
To: ["sashpole@stlawu.edu"](mailto:sashpole@stlawu.edu)  
Cc: [Dyer, Orville N FLNR:EX](#); [Kohlhauser, Randal FLNR:EX](#)  
Subject: suspected SOWMA trespass near park rill creek  
Date: Tuesday, May 24, 2016 9:36:00 AM  
Attachments: image003.png

---

Hi Sara, thanks for the update.

Do you have a few minutes for a phone discussion today? I just want to get your observations first hand. I this sounds like a trespass then Randall and I will do a site visit asap, possibly this afternoon.

Thanks.



**Robert Stewart**  
**Ecosystems Biologist**  
Thompson Okanagan Region | Penticton  
250.490.8253 | Cell 250.490.7464  
**Forests, Lands and Natural Resource Operations**

From: [Stewart, Robert FLNR:EX](#)  
To: [Li, Yi FLNR:EX](#)  
Subject: RE: regarding your Water Act Section Application A8-8071  
Date: Friday, May 20, 2016 10:26:00 AM

---

If they start the works, and get substantial completion prior to the end of september, then they won't need to do any turtle salvage.

Robert Stewart  
Ecosystems Biologist  
Penticton

-----Original Message-----

From: Li, Yi FLNR:EX  
Sent: Thursday, May 19, 2016 2:49 PM  
To: Stewart, Robert FLNR:EX  
Subject: RE: regarding your Water Act Section Application A8-8071

Hi Rob,

Do they need to do turtle salvage?

Regards  
Yi

-----Original Message-----

From: Ian Chapman [<mailto:ian.chapman@penticton.ca>]  
Sent: Thursday, May 19, 2016 11:59 AM  
To: Li, Yi FLNR:EX  
Cc: Stewart, Robert FLNR:EX; Aarde gmail; Mitch Moroziuk; 'Rick McKelvey'  
Subject: RE: regarding your Water Act Section Application A8-8071

Yi,

Thanks you for getting back to me.

We would like to undertake the work this year. We don't have your approval yet and we presume you will impose various conditions including scheduling around a fish/wildlife least impact window. In addition we expect that you will require other works such as turtle salvage in advance of the silt removal - we would obviously need time to undertake this operation before the silt removal window. Given that you will be determining both of these requirements then we would look to you to inform us as to when the work can proceed but our hope is that we could start this Summer and be complete in the early Fall at the latest.

With regards to any geotechnical investigation conditions; our position remains that we are simply removing silt deposited by our storm system from the oxbow for which we have no pre-siltation records. Our proposal is to remove the silt to a nominal depth over the area that appears to have been impacted by the siltation and continuing the existing bank edge slopes angle below the water.

We would have concerns if you plan to impose conditions that would require any further engineering investigation or design for this silt removal operation.

Thanks,  
Ian.

-----Original Message-----

From: Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]  
Sent: May-19-16 11:16 AM  
To: Ian Chapman  
Cc: Stewart, Robert FLNR:EX; Aarde gmail; Mitch Moroziuk; 'Rick McKelvey'  
Subject: RE: regarding your Water Act Section Application A8-8071

Hi Ian,

What is your construction schedule?

We need a final confirmation for First Nations consultation. Our First Nations Advisor is currently away until June 1. We will figure out it in June.

As I mentioned to Dwight, some conditions on geotechnical investigation may be included in the Approval. Do you have any concerns?

Regards  
Yi

-----Original Message-----

From: Ian Chapman [<mailto:ian.chapman@penticton.ca>]  
Sent: Thursday, May 19, 2016 11:01 AM  
To: Li, Yi FLNR:EX  
Cc: Stewart, Robert FLNR:EX; Aarde gmail; Mitch Moroziuk; 'Rick McKelvey'  
Subject: RE: regarding your Water Act Section Application A8-8071

Li,

Any word yet on this project?

Please get back to us in time for us to make arrangements to undertake the work in accordance with whatever requirements you might require us to address as part of your permit.

Thanks,  
Ian.

-----Original Message-----

From: Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]  
Sent: April-11-16 2:48 PM  
To: Ian Chapman  
Cc: Stewart, Robert FLNR:EX; Aarde gmail  
Subject: Re: regarding your Water Act Section Application A8-8071

Hi Ian,

I'll discuss it with our First Nations advisor, and then get back to you.

Regards  
Yi

Sent from my iPhone

On Apr 8, 2016, at 17:22, Ian Chapman  
<[ian.chapman@penticton.ca](mailto:ian.chapman@penticton.ca)<<mailto:ian.chapman@penticton.ca>>> wrote:

Yi or Robert,

Please provide an update on our application so that we can make plans to undertake the Brandon Avenue Oxbow restoration this year.

Thanks,  
Ian.

From: Aarde gmail [<mailto:aardeenviro@gmail.com>]  
Sent: July-17-15 2:55 PM  
To: Ian Chapman; 'Li, Yi FLNR:EX'  
Cc: 'Rick McKelvey'  
Subject: RE: regarding your Water Act Section Application A8-8071

Hi Everyone,

Unfortunately I am away on annual leave during that week. I am disappointed I will not be able to attend.

Thanks,  
Dwight

From: Ian Chapman [<mailto:ian.chapman@penticton.ca>]

Sent: July 17, 2015 2:52 PM

To: 'Li, Yi FLNR:EX'

Cc: 'Rick McKelvey'; 'Aarde gmail'

Subject: RE: regarding your Water Act Section Application A8-8071

Yi,

Thank you for your email note below on the Water Act Application A8-8071 for sediment removal at the Brandon Avenue Oxbow. Further to our telephone discussion I confirm that I will meet you at your office at 9am Wednesday July 22 to discuss our project and then we can visit the site. I will try to have Dwight Shanner of Aarde Environmental join us.

Thanks,,

Ian.

From: Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]

Sent: July-17-15 2:14 PM

To: 'Aarde gmail'; Ian Chapman

Cc: 'Rick McKelvey'

Subject: RE: regarding your Water Act Section Application A8-8071

Hi Dwight,

You don't need to resubmit the application.

The original application provides very limited details. Thus, you just need to submit an additional report, which describes details of your proposed works. In this report, you can cite the guidelines you want to apply.

This report shall address the slope stability during and after construction. Here an engineer provides confirmation in some format.

We want to see the report before approving the application. Typically, our approving process needs these documents as an official ground.

By the way, is there any land tenure issue involved in this project?

Regards

Yi

From: Aarde gmail [<mailto:aardeenviro@gmail.com>]

Sent: Friday, July 17, 2015 1:16 PM

To: Li, Yi FLNR:EX; Ian Chapman

Cc: 'Rick McKelvey'

Subject: RE: regarding your Water Act Section Application A8-8071

Hi Yi

Are you formally requesting a resubmission with the web links added and the requirement of an engineer to sign off on bank stability for the Section 9 Authorization approval?

Or are you going to approve the Authorization and add the condition that an Engineer to confirm the Bank stability prior to works, during and after works are completed?

I believe Ian Chapman, City Engineer will need this information to determine his course of action.

Thanks, Dwight

Dwight Shanner, RPBio.

Aarde Environmental Ltd.

12416 Blagborne Avenue

Summerland, BC.

V0H 1Z8

Phone: 250-809-7331

"Aarde" means planet earth

The information in this email is intended for the named recipients only. It may contain privileged and confidential information. If you have received this email in error, any use, copying or dissemination of

its contents is prohibited. Please notify the sender immediately by e-mail and delete the message from your system.

Please consider the environment before printing this e-mail

From: Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]

Sent: July 17, 2015 12:41 PM

To: 'Aarde gmail'

Subject: RE: regarding your Water Act Section Application A8-8071

Thanks Dwight,

One more: <http://www.env.gov.bc.ca/wld/instreamworks/downloads/BankStabilization.pdf>

You may want to incorporate the applied guidelines into your report, and then resubmit it.

For bank stability, seemingly, there is no a huge problem. Legally, however, we need an engineer to confirm, because bank stability is related to public safety. Please consider to provide supportive engineering information (study/report/design).

Regards

Yi

From: Aarde gmail [<mailto:aardeenviro@gmail.com>]

Sent: Friday, July 17, 2015 12:14 PM

To: Li, Yi FLNR:EX; 'Ian Chapman'

Cc: 'Rick McKelvey'

Subject: RE: regarding your Water Act Section Application A8-8071

Hi Yi,

I use the BC MFLNRO Best Management Practices for Instream Works as my guidelines for the project. I also use the BMPs for These guidelines address a large variety of potential issue relating to biology, use of heavy equipment and sediment/erosion control among many other aspects. The guidelines also address equipment works in and around water such as bank stability as an example. As well as using the regional habitat officers habitat terms and conditions, I continue to use the following guidelines where applicable, as well as professional judgement, when working in and about a stream.

- \* Standards and Best Practices for Instream Works, March 2004 (PDF 2.78MB)<<http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf>>
- \* Best Management Practices for Amphibians and Reptiles in Urban and Rural Environments in British Columbia<<http://www.env.gov.bc.ca/wld/BMP/herptile/bmpherptile.html>>
- \* Develop with Care<[http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare2006/develop\\_with\\_care\\_intro.html](http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare2006/develop_with_care_intro.html)>- replaces Environmental Best Management Practices for Urban and Rural Land Development in British Columbia
- \* Commercial Recreation Wildlife Guidelines <<http://www.env.gov.bc.ca/wld/comrec/crecintro.html>>  
NOTE: This has been replaced by the Wildlife Guidelines for Backcountry Tourism/Commercial Recreation<<http://www.env.gov.bc.ca/wld/twg/index.html>>

- \* Installation and Maintenance of Water Line Intakes (PDF 71KB)<[http://www.env.gov.bc.ca/okanagan/documents/BMPIntakes\\_WorkingDraft.pdf](http://www.env.gov.bc.ca/okanagan/documents/BMPIntakes_WorkingDraft.pdf)>
- \* Lakeshore Stabilization<[http://www.env.gov.bc.ca/wld/documents/bmp/BMPLakeshoreStabilization\\_WorkingDraft.pdf](http://www.env.gov.bc.ca/wld/documents/bmp/BMPLakeshoreStabilization_WorkingDraft.pdf)> (PDF 158KB)
- \* Guidance for Determining High Water Marks for Lakes in the Okanagan under the Riparian Areas Regulation<<http://a100.gov.bc.ca/pub/eirs/viewDocumentDetail.do?fromStatic=true&repository=BDP&documentId=11970>> (PDF 548KB)
- \* Best Management Practices for Tree Topping, Limbing and Removal in Riparian Areas (PDF 318KB)<[http://www.env.gov.bc.ca/okanagan/documents/HazardTree\\_26May\\_09.pdf](http://www.env.gov.bc.ca/okanagan/documents/HazardTree_26May_09.pdf)>
- \* Boat Launch Construction & Maintenance on Lakes (PDF 114KB)<[http://www.env.gov.bc.ca/okanagan/documents/BMPBoat\\_LaunchDraft.pdf](http://www.env.gov.bc.ca/okanagan/documents/BMPBoat_LaunchDraft.pdf)>

Thanks, Dwight

Dwight Shanner, RPBio.

Aarde Environmental Ltd.

12416 Blagborne Avenue

Summerland, BC.

VOH 128

Phone: 250-809-7331

"Aarde" means planet earth

The information in this email is intended for the named recipients only. It may contain privileged and confidential information. If you have received this email in error, any use, copying or dissemination of its contents is prohibited. Please notify the sender immediately by e-mail and delete the message from your system.

P please consider the environment before printing this e-mail

From: Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]

Sent: July 17, 2015 10:59 AM

To: 'Aarde gmail'; 'Ian Chapman'

Cc: 'Rick McKelvey'

Subject: RE: regarding your Water Act Section Application A8-8071

Thanks Dwight,

I mean the design of the whole restoration plan. Do you apply any guidelines?

For other design aspects, of course, guidelines are also necessary, for example bank stability.

We always want to see applications with appropriate details. Thanks for your understanding.

Yi

From: Aarde gmail [<mailto:aardeenviro@gmail.com>]

Sent: Friday, July 17, 2015 10:33 AM

To: Li, Yi FLNR:EX; 'Ian Chapman'

Cc: 'Rick McKelvey'

Subject: RE: regarding your Water Act Section Application A8-8071

Hi Li,

Sedimentation is predicted to continue but at a much more reduced rate due to the installation of the stormceptor within the stormwater. No predictions to sedimentation have been modeled. The long term effectiveness would be based on the effectiveness of the stormceptor as the only change to the system. I did not design the City of Penticton stormwater system design or review its guidelines. Ian Chapman, City Engineer may have an answer to this question.

The only reference we have for the bank stability is that the previous excavation undertaken supported the weight of a working excavator (EX 200) in the photo sent in with the application. It would be the decision of the City of Penticton to fulfill your request to have a geotechnical or hydraulic engineer hired for this project. Therefore I will defer this question to Ian Chapman, City Engineer.

Dwight

Dwight Shanner, RPBio.

Aarde Environmental Ltd.

12416 Blagborne Avenue

Summerland, BC.

VOH 1Z8

Phone: 250-809-7331

"Aarde" means planet earth

The information in this email is intended for the named recipients only. It may contain privileged and confidential information. If you have received this email in error, any use, copying or dissemination of its contents is prohibited. Please notify the sender immediately by e-mail and delete the message from your system.

P please consider the environment before printing this e-mail

From: Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]

Sent: July 17, 2015 10:14 AM

To: 'Aarde gmail'; 'Ian Chapman'

Cc: 'Rick McKelvey'

Subject: RE: regarding your Water Act Section Application A8-8071

Hi Dwight,

Thanks for the information.

After the removal, will sediments come back? If so, when and how much will sediments re-deposit? Just want to know the long-term effectiveness of the solution.

What guidelines do you apply for the design?

As for the bank stability, do you have any geotechnical or hydraulic engineer who can support your solution?

Regards  
Yi

---

Yi Li, PEng  
Regional Hydrologist  
Regional Water Management  
Thompson Okanagan Region  
BC Ministry of Forests, Lands and Natural Resource Operations  
102 Industrial Place, Penticton, BC V2A 7C8  
E-Mail: Yi.Li@gov.bc.ca<<mailto:Yi.Li@gov.bc.ca>>  
T: (250) 490-8265 | M: (250) 462-4871 | F: (250) 490-2231

From: Aarde gmail [<mailto:aardeenviro@gmail.com>]  
Sent: Friday, July 17, 2015 8:52 AM  
To: 'Ian Chapman'; Li, Yi FLNR:EX  
Cc: 'Rick McKelvey'  
Subject: RE: regarding your Water Act Section Application A8-8071

Hello Yi,  
Please find attached cross section of Brandon avenue oxbow that I completed (July 14, 2015) based on your request. As per our conversation the proposed project is to restore the oxbow to a more natural state for biological function. There is no historical data for cross section. The only information available is that an existing resident who also is part of the Friends of the Oxbows (FOTO) Society stated in conversation that 25 years ago he could just barely touch the gravel bottom with his canoe paddle when he pushed it underwater with his arm (throughout the oxbow).  
My responses to your questions are below:

- \* how much will you remove from the site? As per the application the estimated volume is 850m<sup>3</sup> with an estimated depth of 1 m. the dredge area is to be between cross sections A-A' and D-D' on the attached Figure 1.
- \* will the removal affect the slope stability of some banks? No slope stability issues are anticipated by maintaining a minimum 2:1 bank slope assuming the anticipated gravel bed material. If native materials are more fine in nature, a 3:1 slope may be required.
- \* will the removal increase scouring potential? Highly unlikely. Channel capacity will increase reducing flow and the banks are 100% vegetated with grasses, forbes, shrubs, and trees for bank stability and erosion protection.
- \* is bank protection necessary? Bank protection is present by natural vegetation and no artificial bank protection is required. The oxbow has a very low water flow volume or wind fetch that can cause shoreline erosion. Installation of artificial bank protection would degrade the exiting natural root structure functioning as bank protection.
- \* how will water quality change in the wetland? Water quality will likely remain unchanged or a potential increase in clarity and lower water temperature (both are beneficial).
- \* disposal of the dredged materials? Dredge materials are likely to be road gravels and silts

introduced into the oxbow due to the lack of a silt/oil water separator from the urban storm water outfall. A stormsepter was installed in the Brandon avenue stormwater pipe system upgradient of the outfall in 2014. The material is planned to be taken to the City of Penticton yards.

Please let me know if you have any further questions.  
Dwight

Dwight Shanner, RPBio.  
Aarde Environmental Ltd.  
12416 Blagborne Avenue  
Summerland, BC.  
VOH 1Z8  
Phone: 250-809-7331

"Aarde" means planet earth

The information in this email is intended for the named recipients only. It may contain privileged and confidential information. If you have received this email in error, any use, copying or dissemination of its contents is prohibited. Please notify the sender immediately by e-mail and delete the message from your system.

P please consider the environment before printing this e-mail

From: Ian Chapman [<mailto:ian.chapman@penticton.ca>]

Sent: July 13, 2015 4:30 PM

To: 'Li, Yi FLNR:EX'

Cc: 'aardeenviro@gmail.com' <<mailto:aardeenviro@gmail.com>>

Subject: RE: regarding your Water Act Section Application A8-8071 Yi, Dwight Shanner will be in contact with you to address your questions.

Thanks,

Ian.

From: Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]

Sent: July-13-15 3:35 PM

To: Ian Chapman

Subject: RE: regarding your Water Act Section Application A8-8071 Ian,

My interest is the potential hydraulic/hydrologic changes due to your work. For example:

- \* how much will you remove from the site?
- \* will the removal affect the slope stability of some banks?
- \* will the removal increase scouring potential?
- \* is bank protection necessary?
- \* how will water quality change in the wetland?
- \* disposal of the dredged materials?

Anyway, we need basic information. Even details of dredge pocket are not available now.

Regards

Yi

From: Ian Chapman [<mailto:ian.chapman@penticton.ca>]

Sent: Monday, July 13, 2015 2:52 PM

To: Li, Yi FLNR:EX

Cc: Dwight Shanner (AardeEnviro@shaw.ca <<mailto:AardeEnviro@shaw.ca>>)

Subject: RE: regarding your Water Act Section Application A8-8071 Yi, Could be more specific in what you want. Our plan is simply to bring in an excavator and trucks from the east side and remove the material. Environmental mitigation measures would be as proposed by Dwight Shanner of Aarde Environmental.

Rob Stewart is also familiar with the proposed works and has provided a letter of support for the



project.

Thanks,

Ian.

From: Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]

Sent: July-13-15 1:25 PM

To: Ian Chapman

Subject: regarding your Water Act Section Application A8-8071 Hi Ian, I am working on your Water Act Section 9 application for the removal of sand and silt from the Brandon Ave. oxbow in Penticton, BC.

To proceed with your application more effectively, would you provide more details in engineering design and construction?

Regards

Yi

---

Yi Li, PEng

Regional Hydrologist

Regional Water Management

Thompson Okanagan Region

BC Ministry of Forests, Lands and Natural Resource Operations

102 Industrial Place, Penticton, BC V2A 7C8

E-Mail: [Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca) <<mailto:Yi.Li@gov.bc.ca>>

T: (250) 490-8265 | M: (250) 462-4871 | F: (250) 490-2231

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Li, Yi FLNR:EX](#)  
**Subject:** RE: 15-HPAC-00962, Solunqua Orchards  
**Date:** Tuesday, May 17, 2016 10:45:00 AM

---

Ok, will do

Robert Stewart  
Ecosystems Biologist  
Penticton

---

**From:** Li, Yi FLNR:EX  
**Sent:** Tuesday, May 17, 2016 10:45 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: 15-HPAC-00962, Solunqua Orchards  
Thanks Rob,  
Would you contact Mary Ann or DFO?  
Mary Ann said that DFO is waiting for response from us.  
Regards  
Yi

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Tuesday, May 17, 2016 9:21 AM  
**To:** Li, Yi FLNR:EX  
**Subject:** RE: 15-HPAC-00962, Solunqua Orchards  
Thanks. No additional comments from me.

Robert Stewart  
Ecosystems Biologist  
Penticton

---

**From:** Li, Yi FLNR:EX  
**Sent:** Wednesday, May 11, 2016 9:04 AM  
**To:** Stewart, Robert FLNR:EX; Nield, Lora M FLNR:EX  
**Subject:** FW: 15-HPAC-00962, Solunqua Orchards  
Some updates on this applications.  
Any comments?  
Regards  
Yi

---

**From:** Mary Ann Olson-Russello [<mailto:maolson-russello@ecoscapeltd.com>]  
**Sent:** Wednesday, May 11, 2016 9:00 AM  
**To:** Li, Yi FLNR:EX  
**Cc:** Nield, Lora M FLNR:EX; 'George Mylonas'; 'George Reti' ([George@retis.org](mailto:George@retis.org))  
**Subject:** FW: 15-HPAC-00962, Solunqua Orchards  
Hi Yi and Lora,

s.22

s.22 Please provide comment to Darryl directly. ASAP would be appreciated.

Darryl Hussey  
[Darryl.Hussey@dfo-mpo.gc.ca](mailto:Darryl.Hussey@dfo-mpo.gc.ca)  
250-851-4962  
Thanks,  
Mary Ann

Mary Ann Olson-Russello, M.Sc., R.P.Bio.  
Senior Natural Resource Biologist  
ECOSCAPE Environmental Consultants Ltd.  
#102 – 450 Neave Court  
Kelowna, BC  
V1V 2M2  
Phone: 250.491.7337 ext. 205  
Fax: 250.491.7772  
Cell: 250.864.8296  
Email: [mao@ecoscapeltd.com](mailto:mao@ecoscapeltd.com)  
Website: <http://ecoscapeltd.com>

*This email, and any files transmitted, are confidential and may contain privileged information. Any unauthorized dissemination or copying is strictly prohibited. If you have received this email in error, please notify the sender immediately and delete the email.*



Please consider the environment before printing this e-mail

---

**From:** Paterson, Stephanie [<mailto:Stephanie.Paterson@dfo-mpo.gc.ca>]  
**Sent:** Tuesday, May 10, 2016 6:05 PM  
**To:** Mary Ann Olson-Russello <[maolson-russello@ecoscapeltd.com](mailto:maolson-russello@ecoscapeltd.com)>  
**Subject:** RE: 15-HPAC-00962, Solunqua Orchards  
Hi Mary Ann,

I don't believe I mentioned this before, s.22  
s.22 going forward please contact Darryl Hussey, as my  
email account will be out of service. I have also informed Lora Nield of this –  
hopefully we will hear from her soon!

Thanks and all the best,

Stephanie

Darryl Hussey

[Darryl.Hussey@dfo-mpo.gc.ca](mailto:Darryl.Hussey@dfo-mpo.gc.ca)

250-851-4962

---

**From:** Mary Ann Olson-Russello [<mailto:maolson-russello@ecoscapeltd.com>]  
**Sent:** 2016-April-14 5:03 PM  
**To:** Paterson, Stephanie  
**Cc:** Mary Ann Olson-Russello; Hussey, Darryl  
**Subject:** RE: 15-HPAC-00962, Solunqua Orchards  
Hi Stephanie and Darryl,

Please find the attached addendum for file 15-HPAC-00962, Solunqua Orchards. Let  
me know if you have any questions or concerns.

Best,

Mary Ann

Mary Ann Olson-Russello, M.Sc., R.P.Bio.  
Senior Natural Resource Biologist  
ECOSCAPE Environmental Consultants Ltd.  
#102 – 450 Neave Court  
Kelowna, BC  
V1V 2M2  
Phone: 250.491.7337 ext. 205  
Fax: 250.491.7772  
Cell: 250.864.8296  
Email: [mao@ecoscapeltd.com](mailto:mao@ecoscapeltd.com)

Website: <http://ecoscapeltd.com>

*This email, and any files transmitted, are confidential and may contain privileged information. Any unauthorized dissemination or copying is strictly prohibited. If you have received this email in error, please notify the sender immediately and delete the email.*



Please consider the environment before printing this e-mail

---

**From:** Paterson, Stephanie [<mailto:Stephanie.Paterson@dfo-mpo.gc.ca>]

**Sent:** Thursday, April 7, 2016 2:59 PM

**To:** Mary Ann Olson-Russello <[maolson-russello@ecoscapeltd.com](mailto:maolson-russello@ecoscapeltd.com)>

**Subject:** RE: 15-HPAC-00962, Solunqua Orchards

Thanks, Mary Ann. If the remainder of the addendum is complete, you could submit it prior to receiving Provincial confirmation. We could then move the process along and hopefully save some time (under the assumption the Province will confirm no expected impact). We would issue the Letter of Approval once Provincial confirmation is received.

Thanks,  
Stephanie

---

**From:** Mary Ann Olson-Russello [<mailto:maolson-russello@ecoscapeltd.com>]

**Sent:** 2016-April-07 10:40 AM

**To:** Paterson, Stephanie

**Subject:** RE: 15-HPAC-00962, Solunqua Orchards

Sounds good. I will follow-up with Lora again.

---

**From:** Paterson, Stephanie [<mailto:Stephanie.Paterson@dfo-mpo.gc.ca>]

**Sent:** Wednesday, April 6, 2016 10:56 AM

**To:** Mary Ann Olson-Russello <[maolson-russello@ecoscapeltd.com](mailto:maolson-russello@ecoscapeltd.com)>

**Subject:** RE: 15-HPAC-00962, Solunqua Orchards

Hi Mary Ann – I spoke with Darryl, and he would like a record of confirmation by the Province before moving forward. Let me know if you haven't heard back in a week or so – we may try contacting them as well. Thanks! Stephanie

---

**From:** Paterson, Stephanie

**Sent:** 2016-April-01 12:08 PM

**To:** 'Mary Ann Olson-Russello'

**Subject:** RE: 15-HPAC-00962, Solunqua Orchards

Pardon me, I will call between 1-1:30\*\*

---

**From:** Paterson, Stephanie

**Sent:** 2016-April-01 11:55 AM

**To:** 'Mary Ann Olson-Russello'

**Subject:** 15-HPAC-00962, Solunqua Orchards

Hi Mary Ann,

Thanks for your call yesterday – I am giving the file a quick review and will be available to discuss for the remainder of the afternoon. I know you're likely heading out to lunch, so I will try you around 12:30.

Thanks,  
Stephanie

Stephanie Paterson

Biologist, Fisheries Protection Program

Fisheries and Oceans Canada / Pêches et Océans Canada

Pacific Region / Région du Pacifique

Government of Canada / Gouvernement du Canada

200-401 Burrard Street, Vancouver BC V6C 3S4 / 401 Burrard Street, bureau 200,

Vancouver (C.-B.) V6C 3S4  
[stephanie.paterson@dfo-mpo.gc.ca](mailto:stephanie.paterson@dfo-mpo.gc.ca) / Phone: 604-666-0280

From: Stewart, Robert FLNR:EX  
To: "Christopher Garrish"  
Subject: RE: Bylaw referral File D2015.128-ZONE (FLNRO referral 201522)  
Date: Friday, May 6, 2016 12:26:00 PM  
Attachments: image001.png  
image003.png  
image004.png

s.13,s.16

Page 062

Withheld pursuant to/removed as

s.16;s.13

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Jones, Shauna FLNR:EX](#)  
**Subject:** RE: As promised: SRM Summer Symposium and Tour  
**Date:** Friday, May 6, 2016 10:37:00 AM

---

I am not only attending I've been invited to speak on integrating management for species and ecosystems at risk into range management!**s.22**

**s.22**

I don't know any specific good hotels in Osoyoos, but if you have some in mind let me know and I'll check them out for you. You could stay at the complex on the indian reserve, I think it's called N'knip, it's pretty nice.

---

**From:** Jones, Shauna FLNR:EX  
**Sent:** Friday, May 6, 2016 9:05 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** FW: As promised: SRM Summer Symposium and Tour  
Hey Rob,

How are you doing?? Have you seen the invite to the SRM summer symposium and tour in Osoyoos. Are you planning to on going to the symposium/tour?

Robyn and I are going to see if Phil will let us attend. The cost of the field tour is minimal, but we would need a hotel for 2 nights.

I've never been to Osoyoos, so I would really like to attend and see the area.

Do you know any good hotels in Osoyoos that have gov't rate?

Cheers,  
Shauna

**Shauna Jones, R.P. Bio**

Ecosystems Biologist

Ministry of Forests, Lands & Natural Resource Operations

Thompson-Okanagan Region

Ph: (250) 371-6275

E-mail: [shauna.jones@gov.bc.ca](mailto:shauna.jones@gov.bc.ca)



---

**From:** Pollard, Rachael E FLNR:EX  
**Sent:** Thursday, May 5, 2016 5:31 PM  
**To:** Belliveau, Phil FLNR:EX; Hobler, Alan ENV:EX; Baillie, Craig ENV:EX; Poulin, Valerie ENV:EX; Wiebe, Michelle ENV:EX; Newman, Reg F FLNR:EX; Njenga, Francis FLNR:EX; Jones, Shauna FLNR:EX; Reudink, Robyn FLNR:EX  
**Cc:** Gyug, Philip FLNR:EX; Salm, Laila FLNR:EX; Wheatley, Barb FLNR:EX; Wurtz, Sheryl FLNR:EX  
**Subject:** As promised: SRM Summer Symposium and Tour  
Hi everyone,

Thanks for the excellent session today – great to learn more about the state of the grasslands, and see us working together to achieve great resource management. Reg – a BIG thank you for your work.



As promised, attached is some information about the SRM summer symposium. Most of our range team is going (I hope) and I believe it will be a very valuable session... would be great to have some of you there as well. Please share with anyone else who may be interested. We look forward to continuing to work together (and of course planting some bunchgrass plugs and installing some giant rainwater collectors/offsite watering troughs!).

Rachael

\*\*\*\*\*

*Rachael Pollard* | Resource Manager

Thompson Rivers District | Ministry of Forests, Lands & Natural Resource Operations

Desk: 250-371-6503 | Cell: 250-318-3744 | Email: [Rachael.Pollard@gov.bc.ca](mailto:Rachael.Pollard@gov.bc.ca)

---

**From:** Dinwoodie, Rob FLNR:EX

**Sent:** Thursday, April 28, 2016 4:34 PM

**To:** FLNR Range Officers; FLNR Range Agrologists; FLNR Range Branch; FLNR Range Operations Managers

**Cc:** Dinwoodie, Rob FLNR:EX

**Subject:** SRM Summer Symposium and Tour  
Range Officers , Agrologists and Ecologists!

The Society for Range Management PNW summer tour will be held this June in Osoyoos of the South Okanagan. This year we will be featuring range management in the context of rare and endangered species and the various unique tools and management techniques to ensure protection of important habitat, as well as managing range after a wildfire.

This summer symposium and tour was designed with you in mind as you face these challenges of range management. Professional development and interaction with those who share a passion for the unique ecosystems of BC.

See attached documents.

Sign up today!

Rob Dinwoodie

~~~~~

*Ride with a long rein!*

Rob Dinwoodie P. Ag.

Range Officer

Okanagan Shuswap District

Ministry of Natural Resource Operations

(250) 558-1768 fax (250) 549-5485

email:[Rob.Dinwoodie@gov.bc.ca](mailto:Rob.Dinwoodie@gov.bc.ca)

*BC's rangelands, rich in history and promise for the future*

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Li, Yi FLNR:EX](#)  
**Subject:** RE: Water Act Application 8003489 Mission Creek bridge abutment armoring on East Kelowna Rd  
**Date:** Thursday, May 5, 2016 11:01:00 AM  
**Attachments:** image001.png

---

Yi. I have another file (8003497) sitting on my desk for bridge abutment repaiars, looks to be the same work as below, on Mission creek

I'm confused by this. Is this the same file but with a different file number? Or is there a duplicate file? Please advise.

---

**From:** Li, Yi FLNR:EX  
**Sent:** Wednesday, April 20, 2016 12:08 PM  
**To:** 'Ryan O'Sullivan'; 'Jason Schleppe'; Stewart, Robert FLNR:EX; Kyle Hawes  
**Cc:** Lacey, Cathy M ENV:EX; Jennifer Clarke; Katrina Black; Brendan  
**Subject:** RE: Water Act Application 8003489 Mission Creek bridge abutment armoring on East Kelowna Rd  
Hi Jason,

To expedite our Approval review process, please consider to do the followings now:

1. Ask for a support letter from WFN; and
2. Let your engineer, who has designed the works, get ready for our information request.

Once you re-submit the application, we will start the review process as soon as possible.

Regards

Yi

---

**From:** Ryan O'Sullivan [<mailto:RO'Sullivan@kelowna.ca>]  
**Sent:** Wednesday, April 20, 2016 11:37 AM  
**To:** 'Jason Schleppe'; Li, Yi FLNR:EX; Stewart, Robert FLNR:EX; Kyle Hawes  
**Cc:** Lacey, Cathy M ENV:EX; Jennifer Clarke; Katrina Black; Brendan  
**Subject:** RE: Water Act Application 8003489 Mission Creek bridge abutment armoring on East Kelowna Rd

Sorry Jason a bit of a correction the Tender Process is 3 weeks but we can extend to 60 days.

Thank You

Ryan O'Sullivan

Engineering Design Technician

Road, Drainage and Bridge Projects

Infrastructure Delivery

Phone (250)469-8519

Fax (250) 862-3317

[rosullivan@kelowna.ca](mailto:rosullivan@kelowna.ca)

City of Kelowna 1435 Water Street, Kelowna, BC V1Y 1J4 [kelowna.ca](http://kelowna.ca)

---

**From:** Jason Schleppe [<mailto:jschleppe@ecoscapeltd.com>]  
**Sent:** Wednesday, April 20, 2016 11:24 AM  
**To:** Li, Yi FLNR:EX <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)>; Stewart, Robert FLNR:EX <[Robert.Stewart@gov.bc.ca](mailto:Robert.Stewart@gov.bc.ca)>; Ryan O'Sullivan ; Kyle Hawes <[khawes@ecoscapeltd.com](mailto:khawes@ecoscapeltd.com)>  
**Cc:** Lacey, Cathy M ENV:EX <[Cathy.Lacey@gov.bc.ca](mailto:Cathy.Lacey@gov.bc.ca)>; Jennifer Clarke <[jen@clarkegeoscience.com](mailto:jen@clarkegeoscience.com)>; Katrina Black <[kblack@ecoscapeltd.com](mailto:kblack@ecoscapeltd.com)>; Brendan <[bmurtagh@cwmm.ca](mailto:bmurtagh@cwmm.ca)>

**Subject:** RE: Water Act Application 8003489 Mission Creek bridge abutment armoring on East Kelowna Rd

Thanks Yi.

We will amend the application to an approval (or re-submit, which ever it lets us do).

As per our discussion, the following is important for the City due to their purchasing policies:

- 1) To close the Tender and issue a contract, we will need the Approval in hand.
- 2) The Tender Process is usually 60 days, but can be extended once.
- 3) We can shift the issue of the Tender to coincide with the approximate date of issue of the Approval.



**To:** Stewart, Robert FLNR:EX; 'rosullivan@kelowna.ca'; Kyle Hawes  
**Cc:** Li, Yi FLNR:EX; Lacey, Cathy M ENV:EX; Jennifer Clarke  
**Subject:** RE: Water Act Application 8003489 Mission Creek bridge abutment armoring on East Kelowna Rd  
Hi Rob,

The works are to protect an abutment for a bridge, hence, the selection of bridge maintenance. While the works are more typical of erosion control, they are not intended to protect the dyke per se. Rather, the intent is to protect undermining of the abutment, and then address subsequent access to do the repairs, etc. The abutment has been slowly undermined over time, and if repairs aren't completed, there will eventually be risk to the entire structure (currently, it isn't that bad based upon discussions with the engineer). The erosion under the abutment has not been one event, but rather, a continual slow rate of erosion overtime.

In short, we have submitted as Bridge Maintenance, because this is what we did last year for several other bridges in the City (Josie fielded those), and those applications seemed to be fine. If you need it as an Approval and submission as Erosion Control, please advise, and I guess we will re-submit. This one falls in the world of grey I guess, the works are triggered by abutment protection. However, to do so, is basically erosion control. So, which box do we check?

Cathy, if we need to re-submit, can we just amend the application from Bridge Maintenance to Erosion Control, and change from Notification to Approval?

Thanks,

Jason

**JASON SCHLEPPE, M.Sc., R.P.Bio**

**SENIOR NATURAL RESOURCES BIOLOGIST**

**ECOSCAPE ENVIRONMENTAL CONSULTANTS LTD.**

Phone: 250.491.7337 ext. 202 / Fax: 250.491.7772 / Cell: 250.808.3474

><(((0>.....><(((0>.....><(((0>.....><(((0>

This email, and any files transmitted, are confidential and may contain privileged information. Any unauthorized dissemination or copying is strictly prohibited. If you have received this email in error, please notify the sender immediately and delete the email.



Please consider the environment before printing this e-mail

---

**From:** Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]

**Sent:** Wednesday, April 20, 2016 9:55 AM

**To:** 'rosullivan@kelowna.ca' <[rosullivan@kelowna.ca](mailto:rosullivan@kelowna.ca)>; Kyle Hawes <[khawes@ecoscapeltd.com](mailto:khawes@ecoscapeltd.com)>;

Jason Schleppe <[jschleppe@ecoscapeltd.com](mailto:jschleppe@ecoscapeltd.com)>

**Cc:** Li, Yi FLNR:EX <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)>; Lacey, Cathy M ENV:EX <[Cathy.Lacey@gov.bc.ca](mailto:Cathy.Lacey@gov.bc.ca)>

**Subject:** Water Act Application 8003489 Mission Creek bridge abutment armoring on East Kelowna Rd

We have reviewed your application and need you to clarify the following

The Water Sustainability Regulation 39(1) (K) provided for authorized erosion protection works as a notification if the meet the following

39 (1) (k) the repair or maintenance of existing dikes or existing erosion protection works to their original state, if the dikes or works were functional during the previous year;

It is not clear from your application if the proposed works meet this requirement. Please confirm. If the works do not meet this requirement the application must be withdrawn and resubmitted to FCBC as an Approval application for erosion protection works.

If the works are must be the of the same extent (footprint and volume) to meet the above requirement.

Please contact Yi or myself if you have questions.

---

Robert Stewart  
Habitat Biologist  
Resource Management  
Ministry of Forests, Lands and Natural Resources Operations  
Penticton  
Phone (250) 490-8253

Fax (250) 490-2231



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Bunge, Sara K ENV:EX](#)  
**Subject:** RE: Bouldering in WMA???  
**Date:** Monday, April 25, 2016 1:38:00 PM

---

If he asks can you point him to the wildlife act, specifically this section.

[http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/00\\_96488\\_01#section7](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_96488_01#section7)

And the WMA web page

<http://www.env.gov.bc.ca/fw/habitat/conservation-lands/wma/>

If pushed for an official answer it would be that

1. Cannot disturb, harass wildlives. Cannot destroy wildlife habitat, including all vegetation.
2. Personal recreation climbing not prohibited.
3. Commercial recreation, club sponsored/organized climbing needs a specific wildlife act permission. Not likely to permit until our mgmnt plan is done. This is separate from crown land license.
4. Not sure about advertising climbing. I think the bouldering society did a video on it.
5. Not supportive of extensive climbing/bouldering development in general, that's what the park is for (LRMP direction).
6. If climbing/bouldering or any recreational activities are having a negative impact on wildlife and wildlife habitat in the WMA we can make regulations prohibiting those activities. It got easier to do that a couple of years ago. We can even enact a general public use prohibition, the legislation is strong enough to do that.
7. The WMA management plan (2017/18?) will address recreational impacts.

He can call me if he has questions.

---

**From:** Bunge, Sara K ENV:EX  
**Sent:** Thursday, April 21, 2016 3:02 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** Bouldering in WMA???

Hi Rob:

I have to call the president of the Ok Bouldering Society back about some bouldering happening in Skaha on the conservation lands. It is close to the boundary of the WMA – which I have flagged out. Just wanted to know what your stance would be on bouldering in the WMA? It sometimes involves chipping rocks or scraping off lichens, etc. I am sure he is going to ask.

Sara

Sara Bunge  
Senior Ranger  
BC Parks, South Okanagan  
(250) 490-8223

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Reudink, Robyn FLNR:EX](#)  
**Subject:** RE: Question: Solar Energy investigative use permit  
**Date:** Monday, April 25, 2016 11:08:00 AM

---

Yes, let's set a time. I'll share my calendar with you and we can coordinate a time. I'm usually pretty good at filling in appointments to commit my time.

---

**From:** Reudink, Robyn FLNR:EX  
**Sent:** Friday, April 22, 2016 8:52 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: Question: Solar Energy investigative use permit

Hi Rob,

I would definitely be interested in discussing future responses! I was unsure what to do with the one I got, but by the time I got it I had a few days to respond.

Let me know if you want to set some time to discuss sooner or later....

Robyn

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Thursday, April 21, 2016 2:06 PM  
**To:** Reudink, Robyn FLNR:EX  
**Subject:** RE: Question: Solar Energy investigative use permit

Great, thanks. I'd be happy to discuss future responses to solar energy investigative proposals. I have one on my desk that is overdue and I'll take your response below and use it in my response. If you are interested I can share my response with you.

Let me know...

---

**From:** Reudink, Robyn FLNR:EX  
**Sent:** Thursday, April 21, 2016 11:39 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: Question: Solar Energy investigative use permit

Hi Rob,

The only one I have seen was for installation of a single solar station, which is pretty small and in a low risk area. I modified the wording from our wind met tower letter. I also asked Jason if we should have a checklist like we do for Wind that provides proponents with all the fish and wildlife data sources they should be considering as they scope out the project. We do have a wind checklist, but it needs updating.

I got the referral late so I just responded via email to Jason with the following:

If there is potential for additional stations I would want some wording in the tenure like:

1. Existing roads and trails should be used whenever practicable, and any new temporary access must be deactivated upon completion of works. Stations should be placed in previously cleared areas where possible.
2. In the Thompson – Okanagan Region the following habitat types are unique and may provide critical habitats for threatened or endangered species:
  - Riparian areas along all lakes, ponds, rivers and streams
  - Wetlands including ephemeral wetlands
  - Talus slopes and rocky outcrops
  - Deciduous stands of Aspen and Cottonwood
  - Raptor Nests

If any of these habitats occur where any solar stations are proposed, or any new

or upgraded access is located, complete avoidance of these habitats is required. If avoidance is not possible, the proponent must hire a qualified environmental professional (QEP) to develop a mitigation strategy which must be implemented when working around any of these habitats. The strategy must follow Provincial and Regional Best Management Practices (BMP's). In addition, I do like adding the following wording to letters, especially for new proponents who may not know about some of the legal acts and they will be doing a bit of vegetation clearing/pruning in their small station areas.

3. Proponents should be reminded that it is their responsibility to understand and comply with relevant Sections of Provincial and Federal legislation.
  - Water Sustainability Act – Section 11 if any works occur below high water marks of rivers, streams, lakes or wetlands the proponent must submit an application under the Water Sustainability Act.
  - Wildlife Act – Section 34 provides protection for birds, eggs, and nests during the breeding season and nests of eagles, peregrine falcons, gyrfalcon, osprey, heron, and burrowing owls year round.
  - Federal Fisheries Act – Sections 34 to 42 – Fisheries Protection and Pollution Prevention
  - Federal Migratory Birds Convention Act

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Thursday, April 21, 2016 9:10 AM  
**To:** Belliveau, Phil FLNR:EX  
**Cc:** Reudink, Robyn FLNR:EX; Phillpotts, Mark G FLNR:EX  
**Subject:** RE: Question: Solar Energy investigative use permit  
Thanks. I'll talk to her.

---

**From:** Belliveau, Phil FLNR:EX  
**Sent:** Wednesday, April 20, 2016 9:39 PM  
**To:** Stewart, Robert FLNR:EX  
**Cc:** Reudink, Robyn FLNR:EX; Phillpotts, Mark G FLNR:EX  
**Subject:** Re: Question: Solar Energy investigative use permit  
We have only seen one so far Rob. Robyn is handling it, she may have responded already. She can forward you the response if she has sent something.  
P

Sent from my iPhone

On Apr 20, 2016, at 1:44 PM, Stewart, Robert FLNR:EX  
<[Robert.Stewart@gov.bc.ca](mailto:Robert.Stewart@gov.bc.ca)> wrote:

Do you guys have a response format/process for solar energy investigative use permits?

-----  
-----  
Robert Stewart  
Habitat Biologist  
Resource Management  
Ministry of Forests, Lands and Natural Resources  
Operations  
Penticton  
Phone (250) 490-8253



Fax (250) 490-2231

From: [Stewart, Robert FLNR:EX](#)  
To: [Baric, Keith J ENV:EX](#); ["Donna Butler"](#)  
Subject: RE: Vaseux Bird Blind - RDOS  
Date: Monday, April 25, 2016 11:04:00 AM  
Attachments: image001.png

---

Thaks Keith

Hi, Donna. I'm coordinating the bird blind re construction and the licence of occupation on our crown conservation land. Let me know if you'd like to discuss or need any additional information.

-----

Robert Stewart  
Habitat Biologist  
Resource Management  
Ministry of Forests, Lands and Natural Resources Operations  
Penticton  
Phone (250) 490-8253  
Fax (250) 490-2231



---

From: Baric, Keith J ENV:EX  
Sent: Monday, April 25, 2016 9:47 AM  
To: 'Donna Butler'  
Cc: Stewart, Robert FLNR:EX  
Subject: RE: Vaseux Bird Blind - RDOS  
Hi Donna:

Good to hear from you.

As with the current blind, the structure will be owned by the Province and located on Provincial Crown (note it is not within the boundaries of Vaseux Lake Park) within a *Land Act* Designated Use Area. A third party group will maintain and operate the structure under the authorization of the Ministry of Forests, Lands and Natural Resource Operations). I understand that the structure (design) and footprint has been signed off by RDOS (Geotech Kathy Davies) and meets structural engineering requirements (Rockglen Consulting).

Rob Stewart (FLNRO) will be able to provide you more information if needed.

Hope this provides you with some clarification.

Best,

Keith

**Keith J. Baric BSc MSc**

Planning Section Head (Kootenay-Okanagan)

BC Parks and Conservation Officer Service Division

Ph: (250) 490-8260 office or cel (250) 462-0202

Fax: (250) 490-2231



**From:** Donna Butler [mailto:[dbutler@rdos.bc.ca](mailto:dbutler@rdos.bc.ca)]

**Sent:** Thursday, April 21, 2016 4:35 PM

**To:** Baric, Keith J ENV:EX

**Subject:** Vaseux Bird Blind - RDOS

Hi Keith, we have been discussing whether or not the new Bird Blind needs a building permit. Will the structure be owed, operated and maintained by the Province (ie. just another public park facility on Provincial land) or is there another group involved? Thanks for your time.

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** ["tara@watersedgeltld.ca"](mailto:tara@watersedgeltld.ca)  
**Subject:** RE: Question: Peachland Beach Erosion Protection  
**Date:** Thursday, April 21, 2016 9:09:00 AM

---

Thanks. I will call you.

---

**From:** [tara@watersedgeltld.ca](mailto:tara@watersedgeltld.ca) [mailto:[tara@watersedgeltld.ca](mailto:tara@watersedgeltld.ca)]  
**Sent:** Wednesday, April 20, 2016 4:24 PM  
**To:** [aardeenviro@gmail.com](mailto:aardeenviro@gmail.com); Stewart, Robert FLNR:EX  
**Subject:** RE: Question: Peachland Beach Erosion Protection  
Hi Rob, I left a voice message but thought I'd follow up here as well  
There are a few Peachland applications in right now. Are you referring to file **R8003490**, the one to remove the gravels from the ramp in Swim Bay and re-distribute them in the eroded areas just south of the ramp? I see there is a letter to Vic from you today on that one.  
Dwight is not involved presently in that one, although he's working with 2 other applications for Peachland erosion protection with me.  
Whether it's this one or the other applications, feel free to give me a call with any questions.  
Thanks,  
Waters Edge Engineering Ltd.

per: Tara Hirsekorn, P.Eng.  
cell: (250) 300-3479

*~~ Shore Protection ~~ Marinas ~~ Parks ~~ Stormwater ~~*  
<http://www.WatersEdgeLTD.ca/>

---

**From:** [aardeenviro@gmail.com](mailto:aardeenviro@gmail.com) [mailto:[aardeenviro@gmail.com](mailto:aardeenviro@gmail.com)]  
**Sent:** Wednesday, April 20, 2016 2:08 PM  
**To:** Stewart, Robert FLNR:EX <[Robert.Stewart@gov.bc.ca](mailto:Robert.Stewart@gov.bc.ca)>  
**Cc:** [Tara@WatersEdgeLTD.ca](mailto:Tara@WatersEdgeLTD.ca)  
**Subject:** Re: Question: Peachland Beach Erosion Protection  
Hi Rob,  
I have not seen plans for the Peachland site from Tara Hersikon P.Eng.  
I don't know.

Thanks,  
Dwight  
Aarde Environmental Ltd.  
250-809-7331

On Apr 20, 2016, at 9:28 AM, Stewart, Robert FLNR:EX <[Robert.Stewart@gov.bc.ca](mailto:Robert.Stewart@gov.bc.ca)> wrote:

Dwight. I have a water act notification for peachland to conduct beach erosion protection south of the marina/yacht club. Are you involved in this and is it connected to the work we discussed a few weeks ago?  
thx

---

No virus found in this message.

Checked by AVG - [www.avg.com](http://www.avg.com)

Version: 2016.0.7538 / Virus Database: 4545/11967 - Release Date: 04/05/16

Internal Virus Database is out of date.

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** ["aardeenviro@gmail.com"](mailto:aardeenviro@gmail.com)  
**Subject:** RE: Question: Peachland Beach Erosion Protection  
**Date:** Thursday, April 21, 2016 9:07:00 AM

---

Ok, thanks for the reply

---

**From:** aardeenviro@gmail.com [mailto:aardeenviro@gmail.com]  
**Sent:** Wednesday, April 20, 2016 2:08 PM  
**To:** Stewart, Robert FLNR:EX  
**Cc:** Tara@WatersEdgeLTD.ca  
**Subject:** Re: Question: Peachland Beach Erosion Protection

Hi Rob,

I have not seen plans for the Peachland site from Tara Hersikon P.Eng.

I don't know.

Thanks,

Dwight

Aarde Environmental Ltd.

250-809-7331

On Apr 20, 2016, at 9:28 AM, Stewart, Robert FLNR:EX <[Robert.Stewart@gov.bc.ca](mailto:Robert.Stewart@gov.bc.ca)> wrote:

Dwight. I have a water act notification for peachland to conduct beach erosion protection south of the marina/yacht club. Are you involved in this and is it connected to the work we discussed a few weeks ago?

thx

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Li, Yi FLNR:EX](#)  
**Cc:** [Lacey, Cathy M ENV:EX](#)  
**Subject:** RE: Water Act Authorization 8003486 Kelowna Mission creek bridge abutment protection  
**Date:** Wednesday, April 20, 2016 9:29:00 AM

---

I will email to confirm with them.

Cathy, can you bring the file back to me?

Thanks.

---

**From:** Li, Yi FLNR:EX  
**Sent:** Wednesday, April 20, 2016 9:28 AM  
**To:** Stewart, Robert FLNR:EX  
**Cc:** Lacey, Cathy M ENV:EX  
**Subject:** RE: Water Act Authorization 8003486 Kelowna Mission creek bridge abutment protection  
Rob,

I remember this one.

The proposed works includes bank erosion protections (ripraps).

If the proponent just repairs bank erosion protections to an original state, and the original state worked during the previous year, a Notification applies. Otherwise, an Approval applies.

Can the proponent confirm? If so, we can consider a Notification.

Regards

Yi

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Wednesday, April 20, 2016 9:20 AM  
**To:** Li, Yi FLNR:EX  
**Cc:** Lacey, Cathy M ENV:EX  
**Subject:** Water Act Authorization 8003486 Kelowna Mission creek bridge abutment protection  
Yi. The file tracking for this file indicates that your treating it as an approval. Let me know if my understanding is not correct.

I've reviewed the application and have the following comments

1. The timing window for the works is appropriate
2. The Environmental Impact assessment adequately covers the issues I'd like to see addressed.
3. This is low risk and I am not concerned provided that the proponent follows the EIA mitigation measures and our standard terms and conditions for works in a stream

Let me know if you need anything more.

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Lacey, Cathy M ENV:EX](#)  
**Subject:** Water Act Notification 8003490 Peachland Beach Erosion Protection.  
**Date:** Wednesday, April 20, 2016 9:27:00 AM

---

Please prepare and mail a low risk letter.  
Thanks.



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Lacey, Cathy M ENV:EX](#)  
**Subject:** RE: Approval for Paddlewheel Park  
**Date:** Tuesday, April 19, 2016 3:56:00 PM

---

I can always rely on you to get it done.s.22  
s.22

---

**From:** Lacey, Cathy M ENV:EX  
**Sent:** Tuesday, April 19, 2016 3:49 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: Approval for Paddlewheel Park  
Of course there were problems but it got done.

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Tuesday, April 19, 2016 3:43 PM  
**To:** Lacey, Cathy M ENV:EX  
**Subject:** RE: Approval for Paddlewheel Park  
Thanks. Andy problems sorting this out?

---

**From:** Lacey, Cathy M ENV:EX  
**Sent:** Tuesday, April 19, 2016 3:36 PM  
**To:** 'keith.pinkoski@rdno.ca'  
**Cc:** 'info@rdno.ca'; Stewart, Robert FLNR:EX; Cormier, Laverne FLNR:EX  
**Subject:** Approval for Paddlewheel Park  
Hi Keith,  
Please find attached the Approval A8003446 for debris removal at Paddlewheel Park.  
Cathy Lacey  
Admin Support  
MOE/MFLNRO Penticton

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Furness, Grant A FLNR:EX](#); [Valdal, Eric FLNR:EX](#); [Nield, Lora M FLNR:EX](#)  
**Subject:** RE: Request: Regional Business Plan Update Needed  
**Date:** Tuesday, April 19, 2016 2:30:00 PM

---

Garnett Valley fencing is completed for what we had planned for this year  
SOWMA SAR/riparian fencing is completed for what we had planned for this year

---

**From:** Furness, Grant A FLNR:EX  
**Sent:** Tuesday, April 19, 2016 2:11 PM  
**To:** Valdal, Eric FLNR:EX; Nield, Lora M FLNR:EX; Stewart, Robert FLNR:EX  
**Subject:** Request: Regional Business Plan Update Needed

Please respond after your projects

Eric: (choices: initiated, complete or ongoing)

- Thompson Rivers District Access
- Regional Cumulative Effects

Lora: (level of completion in percent)

- RMRM UBCO partnership

Robert: (initiated or complete)

- Garnett Valley fencing
- SOWMA SAR/riparian fencing

Grant Furness

Ecosystems Section Head, Penticton

Ministry of Forests, Lands and Natural Resources

250.490.8277

From: [Stewart, Robert FLNR:EX](#)  
To: [Li, Yi FLNR:EX](#)  
Cc: [Lacey, Cathy M ENV:EX](#)  
Subject: Approval 8003446 Paddlewheel Park  
Date: Tuesday, April 19, 2016 11:44:00 AM  
Attachments: Terms and Conditions April 2011.pdf

---

Yi. I have the following comments for this approval

- Based on the information provided by RDNO this is a low risk of impact to aquatic values
- There is no restriction on the timing windows for the works. Works can occur at any time.
- Please include reference to the standard habitat officer terms and conditions (see attached.)

Please let me know if you have any additional questions.

~~~~~  
Robert Stewart  
Habitat Biologist  
Resource Management  
Ministry of Forests, Lands and Natural Resources Operations  
Penticton  
Phone (250) 490-8253  
Fax (250) 490-2231

**Habitat Officer's Terms and Conditions for changes in and about a stream specified by  
Ministry of Environment Habitat Officers, Okanagan Region**

Section 42 (1) of the *Water Regulation* gives authority to a Habitat Officer to add specific conditions to ensure the protection of habitat in addition to the conditions of general application. Under this authority, Ministry of Environment (MoE) Habitat Officers, Okanagan Region, require the following mandatory terms and conditions:

***42 (1) To protect habitat, a person making a change in and about a stream<sup>1</sup> under this regulation, other than under section 44(1)(o) to (s) or (2), must make that change in accordance with terms and conditions specified by the habitat officer with respect to***

---

***a) The timing window or the period or periods of time in the year during which the change can proceed without causing harm to fish, wildlife or habitat,***

Windows of least risk for fish and wildlife, including some species at risk, in Okanagan Region can be found on the work windows webpage:

<http://www.env.gov.bc.ca/wsd/regions/okr/wateract/workwindows.html>

**Fish and Fish Habitat:**

1. All activities in fish streams, as well as tributaries that have a risk of depositing sediment into fish streams, must be undertaken within a window of least risk to fish and fish habitat. Windows of least risk are designed to protect all fish species known to occur in a stream.
2. **If works are proposed outside the listed windows the proponent must engage a qualified professional** to assess species and habitats present and determine if a site specific plan can be developed to ensure compliance with the *Fisheries Act*.
3. The recommendations and the technical rational for the plan must be developed, signed and sealed by an appropriately qualified professional(s). A report must be maintained by the proponent in the event the works are monitored or a compliance inspection is conducted.
4. If impacts cannot be mitigated to avoid the potential for a harmful alteration, disruption or destruction to fish and/or fish habitat, and the proponent wishes to continue to seek approval for the operations to proceed, the proponent must proceed with the process for obtaining an authorization from the Federal Department of Fisheries and Oceans (outlined in section (h) below).
5. Notwithstanding the above, the fisheries timing window is not applicable if the stream channel is naturally dry (no flow), or frozen to the bottom, at the worksite and the instream activity will not adversely impact fish habitat (e.g. result in the introduction of sediment into fish habitat or damage to fish habitat).

---

<sup>1</sup>. A "stream" is defined in the *Water Act* as "a natural watercourse or source of water supply, whether usually containing water or not, ground water, and a lake, river, creek, spring, ravine, swamp and gulch". For the purposes of this document, the definition of "stream" includes all those watercourses that are considered to be fish habitat, including channelized streams, and ditches that are fish habitat.

**Wildlife:**

1. Most species of wildlife are at their highest risk for disturbance during the period where they raise their young.
2. Some may be at risk during their dormant or hibernating period.
3. Wildlife observation records can be obtained through the Conservation Data Centre <http://www.env.gov.bc.ca/cdc> for species at risk.
4. Habitat Wizard <http://www.env.gov.bc.ca/habwiz/> provides observation records for other species.
5. The absence of an observation record does not confirm that a species is not present.
6. **A qualified professional may be able to determine minor variances to these least risk work windows based on the location in the region and species presence.**

**NOTE:** In all cases, minimize the amount of time the work site is in a disturbed state by completing work as quickly as possible, while considering worker safety and minimizing environmental risk.

***b) The minimum instream flow or the minimum flow of water that must remain in the stream while the change is being made,***

The natural rate of water flow must be maintained upstream and down stream of the worksite during all phases of instream activity.

***c) The removal of material from the stream or stream channel in connection with the change,***

1. In fish streams, the permanent removal of stable, naturally occurring material from the stream or stream channel is not permitted.
2. In non fish streams with a species at risk, or habitat of a species at risk, the permanent removal of stable, naturally occurring material from the stream or stream channel is not permitted.
3. In non-fish bearing streams without species at risk, the permanent or temporary removal of stable, naturally occurring material must be minimized and completed only as necessary to make the change in accordance with Part 7 of the *Water Regulation*.
4. The removal of material must not lead to stream channel instability or increase the risk of sedimentation into the watercourse.
5. Any spoil materials must be placed in a manner that ensures that sediment, or debris, does not enter the watercourse.
6. The spoil must be placed where it will not impact riparian habitats or impact habitats of species at risk

***d) The addition of substance, sediment, debris or material to the stream or stream channel in connection with the change,***

1. Instream activities must be conducted in the dry (no water present within the worksite) and the worksite must be isolated from water flowing in the stream channel.
2. Measures must be taken to ensure that no harmful material (e.g. fuel and other hydrocarbons, soil, road fill, or sediment), which could adversely impact water quality, fish and other aquatic life, species at risk and/or fish habitat(including riparian and or emergent vegetation), can enter the wetted perimeter as a result of the project activities.
3. All equipment must be located and operated outside of the wetted perimeter of the stream unless operated from a barge where deleterious substances will not enter the water and in a manner that will not result in grounding of the barge.
4. Equipment used in close proximity to the wetted perimeter must be free of deleterious material (e.g. hydrocarbons) and in good mechanical condition (e.g. no fuel or hydraulic leaks).
5. Erosion and sediment control structures are to be available onsite and utilized as necessary.
6. Do not work in weather conditions likely to substantially increase the risk of sediment introduction to the stream
7. If approved, beaver dam removal must occur slowly, a portion at a time, in order to minimize scouring and the addition of silt to downstream areas. A dam breach should normally not exceed 0.2 square metres in area (i.e., a typical breach could measure 1.0 metre x 20 centimetres in size). All material removed from a beaver dam must be disposed of in such a manner that it cannot re-enter the stream.

***e) The salvage or protection of fish or wildlife while the change is being made or after the change has been made,***

1. If dewatering of the worksite is necessary, fish salvage must occur on a fish-bearing stream prior to commencing works. A fish salvage permit must be obtained from the Ministry of Environment prior to commencing salvage activities  
([http://www.env.gov.bc.ca/pasb/applications/process/scientific\\_fish\\_collect.html](http://www.env.gov.bc.ca/pasb/applications/process/scientific_fish_collect.html))
2. If an area is de-watered as a result of beaver dam removal or modification and results in the stranding of fish, then these fish must be salvaged and returned to the stream.
3. Measures must be taken to ensure that operating equipment (e.g. water pumps) does not harm aquatic life.
4. **NOTE** – if you are undertaking an activity in a **red zone** based on known western ridged mussel (*Gonidea angulata*) occurrences (see LLP<sup>1</sup>), salvage mussels and relocate them to an areas with similar site conditions. Salvage must be undertaken by a qualified professional and must be consistent with the Department of Fisheries and Oceans (DFO) Salvage Protocol (contact MOE Ecosystems Staff to obtain this protocol). Follow up monitoring is to be conducted for 2 years post relocation and reports provided to the Habitat Officer annually.

***f) The protection of natural materials and vegetation that contribute to habitat or stream channel stability,***

Minimize disturbance to natural materials and vegetation that contribute to habitat or stream channel stability. In addition to fish habitats this includes protection of riparian habitats for wildlife.

***g) The restoration of the work site after the change has been made, and***

1. Complete restoration activities (including erosion control), as soon as possible following construction/disturbance.
2. Any disturbed areas must be restored to function as they did in their pre-disturbance condition (e.g. riparian areas, including grasslands). Appropriate native seed/plant/tree species must be used to restore the site to pre disturbance conditions.
3. Restoration must be completed in a manner that will minimize colonization and spread of invasive plants.

***h) The requirement to obtain an approval from the federal Department of Fisheries and Oceans in connection with the change.***

1. **Proponents are responsible for complying with the federal *Fisheries Act*.** No “harmful alteration, disruption, or destruction” (HADD) of fish habitat is authorized by this document.
2. If a qualified professional or Habitat Officer determines a potential HADD may occur as a result of the works, a review for formal “authorization” from DFO is required.
3. If requested, the proponent will need to provide the Habitat Officer more information (including assessments by qualified professionals) to determine if an “authorization” is required from DFO.

**NOTE: If you are constructing a dock** (as defined in the Okanagan Large Lake Foreshore Protocol<sup>1</sup>) **the following applies:**

(A) An approval from DFO is **not required** when:

1. The structure is proposed on a water body not identified in the Okanagan Large Lake Foreshore Protocol<sup>(1)</sup> (LLP) or in a **no colour or yellow zone** (as identified in the LLP). In addition, dock construction and design must meet **all** of the conditions and measures outlined in the *Fisheries and Oceans Canada Pacific Region Operation Statement for Dock and Boathouse Construction in Fresh water System*<sup>2</sup> (ROS). If some of the conditions or measures of the ROS cannot be met then you must engage a qualified professional (fish biologist) to assist you in your design and construction to ensure a HADD does not occur.
2. The structure is proposed in a **red zone** (as identified in the LLP) where there is no shore spawning habitat, and a qualified professional (fish biologist) has been engaged to ensure all of the conditions and measures outlined in the ROS have been followed and that a HADD will not occur.

3. The structure is proposed in a **red zone** (as identified in the LLP), and
- All ROS conditions and measures will be adhered to, except for Measure 3 (i.e. dock is in a known spawning habitat); and
  - A qualified professional (fish biologist) has been engaged to ensure that a HADD will not occur, and
  - All of the design criteria identified below are adhered to.

Design Criteria:

- All instream works must occur during the least risk timing window;
- Piles are not to be placed within known or potential spawning substrates;
- The spanning structure (gangway) of spawning area must be no greater than 1.5m in width;
- The spanning structure (gangway) over the spawning area must be made with light penetrating materials;
- Dock must be no less than 0.5m above the high water mark, or the Geodetic Survey of Canada datum (if available);
- Batter boards are not to be used on the dock; and
- There will be no floating structures.

(B) An approval from DFO is **required** when:

- 1) A qualified professional or a Ministry of Environment Habitat Officer has indicated a **HADD** will likely occur as a result of your works, regardless of what lake or zone you are in.
- 2) The structure is proposed in a **black zone** on any of the lakes identified in the LLP (see section 6.1 of the LLP).
- 3) The structure is proposed in a **red zone** (as identified in the LLP) where there is no shore spawning habitat and the ROS will not be adhered to.
- 4) The structure is proposed in a **red zone** (as identified in the LLP) where there **is** shore spawning and ROS (except Measure 3), and all design criteria (listed above), will not be adhered to.

---

<sup>1</sup> Okanagan Region Large Lakes Foreshore Protocol <http://www.env.gov.bc.ca/okanagan/esd/ollp/ollp.html>

<sup>2</sup> Fisheries and Oceans Canada Pacific Region Operation Statement for Dock and Boathouse Construction in Fresh water Systems  
([http://www-heb.pac.dfo-mpo.gc.ca/decisionsupport/os/operational\\_statements\\_e.htm](http://www-heb.pac.dfo-mpo.gc.ca/decisionsupport/os/operational_statements_e.htm))



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Li, Yi FLNR:EX](#)  
**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)  
**Date:** Tuesday, April 19, 2016 11:00:00 AM

---

The timing window is July 22 to Aug 24 and Oct 15 to April 1 for most of the beach site. The northern 1/3 portion of the beach has no timing restriction on it.

---

**From:** Li, Yi FLNR:EX  
**Sent:** Tuesday, April 19, 2016 9:54 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)  
Morning Rob,  
What is the timing window at this site?  
Regards  
Yi

---

**From:** Li, Yi FLNR:EX  
**Sent:** Thursday, April 14, 2016 2:02 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)  
And, any recommendation for BMPs and mitigations?  
Yi

---

**From:** Li, Yi FLNR:EX  
**Sent:** Thursday, April 14, 2016 11:04 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** FW: regarding Water Act Section 9 Approval application (8003382)  
Hi Rob,  
I am now preparing an Approval for this Application.  
Would you have a look at the attached draft letter? (Especially on yellow highlights. We need some general terms and conditions.)  
Also, timing window?  
Regards  
Yi

---

**From:** Li, Yi FLNR:EX  
**Sent:** Thursday, April 14, 2016 10:25 AM  
**To:** Stewart, Robert FLNR:EX; Cormier, Laverne FLNR:EX  
**Subject:** FW: regarding Water Act Section 9 Approval application (8003382)  
FYI.

---

**From:** Li, Yi FLNR:EX  
**Sent:** Wednesday, April 13, 2016 9:59 AM  
**To:** 'Atkins, Rowland'; 'Kaiser, Drew'  
**Cc:** 'Bedingfield, Bobby'; 'Barbara Davidson'  
**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)  
Please make sure to let the City know that a portion of the Beach may "disappear" after the excavation.  
Yi

---

**From:** Atkins, Rowland [[mailto:Rowland\\_Atkins@golder.com](mailto:Rowland_Atkins@golder.com)]  
**Sent:** Wednesday, April 13, 2016 9:55 AM  
**To:** Li, Yi FLNR:EX; Atkins, Rowland; Kaiser, Drew; [bdavidson@kelowna.ca](mailto:bdavidson@kelowna.ca); Bedingfield, Bobby  
**Cc:** Bedingfield, Bobby; 'Barbara Davidson'  
**Subject:** Re: regarding Water Act Section 9 Approval application (8003382)  
Hello Yi. Thank you for your additional comments. Yes we can produce this as a

signed memo once i have spoken with Barb at the city. I am travelling through the end of this week so expect it will be early next week.

Regards

Rowland

Sent from my Bell Samsung device over Canada's largest network.

----- Original message -----

From: "Li, Yi FLNR:EX" <Yi.Li@gov.bc.ca>

Date: 2016-04-13 9:46 AM (GMT-08:00)

To: "Atkins, Rowland" <Rowland\_Atkins@golder.com>, "Kaiser, Drew" <Drew\_Kaiser@golder.com>

Cc: "Bedingfield, Bobby" <Bobby\_Bedingfield@golder.com>, 'Barbara Davidson' <bdavidson@kelowna.ca>

Subject: RE: regarding Water Act Section 9 Approval application (8003382)

Thanks Rowland,

Would you provide a signed memo for this response?

The new cross-shore profiles in cross-sections 4-6 may experience a loss due to cross-shore transport immediately after excavation. Hence mitigations are needed, as you proposed: *"It may be possible to relocate or place a smaller amount of material on the shoreline than proposed but the frequency of placement would need to increase to meet the losses incurred by waves"*. This mitigation will be included in our approval as a condition.

Immediately after the excavation, a large portion of the Beach may "disappear", because the new cross-shore profiles are mostly below MWL. The recreational value of the Beach may be affected. Barb, are you aware of this potential issue?

Regards

Yi

---

**From:** Atkins, Rowland [[mailto:Rowland\\_Atkins@golder.com](mailto:Rowland_Atkins@golder.com)]

**Sent:** Tuesday, April 12, 2016 5:32 PM

**To:** Li, Yi FLNR:EX; Kaiser, Drew

**Cc:** Bedingfield, Bobby

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Hello Yi,

Referring to your technical question, of which there are three parts:

- After excavation, how is the stability of new cross-shore profiles in cross-sections 4-6?
- In other words, how will the new profiles change? Please note that a significant cross-shore transport may happen to the new profiles shortly.
- As a result, the shoreline may not change as we desire (ideally longshore). Is there any equilibrium profile for cross-sections 4-6?

Response:

The analysis of the available shoreline data that has been carried out to date has indicated that the shoreline along Hot Sands Beach is not in equilibrium with the prevailing wave conditions and has not been in equilibrium with the prevailing conditions since the construction of the new floating bridge. Historically Hot Sands would have received sediment from the south by way of the Mission Creek-Kelowna Shore littoral cell. When the original floating bridge was put in place this sediment delivery was disrupted because the southern fetch was cutoff and that bridge served to act as a groyne blocking sediment

transport from south of the bridge onto Hot Sands. The replacement bridge appears to have maintained this disruption. Attached is a figure showing the change in Hot Sands shoreline for the years 2005 (blue), 2012 (yellow), 2015 (red). There is no data on a stable shoreline because the shoreline appears to be adjusting to the new bridge. However, we can infer from the observed changes that erosion is predominantly occurring at the north end of Hot Sands and material is being transported as longshore drift to the south where the shoreline is accreting. There is a net loss between the areas of accretion and deposition. For the period 2005-2015 (10 years) the sediment balance is:

Beach Location (2005-2015)	Loss m <sup>3</sup>	Gain m <sup>3</sup>	Lost to lake m <sup>3</sup>
North end (180 m)	1,978		
Middle Bulge (210 m)	1,836		
South end (120 m)		3,388	
Total (510 m)	-3,814	+3,388	-424

The material lost to the lake is transported offshore by cross-shore transport. Without beach management the profiles in the north of Hot Sands will likely continue to erode until no beach is left and the upland park is under threat of erosion. The eroded beach material will be transported to the south end of Hot Sands where it will likely accumulate until such time as there is no more supply of beach material from the eroded north end at which point it will also start to erode. By taking accumulated material from the south end and placing it at the north end, we reintroduce beach sediment into the longshore cell. Over time the cross-shore losses will remove all the sand that is present because there is no longer any supply of sediment, so the beach sediment will need to be replenished periodically to maintain adequate volume of beach sediment.

In general, following replenishment, the beach profile can be expected to stabilize with lakeward slopes of between about 12H:1V and 8H:1V based on observations along similar shorelines to the south that are still part of the Mission Creek-Kelowna Shore longshore transport cell: however, the inherent disequilibrium of the shoreline caused by the new bridge means that the location of equilibrium profiles have yet to be established and historical profiles do not include the effects of the bridge. In the absence of replenishment, or with the construction of a wall, the beach profiles will steepen and deepen to the point that no beach is present at Hot Sands. To keep a usable beach at this location, the shoreline needs to be actively managed by replenishing what is lost to cross-shore transport and redistributing longshore material that accumulates at the south end back up to the north end so that it can be transported along the shore again. The prevailing wave climate will re-slope the beach to a profile that will try to attain equilibrium with the waves, but the net loss of material year on year will mean that equilibrium is not possible at this location without human assistance. The natural historical longshore transport has been disrupted by the bridge to an extent that restoring “natural” longshore transport is not possible.

It may be possible to relocate or place a smaller amount of material on the shoreline than proposed but the frequency of placement would need to increase to meet the losses incurred by waves. An optimization of the volume of material, frequency of placement, and cost to the City of Kelowna could examine this further but this was beyond the level of detail necessary to propose the overall concept as an alternative to placing a lake wall at this location.

I trust this answers your questions.

Regards  
Rowland

---

**Rowland Atkins (PGeo, MSc) | Principal / Senior Geomorphologist / Office Lead | Golder Associates Ltd.**

2nd Floor, 3795 Carey Road, Victoria, British Columbia, Canada V8Z 6T8

**T:** [+1] (250) 881 7372 | **D:** [+1] (250) 419-4903 | **F:** [+1] (250) 881 7470 | **C:** [+1] (250) 812 8062 | **E:** [ratkins@golder.com](mailto:ratkins@golder.com) | [www.golder.com](http://www.golder.com)

*This e-mail transmission is confidential and may contain proprietary information for the exclusive use of the intended recipient. Any use, distribution or copying of this transmission, other than by the intended recipient, is strictly prohibited. If you are not the intended recipient, please notify the sender and delete all copies. Electronic media is susceptible to unauthorized modification, deterioration, and incompatibility. Accordingly, the electronic media version of any work product may not be relied upon.*

---

Please consider the environment before printing this email.

---

**From:** Atkins, Rowland

**Sent:** Tuesday, April 12, 2016 11:03 AM

**To:** 'Li, Yi FLNR:EX' <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)>; Kaiser, Drew <[Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com)>

**Cc:** Bedingfield, Bobby <[Bobby\\_Bedingfield@golder.com](mailto:Bobby_Bedingfield@golder.com)>

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Hello Yi,

Please accept my apologies, Drew has been waiting on input from me s.22  
s.22 and am still catching up.

Our response to your query regarding Hot Sands and the stability of the beach slope will follow by email today.

Regards  
Rowland

---

**Rowland Atkins (PGeo, MSc) | Principal / Senior Geomorphologist / Office Lead | Golder Associates Ltd.**

2nd Floor, 3795 Carey Road, Victoria, British Columbia, Canada V8Z 6T8

**T:** [+1] (250) 881 7372 | **D:** [+1] (250) 419-4903 | **F:** [+1] (250) 881 7470 | **C:** [+1] (250) 812 8062 | **E:** [ratkins@golder.com](mailto:ratkins@golder.com) | [www.golder.com](http://www.golder.com)

*This e-mail transmission is confidential and may contain proprietary information for the exclusive use of the intended recipient. Any use, distribution or copying of this transmission, other than by the intended recipient, is strictly prohibited. If you are not the intended recipient, please notify the sender and delete all copies. Electronic media is susceptible to unauthorized modification, deterioration, and incompatibility. Accordingly, the electronic media version of any work product may not be relied upon.*

---

Please consider the environment before printing this email.

---

**From:** Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]

**Sent:** Tuesday, April 12, 2016 10:56 AM

**To:** Kaiser, Drew <[Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com)>

**Cc:** Bedingfield, Bobby <[Bobby\\_Bedingfield@golder.com](mailto:Bobby_Bedingfield@golder.com)>; Atkins, Rowland <[Rowland\\_Atkins@golder.com](mailto:Rowland_Atkins@golder.com)>

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Hi Drew,

Any update?

Regards  
Yi

**From:** Li, Yi FLNR:EX  
**Sent:** Monday, April 4, 2016 2:18 PM  
**To:** 'Kaiser, Drew'  
**Cc:** 'Bedingfield, Bobby'; 'Atkins, Rowland'  
**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)  
Thanks. This will be the last step.

Yi


---

**From:** Kaiser, Drew [[mailto:Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com)]  
**Sent:** Friday, April 1, 2016 4:55 PM  
**To:** Li, Yi FLNR:EX  
**Cc:** Bedingfield, Bobby; Atkins, Rowland  
**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)  
Will do , thanks Yi.

Regards,

---

**Drew Kaiser (B.Sc., R.P. Bio.)** | Associate, Environmental Assessment Project Manager |  
**Golder Associates Ltd.**

590 McKay Avenue, Suite 300, Kelowna, British Columbia, Canada V1Y 5A8   
**T:** +1 (250) 860 8424 | **D:** +1 (250) 860-8424 x15832 | **F:** +1 (250) 860 9874 | **C:** +1 (250)  
870-2945 | **E:** [Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com) | [www.golder.com](http://www.golder.com)

**Work Safe, Home Safe**

*This email transmission is confidential and may contain proprietary information for the exclusive use of the intended recipient. Any use, distribution or copying of this transmission, other than by the intended recipient, is strictly prohibited. If you are not the intended recipient, please notify the sender and delete all copies. Electronic media is susceptible to unauthorized modification, deterioration, and incompatibility. Accordingly, the electronic media version of any work product may not be relied upon.*

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.

Please consider the environment before printing this email.

---

**From:** Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]  
**Sent:** Friday, April 01, 2016 4:21 PM  
**To:** Kaiser, Drew <[Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com)>  
**Cc:** Bedingfield, Bobby <[Bobby\\_Bedingfield@golder.com](mailto:Bobby_Bedingfield@golder.com)>; Atkins, Rowland <[Rowland\\_Atkins@golder.com](mailto:Rowland_Atkins@golder.com)>  
**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)  
Please email me your report. Thanks.  
Yi

---

**From:** Li, Yi FLNR:EX  
**Sent:** Friday, April 1, 2016 4:21 PM  
**To:** 'Kaiser, Drew'  
**Cc:** 'Bedingfield, Bobby'; 'Atkins, Rowland'  
**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)  
Thanks Drew,

In fact, I have only one core problem:

After excavation, how is the stability of new cross-shore profiles in crosssections 4-6? In other words, how will the new profiles change?

Please note that a significant cross-shore transport may happen to the new profiles

shortly. As a result, the shoreline may not change as we desire (ideally longshore). Is there any equilibrium profile for crosssections 4-6?

Regards

Yi

---

**From:** Kaiser, Drew [[mailto:Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com)]

**Sent:** Friday, April 1, 2016 3:54 PM

**To:** Li, Yi FLNR:EX

**Cc:** Bedingfield, Bobby; Atkins, Rowland

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Thanks Yi. We are working on a response, but we were just wondering if there were any other questions or technical issues that you have with the design? We want to be efficient in responding to all your requests for information, so if there are any other technical questions you might have please let us know and we can prepare a technical memo and perhaps organize a face to face meeting to discuss. Otherwise we will prepare and response to this and send via email.

Regards,

---

**Drew Kaiser (B.Sc., R.P. Bio.)** | Associate, Environmental Assessment Project Manager |  
**Golder Associates Ltd.**

590 McKay Avenue, Suite 300, Kelowna, British Columbia, Canada V1Y 5A8 

**T:** +1 (250) 860 8424 | **D:** +1 (250) 860-8424 x15832 | **F:** +1 (250) 860 9874 | **C:** +1 (250) 870-2945 | **E:** [Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com) | [www.golder.com](http://www.golder.com)

**Work Safe, Home Safe**

*This email transmission is confidential and may contain proprietary information for the exclusive use of the intended recipient. Any use, distribution or copying of this transmission, other than by the intended recipient, is strictly prohibited. If you are not the intended recipient, please notify the sender and delete all copies. Electronic media is susceptible to unauthorized modification, deterioration, and incompatibility. Accordingly, the electronic media version of any work product may not be relied upon.*

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.

**Please consider the environment before printing this email.**

---

**From:** Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]

**Sent:** Friday, April 01, 2016 3:34 PM

**To:** Kaiser, Drew <[Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com)>

**Cc:** Bedingfield, Bobby <[Bobby\\_Bedingfield@golder.com](mailto:Bobby_Bedingfield@golder.com)>; Atkins, Rowland <[Rowland\\_Atkins@golder.com](mailto:Rowland_Atkins@golder.com)>

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Hi Drew,

Any update on this issue?

Yi

---

**From:** Li, Yi FLNR:EX

**Sent:** Wednesday, March 9, 2016 10:10 AM

**To:** 'Kaiser, Drew'

**Cc:** 'Bedingfield, Bobby'; 'Atkins, Rowland'

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Thanks Drew,

I have no problem with the idea of nourishment. The only concern is the effectiveness of

the design.

According to the design, the southern part (crosssections 4-6) will be excavated. After excavation, how is the stability of new cross-shore profiles in that part?

Regards

Yi

---

**From:** Kaiser, Drew [[mailto:Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com)]

**Sent:** Tuesday, March 8, 2016 12:49 PM

**To:** Li, Yi FLNR:EX

**Cc:** Bedingfield, Bobby; Atkins, Rowland

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Hello Yi.

We don't have any review/comments other than what we proposed report included with the application. Our design engineer Rowland Atkins is away at the current time, but we would be happy to answer any questions you might have regarding the proposed design. Do you have any questions or concerns regarding the information we provided?

Regards,

---

**Drew Kaiser (B.Sc., R.P. Bio.)** | Associate, Environmental Assessment Project Manager |  
**Golder Associates Ltd.**

590 McKay Avenue, Suite 300, Kelowna, British Columbia, Canada V1Y 5A8

**T:** +1 (250) 860 8424 | **D:** +1 (250) 860-8424 x15832 | **F:** +1 (250) 860 9874 | **C:** +1 (250) 870-2945 | **E:** [Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com) | [www.golder.com](http://www.golder.com)

***Work Safe, Home Safe***

*This email transmission is confidential and may contain proprietary information for the exclusive use of the intended recipient. Any use, distribution or copying of this transmission, other than by the intended recipient, is strictly prohibited. If you are not the intended recipient, please notify the sender and delete all copies. Electronic media is susceptible to unauthorized modification, deterioration, and incompatibility. Accordingly, the electronic media version of any work product may not be relied upon.*

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.

**Please consider the environment before printing this email.**

---

**From:** Li, Yi FLNR:EX [<mailto:Yi.Li@gov.bc.ca>]

**Sent:** Monday, March 07, 2016 1:14 PM

**To:** Kaiser, Drew <[Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com)>

**Cc:** Bedingfield, Bobby <[Bobby\\_Bedingfield@golder.com](mailto:Bobby_Bedingfield@golder.com)>; Atkins, Rowland <[Rowland\\_Atkins@golder.com](mailto:Rowland_Atkins@golder.com)>

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Hi Drew,

For the design of beach nourishment, do you have any comments/reviews by your coastal engineer?

Regards

Yi

---

**From:** Li, Yi FLNR:EX

**Sent:** Wednesday, February 17, 2016 10:32 AM

**To:** 'Kaiser, Drew'

**Cc:** 'Bedingfield, Bobby'; 'Barbara Davidson ([bdavidson@kelowna.ca](mailto:bdavidson@kelowna.ca))'; 'Atkins, Rowland'

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Thanks Drew,

We have a First Nations process. If you receive any concerns/opinions from WFN, please kindly let me know. Our First Nations advisor will be very interested.

As for the design of beach nourishment, I am wondering if there is a deeper study/analysis.

Regards

Yi

---

**Yi Li**, PEng

**Regional Hydrologist, and Engineer under the Water Act**

Regional Water Management

Thompson Okanagan Region

BC Ministry of Forests, Lands and Natural Resource Operations

102 Industrial Place, Penticton, BC V2A 7C8

E-Mail: [Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)

T: (250) 490-8265 | M: (250) 462-4871 | F: (250) 490-2231

---

**From:** Kaiser, Drew [[mailto:Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com)]

**Sent:** Wednesday, February 17, 2016 9:46 AM

**To:** Li, Yi FLNR:EX

**Cc:** Bedingfield, Bobby; Barbara Davidson ([bdavidson@kelowna.ca](mailto:bdavidson@kelowna.ca)); Atkins, Rowland

**Subject:** RE: regarding Water Act Section 9 Approval application (8003382)

Hello Yi. Thank you very much for your email and questions regarding beach restoration for Hot Sands Beach in Kelowna. Please see the answers to your questions below:

*In general, I like the idea of beach nourishment. I have some questions on this application:*

*1. Have you contacted First Nations?*

Yes, The City of Kelowna has requested a letter of support from Westbank First Nations.

*2. Have you performed detailed calculation/analysis for the transport process at the Beach? In other words, how do you get the 7970 m<sup>3</sup>?*

The volume of 7,970 m<sup>3</sup> reported in our summary was calculated from the balance of cut and fill that will remove the bulge in the shoreline and fill in the eroded areas that have developed along the shoreline over the period 1938 to 2012, and primarily since the introduction of the initial floating bridge in the 1950's (a period of approximately 60 years). We used the available historical aerial photographs to determine the length and surface area of the shoreline eroded over that period as well as the length and area of the sediment bulge accreted over that same period.

Using the cross-shore topographic/bathymetric transects collected by Golder in 2013, a wave cut platform was identified that had depths below the typical grade of the existing beach ranging from 1.0 m to 2.5 m. The average cross-sectional area of the eroded area was derived based on the cross-section data from the 3 transects in the area of erosion. The area of eroded material at each of the three cross-sections, estimated from an area bounded by the existing base of the wave cut platform, the crest elevation of the adjacent beach and the lakeward slope, were added together and divided by 3 to get an average cross-sectional area. This area was multiplied by the length of eroded shoreline to estimate the required volume of fill to be added to the eroded section.  $[(30.2 \text{ m}^2 + 56.3 \text{ m}^2 + 46.3 \text{ m}^2) / 3] * 180 \text{ m} = 7,968 \text{ m}^3$  rounded to 7,970 m<sup>3</sup>

The area to be cut was determined in a similar manner in order to establish whether the total required fill volume calculated (7,970 m<sup>3</sup>) divided over 210 m (length of bulge) and adjusting the approximate cross-sections to represent the volume of removal required.

Please let us know if you have any other questions or clarifications.


Regards,

---

**Drew Kaiser (B.Sc., R.P. Bio.)** | Associate, Environmental Assessment Project Manager |



**Golder Associates Ltd.**

590 McKay Avenue, Suite 300, Kelowna, British Columbia, Canada V1Y 5A8   
T: +1 (250) 860 8424 | D: +1 (250) 860-8424 x15832 | F: +1 (250) 860 9874 | C: +1 (250) 870-2945 | E: [Drew\\_Kaiser@golder.com](mailto:Drew_Kaiser@golder.com) | [www.golder.com](http://www.golder.com)

**Work Safe, Home Safe**

*This email transmission is confidential and may contain proprietary information for the exclusive use of the intended recipient. Any use, distribution or copying of this transmission, other than by the intended recipient, is strictly prohibited. If you are not the intended recipient, please notify the sender and delete all copies. Electronic media is susceptible to unauthorized modification, deterioration, and incompatibility. Accordingly, the electronic media version of any work product may not be relied upon.*

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.

**Please consider the environment before printing this email.**

**From:** "Li, Yi FLNR:EX" <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)>  
**Date:** February 12, 2016 at 4:15:54 PM PST  
**To:** "Bedingfield, Bobby" <[Bobby\\_Bedingfield@golder.com](mailto:Bobby_Bedingfield@golder.com)>  
**Subject:** regarding Water Act Section 9 Approval application (8003382)

Hi Bobby,

I am reviewing your Water Act Section 9 Approval application for beach restoration at Hot Sands Beach in Kelowna.

In general, I like the idea of beach nourishment. I have some questions on this application:

1. Have you contacted First Nations?
2. Have you performed detailed calculation/analysis for the transport process at the Beach? In other words, how do you get the 7970 m<sup>3</sup>?

Looking forward to your information.

Regards

Yi

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Safford, Kirk R ENV:EX](#)  
**Subject:** RE: Post Testalinden wildfire ecosystem assessments  
**Date:** Monday, April 18, 2016 3:50:00 PM

---

Sounds good. I'll put this into an issue scope and agenda (ish) format and share back with you to finalize.

---

**From:** Safford, Kirk R ENV:EX  
**Sent:** Monday, April 18, 2016 3:26 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: Post Testalinden wildfire ecosystem assessments  
My thoughts on discussion topics for post fire recovery monitoring and triggers for return to grazing:

1. Desired plant community composition
2. Perennial grass recovery target: productivity and reproduction
3. Recruitment of new perennial plants (perennial grasses key)
4. Cover of perennial plants (perennial grasses key)
5. Targets for Litter cover; biocrust recovery; surface soil stability/resistance to hoof traffic
6. Weed invasion risk
7. Grazing timing, levels.....

Part of our field visit should be to look for a reference sites to approximate desired plant community (several based on elevational gradients?).

What additional considerations are needed for the high severity fire in forested sites (i.e. Swartz Creek)? There may be a shift to shrub steppe, or a return to forest (or both).

Considering climate change, we could have shrub steppe moving into former forested areas, what key monitoring information will be needed to make land use decisions in this scenario?

Kirk

Kirk Safford, RPBio  
Conservation Specialist  
Ministry of Environment, Kootenay Okanagan Region  
250-490-8252

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Friday, April 15, 2016 3:27 PM  
**To:** Safford, Kirk R ENV:EX  
**Subject:** Post Testalinden wildfire ecosystem assessments  
Can you give me your objectives and thoughts on the post wildfire assessments that we agreed to initiate in the Mt Kobau area?

- I will coordinate joint Parks, Range and Ecosystem field assessments to the area in question
- We'll plan for the field review(s) being in mid-May to mid-June.
- Staff from Range, Ecosystems and Parks programs will be invited. Mike Ryan and Chuck Bulmer from FLNRO Resource Management will also be invited
- Issues we want to address include:
  - Grass seeding acceptability in burned area. Is it acceptable, what species, site specificity (ie. Areas with soil disturbance, Invasive species risks, etc.

- Post fire recovery monitoring. What to monitor, how, by who.
- Ecosystem recovery objectives. What level of recovery, what are the criteria for recovery, how long will this take, how long to exclude cattle grazing, what should grazing intensity (AUM's and seasonal length) be, should we have rotational grazing, what type of rotational grazing, how will this meet our ecosystem recovery and management objectives.

When we have something drafted I'll approach others and set up field trips. I will contact people next week.

Thoughts?

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** ["Aarde gmail"](#)  
**Cc:** [Li, Yi FLNR:EX](#)  
**Subject:** RE: SS Sicamous and Riverside Park marsh  
**Date:** Monday, April 18, 2016 3:47:00 PM

---

We had a brief discussion. I'll double check with him and get back to you.

---

**From:** Aarde gmail [<mailto:aardeenviro@gmail.com>]  
**Sent:** Monday, April 18, 2016 3:37 PM  
**To:** Stewart, Robert FLNR:EX  
**Cc:** Li, Yi FLNR:EX  
**Subject:** RE: SS Sicamous and Riverside Park marsh  
Hi Rob,

Have you had a chance to discuss the information provided below with Yi?  
The engineering portion of the project is on hold until it is likely, that the proposal as presented would proceed, with the environmental mitigation identified.  
Thanks,  
Dwight

---

**From:** Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
**Sent:** April 6, 2016 11:17 AM  
**To:** 'Aarde gmail' <[aardeenviro@gmail.com](mailto:aardeenviro@gmail.com)>  
**Cc:** Li, Yi FLNR:EX <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)>  
**Subject:** RE: SS Sicamous and Riverside Park marsh  
The root wad Idea looks great for fish habitat compensation. I'll discuss with Yi to see if he has any concerns

---

**From:** Aarde gmail [<mailto:aardeenviro@gmail.com>]  
**Sent:** Wednesday, April 6, 2016 9:17 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: SS Sicamous and Riverside Park marsh  
Hi Rob,

The in lake root wad habitat will be created using 3 large fir root wads ballasted with 3 boulders cabled in a circle. The circular groupings can be built on land and then set on the lake bottom by a excavator or swinging winch on a barge. the only over water work would be the actual placement of the structures. The clusters can be set in a clustered area for large underwater fish structure. I anticipate lots of forage fish, which will attract rainbow trout. Rainbow trout typically feed low to the lake bottom.

It kind of a combination of the two structures below. Single root wads were placed by the wharf in Summerland by **s.22** in the early 90's. I have snorkeled the area and it is quite fishy.

[http://fishandboat.com/water/habitat/streams/drawings/11\\_RootWadDeflector.pdf](http://fishandboat.com/water/habitat/streams/drawings/11_RootWadDeflector.pdf)  
[http://fishandboat.com/water/habitat/lake\\_structures/PaRootWadHump.pdf](http://fishandboat.com/water/habitat/lake_structures/PaRootWadHump.pdf)

I will create a schematic for the EMP with size and depths to meet Transport Canada guidelines to avoid any boat traffic at Okanagan lake low lake levels.  
Dwight

---

**From:** Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
**Sent:** April 4, 2016 1:58 PM  
**To:** 'aardeenviro@gmail.com' <[aardeenviro@gmail.com](mailto:aardeenviro@gmail.com)>  
**Subject:** RE: SS Sicamous and Riverside Park marsh  
That is good. Talk to you then.

---

**From:** [aardeenviro@gmail.com](mailto:aardeenviro@gmail.com) [<mailto:aardeenviro@gmail.com>]

**Sent:** Monday, April 4, 2016 1:51 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** Re: SS Sicamous and Riverside Park marsh  
Wednesday at 9 am?

Thanks,  
Dwight  
Aarde Environmental Ltd.  
250-809-7331

On Apr 4, 2016, at 1:30 PM, Stewart, Robert FLNR:EX  
<[Robert.Stewart@gov.bc.ca](mailto:Robert.Stewart@gov.bc.ca)> wrote:

Thanks Dwight, how about Wednesday or Thursday?

---

**From:** Aarde gmail [<mailto:aardeenviro@gmail.com>]

**Sent:** Friday, April 1, 2016 10:22 AM

**To:** Stewart, Robert FLNR:EX

**Subject:** SS Sicamous and Riverside Park marsh

Hi Rob,

I have been working with the city of Penticton to evaluate the SS Sicamous area for proposed development changes and the requirement to improve habitat. Due to the area constraints, the following option is recommended to make improvement to the Okanagan River marsh, in lake root wad habitat for fish, and site restoration of existing trees to mitigate for the proposed pathway and pier development. Sheet piling is proposed to isolate the existing rotten creosote from Okanagan lake during removal and then leave in place. I would like to discuss these options with you prior to reporting back to the City of Penticton and The SS Sicamous Committee.

I will call today and we can set up a call time (or if you have some time today).

Thanks,  
Dwight

SS Sicamous Habitat Area Version 3

	Area Lost (m <sup>2</sup> )	Area Gained (m <sup>2</sup> )	Total (m <sup>2</sup> )
Existing walkway on jetty	0	0	0
Concrete paths	323.4		-323.4
Boat storage	51.1		-51.1
Elevator	24.2		-24.2
Signage	39.4		-39.4
Trees and shrubs		102	102.0
Ok River Marsh restoration		2896	2896
			2559.9

Dwight  
Shanner,  
RPBio.  
Aarde

View platform	50		-100.0
Deck	675		-625.0
EIA non impact area			550
Root wad habitat		175	175
			0.0


Lake Volume	Area Lost (m <sup>3</sup> )	Area Gained (m <sup>3</sup> )	Total (m <sup>3</sup> )
Dock and deck pilings	15.5		-15.5
Walkway gravel infill	31.3		-31.3
			-46.8

Creosote Removed	Area Lost (m <sup>3</sup> )	Area Gained (m <sup>3</sup> )	Total (m <sup>3</sup> )
Sheet piling area		3.2	3.2
			3.2

Environmental Ltd.  
12416 Blagborne Avenue  
Summerland, BC.  
V0H 1Z8  
Phone: 250-809-7331

“Aarde” means planet earth

*The information in this email is intended for the named recipients only. It may contain privileged and confidential information. If you have received this email in error, any use, copying or dissemination of its contents is prohibited. Please notify the sender immediately by e-mail and delete the message from your system.*

 please consider the environment before printing this e-mail

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Ward, Hillary FLNR:EX](#)  
**Cc:** [Hegerat, Eric FLNR:EX](#)  
**Subject:** RE: Public Inquiry  
**Date:** Wednesday, April 13, 2016 11:27:00 AM  
**Attachments:** image001.png

---

Will do.

---

**From:** Ward, Hillary FLNR:EX  
**Sent:** Wednesday, April 13, 2016 11:25 AM  
**To:** Stewart, Robert FLNR:EX  
**Cc:** Hegerat, Eric FLNR:EX  
**Subject:** FW: Public Inquiry

I'm passing this on to Rob. Rob, you can tell him over 300,000 shore spawners. It's going to mostly be about protection areas.... Thanks.

**Hillary Ward, Ph.D.**

Fisheries Stock Assessment Specialist  
Ministry of Forests, Lands and Natural Resource Operations  
Thompson-Okanagan Region  
Office: (250) 490-8267  
Cell: (250) 462-1827  
Email: [Hillary.Ward@gov.bc.ca](mailto:Hillary.Ward@gov.bc.ca)

---

**From:** Hegerat, Eric FLNR:EX  
**Sent:** Wednesday, April 13, 2016 11:23 AM  
**To:** Ward, Hillary FLNR:EX  
**Subject:** Public Inquiry

Hey,

Could you please call s.22 . He lives near Okanagan Mountain Park and has some questions about KO shore spawners and the protection zones.

Thanks

**Eric Hegerat**

Fisheries Biologist  
Government of British Columbia  
Ministry of Forests, Lands, and Natural Resource Operations  
Okanagan Region, Penticton  
Phone: (250) 490-8236



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Phillpotts, Mark G FLNR:EX](#); [Nield, Lora M FLNR:EX](#)  
**Subject:** RE: Crown Land File 3412953 Sugar Lake Commercial Dock  
**Date:** Wednesday, April 13, 2016 9:40:00 AM

---

Thanks Mark.  
s.13,s.16



Page 104 to/à Page 107

Withheld pursuant to/removed as

s.16;s.13

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** ["Al Peatt"](#)  
**Subject:** RE: Amendment to Ungulate Winter Range U-8-001 for Mule Deer  
**Date:** Thursday, April 7, 2016 12:13:00 PM

---

Susan Omelchuk – Planner for Resource Management in NRO for Thompson Okanagan

[Susan.Omelchuk@gov.bc.ca](mailto:Susan.Omelchuk@gov.bc.ca)

250 828-4263

Thompson Okanagan Region

s.13,s.16

Page 109

Withheld pursuant to/removed as

s.16;s.13

From: [Stewart, Robert FLNR:EX](#)  
To: [Cormier, Laverne FLNR:EX](#); [Hopkins, Mark FLNR:EX](#)  
Subject: FW: Crown Land File 3412953 Sugar Lake Commercial Dock  
Date: Wednesday, April 6, 2016 11:43:00 AM

s.13,s.16

Page 111 to/à Page 114

Withheld pursuant to/removed as

s.16;s.13

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Nixon, Amy FLNR:EX](#)  
**Subject:** RE: NORD Electoral Area F OCP Amendment (LG wetlands bylaw review)  
**Date:** Tuesday, April 5, 2016 3:50:00 PM

---

Ok.

---

**From:** Nixon, Amy FLNR:EX  
**Sent:** Tuesday, April 5, 2016 3:50 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: NORD Electoral Area F OCP Amendment (LG wetlands bylaw review)  
Thanks – I don't actually have this on my desk anymore. I'm not sure where it's at in terms of who is tagged to respond... I was looking at it out of curiosity, and for some reason thought it might be you that was going to reply to the regional district.

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Tuesday, April 5, 2016 3:43 PM  
**To:** Nixon, Amy FLNR:EX  
**Subject:** RE: NORD Electoral Area F OCP Amendment (LG wetlands bylaw review)  
Do you still want some input from me, or have you moved on with this?

---

**From:** Nixon, Amy FLNR:EX  
**Sent:** Wednesday, March 23, 2016 9:55 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** NORD Electoral Area F OCP Amendment (LG wetlands bylaw review)  
Hi Rob,  
Cathy pulled the Electoral Area F (NORD) OCP amendment for me and I browsed through it. I understand from her that it's "in your pile" (not sure what that means, exactly).

s.13

Amy  
**Amy Nixon, M.Sc.**  
Ecosystems Biologist  
Ministry of Forests, Lands and Natural Resource Operations  
Thompson-Okanagan Region  
Phone: (250) 490-8217  
email: [Amy.Nixon@gov.bc.ca](mailto:Amy.Nixon@gov.bc.ca)

From: [Stewart, Robert FLNR:EX](#)  
To: [Furness, Grant A FLNR:EX](#)  
Subject: RE: Question: Open Notifications Summary: FURNESS, GRANT  
Date: Tuesday, April 5, 2016 9:54:00 AM  
Attachments: Inv #0154 Kiosk Install at Skaha Bluffs.pdf

---

Yes, services received.

This was installing the kiosk, for informational signs, for McTaggart Cowan WMA in Skaha Bluffs park. The work was done by the BC Parks park facility operator. That was the parks requirement to have the PFO do the work to their standards.

I'll put a rationale checklist on the file.

Invoice attached.

-----Original Message-----

From: Furness, Grant A FLNR:EX  
Sent: Tuesday, April 5, 2016 8:35 AM  
To: Stewart, Robert FLNR:EX  
Subject: Question: Open Notifications Summary: FURNESS, GRANT  
Importance: High

Is this yours - goods rec'd?

-----Original Message-----

From: Workflow Mailer [<mailto:oracle@guinness.cas.gov.bc.ca>]  
Sent: Tuesday, April 5, 2016 6:02 AM  
To: Furness, Grant A FLNR:EX  
Subject: Open Notifications Summary: FURNESS, GRANT

Summary of Notifications for 'FURNESS, GRANT'

PLEASE DO NOT REPLY TO THIS EMAIL.

If you have any questions on how to proceed, please refer to the "Self Service Common Functions: Notifications, Approvals, Employee Profile" webhelp user documentation located on-line at <http://www.cas.gov.bc.ca/support/userdocumentation.asp> or call your Ministry CAS Contact located at <http://www.cas.gov.bc.ca/support/ministrycontacts.asp>.

This is a system generated email to advise you that you have open CAS Oracle Financials notifications (e.g. iExpenses, iProcurement, Purchasing).

Notifications are messages within the Oracle Application that advise of either a transaction status (FYI Notifications) or of an action that is required from you to complete a transaction (Action Notifications).

FYI Notifications listed below will be automatically closed the morning following this mailing (e.g. Approved Expense Report).

Action Notifications that require your attention in Oracle Financials will continue to be listed on these daily email reminders.

To view your notifications, log in to CAS Oracle Financials Application and navigate through BCGOV Self Service Common Functions / Advanced Worklist.

\*\*\*\*\*

YOUR OPEN NOTIFICATIONS ARE:

-----

From:  
Type: AP Invoice Approval  
Subject: Invoice 0154 from KALOYA CONTRACTING LTD. requires your approval  
Sent: 04-Apr-2016  
Due: 09-Apr-2016  
Priority: Normal  
Notification Id: 45630606

=====





P.O. Box 42054, RPO North  
Lake Country, BC  
V4V 1Z8

Ph: 250-548-0076

Fax: 250-548-0047

Email: [office@campokanagan.com](mailto:office@campokanagan.com)

Webpage: [www.campokanagan.com](http://www.campokanagan.com)

GST: 898328422

**INVOICE # 0154**

**To:**

Ministry of Forests,  
Lands and Natural Resources  
Penticton, BC

**Date:** March 21, 2016

**Attention: Robert Stewart**

**Re: Kiosk install at Skaha Bluffs Park, Penticton**

DESCRIPTION	AMOUNT
<p>Details of this project include:</p> <ul style="list-style-type: none"> <li>*Excavate and pour 5' x 10' concrete slab to BC Parks Spec</li> <li>*Transport BC Parks supplied hardware and info kiosk from District office.</li> <li>*Install kiosk, supply and paint with one coat of Russett</li> </ul>	\$ 1,900.00
<b>SUBTOTAL</b>	\$ 1,900.00
<b>GST</b>	\$ 95.00
<b>TOTAL DUE</b>	\$ 1,995.00

Terms: Due on Receipt

From: Stewart, Robert FLNR-EX  
To: Lisa Scott  
Subject: RE: Earth Day in Summerland - planting along foreshore  
Date: Tuesday, April 5, 2016 9:35:00 AM  
Attachments: hugob01.png

No RAR is required because it is not private land, it's a park, and you are restoring the SPEA.  
No letter or report completed by a QP because low risk, you are a QP and you have a good reputation!  
But if you can do a short writeup detailing number and species of plants, approximate area restored and and issues or information of interest that occur during the planting.  
Thanks. Look forward to seeing it done!

From: Lisa Scott [mailto:[ecomatters@shaw.ca](mailto:ecomatters@shaw.ca)]  
Sent: Monday, April 4, 2016 4:41 PM  
To: Stewart, Robert FLNR-EX  
Subject: Re: Earth Day in Summerland - planting along foreshore  
Back in the office earlier than expected.  
So...no RAR required or a letter report completed by a QP?

Lisa  
From: Stewart, Robert FLNR-EX  
Sent: Monday, April 4, 2016 3:58 PM  
To: Lisa Scott  
Subject: RE: Earth Day in Summerland - planting along foreshore  
Great, thanks for the update.

From: Lisa Scott [mailto:[ecomatters@shaw.ca](mailto:ecomatters@shaw.ca)]  
Sent: Monday, April 4, 2016 3:40 PM  
To: Stewart, Robert FLNR-EX  
Subject: Earth Day in Summerland - planting along foreshore  
Importance: High  
Hi Rob,

Thanks for calling me back. I have to run out the door and this email was ready to go, so I'll just send for now. I can chat tomorrow if required.

As per my voice mail, we are planning a planting project for Summerland Earth Day along Okanagan lake foreshore to the north and south of Peach Orchard boat launch.

Please refer to the attached map. The planting area is the the swath of vegetation (~2 m wide) between the sandy beach and the mowed grass, both north AND south of the boat launch

We will not be removing existing trees or native vegetation, but we WILL be removing invasive plants in this swath ideally with machinery. If using machinery to scrape away the invasive plants creates a sticking point, then we will instead do it by hand, but it will be very labour intensive.  
EVENT DATE: Sunday April 24  
thanks

Lisa  
From: Dawn Boothe  
Sent: Monday, April 4, 2016 11:58 AM  
To: [ecomatters@shaw.ca](mailto:ecomatters@shaw.ca)  
Subject: boat launch

Copyright

Dawn Boothe | Development Services |  
Ph: 250-494-1373 Fax: 250-494-3435  
Box 150, 13211 Henry Avenue  
Summerland, BC V0H 1Z0  
[www.summerland.ca](http://www.summerland.ca)

 Virus-free. [www.avast.com](http://www.avast.com)

 Virus-free. [www.avast.com](http://www.avast.com)

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [McFarlane, Bruce E FLNR:EX](#); [Noseworthy, Mike FLNR:EX](#)  
**Subject:** RE: Change Approval appln, File: 8003347 Rivers End  
**Date:** Tuesday, March 22, 2016 12:06:00 PM

---

Thanks for the update. I'm really looking forward to sinking my teeth into this one...

---

**From:** McFarlane, Bruce E FLNR:EX  
**Sent:** Monday, March 21, 2016 4:21 PM  
**To:** Noseworthy, Mike FLNR:EX; Stewart, Robert FLNR:EX  
**Subject:** Change Approval appln, File: 8003347 Rivers End

Gentlemen, I just received a call from Glenn Thiem, agent for the applicant(s) at Rivers End, Lots 1a and 1b. He wanted to know what was going on with the application.

I informed Glenn that my concerns were related to the reading of the covenants for these properties; 1. that there appeared to be fill in the fisheries sensitive zone; 2. that the amending covenant stipulates that there are to be no park model trailers on the properties, which the photographs appear to indicate otherwise; and, 3. that the rock wall under application is not shown on the amending plan. So I did not accept that the plan included the wall as existing works at the time the amendment was legalized.

I advised him that the wall was not authorized to my knowledge. I told him that I was not prepared to consider authorizing work on the wall until such time the covenant issues are understood and which agencies should be responsible for the covenant requirements. I also suggested that it appears some infill has taken place behind the walls. He replied that others all the way along the beach [within the strata] had done so in a similar fashion, they have all done it. I pointed out that the amending covenant is very specific regarding properties 1a, 1b, and 2. I suggested that he read through the covenants himself to understand the requirements they contain.

I told him that Rob was dealing with the next steps in moving forward internally on the covenant issues, since they were primarily related to the fisheries sensitive area.

Glenn reflected that he had some difficulty in retrieving documents from the strata. He thanked me for the update, which he is likely going to relay to his clients. His intention was to forward some additional information to Rob and I, which he previously provided to Brian Robertson regarding the extent of the rip-rap bank protection on the river side of the properties. He said we should be able to see that it wraps right around.

Bruce  
Bruce McFarlane, P.Eng.  
Water Resources Hydrologist  
(250) 371 - 6314 (Kamloops)  
(250) 371 - 7457 (Mobile)  
(250) 828 - 4000 (Fax)

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Reid, Aaron FLNR:EX](#); [Burwash, Michael FLNR:EX](#)  
**Subject:** RE: Lambing grounds cliff in the McTaggart Cowan Wildlife Management Area (WMA)  
**Date:** Friday, March 18, 2016 12:28:00 PM  
**Attachments:** RE Question re McTaggart Cowan WMA.msg

---

FYI.

- Attached is a recent email correspondence that Orville and I had re: the WMA
- There is an active and vocal climbers access society that wants to expand rock climbing into the WMA. This has risks of impact on the WMA values.
- Same for mtn biking but they are more cooperative
- Sue Omelchuk in Eric Valdals section (Strategic Initiatives?) has the lead on developing a Management plan. Probably not this year due to time constraints.
- Penticton Indian Band has expressed interest in some "co-management" of the area, s.13,s.16
- I'm working with BC Parks to coordinate management between the WMA and Skaha Bluffs Park, particularly on climbing and mtn biking

Let me know if you need any more information.

---

**From:** Reid, Aaron FLNR:EX  
**Sent:** Friday, March 18, 2016 12:00 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** FW: Lambing grounds cliff in the McTaggart Cowan Wildlife Management Area (WMA)  
fyi

-----  
**Aaron Reid, R.P.Bio.**  
Wildlife Biologist  
Ministry of Forests, Lands and Natural Resource Operations  
#401-333 Victoria Street  
Nelson BC, V1L 4K3  
  
Phone: (250) 354-6288  
Fax: (250) 354-6332  
Email: [aaron.reid@gov.bc.ca](mailto:aaron.reid@gov.bc.ca)

---

**From:** Burwash, Michael FLNR:EX  
**Sent:** Friday, March 18, 2016 9:24 AM  
**To:** Reid, Aaron FLNR:EX  
**Cc:** Walker, Andrew FLNR:EX  
**Subject:** FW: Lambing grounds cliff in the McTaggart Cowan Wildlife Management Area (WMA)  
Hi Aaron,  
Can you please reply and bcc F&W and me? Thanks,  
Mike

---

**From:** Fish and Wildlife FLNR:EX  
**Sent:** Thursday, March 17, 2016 1:16 PM  
**To:** Burwash, Michael FLNR:EX  
**Cc:** Fish and Wildlife FLNR:EX  
**Subject:** FW: Lambing grounds cliff in the McTaggart Cowan Wildlife Management Area (WMA)  
Hi Michael,  
Please forward the inquiry to staff for response and please BCC the Fish and Wildlife email address as well with the response.

Thank you,

**Dania Cabeça**

Administrative Assistant – Temporary

Fish and Wildlife Branch

Resource Stewardship Division

Ministry of Forests, Lands and Natural Resource Operations

Tel: 250-387-9789

Fax: 250-387-9568

---

**From:** s.22

**Sent:** Thursday, March 17, 2016 11:07 AM

**To:** Fish and Wildlife FLNR:EX

**Subject:** Lambing grounds cliff in the McTaggart Cowan Wildlife Management Area (WMA)

I have recently had some interchange with various Provincial offices regarding the use of the subject area at this time of the year as it always has been known by the rock climbing fraternity to be off limits as the cliff is used as a nursery area by the California Bighorn sheep. I became concerned when I received a hike report that showed that both this year and last year a local hike group had conducted one of their outings to the top of the Lambing Grounds Cliff (LGC) and I am concerned that if people are found to be entering the area at this time of the year it would lead to a total ban on hiking in the area.

I have found out the following:-

- 1) The LGC is situated South of the border of the Skaha Bluffs Provincial Park area and therefore does not seem to be covered by the information on that park site that states clearly NO rock climbing is allowed in the southern part of the Park.
- 2) It is clear BC Hydro are aware of the ban on entering the area at this time of the year as there is mention on their site of scheduling work in the area outside this time of the year when the bighorns are using the area as a nursery.
- 3) There is a portion of private land that crosses the BC Hydro access road below the LGC area. This belongs to God's Mountain Estates who tell me that at one time they installed gates at each end to stop ATV's and Dirt Bikes that were becoming a problem. This has since been resolved by blocking off access lower down (S) and they have no objection to hikers using the area but are concerned if they are using the area in lambing season.

May I suggest the following?

As I am sure the people who have been hiking in the area are ignorant of the long time agreement amongst rock climbers and others on not intruding into the area at this time of the year (they stated that there are no signs to make you aware of the restriction at this time of the year and I have to agree with them) may I suggest that signs are erected by the access gate to the "Hydro Valley Trail" by the small pond across the road from Skaha Lake at the southern end of the trail and at the northern area boundary of the Skaha Bluffs Park so that anyone proposing to enter the LGC area is aware of the restriction at this time of the year.

As there are now very few points (I am told only 3) where the public can access this

area between Penticton and Okanagan Falls it would indeed be a pity if yet another access point is closed due to the ignorance of a few people. s.22

Page 124 to/à Page 126

Withheld pursuant to/removed as

DUPLICATE

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Tedesco, Lisa M FLNR:EX](#)  
**Subject:** RE: STOP!! WISA BMP for woodlot owners  
**Date:** Wednesday, March 16, 2016 4:27:00 PM

---

Too bad, sounds like a great project. I will spend the money on something else then.

---

**From:** Tedesco, Lisa M FLNR:EX  
**Sent:** Wednesday, March 16, 2016 3:10 PM  
**To:** Surgenor, John FLNR:EX; Stewart, Robert FLNR:EX  
**Subject:** STOP!! WISA BMP for woodlot owners  
Well it was a great idea but Les doesn't have time. So, back to doing it internally at some point. Thanks for everyone's hustle even if it isn't panning out.  
Lisa Tedesco, Habitat Biologist  
Phone: (250) 354-6163 Fax: (250) 354-6332

---

**From:** Surgenor, John FLNR:EX  
**Sent:** Wednesday, March 16, 2016 3:08 PM  
**To:** Tedesco, Lisa M FLNR:EX; Nixon, Amy FLNR:EX; Stewart, Robert FLNR:EX; Anderson, Lindsay FLNR:EX  
**Cc:** Ernst, Bevan FLNR:EX  
**Subject:** RE: WISA BMP for woodlot owners  
Hi. Robs is just checking with Amy on the overlap with the AO. Once we get this we can make a decision on whether we need a bmp for the western ao.

---

**From:** Tedesco, Lisa M FLNR:EX  
**Sent:** Wednesday, March 16, 2016 2:28 PM  
**To:** Nixon, Amy FLNR:EX; Surgenor, John FLNR:EX; Stewart, Robert FLNR:EX; Anderson, Lindsay FLNR:EX  
**Cc:** Ernst, Bevan FLNR:EX  
**Subject:** RE: WISA BMP for woodlot owners  
Hi all,

Thanks for this Amy and Bevan. I guess I should have clarified what I did for the previous table was woodlots that overlapped with Critical Habitat as regardless of whether there has been an observation or not if there is CH there is an expectation that we are trying to establish/manage with "effective protection" (e.g. BMP).

It is clear to me that a woodlot BMP for the Okanagan-Boundary would be valuable, lots of overlap for both CH and observations.

There is some limited overlap for the Western AO. JOHN, are you interested in having a BMP developed?

There is little to none for the EK. Given that the habitat requirements for EK and Ok-B are almost identical I think it would be easy to do the minor adjustments required to the Ok-B document to make it suitable for the EK.

John once I hear back from you I will contact Les and confirm that he has time and interest in this contract. I wouldn't think it would take more than 2-3 days to complete 2 BMPs. Not sure his day rate but guessing about \$2000 total. If this is too much Rob then let's just go with the single BMP for max 2 days work.

Lisa

Lisa Tedesco, Habitat Biologist  
Phone: (250) 354-6163 Fax: (250) 354-6332

---

**From:** Nixon, Amy FLNR:EX  
**Sent:** Wednesday, March 16, 2016 1:46 PM



**To:** Tedesco, Lisa M FLNR:EX; Surgenor, John FLNR:EX; Stewart, Robert FLNR:EX; Anderson, Lindsay FLNR:EX  
**Cc:** Ernst, Bevan FLNR:EX  
**Subject:** RE: WISA BMP for woodlot owners  
Hi all,

Attached is a summary of WISA observations that are in woodlots by region and AO.  
I've also included a summary of WHA (proposed and approved) overlaps with Woodlots.  
Note that in a few cases, a WHA overlaps with a woodlot, but all of the WISA observations are outside the woodlot. Those WHAs are included in the list.  
Thanks to Bevan for supplying the ArcGIS tools.  
Let me know if you have any questions.  
Amy

---

**From:** Tedesco, Lisa M FLNR:EX  
**Sent:** Tuesday, March 15, 2016 4:10 PM  
**To:** Surgenor, John FLNR:EX; Stewart, Robert FLNR:EX; Anderson, Lindsay FLNR:EX; Nixon, Amy FLNR:EX  
**Subject:** RE: WISA BMP for woodlot owners  
Rob if you have funds available even to cover an Okanagan-Boundary BMP as a pilot that would be great. I think it is fair to tell George that unless it is produced by government or under a government contract we won't be able to get it endorsed as guidance or best available science at a higher level making it less valuable. This could be a simple direct award minor works contract I think  
John, what did you find out about overlap? I actually found this overlap list I made for George:  
8 active woodlots in Cascade 1 pending  
4 active 2 pending Okanagan  
3 active in Rocky Mt  
8 active (some multiple blocks though) 2 pending Boundary  
Lisa Tedesco, Habitat Biologist  
Phone: (250) 354-6163 Fax: (250) 354-6332

---

**From:** Surgenor, John FLNR:EX  
**Sent:** Tuesday, March 15, 2016 11:52 AM  
**To:** Stewart, Robert FLNR:EX; Tedesco, Lisa M FLNR:EX; Anderson, Lindsay FLNR:EX; Nixon, Amy FLNR:EX  
**Subject:** RE: WISA BMP for woodlot owners  
Rob/Amy. If Amy can have the woodlot layer up for this afternoons call we can answer the question of overlap for each AO.

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Tuesday, March 15, 2016 10:12 AM  
**To:** Tedesco, Lisa M FLNR:EX; Surgenor, John FLNR:EX; Anderson, Lindsay FLNR:EX  
**Subject:** RE: WISA BMP for woodlot owners  
I agree with your pros and cons.  
I have some WISA WHA compliance \$ that I haven't spent yet (I think it is \$8k). I am going to purchase some trail cameras to monitor firewood cutting. If we need \$ to put to BMP production perhaps we can allocate some of this \$.  
What do you guys think?

---

**From:** Tedesco, Lisa M FLNR:EX  
**Sent:** Tuesday, March 15, 2016 10:08 AM

**To:** Surgenor, John FLNR:EX; Stewart, Robert FLNR:EX; Anderson, Lindsay FLNR:EX

**Subject:** WISA BMP for woodlot owners

Hi John and Rob,

Just wanted to touch base and let you know an initiative that a woodlot owner has started in the Boundary and is looking to take broader and get an opinion on something.

Cole's notes: s.22 is a woodlot owner in the Boundary who has WISA on his woodlot and s.22 He is really interested in educating woodlot owners on species at risk and being proactive. He has presented recently at the BC woodlot owners meeting I believe regarding WISA. I had mentioned to him that having a BMP specifically for woodlot owners at some point would be valuable and he has jumped on this and is asking for a word version of the BMP so he can edit and start creating a woodlot owners BMP. As you can guess I have mixed feelings about this. Pro is someone is willing to do work for us, con is this person is non-technical.

Thoughts? If I say province wants to lead on this I feel we will need to deliver fairly quickly. Is there any last minute March \$ that could be used? I'm sure Les could revise the existing BMPs in a few days. How much overlap is there in other AOs for woodlots and WISA? If it is mostly Boundary (I think I have 10 woodlots with WISA) then I could do a Boundary(Okanagan/Boundary?) woodlot BMP quite easily I think. Look forward to feedback as soon as possible as I should really get back to him today after several messages and an email.

**Lisa Tedesco** BSc, RPBio

Habitat Biologist, Nelson BC

Kootenay-Boundary Region

Ministry of Forests, Lands and Natural Resource Operations

Phone: (250) 354-6163 Fax: (250) 354-6332

From: [Stewart, Robert FLNR:EX](#)  
To: s.22  
Subject: RE: Deep Creek Water Act Section Approvals  
Date: Tuesday, March 15, 2016 4:28:00 PM

---

Hi s.22 Thanks for the feedback, but I'm not specifically recommending reed canary grass for the deep creek sites. That happens to be one of the many species recommended in the SLIPP document. The SLIPP document is a general recommendation for a broad area of riparian habitats in the shuswap area. The species I have recommended were fairly specific and did not include reed canary grass. Clearly given the circumstances in Deep Creek reed canary grass is not appropriate for that site, just as many other species on that list are not appropriate for the deep creek site.

As you are demonstrating quite well, we are relying on your expertise to select appropriate species for riparian revegetation.

If it's not clear in the approval, what I've recommended is revegetating some of the creek riparian area with shrubby vegetation to help reduce the amount of reed canary grass growing beside and in the creek channel.

-----Original Message-----

From: s.22  
Sent: Friday, March 4, 2016 7:10 AM  
To: Stewart, Robert FLNR:EX  
Cc: s.22  
Subject: RE: Deep Creek Water Act Section Approvals

Robert, following up on the recent Deep Creek Water Act Section Approvals, I would greatly appreciate some time to discuss a Riparian Planting Plan for these approvals. I've included some emails below for discussion.

The response you made to the group's lead, s.22 on Feb. 17, 2016, had two attachments as recommendations for species to consider for re-vegetating the riparian after the works were completed. The attached SLIPP listing included reed canary grass as an option. Reed canary grass has been recognized in the 1998 "Understanding Wetlands" a wetland handbook for British Columbia's interior publication by Ducks Unlimited Canada [ISBN 0-9692943-3-6] on pg 78-79 "The presence of reed canary grass indicates a healthy and productive wetland and riparian area."

As the applicants background photo record showed, the upper Deep Creek farmland has been under intensive agricultural operations for many decades and the riparian area consists primarily of reed canary grass. Indeed there are few trees or shrubs along the riparian due to the crowding ability reed canary grass has. I acknowledge that the diversity that currently exists is limited and not favourable to many birds or wildlife, but then again the properties are within the agricultural land reserve and farming is the predominant use of these lands such that enhancing the riparian for other considerations would be counter productive and reducing the ability of the right to farm.

Reed canary grass is ideally suited to the local soils and persists and indeed thrives from the periodic flood and drought conditions the area experiences. The species has dense root mats that are difficult to penetrate and establish with other species. Its two meter height effectively shades the entrenched channel well during the summer. Any other species would need to control the dominating characteristics that reed canary grass has.

In keeping with the approval conditions and recognizing that the Riparian Area Regulation does not apply to agricultural lands and their operations, I would recommend that the replanting plan utilize some of the rooted clumps that have slumped into the channel and they be applied to restore the bank integrity in void spaces from the flow improvements.

Seeking your comments and concurrence, I would appreciate your response and if you'd like to discuss further, please call me directly or let me know a good time when you are available ~

s.22

From: "Stewart, Robert FLNR:EX" <Robert.Stewart@gov.bc.ca>  
Date: February 17, 2016 at 2:35:17 PM PST  
To: s.22  
Cc: "McFarlane, Bruce E FLNR:EX" <Bruce.McFarlane@gov.bc.ca>  
Subject: RE: Files: 8003353, A8-7813, A8-7814, A8-7817, A8-7819, A8-7820, A8-7821, A8-7822, Section 9 Applications, Deep Creek and tributaries

s.22 As discussed I've attached some guidance information for riparian restoration that is applicable to your situation. They are a riparian restoration guidelines document developed for RAR, and a list of suitable riparian plant species for the Deep Creek area.

The guidelines are applicable to areas that are not covered by RAR as they are developed from a biological, not an administrative perspective.

My recommendation for your group of Deep Creek Water Act applications is that you use this information when you are considering riparian restoration. You should also consider continuing to engage a QP to prepare a riparian restoration plan that is consistent with the attached information.

Let me know if you have any questions or need any additional information, or recommendations for riparian restoration.

From: s.22  
Sent: Monday, February 15, 2016 10:37 AM  
To: Stewart, Robert FLNR:EX  
Subject: Re: Files: 8003353, A8-7813, A8-7814, A8-7817, A8-7819, A8-7820, A8-7821, A8-7822, Section 9 Applications, Deep Creek and tributaries

Robert

I am interested in knowing what your assessment of the Upper Deep Creek water course is and what the recommendations were. We are in a quite period in our annual work load and this would be a good time to review and discuss your recommendations.

Your answering service is not working this morning so I am trying by email Respectfully s.22

From: Bruce Harrison [[mailto:b\\_harrison@ducks.ca](mailto:b_harrison@ducks.ca)]  
Sent: Monday, October 26, 2015 2:50 PM  
To: Wetlands: s.22  
Cc: s.22  
Subject: RE: Reed canary grass

Hi s.22

I agree that the statement is not accurate. It certainly does not represent DUC's views on reed canary these days. I think the provincial government classification is more on the mark, and would direct people towards that reference.

Regards,

Bruce Harrison, RPBio.  
Head Conservation Science & Planning (BC) Ducks Unlimited Canada 954A Laval Crescent, Kamloops,

BC V2C 5P5  
250-374-8307 (Ext 238)  
250-318-8929 (Cell)

From: Wetlands [<mailto:wetlands@bcwf.bc.ca>]

Sent: Monday, October 26, 2015 11:36 AM

To: s.22

Cc: s.22 ; Bruce Harrison ([b\\_harrison@ducks.ca](mailto:b_harrison@ducks.ca)) <[b\\_harrison@ducks.ca](mailto:b_harrison@ducks.ca)>

Subject: RE: Reed canary grass

H s.22

I'm aware of that reference, and recall being surprised when I saw how it described Reed Canary as an indicator of a healthy wetland.

I'm copying s.22 and s.22 about Reed Canary Grass, in case they want to share their perspective. From my understanding, Reed Canary grass has both native and non-native strains (from Europe), but I believe we've seen a lot of hybridization of Reed Canary Grass in BC, which has made it more aggressive. It's used widely by the Agricultural sector as a grass that can tolerate wet conditions. I spoke to a woman once who said that her father, a rancher, would seed it in areas where they had wet soils as a treatment, because over a few years, enough plant material would build up to raise the elevation of the site - and it would be less wet. Due to its ability to dominate sites, I've met numerous wetland steward groups who have tried to diversify their sites, by attempting to control it or reduce its extent. The provincial government classifies marshes dominated by reed canary grass as follows:

" Reed Canarygrass communities are common throughout the southern two-thirds of the province in areas with warm and relatively dry summers. They represent a disclimax community that establishes or is seeded on cleared willow swamps and low-bench sites. Typical sites are the floodplains of low-gradient streams or lake flats that are flooded in the spring and have prolonged soil saturation. Soils are commonly Gleysolic and fine-textured. *Phalaris arundinacea* is strongly rhizomatous and produces a dense sod and full canopy that excludes most other species; most stands are monotypic." MacKenzie and Moran 2004. LMH52. Wetlands of British Columbia: A guide to classification P. 118.

Disclimax communities are typically associated with areas that have been disturbed by anthropogenic influences.

There may be benefits to Reed Canary Grass communities, that may be worthy to explore for your site, such as soil stabilization but from what I understand, because it can dominate a site, it provides little in the way of habitat structure for encouraging biodiversity and niches for various wildlife.

Neil W. Fletcher, M.R.M.  
Wetlands Education Program Coordinator, BC Wildlife Federation  
101-9706 188th St., Surrey, BC, V4N 3M2  
T: 604.882.9988 ext 232 | (Toll Free in BC: 1.888.881.2293 ext 232)  
M: 604.970.9707 | F: 604.882.9933  
[wetlands@bcwf.bc.ca](mailto:wetlands@bcwf.bc.ca) | [www.bcwf.bc.ca](http://www.bcwf.bc.ca) | [www.bcwfbcogblog.com](http://www.bcwfbcogblog.com) Facebook | Twitter

"If there is magic on this planet, it is contained in water" Loren Eiseley

#### CONFIDENTIALITY WARNING

This message and any attachments are intended only for the use of the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation of or other use of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately and delete this message and any attachments from your system. Thank you.

-----Original Message-----

From: s.22

Sent: October-25-15 10:11 AM  
To: Wetlands  
Subject: RE: Reed canary grass

The President of the Shuswap Naturalists made issue with me regarding my comments over invasive reed canary grass and gave me the 1998 "Understanding Wetlands" a wetland handbook for British Columbia's interior publication by Ducks Unlimited Canada [ISBN 0-9692943-3-6]. pg 78-79 "The presence of reed canary grass indicates a healthy and productive wetland and riparian area." Certainly not what the consensus of training instructors and participants at last month's wetland institute felt - any comment?

s.22

From: [Stewart, Robert FLNR:EX](#)  
To: [Elphick, Ryan ENV:EX](#); "[Steve Manke](#)"  
Cc: [XT:Ley, Bonnie ENV:IN](#)  
Subject: RE: Kiosk install at Skaha Bluffs Park, Penticton  
Date: Tuesday, March 15, 2016 10:05:00 AM

---

Thanks Ryan

Steve.

We can do and onsite asap. this week would be good.

I need to have this work billed and completed prior to the end of fiscal (March 31).

Let me know what your phone number is and we can discuss.

-----Original Message-----

From: Elphick, Ryan ENV:EX  
Sent: Tuesday, March 15, 2016 8:39 AM  
To: 'Steve Manke'; Stewart, Robert FLNR:EX  
Cc: XT:Ley, Bonnie ENV:IN; Bunge, Sara K  
Subject: RE: Kiosk install at Skaha Bluffs Park, Penticton

Hello all,

From the notes below, the plan was to remove the older small kiosk in the first lot and replace it with this new one. We would like to retain the chalk board and the comments box.

Thanks

Ryan

-----Original Message-----

From: Steve Manke s.22  
Sent: Monday, March 14, 2016 8:52 PM  
To: Stewart, Robert FLNR:EX  
Cc: XT:Ley, Bonnie ENV:IN; Elphick, Ryan ENV:EX; Bunge, Sara K  
Subject: Re: Kiosk install at Skaha Bluffs Park, Penticton

Hi Sara,

If there is a time to meet on site to confirm, that would be great.

Cheers,

Steve

> On Mar 14, 2016, at 4:01 PM, Stewart, Robert FLNR:EX <[Robert.Stewart@gov.bc.ca](mailto:Robert.Stewart@gov.bc.ca)> wrote:  
>  
> Mike. Your quote looks good to me. I'll check my notes from Sara to ensure we've got the correct location selected. Once I've confirmed that you can proceed with the installation and invoice me when completed. Note that I'm not with BC Parks and MOR but with FLNRO.  
>  
> Let me know if you have any questions.  
>  
>  
> ~~~~~  
> Robert Stewart  
> Habitat Biologist  
> Resource Management

> Ministry of Forests, Lands and Natural Resources Operations Penticton  
> Phone (250) 490-8253 Fax (250) 490-2231  
>  
>  
>  
> -----Original Message-----  
> From: Mike Ley [<mailto:mike@campokanagan.com>]  
> Sent: Friday, March 11, 2016 5:44 AM  
> To: Stewart, Robert FLNR:EX  
> Cc: 'Steve Manke'  
> Subject: RE: Kiosk install at Skaha Bluffs Park, Penticton  
>  
> Hi Robert,  
> We sent you a quote and have not heard back from you??  
> Cheers,  
>  
> Mike Ley  
>  
> -----Original Message-----  
> From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
> Sent: March-07-16 2:25 PM  
> To: XT:Ley, Bonnie ENV:IN  
> Subject: FW: Kiosk install at Skaha Bluffs Park, Penticton  
>  
> Hi Mike. I'm looking for installation of a Kiosk at Skaha Bluffs park.  
>  
> Please let me know if you area interested in installing the the Kiosk. If yes, can you give me a  
quote?  
> I need the invoice prior to March 31.  
>  
> Thanks  
>  
>  
> ~~~~~  
> Robert Stewart  
> Habitat Biologist  
> Resource Management  
> Ministry of Forests, Lands and Natural Resources Operations Penticton  
> Phone  
> (250) 490-8253 Fax (250) 490-2231  
>  
>  
>  
> From: Sara Bunge s.22  
> Sent: Sunday, February 28, 2016 10:14 PM  
> To: Stewart, Robert FLNR:EX  
> Cc: Elphick, Ryan ENV:EX  
> Subject: FW: Kiosk install at Skaha Bluffs Park, Penticton  
>  
> Hi Rob:  
>  
> Ryan should be kept in the loop as he is the area supervisor for that park now.  
>  
> Thanks,  
>  
> Sara  
>  
> From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
> Sent: February 25, 2016 12:36 PM  
> To: 'shannon@campokanagan.com'



> <shannon@campokanagan.com<<mailto:shannon@campokanagan.com>>>  
> Cc: Bunge, Sara K <[Sara.Bunge@gov.bc.ca](mailto:Sara.Bunge@gov.bc.ca)<<mailto:Sara.Bunge@gov.bc.ca>>>;  
> Illingworth, Kirk D ENV:EX  
> <[Kirk.Illingworth@gov.bc.ca](mailto:Kirk.Illingworth@gov.bc.ca)<<mailto:Kirk.Illingworth@gov.bc.ca>>>; 'Sara  
> Bunge' s.22  
> Subject: FW: Kiosk install at Skaha Bluffs Park, Penticton  
>  
> Hi Shannon. As discussed earlier today my program (Ecosystems in FLNRO) is looking to install a  
parks kiosk in skaha bluffs park prior to March 31. It is intended for information on the McTaggart -  
Cowan Wildlife Management Area that abuts the north, east and south boundaries of the park, as well  
as some additional park information.  
>  
> The kiosk is already constructed and is currently being stored at the parks yard at Okanagan Lake  
Park.  
>  
> We need a pad poured to BC Parks specs and the kiosk installed. We will install signs later on this  
year.  
>  
> Can you give me a quote for the pad, installation of the kiosk, including transport from the yard north  
of summerland.  
>  
> Thanks.  
>  
>  
> ~~~~~  
> Robert Stewart  
> Habitat Biologist  
> Resource Management  
> Ministry of Forests, Lands and Natural Resources Operations Penticton  
> Phone  
> (250) 490-8253 Fax (250) 490-2231  
>  
>  
>  
> From: Bunge, Sara K ENV:EX  
> Sent: Friday, April 24, 2015 11:33 AM  
> To: Stewart, Robert FLNR:EX  
> Subject: FW: Kiosk install at Skaha Bluffs Park, Penticton  
>  
> Rob:  
>  
> Here is the info - I think it has all the info someone would need to know to give an accurate quote.  
>  
> Thanks,  
>  
> Sara  
>  
> Sara Bunge  
> Acting Area Supervisor  
> BC Parks, South Okanagan  
> (250) 490-8223  
>  
>  
> Here are the specs for the kiosk - including the concrete work. I have also included a photo of one of  
the kiosks that is up there already. This new one would be the same.  
>  
> Location would be in the first parking lot - in the place where currently a small kiosk is standing with  
a chalkboard on it for the climbers. We would take down the small kiosk prior to this work being done  
as well as move a comments box that is there too. If you want to have a look at what is there and the  
access, the park is at the end of Smythe Rd, off of Eastside Rd.

>

> I will supply the kiosk and the metal brackets. The kiosk is going to be delivered to the Summerland yard (where you fixed the doors).

>

> We are looking for install sometime in June - probably mid-late June. One of the signs that is going to be installed has to be made yet so I don't want the kiosk up til the sign is ready.

>

> The work would involve forming up the slab and holes for the metal brackets, pouring the concrete with the brackets in place, installing the kiosk onto the slab.

>

>

>

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Li, Yi FLNR:EX](#)  
**Subject:** RE: regading Water Act Section 9 Approval application (8003397)  
**Date:** Monday, March 14, 2016 4:44:00 PM  
**Importance:** High

---

Thanks. I'll review and respond to your questions this week.

---

**From:** Li, Yi FLNR:EX  
**Sent:** Thursday, March 10, 2016 11:16 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: regading Water Act Section 9 Approval application (8003397)

Also, any applicable work window?

Yi

---

**From:** Li, Yi FLNR:EX  
**Sent:** Thursday, March 10, 2016 10:52 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: regading Water Act Section 9 Approval application (8003397)

Hi Rob,

For this application, you have not indicated any terms and conditions.

I prepared one paragraph for you in approval letter. Please see the red part in the attached. Please let me know if the part is appropriate.

Regards  
Yi

---

**From:** Li, Yi FLNR:EX  
**Sent:** Thursday, March 10, 2016 10:48 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** FW: regading Water Act Section 9 Approval application (8003397)

FYI

Any comments?

**From:** [streamwx@gmail.com](mailto:streamwx@gmail.com) [<mailto:streamwx@gmail.com>] On Behalf Of Alan Bates  
**Sent:** Thursday, March 10, 2016 9:32 AM  
**To:** Li, Yi FLNR:EX  
**Subject:** Re: regading Water Act Section 9 Approval application (8003397)

Hi Yi;

Yep, here you go. Changes incorporated into the drawing as requested. The client has approved these changes. I have reduced the rock in the upper half of the bank to give more opportunity for planting. I've found planting between the riprap has limited success, mostly due to the geotextile. Securing the toe with rock and planting above highwater will work well at this site. We will probably use live willow and cottonwood cuttings. Planting may not be done at the same time as the rock work if it is undertaken in the hot, dry season. Not sure exactly what I will do with the existing logs, but I will make use of them to create habitat and help stabilize the banks. Those logs are obviously not natural at the site but were added by the landowner in an attempt to control erosion some time ago.

Regards;  
Alan

Alan Bates, P.Eng.  
Streamworks Consulting Inc  
[streamworks@telus.net](mailto:streamworks@telus.net)

On Mon, Mar 7, 2016 at 10:29 AM, Li, Yi FLNR:EX <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)> wrote:  
Hi Alan,

Any update on this one?

Yi

---

**From:** Li, Yi FLNR:EX  
**Sent:** Thursday, February 18, 2016 12:27 PM  
**To:** '[streamworks@telus.net](mailto:streamworks@telus.net)'  
**Subject:** RE: regading Water Act Section 9 Approval application (8003397)

Thanks Alan,

Yes, please change drawings.

Our ecosystem biologist also has other comments:

- The rip rap erosion protection be modified to include planting of riparian shrub vegetation (willow, alder, dogwood) interspersed with the rip rap to provide a bio-engineered approach to bank stabilization.
- Existing large logs shown in photos should be retained and keyed into banks to provide additional bank stability.
- Creekside riparian vegetation should be protected from cutting and livestock grazing for at least 5 meters from the top of bank. This will provide valuable riparian wildlife and fish habitat, stabilize the bank with riparian vegetation and reduce the risk of further erosion.

These comments should be easy for the proponent. Please let know if they are acceptable.

There is no First Nations concern.

Regards

Yi

**From:** [streamwx@gmail.com](mailto:streamwx@gmail.com) [<mailto:streamwx@gmail.com>] **On Behalf Of** Alan Bates

**Sent:** Thursday, February 18, 2016 12:18 PM

**To:** Li, Yi FLNR:EX

**Subject:** Re: regading Water Act Section 9 Approval application (8003397)

Hi Yi;

I have been in touch with the landowners and they are willing to set the road back 5m from the new top of bank. As this is an Environmental Farm Plan project, there will also be some money/effort put in to re-vegetating the riparian zone.

Would you like me to change the drawing to show a 5m offset or can you just specify that in the permit?

Thanks;

Alan

Alan Bates, P.Eng.

Streamworks Consulting Inc

[streamworks@telus.net](mailto:streamworks@telus.net)

On Tue, Feb 16, 2016 at 3:04 PM, Li, Yi FLNR:EX <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)> wrote:

Thanks. Yi

**From:** [streamwx@gmail.com](mailto:streamwx@gmail.com) [<mailto:streamwx@gmail.com>] **On Behalf Of** Alan Bates

**Sent:** Tuesday, February 16, 2016 11:35 AM

**To:** Li, Yi FLNR:EX

**Subject:** Re: regading Water Act Section 9 Approval application (8003397)

Hi Yi;

I will forward this request on to the landowner.

Thanks

Alan

Alan Bates, P.Eng.

Streamworks Consulting Inc

[streamworks@telus.net](mailto:streamworks@telus.net)

On Mon, Feb 15, 2016 at 4:27 PM, Li, Yi FLNR:EX <Yi.Li@gov.bc.ca> wrote:  
Thanks Alan,

Our ecosystem expert would like to see 5 meter road offset, instead of 2 meters you proposed. to provide valuable riparian wildlife and fish habitat, and to stabilize the bank with riparian vegetation.

Do you agree?

Regards

Yi

**From:** [streamwx@gmail.com](mailto:streamwx@gmail.com) [mailto:[streamwx@gmail.com](mailto:streamwx@gmail.com)] **On Behalf Of** Alan Bates  
**Sent:** Monday, February 15, 2016 4:21 PM  
**To:** Li, Yi FLNR:EX  
**Subject:** Re: regading Water Act Section 9 Approval application (8003397)

Hi Yi;

I estimated the design velocity at 3 m/s (or less), given the low gradient and existing substrates in this small stream, and assuming sub-critical flow. The maximum depth is 2m. Using riprap design methods as described in the attached document (and TAC Guideline to Bridge Hydraulics), a D50 of 500mm should be more than adequate (see Figure 3.5 - and assuming  $D50 = D30 \times 1.25$ ). I went a little bit bigger than required as the slope of the riprap in my design is steeper than 2:1 and I find bigger rock easier to stack and interlock.

I also like to cross check my rock size using the tractive force equation for a single clast sitting on a stream bottom (in this method, velocity cancels out and size is based only on slope and depth of flow). Assuming a bed slope of 2%, a maximum depth of 2m, stable rock size works out to be 400mm. I have used this method successfully for many years to design instream rock riffles (Ref Bob Newbury). If a rock is stable sitting alone on the stream bottom, chances are it is stable in the bank jammed between other rocks! Velocity estimates can vary significantly so I like to cross check the above using this equation.

In the end, it is often difficult to get the exact rock specified as the landowner will just get what is available, affordable and looks like riprap. That's why I like to specify D50 - the median size as it is easier for folks to understand than D30. I generally don't like to specify riprap smaller than 500mm and I prefer to see the rock at the quarry before they go to the expense of hauling it (in case I reject it). I am not sure of the rock source for this particular project yet.

I hope this helps.

Regards;  
Alan

Alan Bates, P.Eng.  
Streamworks Consulting Inc  
[streamworks@telus.net](mailto:streamworks@telus.net)

On Mon, Feb 15, 2016 at 2:14 PM, Li, Yi FLNR:EX <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)> wrote:  
Hi Alan,

D50 is strong enough? What is the design flow velocity?

Regards  
Yi

**From:** [streamwx@gmail.com](mailto:streamwx@gmail.com) [mailto:[streamwx@gmail.com](mailto:streamwx@gmail.com)] **On Behalf Of** Alan Bates  
**Sent:** Monday, February 15, 2016 2:11 PM  
**To:** Li, Yi FLNR:EX  
**Subject:** Re: regading Water Act Section 9 Approval application (8003397)

Hi Yi;

There should be a Figure 2 with the application that shows the configuration of the riprap placement and specifies the mean diameter of the clasts (D50 in Note 3). Do you need something more than that?

Let me know if you have any other questions.

Regards;  
Alan

Alan Bates, P.Eng.  
Streamworks Consulting Inc  
[streamworks@telus.net](mailto:streamworks@telus.net)

On Mon, Feb 15, 2016 at 11:04 AM, Li, Yi FLNR:EX <[Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)> wrote:  
Hi Alan,

I am reviewing your Water Act Section 9 Approval application for bank erosion protection on Joe Rich Creek in Kelowna.

Do you have a design for the ripraps?

Regards  
Yi

---

Yi Li, PEng  
**Regional Hydrologist, and Engineer under the Water Act**  
Regional Water Management  
Thompson Okanagan Region

BC Ministry of Forests, Lands and Natural Resource Operations  
102 Industrial Place, Penticton, BC V2A 7C8  
E-Mail: [Yi.Li@gov.bc.ca](mailto:Yi.Li@gov.bc.ca)  
T: [\(250\) 490-8265](tel:(250)490-8265) | M: [\(250\) 462-4871](tel:(250)462-4871) | F: [\(250\) 490-2231](tel:(250)490-2231)



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Olsen, Donna K TRAN:EX](#)  
**Subject:** RE: Westside Rd Sta 114+40 - Temporary Erosion Protection  
**Date:** Monday, March 14, 2016 4:40:00 PM

---

Thanks Donna. I'll review tomorrow and let you know if I have any comments.

---

**From:** Olsen, Donna K TRAN:EX  
**Sent:** Monday, March 14, 2016 3:41 PM  
**To:** Stewart, Robert FLNR:EX  
**Cc:** King, Spencer TRAN:EX; George, Michael TRAN:EX; Gallagher, Ken L TRAN:EX  
**Subject:** FW: Westside Rd Sta 114+40 - Temporary Erosion Protection

Hi Rob,

Please find attached the Ministry's plan for temporary works to mitigate the slough on Westside Road.

It is my understanding that no materials will be placed in the lake, but we will have environmental monitors on site to manage sediment.

The ministry is hoping to start the blanket application and the rock placement this week. Are there any concerns with proceeding?

Donna Olsen R.P. Bio  
Environmental Services Coordinator  
Ministry of Transportation and Infrastructure  
#231- 447 Columbia Street  
Kamloops, B.C., V2C 2T3  
Ph (250-828-4324)  
Fx (250-828-4083)

---

**From:** George, Michael TRAN:EX  
**Sent:** Wednesday, March 9, 2016 10:58 AM  
**To:** King, Spencer TRAN:EX; Clough, Shawn R TRAN:EX; Olsen, Donna K TRAN:EX; Pellam, Amanda TRAN:EX  
**Cc:** Sullivan, Mike TRAN:EX; Kneale, Tom TRAN:EX  
**Subject:** Westside Rd Sta 114+40 - Temporary Erosion Protection

All,

Please find attached the temporary erosion protection design for Sta 114+40 as well as information regarding the products to be used.

Regards,  
Michael

From: [Stewart, Robert FLNR:EX](#)  
To: [Hawkins, John FLNR:EX](#)  
Cc: [Furness, Grant A FLNR:EX](#); [Zimmerman, Ted FLNR:EX](#)  
Subject: RE: URGENT: Vaseux KVR  
Date: Monday, March 14, 2016 4:28:00 PM  
Attachments: 104254 RDOS KVR trail.pdf

---

s.13,s.16

Page 146 to/à Page 148

Withheld pursuant to/removed as

s.16;s.13

Page 149 to/à Page 155

Withheld pursuant to/removed as

s.16;s.18;s.13

From: [Stewart, Robert FLNR:EX](#)  
To: [XT:Ley, Bonnie ENV:IN](#)  
Cc: ["Steve Manke"; Elphick, Ryan ENV:EX; Bunge, Sara K](#)  
Subject: RE: Kiosk install at Skaha Bluffs Park, Penticton  
Date: Monday, March 14, 2016 4:01:00 PM

---

Mike. Your quote looks good to me. I'll check my notes from Sara to ensure we've got the correct location selected. Once I've confirmed that you can proceed with the installation and invoice me when completed. Note that I'm not with BC Parks and MOR but with FLNRO.

Let me know if you have any questions.

~~~~~  
Robert Stewart  
Habitat Biologist  
Resource Management  
Ministry of Forests, Lands and Natural Resources Operations  
Penticton  
Phone (250) 490-8253  
Fax (250) 490-2231

-----Original Message-----

From: Mike Ley [<mailto:mike@campokanagan.com>]  
Sent: Friday, March 11, 2016 5:44 AM  
To: Stewart, Robert FLNR:EX  
Cc: 'Steve Manke'  
Subject: RE: Kiosk install at Skaha Bluffs Park, Penticton

Hi Robert,  
We sent you a quote and have not heard back from you??  
Cheers,

Mike Ley

-----Original Message-----

From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
Sent: March-07-16 2:25 PM  
To: XT:Ley, Bonnie ENV:IN  
Subject: FW: Kiosk install at Skaha Bluffs Park, Penticton

Hi Mike. I'm looking for installation of a Kiosk at Skaha Bluffs park.

Please let me know if you area interested in installing the the Kiosk. If yes, can you give me a quote?  
I need the invoice prior to March 31.

Thanks

~~~~~  
Robert Stewart  
Habitat Biologist  
Resource Management  
Ministry of Forests, Lands and Natural Resources Operations Penticton Phone  
(250) 490-8253 Fax (250) 490-2231

From: Sara Bunge<sup>s.22</sup>  
Sent: Sunday, February 28, 2016 10:14 PM  
To: Stewart, Robert FLNR:EX  
Cc: Elphick, Ryan ENV:EX  
Subject: FW: Kiosk install at Skaha Bluffs Park, Penticton

Hi Rob:

Ryan should be kept in the loop as he is the area supervisor for that park now.

Thanks,

Sara

From: Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
Sent: February 25, 2016 12:36 PM  
To: 'shannon@campokanagan.com'  
<shannon@campokanagan.com<<mailto:shannon@campokanagan.com>>>  
Cc: Bunge, Sara K <Sara.Bunge@gov.bc.ca<<mailto:Sara.Bunge@gov.bc.ca>>>;  
Illingworth, Kirk D ENV:EX  
<Kirk.Illingworth@gov.bc.ca<<mailto:Kirk.Illingworth@gov.bc.ca>>>; 'Sara Bunge'  
<sup>s.22</sup>  
Subject: FW: Kiosk install at Skaha Bluffs Park, Penticton

Hi Shannon. As discussed earlier today my program (Ecosystems in FLNRO) is looking to install a parks kiosk in skaha bluffs park prior to March 31. It is intended for information on the McTaggart -Cowan Wildlife Management Area that abuts the north, east and south boundaries of the park, as well as some additional park information.

The kiosk is already constructed and is currently being stored at the parks yard at Okanagan Lake Park.

We need a pad poured to BC Parks specs and the kiosk installed. We will install signs later on this year.

Can you give me a quote for the pad, installation of the kiosk, including transport from the yard north of summerland.

Thanks.

~~~~~  
Robert Stewart  
Habitat Biologist  
Resource Management  
Ministry of Forests, Lands and Natural Resources Operations Penticton Phone  
(250) 490-8253 Fax (250) 490-2231

From: Bunge, Sara K ENV:EX  
Sent: Friday, April 24, 2015 11:33 AM  
To: Stewart, Robert FLNR:EX  
Subject: FW: Kiosk install at Skaha Bluffs Park, Penticton

Rob:

Here is the info - I think it has all the info someone would need to know to give an accurate quote.

Thanks,

Sara

Sara Bunge  
Acting Area Supervisor  
BC Parks, South Okanagan  
(250) 490-8223

Here are the specs for the kiosk - including the concrete work. I have also included a photo of one of the kiosks that is up there already. This new one would be the same.

Location would be in the first parking lot - in the place where currently a small kiosk is standing with a chalkboard on it for the climbers. We would take down the small kiosk prior to this work being done as well as move a comments box that is there too. If you want to have a look at what is there and the access, the park is at the end of Smythe Rd, off of Eastside Rd.

I will supply the kiosk and the metal brackets. The kiosk is going to be delivered to the Summerland yard (where you fixed the doors).

We are looking for install sometime in June - probably mid-late June. One of the signs that is going to be installed has to be made yet so I don't want the kiosk up til the sign is ready.

The work would involve forming up the slab and holes for the metal brackets, pouring the concrete with the brackets in place, installing the kiosk onto the slab.

**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [McLellan, Ian FLNR:EX](#)  
**Subject:** RE: Boulderfields  
**Date:** Monday, March 7, 2016 4:41:00 PM

---

You can consider this my response and close the referral for us.

Thanks.

---

**From:** McLellan, Ian FLNR:EX  
**Sent:** Monday, March 7, 2016 4:30 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** RE: Boulderfields

Yes, Keith commented. We are going to go on a field trip in the not too distant future and organize some park boundary sign installation and to ensure no trails leave the Boulderfields and enter the park but other than that they have no concerns. It is a pretty cool little canyon with very rough terrain. I am trying to wind this one up so let me know as soon as you can, thanks, Ian.

---

**From:** Stewart, Robert FLNR:EX  
**Sent:** Monday, March 7, 2016 4:26 PM  
**To:** McLellan, Ian FLNR:EX  
**Subject:** RE: Boulderfields

Thanks. I've heard of that place. I don't think we have any WHA's and I don't know of any other ecosystem values that we'd be interested in.

I not that is beside the provincial park. I assume they had a chance to comment.

Thanks for the heads up.

---

**From:** McLellan, Ian FLNR:EX  
**Sent:** Monday, March 7, 2016 4:17 PM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** Boulderfields

**Ian McLellan**

District Recreation Officer

Okanagan Recreation District

Ministry of Forests, Lands and Natural Resource Operations

2501 - 14<sup>th</sup> Ave, Vernon, BC, V1T 8Z1

(250) 558-1728



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [XT:Ley, Bonnie ENV:IN](#)  
**Subject:** FW: Kiosk install at Skaha Bluffs Park, Penticton  
**Date:** Monday, March 7, 2016 2:24:00 PM  
**Attachments:** Kiosk Skaha parking lot.pdf

---

Hi Mike. I'm looking for installation of a Kiosk at Skaha Bluffs park.  
Please let me know if you are interested in installing the Kiosk. If yes, can you give me a quote?

I need the invoice prior to March 31.

Thanks

~~~~~  
Robert Stewart  
Habitat Biologist  
Resource Management  
Ministry of Forests, Lands and Natural Resources Operations  
Penticton  
Phone (250) 490-8253  
Fax (250) 490-2231

---

**From:** Sara Bunge s.22  
**Sent:** Sunday, February 28, 2016 10:14 PM  
**To:** Stewart, Robert FLNR:EX  
**Cc:** Elphick, Ryan ENV:EX  
**Subject:** FW: Kiosk install at Skaha Bluffs Park, Penticton

Hi Rob:

Ryan should be kept in the loop as he is the area supervisor for that park now.

Thanks,

Sara

---

**From:** Stewart, Robert FLNR:EX [<mailto:Robert.Stewart@gov.bc.ca>]  
**Sent:** February 25, 2016 12:36 PM  
**To:** 'shannon@campokanagan.com' <[shannon@campokanagan.com](mailto:shannon@campokanagan.com)>  
**Cc:** Bunge, Sara K <[Sara.Bunge@gov.bc.ca](mailto:Sara.Bunge@gov.bc.ca)>; Illingworth, Kirk D ENV:EX <[Kirk.Illingworth@gov.bc.ca](mailto:Kirk.Illingworth@gov.bc.ca)>; 'Sara Bunge' s.22  
**Subject:** FW: Kiosk install at Skaha Bluffs Park, Penticton

Hi Shannon. As discussed earlier today my program (Ecosystems in FLNRO) is looking to install a parks kiosk in skaha bluffs park prior to March 31. It is intended for information on the McTaggart –Cowan Wildlife Management Area that abuts the north, east and south boundaries of the park, as well as some additional park information.

The kiosk is already constructed and is currently being stored at the parks yard at Okanagan Lake Park.

We need a pad poured to BC Parks specs and the kiosk installed. We will install signs later on this year.

Can you give me a quote for the pad, installation of the kiosk, including transport from the yard north of summerland.

Thanks.

~~~~~  
Robert Stewart  
Habitat Biologist

Resource Management  
Ministry of Forests, Lands and Natural Resources Operations  
Penticton  
Phone (250) 490-8253  
Fax (250) 490-2231

---

**From:** Bunge, Sara K ENV:EX  
**Sent:** Friday, April 24, 2015 11:33 AM  
**To:** Stewart, Robert FLNR:EX  
**Subject:** FW: Kiosk install at Skaha Bluffs Park, Penticton  
Rob:

Here is the info – I think it has all the info someone would need to know to give an accurate quote.

Thanks,

Sara

Sara Bunge  
Acting Area Supervisor  
BC Parks, South Okanagan  
(250) 490-8223

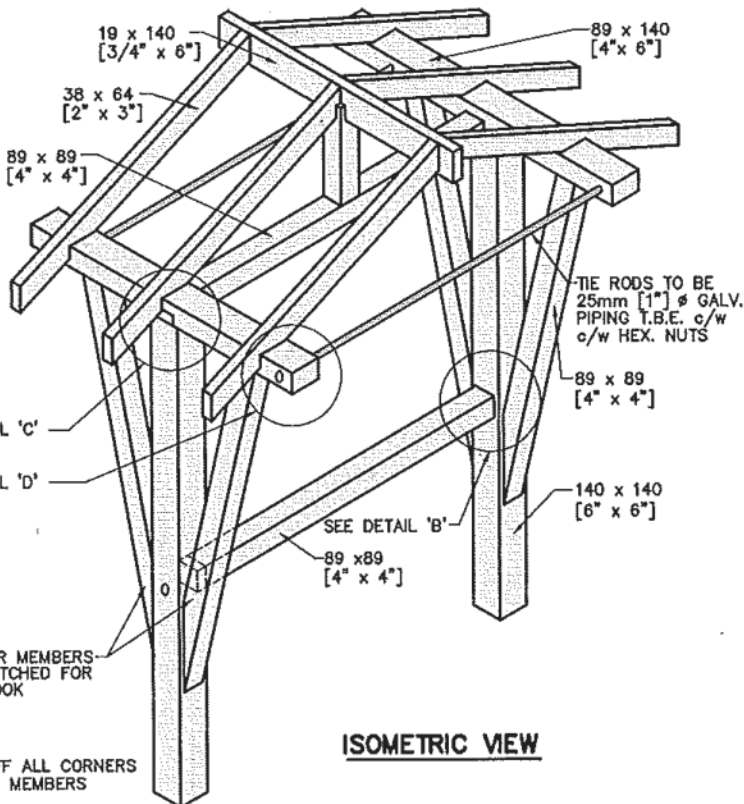
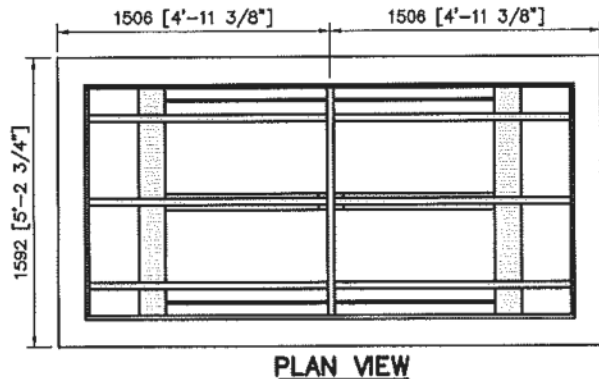
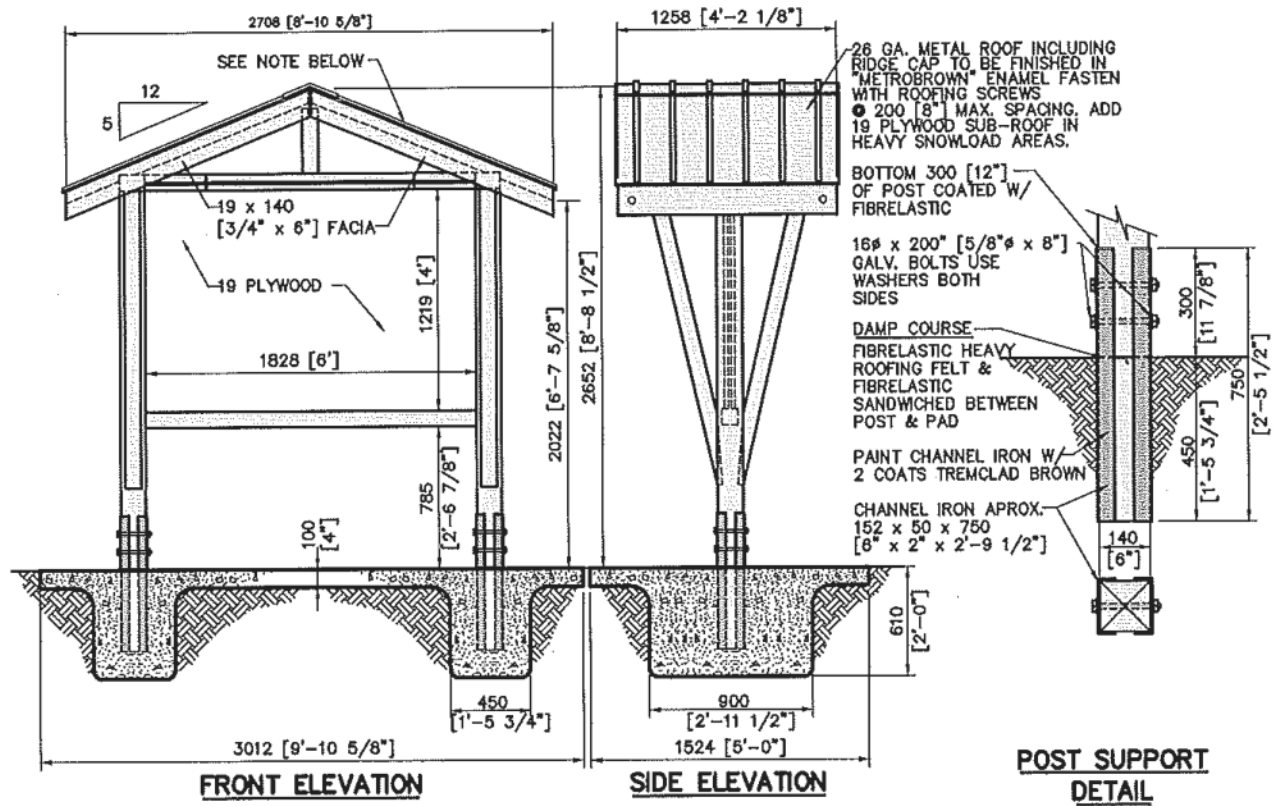
Here are the specs for the kiosk – including the concrete work. I have also included a photo of one of the kiosks that is up there already. This new one would be the same.

Location would be in the first parking lot – in the place where currently a small kiosk is standing with a chalkboard on it for the climbers. We would take down the small kiosk prior to this work being done as well as move a comments box that is there too. If you want to have a look at what is there and the access, the park is at the end of Smythe Rd, off of Eastside Rd.

I will supply the kiosk and the metal brackets. The kiosk is going to be delivered to the Summerland yard (where you fixed the doors).

We are looking for install sometime in June – probably mid-late June. One of the signs that is going to be installed has to be made yet so I don't want the kiosk up til the sign is ready.

The work would involve forming up the slab and holes for the metal brackets, pouring the concrete with the brackets in place, installing the kiosk onto the slab.



THREADED PIPE TIE ROD W/ COUNTERSUNK NUT AND SHIPS PLUG

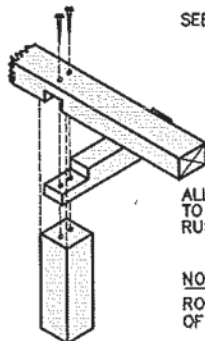


**DETAIL 'D'**



LAG SCREW TO CROSS BAR AND SHIPS PLUG COUNTERSINK

**DETAIL 'B'**



**DETAIL 'C'**

0 200 400 600 800 1000  
 SCALE IN MILLIMETERS

**PROVINCE OF BRITISH COLUMBIA - PROVINCIAL PARKS - FACILITY STANDARDS**

| DATE    | REVISED BY | REVISION                           |
|---------|------------|------------------------------------|
| APR. 98 | RITECH     | MORE INFORMATION ADDED + 2nd SHEET |

**SECTION: STRUCTURES - 82080-20  
 INFORMATION SHELTER - TYPE III**

DESIGN BY:  
 DESIGN DATE:

SHEET  
 1 of 2

DRAWING No.  
 B-4-2A-1



**From:** [Stewart, Robert FLNR:EX](#)  
**To:** [Baric, Keith J ENV:EX](#)  
**Subject:** RE: Skaha Bighorn Harvest  
**Date:** Monday, March 7, 2016 11:20:00 AM

---

Thanks. Interesting.

---

**From:** Baric, Keith J ENV:EX  
**Sent:** Monday, March 7, 2016 11:15 AM  
**To:** Elphick, Ryan ENV:EX  
**Cc:** Weston, Mark R ENV:EX; Stewart, Robert FLNR:EX  
**Subject:** FW: Skaha Bighorn Harvest

---

**From:** Reid, Aaron FLNR:EX  
**Sent:** Tuesday, March 1, 2016 11:48 AM  
**To:** [Michelle.Dano@natureconservancy.ca](mailto:Michelle.Dano@natureconservancy.ca)  
**Cc:** Baric, Keith J ENV:EX; Barbara Pryce; Walker, Andrew FLNR:EX  
**Subject:** Skaha Bighorn Harvest

Hi Michelle,

Hunters provide the harvest location with about 1km of error hence the red circles. It doesn't look like any rams were harvested in the Park this year.

Let me know if you have any questions.

Aaron

-----

**Aaron Reid, R.P.Bio.**

Wildlife Biologist

Ministry of Forests, Lands and Natural Resource Operations

#401-333 Victoria Street

Nelson BC, V1L 4K3

Phone: (250) 354-6288

Fax: (250) 354-6332

Email: [aaron.reid@gov.bc.ca](mailto:aaron.reid@gov.bc.ca)