From: Starck, Therese FLNR:EX

To: "bryan.shoji@scrd.ca"

Subject: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for Renewal 2014-2024

Date: February-24-14 11:35:00 AM

Attachments: Sunshine Coast Regional District Draft Renewal.pdf

Sunshine Coast Ins.docx

Hello Bryan,

Permit: Tracking #305994

Permittee: Sunshine Coast Regional District

Purpose: water impoundments (dams and dykes)

Park: Tetrahedron

Term: February 1, 2014 to January 31, 2024

Submission date: on or before April 11, 2014

Please find attached your **DRAFT** Park Use Permit Tracking #305994 authorizing water impoundments dams and dykes within Tetrahedron Park for the renewed term of February 1, 2014 to January 31, 2024.

Of note, upon review of the previous permit details by the Regional office, they have made the following changes:

- Fees under Schedule K previously being charged for Rights of Way and Miscellaneous land use without structures, individual or group non industrial use under Part 3, Item 4,
 Column 2 \$60.00 plus applicable tax have now been changed to Rights of Way and Miscellaneous land use without structures, company or local government –non industrial use under Part 3, Item 4, Column 2 \$500 plus applicable tax. See page 10 of permit under Fee(s).
- Proof of current insurance is now being requested (see below or attached draft permit under Article 5.06

Please carefully review the draft copy of your permit as it outlines the terms and conditions of use in the above noted Park. If revisions are required for this permit, please notify our Victoria office as your request will need to be forwarded to the regional office for review and Regional Director approval. Revisions made by you to the draft copy of the permit document will not be included in the final copy of the permit.

In order to issue your permit, we require the following items to be submitted to our Victoria office:

- Email approval or written approval of the terms and conditions of the draft permit;
- \$525.00 (GST Incl.) for the 2014/15 permit fee. This fee is not the same fee as you paid
 upon requesting the above Park Use Permit. That was the renewal application fee. We now
 need payment for the annual permit fee plus tax. If paying by cheque please make payable
 to Minister of Finance. If paying by Credit Card you may provide card number by PHONE or
 FAX our authorization form to 250-387-1695. For security reasons we DO NOT accept

credit card information by email.

- Please provide proof of insurance requirements on the attached form as follows:
 - Only the Province of BC Certificate of Insurance form can be accepted (enclosed), and it must be completed and signed by your insurance broker. Your broker may fax this form to my attention at 250-387-1695.
 - ii. The Park Use Permit Authorization #102714 needs to be added to the Agreement Identification Box on the upper right hand part of the form;
 - Operations Insured portion of form under Part 2 needs to be completed based on what permit is authorizing you to do;
 - iv. This permit requires you to hold a minimum of \$2,000,000 inclusive per occurrence of Commercial General Liability, with the Province added as an additional insured and a cross liability clause.
 - v. Please note that you must hold insurance with insurers licensed to do business in Canada.

Please note that if the above insurance requirements are not met as stated we will not be able to accept your coverage.

You may mail these items to our Victoria office at the following address:
Ministry of Forest, Lands and Natural Resource Operations
PASB – Park Use Permits
PO Box 9371 Stn Prov Govt
Victoria BC V8W 9M3

Once we have received your approval that no changes are required to the Special Provisions and the above items, we will issue your permit and send you a final copy signed by the Regional Director. Your permit is not valid until you have received a final copy of the permit document. No activity authorized under this permit may take place without a valid permit.

If confirmation, required items (as noted above), and/or your request for revisions have not been received in our Victoria office by April 11, 2014, your application may be withdrawn. If your application is withdrawn you will need to resubmit your application which will require payment of applicable fees.

If you have questions about the above changes to this permit, you may contact the Area Supervisor Dylan Eyers to discuss and he can be reached at 604-924-2226 or <u>Dylan.eyers@gov.bc.ca</u>.

If you have any questions or concerns regarding the above, please call our office toll-free within BC at 1-866-433-7272 ext. 3 or outside BC call 250-387-2928 ext. 3.

Thérèse Starck

Permit Officer, Park Use Permits – South Coast and Kootenay Regions
Ministry of Forests, Lands and Natural Resource Operations
Permit and Authorization Service Bureau
PO Box 9371 Stn Prov Govt
Victoria BC V8W 9M3

Phone 1-866-433-7272 or 250-387-2928 press 3 Fax 250-387-1695



CERTIFICATE OF INSURANCE

Freedom of Information and Protection of Privacy Act
The personal information requested on this form is collected under
the authority of and used for the purpose of administering the
Financial Administration Act. Questions about the collection and use
of this information was be discreted to the Discrete Client Senting. of this information can be directed to the Director, Client Services, Core Government and Crowns at 250 356-8915, PO Box 9405 STN PROV GOVT, Victoria BC V8W 9V1.

Please refer all other questions to the contact named in Part 1.

To be completed by the Province Part 1

THIS CERTIFICATE IS REQUESTED BY and ISSUED TO (Name of office)	1	
Her Majesty the Queen in right of the Province of British Columbia, as represented by the Minister of Environment	AGREEMENT IDENTIFICATION NO. 102714	
PROVINCE'S CONTACT PERSON NAME & TITLE	PHONE NO 250-387-2928	
PERMIT & AUTHORIZATION SERVICE BUREAU – Park Use Permits	FAX NO 250-387-1695	
MAILING ADDRESS PO BOX 9371, STN PROV GOVT, VICTORIA BC	POSTAL CODE V8W 9M3	
CONTRACTOR NAME Sunshine Coast Regional District		
CONTRACTOR ADDRESS 1975 Field Road Sechelt BC	POSTAL CODE VON 3A1	

Part	Tr.	To be completed by the Insurance Agent of	DIOKEI		
WOUNES	NAME				
INSURED	ADDRESS	ADDRESS			
OPERATIONS INSURED	PROVIDE DE				
TYPE OF INSURANCE List each separately		COMPANY NAME, POLICY NO. & BRIEF DESCRIPTION EXPIRY DATE YYYY/MM/DD		LIMIT OF LIABILITY/AMOUNT (per occurrence)	

This certificate certifies that policies of insurance described herein are in full force and effective as of the date of this certificate and comply with the insurance requirements of the Agreement identified above, except as follows:

AGENT OR BROKER COMMENTS:

AGENT OR BROKERAGE FIRM	ADDRESS	PHONE NO.	
NAME OF AUTHORIZED AGENT OR BROKER (PRINT)	SIGNED BY THE AGENT OR BROKER ON BEHALF OF THE ABOVE INSURER(S)	DATE SIGNED	

From: Starck, Therese FLNR:EX

To: "bryan.shoji@scrd.ca"

Subject: RE: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for revised Renewal 2014-

2024

Date: March-04-14 11:03:00 AM

Attachments: Sunshine Coast Regional District Revised Draft.pdf

Sunshine Coast Ins.docx

Hello Bryan,

The Area Supervisor Dylan Eyers has requested that I provide you with a **revised DRAFT** Park Use Permit Tracking #305994 authorizing water impoundments dams and dykes within Tetrahedron Park for the renewed term of February 1, 2014 to January 31, 2024. He has revised this draft by correcting a lake name.

Please carefully review the review the revised draft copy of your permit as it outlines the terms and conditions of use in the above noted Park. If revisions are required for this permit, please notify our Victoria office as your request will need to be forwarded to the regional office for review and Regional Director approval. Revisions made by you to the draft copy of the permit document will not be included in the final copy of the permit.

In order to issue your permit, we require the following items to be submitted to our Victoria office:

- Email approval or written approval of the terms and conditions of the draft permit;
- \$525.00 (GST Incl.) for the 2014/15 permit fee. This fee is not the same fee as you paid upon requesting the above Park Use Permit. That was the renewal application fee. We now need payment for the annual permit fee plus tax. If paying by cheque please make payable to Minister of Finance. If paying by Credit Card you may provide card number by PHONE or FAX our authorization form to 250-387-1695. For security reasons we DO NOT accept credit card information by email.
- Please provide proof of insurance requirements on the attached form as follows:
 - Only the Province of BC Certificate of Insurance form can be accepted (enclosed), and it must be completed and signed by your insurance broker. Your broker may fax this form to my attention at 250-387-1695.
 - ii. The Park Use Permit Authorization #102714 needs to be added to the Agreement Identification Box on the upper right hand part of the form;
 - Operations Insured portion of form under Part 2 needs to be completed based on what permit is authorizing you to do;
 - iv. This permit requires you to hold a minimum of \$2,000,000 inclusive per occurrence of Commercial General Liability, with the Province added as an additional insured and a cross liability clause.
 - v. Please note that you must hold insurance with insurers licensed to do business in Canada.

Please note that if the above insurance requirements are not met as stated we will not be able to accept your coverage.

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PASB – Park Use Permits
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Victoria BC V8W 9M3

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If confirmation, required items (as noted above), and/or your request for revisions have not been received in our Victoria office by April 11, 2014, your application may be withdrawn. If your application is withdrawn you will need to resubmit your application which will require payment of applicable fees.

If you have questions about the above changes to this permit, you may contact the Area Supervisor Dylan Eyers to discuss and he can be reached at 604-924-2226 or Dylan.eyers@gov.bc.ca.

If you have any questions or concerns regarding the above, please call our office toll-free within BC at 1-866-433-7272 ext. 3 or outside BC call 250-387-2928 ext. 3.

Thérèse Starck

Permit Officer, Park Use Permits – South Coast, Skeena and Kootenay Regions Ministry of Forests, Lands and Natural Resource Operations Permit and Authorization Service Bureau PO Box 9371 Stn Prov Govt Victoria BC V8W 9M3 Phone 1-866-433-7272 or 250-387-2928 press 3 Fax 250-387-1695

From: Starck, Therese FLNR:EX Sent: February-24-14 11:36 AM To: 'bryan.shoji@scrd.ca'

Subject: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for Renewal

2014-2024

Hello Bryan,

Permit: Tracking #305994

Permittee: Sunshine Coast Regional District

Purpose: water impoundments (dams and dykes)

Park: Tetrahedron

Term: February 1, 2014 to January 31, 2024

Submission date: on or before April 11, 2014

Please find attached your **DRAFT** Park Use Permit Tracking #305994 authorizing water impoundments dams and dykes within Tetrahedron Park for the renewed term of February 1, 2014 to January 31, 2024.

Of note, upon review of the previous permit details by the Regional office, they have made the following changes:

- Fees under Schedule K previously being charged for Rights of Way and Miscellaneous land use without structures, individual or group non industrial use under Part 3, Item 4,
 Column 2 \$60.00 plus applicable tax have now been changed to Rights of Way and Miscellaneous land use without structures, company or local government –non industrial use under Part 3, Item 4, Column 2 \$500 plus applicable tax. See page 10 of permit under Fee(s).
- Proof of current insurance is now being requested (see below or attached draft permit under Article 5.06

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- Please provide proof of insurance requirements on the attached form as follows:
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able to accept your coverage.

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Thérèse Starck

Permit Officer, Park Use Permits – South Coast and Kootenay Regions Ministry of Forests, Lands and Natural Resource Operations Permit and Authorization Service Bureau PO Box 9371 Stn Prov Govt Victoria BC V8W 9M3 Phone 1-866-433-7272 or 250-387-2928 press 3 Fax 250-387-1695



PARK USE PERMIT

LAND USE / OCCUPANCY

This Park Use Permit No. **102714** (the "Permit") is issued under the authority of the *Park Act*

(the "Park")

See "Management Plan Schedule, Permit Area Description" for a complete list of Parks and Protected Areas

FROM:

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA, represented by the Minister responsible for the *Park Act* (the "Province") at the following address:

TO:

Sunshine Coast Regional District

(the "Permittee") at the following address:

Ministry of Environment BC Parks South Coast Region 200 - 10470 - 152nd Street Surrey BC V3R 0Y3 1975 Field Road Sechelt BC V0N 3A1

THE PROVINCE AND THE PERMITTEE AGREE AS FOLLOWS:

ARTICLE I - GRANT OF PERMIT

1.01 The Province, on the terms and conditions of this Permit, grants to the Permittee permission to enter upon and use that part of the Park (the "Permit Area") described, and for the purposes described, in the Management Plan Schedule.

ARTICLE II - TERM

2.01 The duration of this Permit is for a term of 10 years commencing on February 1, 2014 (the "Commencement Date") and ending on January 31, 2024 (the "Expiration Date"), unless cancelled, terminated or renewed in accordance with the terms and conditions of this Permit.

ARTICLE III - FEES

- 3.01 The Permittee must pay to the Province a minimum fee (the "Permit Fee") of \$500.00 (plus applicable taxes) prior to Commencement date and on each anniversary of the commencement date during the term of this Permit.
- 3.02 The Province may, by notice to the Permittee not less than 30 days prior to each anniversary of the Commencement Date, increase the Permit Fee to an amount solely determined by the Province at its discretion, and the Permittee must pay the increased amount.
- 3.03 The Permittee must pay interest to the Province on money payable by the Permittee and owing to the Province under this Permit, at the rate of interest prescribed by the Financial Administration Act in respect of money owing to the Province, which interest will be calculated from the date that the money becomes payable to the Province.

ARTICLE IV - INDEMNITY

4.01 The Permittee will indemnify and save harmless the Province, its servants, employees and agents against all losses, claims, damages, actions, costs and expenses that the Province, its servants, employees and agents may sustain, incur, suffer or be put to at any time arising, directly or indirectly, from any act or omission of the Permittee, its employees, agents, contractors and licensees under this Permit, except for any liability arising from any independent, negligent act of the Province.

ARTICLE V - SECURITY AND INSURANCE

- 5.01 On the Commencement Date, you will deliver to us Security in the amount of \$0.00 which will:
 - (a) guarantee the performance of your obligations under this Permit;
 - (b) be in the form required by us; and
 - (c) remain in effect until we certify, in writing, that you have fully performed your obligations under this Permit.
- 5.02 Despite section 5.01, your obligations under that section are suspended for so long as you maintain in good standing other security acceptable to us to guarantee the performance of your obligations under this Permit and all other Dispositions held by you.
- 5.03 We may use the Security for the payment of any costs and expenses incurred by us to perform any of your obligations under this Permit that are not performed by you and, if such event occurs, you will, within 30 days of that event, deliver further Security to us in an amount equal to the amount drawn down by us.
- 5.04 After we certify, in writing, that you have fully performed your obligations under this Permit, we will return to you the Security maintained under section 5.01, less all amounts drawn down by us under section 5.03.
- 5.05 You acknowledge that we may, from time to time, notify you to
 - (a) change the form or amount of the Security; and
 - (b) provide and maintain another form of Security in replacement of or in addition to the Security posted by you under this Permit;

and you will, within 60 days of receiving such notice, deliver to us written confirmation that the change has been made or the replacement or additional form of Security has been provided by you.

5.06 You must

- (a) without limiting your obligations or liabilities under this Permit, at your expense, effect and keep in force during the Term the following insurance with insurers licensed to do business in Canada:
 - (i) Commercial General Liability insurance in an amount of not less than two million dollars \$2,000,000.00 inclusive per occurrence insuring against liability for personal injury, bodily injury (including death) and property damage, including coverage for all accidents or occurrences on the Permit Area or any improvements. Such policy will include cross liability, liability assumed under contract, provision to provide 30 days advance notice to us of material change or cancellation, and include us as an additional insured;
- (b) ensure that all insurance required to be maintained by you under this Permit is primary and does not require the sharing of any loss by any of our insurers;
- (c) within 10 working days of the Commencement Date of this Permit, provide to us evidence of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";
- (d) if the required insurance policy or policies expire or are cancelled before the end of the Term of this Permit, provide within 10 working days of the cancellation or expiration, evidence of new or renewal policy or policies of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance":

- notwithstanding subsections (c) or (d) above, if requested by us, provide to us certified copies of the required insurance policies to be maintained by you under this Permit.
- 5.07 We may, acting reasonably, from time to time, require you to
 - (a) change the amount of insurance set out in subsection 5.06(a); and
 - (b) provide and maintain another type or types of insurance in replacement of or in addition to the insurance previously required to be maintained by you under this Permit;

and you will, within 60 days of receiving such notice, cause the amounts and types to be changed and deliver to us a completed "Province of British Columbia Certificate of Insurance" for all insurance then required to be maintained by you under this Permit.

- 5.08 You shall provide, maintain, and pay for any additional insurance which you are required by law to carry, or which you consider necessary to insure risks not otherwise covered by the insurance specified in this Permit in your sole discretion.
- 5.09 You waive all rights of recourse against us with regard to damage to your own property.

ARTICLE VI - COVENANTS OF THE PERMITTEE

6.01 The Permittee must:

- pay the Permit Tee and other money payable under this Permit when due at the address of the Province first written above or at such place as the Province may specify from time to time;
- (b) pay when due all taxes, levies, charges and assessments that relate to operations of the Permittee under this Permit;
- (c) comply with all laws, bylaws, orders, directions, ordinances and regulations of any competent governmental authority in any way affecting the Permit Area, the Park, its use and occupation or the Permittee's operations under this Permit;
- advise its employees, contractors, licensees, and agents of the laws and regulations respecting provincial parks and recreation areas and the conditions of this Permit respecting conduct in the permit Area;
- (e) keep the Permit Area in a safe, clean and sanitary condition to the satisfaction of the Province and make safe, clean and sanitary any portion of the Permit Area that the Province may direct by notice in writing to the Permittee;
- (f) remove from the Permit Area and the Park all garbage, debris and effluent resulting from its use of the Park and Permit Area under this Permit, except as otherwise permitted in the Management Plan Schedule;
- (g) comply with all orders and directions made, verbally or in writing, by a park officer (as defined in the Park Act) relating to the Park, this Permit or the Permit Area;
- (h) not construct, erect, place, repair, maintain or alter any building, fixture, equipment, structure or improvement in the Permit Area except as may be permitted by this Permit or with the prior written consent of the Province;
- (i) take all reasonable precautions to prevent and suppress fires in the Permit Area;
- (j) not interfere with free public access through, across and upon the Permit Area, unless otherwise specified in the Management Plan Schedule;
- (k) not interfere with or disrupt the activities and operations of other Permittee's or users in the Park;
- (I) use and occupy the Permit Area only in accordance with the provisions of this Permit;
- (m) not remove, destroy, damage, disturb or exploit any natural resource (as that term is defined in the Park Act) or any archaeological or cultural artefact found in or on the Permit Area except as may be permitted by this Permit, and only then in accordance with the Park Act and all other applicable laws;

- (n) not commit or allow any wilful or voluntary waste, damage or destruction in or upon the Permit Area;
- pay for or repair, as determined by the Province, any damage caused to the property of the Province by the Permittee, its employees, agents, contractors, or licensees;
- (p) upon the expiration, cancellation or termination of this Permit.
 - (i) peaceably guit and deliver up possession of the Permit Area to the Province,
 - (ii) remove all chattels and improvements of the Permittee from the Permit Area within 30 days of the expiration, cancellation or sooner termination of this Permit, unless otherwise advised in writing, by the Province,
 - (iii) deliver to the Province possession of all equipment, furnishings, fixtures, chattels and improvements owned by the Province in a state of good repair and working order, and
 - (iv) restore the Permit Area to the satisfaction of the Province;
 - (v) and to the extent necessary, this covenant will survive the expiration, cancellation or termination of this Permit, and
- (q) comply with all provisions of the schedules to this Permit.

ARTICLE VII - RIGHTS OF THE PROVINCE

- 7.01 The Province retains all rights in respect of the Park and Permit Area which are not expressly granted to the Permittee under this permit, including, without limitation:
 - the righ: at all times for the Province, its authorized representatives, employees, and agents to have unimpeded access over and along all portions of the Permit Area and to inspect any portions of the Permit Area;
 - (b) the right at all times to construct, repair, alter and maintain buildings, equipment, structures and improvements upon the Permit Area; and
 - (c) the right to grant further rights in respect of the Park and Permit Area, provided that such rights do not unreasonably impede, obstruct or compete with the rights of the Permittee under this Permit.

ARTICLE VIII - NOTICE

- 8.01 Any notice required to be given by either party to the other will be deemed to be given if it is in writing and is delivered by hand or prepaid registered mail to the address first written above or any other address that may be specified in writing by a party and a notice will be deemed to be delivered, if mailed, eight days after the time of mailing except, in the case of a postal interruption, actual receipt is required.
- 8.02 Notwithstanding section 8.01, any written notice to be given by the Province to the Permittee under this Permit will be effectively given if it is posted in a conspicuous place on the Permit Area.

ARTICLE IX - RENEWAL

- 9.01 Not later than 140 days prior to the Expiration Date, the Permittee may, by notice in writing delivered to the Province, apply to the Province for a renewal of this Permit.
- 9.02 Provided that the Permittee is not in default under this Permit and subject to the terms of the Park Act, the Province may renew this Permit upon the terms and conditions determined by the Province.
- 9.03 The Permittee acknowledges that nothing in this Permit obligates the Province to renew this Permit and the Province's decision in that respect is entirely within its discretion

ARTICLE X - TRANSFER

- 10.01 The Permittee must not assign, transfer, sublicence or grant any of the rights or privileges granted by this Permit without the prior written consent of, and on the terms and conditions determined by, the Province.
- 10.02 If the Permittee is a corporation then a change in the control (as that term is defined in subsection 2(3) of the Business Corporations Act) of the Permittee without the prior written consent of the Province is deemed to be a breach of section 10.01.

ARTICLE XI - CANCELLATION

11.01 In the event that

- (a) the Permittee defaults in the payment of the Permit Fee or other money payable under this Permit, and the default continues for 7 days after the giving of written notice of the default by the Province to the Permittee;
- (b) the Permittee fails to perform or observe any of the terms or conditions of this Permit, other than the payment of money, and the failure is not remedied within a period specified by the Province;
- (c) the Permittee has wilfully misrepresented information:
 - (I) on the application form which led to the granting of this Permit, or
 - (ii) required to be provided under the terms and conditions of this Permit;
- (d) the Permit Area is damaged or destroyed by any cause whatsoever;
- (e) the Park is closed by the Province;
- (f) the Permittee files a petition in bankruptcy, is adjudged bankrupt, is petitioned into bankruptcy, makes an assignment for the benefit of its creditors, becomes insolvent or takes the benefit or protection of any statute for bankrupt or insolvent debtors;
- (g) any of the Permittee's assets is seized in execution from the Permit Area;
- the Permittee, its employees, agents, contractors or licensees performs any act which in the opinion of the Province, affects the good standing or reputation of the Park, or adversely affects any other permit holder or park user within the Park;

the Province may cancel this Permit immediately by written notice to the Permittee.

- 11.02 In the event that the Permittee and the Province mutually agree in writing to terminate this Permit, the parties will be released and discharged from their obligations under this Permit, except as otherwise provided in this Permit.
- 11.03 The obligation of the Permittee
 - to pay the Permit Fee and other money payable under this Permit; and
 - (b) to comply with Sections 4.01, 6.01(e), 6.01(o) and 6.01(p);
 - will survive the expiration, cancellation or termination of this Permit.
- 11.04 The Permittee will not be entitled to any compensation from the Province, in damages or otherwise, in respect of a cancellation or termination of this Permit.

ARTICLE XII - MISCELLANEOUS

- 12.01 This Permit may be inspected by the public at such times and at such places as the Province may determine.
- 12.02 Time is of the essence in this Permit.
- 12.03 Nothing in this Permit will be considered to have been waived by the Province unless such waiver is in writing.

- 12.04 During the term of this Permit, the Permittee will be an independent contractor and not the agent, employee or partner of the Province.
- 12.05 The Province will not be liable for any loss, damage, cost or expense resulting from the destruction of or damage to the Permittee's property or a disruption of the Permittee's operations under this Permit which result from strikes, flooding or other acts of God, vandalism, or any other interference to the Permittee's operation or property.

ARTICLE XIII- INTERPRETATION

- 13.01 In this Permit, unless the context otherwise requires, the singular includes the plural and the masculine includes the feminine, a corporation and body politic.
- 13.02 The captions and headings contained in the Permit are for convenience only and are not to be construed as defining or in any way limiting the scope or intent of the provisions of this Permit.
- 13.03 In this Permit, a reference to an enactment of the Province of British Columbia or of Canada includes a reference to any subsequent enactment of like effect, and unless the context otherwise requires, all statutes referred to in this Permit are enactments of the Province of British Columbia.
- 13.04 If any part of this Permit is found to be illegal or unenforceable, that part will be considered separate and severable and the remaining parts will be enforceable to the fullest extent permitted by law.
- 13.05 If all or part of the Permit Area is in a recreation area established or continued under the Park Act, this Permit is deemed to be a resource use permit as that term is defined in the Park Act.
- 13.06 All schedules to this Permit form an integral part of this Permit.

IN WITNESS WHEREOF the parties have duly executed this Permit.

SIGNED and DELIVERED on behalf of the Province by a duly authorized representative of the Province.

Duly Authorized Representative	
Jennie Aikman	
Print Name	
Regional Director	
Print Title	
[Sign]WordInterfaceCurrentDate	
Date	

MANAGEMENT PLAN SCHEDULE

PERMIT AREA DESCRIPTION

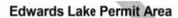
The Permittee is authorized to enter the Permit Area described below and outlined on the attached map.

- Tetrahedron Park
 - Area adjacent to the outlet of Chapman Lake
 - Area adjacent to the outlet of Edwards Lake

Copyright

Chapman Lake Permit Area

Copyright



Copyright



FEE(s)

Tetrahedron Park Protected Land:

Activities: Water Impoundments (dams and dykes)

Rights of way and miscellaneous land use without structures - The use of a Purpose:

defined area for a powerline, telephone line, pipeline or other service or utility right of way and other miscellaneous land use without structures - Company or local

government. Fee charged for this purpose is for each protected land.

\$500 or \$60 per hectare whichever is greater Fee Description:

Schedule K Ref: Part 3, Column 2, Item 4

Fees:

Item	Number	Rate	Total
Minimum Fee	1.4	\$500.00	\$500.00
Hectares		\$60.00	\$60.00
Sub Total (based	on Fee Description	above).	\$500.00

Sub Total: \$500.00

Minimum Fee Required: \$500.00

SPECIAL PROVISIONS

Purpose

This Permit is issued to the Permittee for the purpose of maintaining water impoundment infrastructure at Chapman and Edwards Lake in Tetrahedron Park

2. Permittee Designated Representative

The Permittee appoints the following representative to be responsible for liaison between BC Parks and the Permittee:

Name: Telephone: Bryan Shoji 604 885 6800

Fax:

604 885 7909

Email:

Bryan.shoji@scrd.ca

3. BC Parks Representative(s):

Park, Protected Area or Conservancy Name	Area Supervisor	Phone	Email
Tetrahedron Park	Dylan Eyers	604-924-2226	Dylan.eyers@gov.bc.ca

4. Conditions of Term

This permit shall be deemed valid until such time that it has expired under Article 2.01 and that water licences described above are valid and in good standing and that activities carried out are permitted under:

- (a) the conditional water licences and;
- (b) this permit.

5. Water Regulations

All activities reating to maintaining water impoundment structures and regulating water levels must be in accordance with the *Water Act*.

Flight Access

- (a) The use of a helicopter for access to the structures is acceptable. The Permittee shall notify BC Parks as early as feasibly possible prior to any flights into Tetrahedron Park so that BC Parks may utilize available space or service of the helicopter for park operation purposes.
- (b) If the Permittee chooses to use a helicopter company to access the structure the Permittee will cause any Person/Sub-licencee providing aviation services related to the Permittee's performance of this Permit to carry, and to provide evidence to the Province of their compliance with this requirement, Aviation Liability insurance on all aircraft operated or used in the performance of this Permit insuring against bodily injury, property damage, and passenger liability, in an amount not less than the limits of liability imposed by any Canadian Aviation Regulation and in any event not less than a per occurrence combined single limit of:

- (i) \$3,000,000 for aircraft up to 5 passenger seats, or
- (ii) \$3,000,000 plus \$1,000,000 for each additional passenger seat for aircraft up to 10 passenger seats, or
- (iii) \$10,000,000 for aircraft over 10 passenger seats;

and this insurance must:

- (i) include the Province and the Permittee as additional insureds;
- (ii) be endorsed to provide the Province and the Permittee with 30 days advance written notice of cancellation or material change; and
- (iii) include a cross liability clause;

8. Report Requirements

The Permittee shall provide the Province with a report, due upon the anniversary date of the Permit, describing all activities undertaken as a result of this Permit for the previous year. Please submit this report to the following address:

Ministry of Environment PASB – Park Use Permits PO Box 9371 Stn Prov Govt Victoria BC V8W 9M3 Fax: 250-387-1695

9. Safety Regulations

The Permittee shall be responsible for all WorkSafeBC regulations and staff safety program and plans for all its staff and sub-contractors utilizing the Park to conduct activities authorized by this permit.

10. Renewal

It is understood by BC Parks and the Sunshine Coast Regional District that this permit shall be renewed pending a review of the terms of this Management Plan Schedule and providing the Sunshine Coast Regional District continues to require water management and structures outlined in this permit and the conditional water licences.

RE: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for revised Renewal 2014-2024

Friday, October 13, 2017 2:39 PM

Subject	RE: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for revised Renewal 2014-2024
From	Dave Crosby
То	Eyers, Dylan ENV:EX
Sent	Wednesday, March 5, 2014 4:31 PM

Thanks Dylan

I have the cheque ready to go and I have our Insurance person here in the office reviewing the insurance requirements contained in the permit to make sure we comply. Should be able to get it out next week.

Dave Crosby

Manager of Utility Services

Sunshine Coast Regional District

Tel: 604 885 6821 dave.crosby@scrd.ca

From: Eyers, Dylan ENV:EX [mailto:Dylan.Eyers@gov.bc.ca]

Sent: March-05-14 4:09 PM

To: Dave Crosby

Subject: RE: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for

revised Renewal 2014-2024

Yes. I think that it is good enough. The areas in red are the permit areas. Good enough for me.

Thanks, Dylan Eyers

Area Supervisor BC Parks Sunshine Coast Area Ministry of Environment Office: (604) 924-2226 Mobile: (604) 741-7302 Dylan.eyers@gov.bc.ca

www.bcparks.ca

www.greatrangerexperience.ca

From: Dave Crosby [mailto:Dave.Crosby@scrd.ca]
Sent: Wednesday, March 5, 2014 4:01 PM

To: Eyers, Dylan ENV:EX

Subject: FW: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for

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Hi Dylan

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Dave Crosby

Manager of Utility Services

Sunshine Coast Regional District

Tel: 604 885 6821 dave.crosby@scrd.ca From: Bryan Shoji

Sent: March-04-14 2:49 PM

To: Dave Crosby

Subject: FW: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for

revised Renewal 2014-2024 For your review and action.

Thanks, Bryan

From: Starck, Therese FLNR:EX [mailto:Therese.Starck@gov.bc.ca]

Sent: Tuesday, March 04, 2014 11:04 AM

To: Bryan Shoji

Subject: RE: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for

revised Renewal 2014-2024

Hello Bryan,

The Area Supervisor Dylan Eyers has requested that I provide you with a **revised DRAFT** Park Use Permit Tracking #305994 authorizing water impoundments dams and dykes within Tetrahedron Park for the renewed term of February 1, 2014 to January 31, 2024. He has revised this draft by correcting a lake name.

Please carefully review the review the revised draft copy of your permit as it outlines the terms and conditions of use in the above noted Park. If revisions are required for this permit, please notify our Victoria office as your request will need to be forwarded to the regional office for review and Regional Director approval. Revisions made by you to the draft copy of the permit document will not be included in the final copy of the permit.

In order to issue your permit, we require the following items to be submitted to our Victoria office:

- Email approval or written approval of the terms and conditions of the draft permit;
- \$525.00 (GST Incl.) for the 2014/15 permit fee. This fee is not the same fee as you paid upon requesting the above Park Use Permit. That was the renewal application fee. We now need payment for the annual permit fee plus tax. If paying by cheque please make payable to Minister of Finance. If paying by Credit Card you may provide card number by PHONE or FAX our authorization form to 250-387-1695. For security reasons we DO NOT accept credit card information by email.
- Please provide proof of insurance requirements on the attached form as follows:
 - i. Only the *Province of BC Certificate of Insurance* form can be accepted (enclosed), and it must be completed and signed by your insurance broker. Your broker may fax this form to my attention at 250-387-1695.
 - ii. The Park Use Permit Authorization #102714 needs to be added to the Agreement Identification Box on the upper right hand part of the form;
 - iii. Operations Insured portion of form under Part 2 needs to be completed based on what permit is authorizing you to do;
 - iv. This permit requires you to hold a minimum of \$2,000,000 inclusive per occurrence of Commercial General Liability, with the Province added as an additional insured and a cross liability clause.
- v. Please note that you must hold insurance with insurers licensed to do business in Canada. Please note that if the above insurance requirements are not met as stated we will not be able to accept your coverage.

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Ministry of Forest, Lands and Natural Resource Operations

PASB - Park Use Permits

PO Box 9371 Stn Prov Govt

Victoria BC V8W 9M3

Once we have received your approval that no changes are required to the Special Provisions and the above items, we will issue your permit and send you a final copy signed by the Regional Director. Your permit is not valid until you have received a final copy of the permit document. No activity authorized under this permit may take place without a valid permit.

If confirmation, required items (as noted above), and/or your request for revisions have not been received in our Victoria office by April 11, 2014, your application may be withdrawn. If your application is withdrawn you will need to resubmit your application which will require payment of applicable fees.

If you have questions about the above changes to this permit, you may contact the Area Supervisor Dylan Eyers to discuss and he can be reached at 604-924-2226 or Dylan.eyers@gov.bc.ca.

If you have any questions or concerns regarding the above, please call our office toll-free within BC at 1-866-433-7272 ext. 3 or outside BC call 250-387-2928 ext. 3.

Thérèse Starck

Permit Officer, Park Use Permits - South Coast, Skeena and Kootenay Regions

Ministry of Forests, Lands and Natural Resource Operations

Permit and Authorization Service Bureau

PO Box 9371 Stn Prov Govt

Victoria BC V8W 9M3

Phone 1-866-433-7272 or 250-387-2928 press 3

Fax 250-387-1695

From: Starck, Therese FLNR:EX Sent: February-24-14 11:36 AM

To: 'bryan.shoji@scrd.ca'

Subject: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements for

Renewal 2014-2024

Hello Bryan,

Permit: Tracking #305994

Permittee: Sunshine Coast Regional District
Purpose: water impoundments (dams and dykes)

Park: Tetrahedron

Term: February 1, 2014 to January 31, 2024 Submission date: on or before April 11, 2014

Please find attached your **DRAFT** Park Use Permit Tracking #305994 authorizing water impoundments dams and dykes within Tetrahedron Park for the renewed term of February 1, 2014 to January 31, 2024.

Of note, upon review of the previous permit details by the Regional office, they have made the following changes:

- Fees under Schedule K previously being charged for Rights of Way and Miscellaneous land use without structures, individual or group non industrial use under Part 3, Item 4, Column 2 \$60.00 plus applicable tax have now been changed to Rights of Way and Miscellaneous land use without structures, company or local government –non industrial use under Part 3, Item 4, Column 2 \$500 plus applicable tax. See page 10 of permit under Fee(s).
- Proof of current insurance is now being requested (see below or attached draft permit under Article 5.06

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Fax 250-387-1695

Starck, Therese FLNR:EX

From:

Eyers, Dylan ENV:EX

Sent:

March-06-14 9:33 AM

To:

Starck, Therese FLNR:EX

Subject:

FW: Tracking #305994 Sunshine Coast Regional District - Request Final Requirements

for revised Renewal 2014-2024

FYI. You should receive final requirements soon.

Dylan Eyers

Area Supervisor BC Parks Office: (604) 924-2226 Sunshine Coast Area Mobile: (604) 741-7302 Ministry of Environment Dylan.eyers@gov.bc.ca

www.bcparks.ca

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Sent: Wednesday, March 5, 2014 4:31 PM

To: Eyers, Dylan ENV:EX

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Permit: Tracking #305994

Permittee: Sunshine Coast Regional District

Purpose: water impoundments (dams and dykes)

Park: Tetrahedron

Term: February 1, 2014 to January 31, 2024

Submission date: on or before April 11, 2014

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Victoria BC V8W 9M3

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To: "bryan.shoji@scrd.ca"

Subject: Authorization #102714 Sunshine Coast Regional District -Issued Renewal 2014 to 2024

Date: April-09-14 11:18:00 AM

Attachments: Sunshine Coast Regional District Receipt.pdf
Sunshine Coast Regional District Final.pdf

Hello Bryan,

Permit: Authorization #102714

Permittee: Sunshine Coast Regional District

Park: Tetrahedron Park

Purpose: Water Impoundments rights of way
Term: February 1, 2014 to January 31, 2024

Please find attached your renewed validated Park Use Permit Authorization #102714 for the purpose of water impoundments within Tetrahedron Park for the term February 1, 2014 to January 31, 2024.

I have also attached Receipt R536067 in the amount of \$525.00 for payment of the 2014/15 permit fees.

Please contact me if you have any questions or concerns.

Thérèse Starck

Permit Officer, Park Use Permits – South Coast, Skeena and Kootenay Sections Ministry of Forests, Lands and Natural Resource Operations Permit and Authorization Service Bureau PO Box 9371 Stn Prov Govt Victoria BC V8W 9M3 Phone 1-866-433-7272 or 250-387-2928 press 3 Fax 250-387-1695



Ministry of Environment

PARK USE PERMIT

LAND USE / OCCUPANCY

This Park Use Permit No. 102714 (the "Permit") is issued under the authority of the Park Act

(the "Park")

See "Management Plan Schedule, Permit Area Description" for a complete list of Parks and Protected Areas

FROM:

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA, represented by the Minister responsible for the *Park Act* (the "Province") at the following address:

TO:

Sunshine Coast Regional District

(the "Permittee") at the following address:

Ministry of Environment BC Parks South Coast Region 200 - 10470 - 152nd Street Surrey BC V3R 0Y3

1975 Field Road Sechelt BC V0N 3A1

THE PROVINCE AND THE PERMITTEE AGREE AS FOLLOWS:

ARTICLE I - GRANT OF PERMIT

1.01 The Province, on the terms and conditions of this Permit, grants to the Permittee permission to enter upon and use that part of the Park (the "Permit Area") described, and for the purposes described, in the Management Plan Schedule.

ARTICLE II - TERM

2.01 The duration of this Permit is for a term of 10 years commencing on February 1, 2014 (the "Commencement Date") and ending on January 31, 2024 (the "Expiration Date"), unless cancelled, terminated or renewed in accordance with the terms and conditions of this Permit.

ARTICLE III - FEES

- 3.01 The Permittee must pay to the Province a minimum fee (the "Permit Fee") of \$500.00 (plus applicable taxes) prior to Commencement date and on each anniversary of the commencement date during the term of this Permit.
- 3.02 The Province may, by notice to the Permittee not less than 30 days prior to each anniversary of the Commencement Date, increase the Permit Fee to an amount solely determined by the Province at its discretion, and the Permittee must pay the increased amount.
- 3.03 The Permittee must pay interest to the Province on money payable by the Permittee and owing to the Province under this Permit, at the rate of interest prescribed by the Financial Administration Act in respect of money owing to the Province, which interest will be calculated from the date that the money becomes payable to the Province.

ARTICLE IV - INDEMNITY

4.01 The Permittee will indemnify and save harmless the Province, its servants, employees and agents against all losses, claims, damages, actions, costs and expenses that the Province, its servants, employees and agents may sustain, incur, suffer or be put to at any time arising, directly or indirectly, from any act or omission of the Permittee, its employees, agents, contractors and licensees under this Permit, except for any liability arising from any independent, negligent act of the Province.

ARTICLE V - SECURITY AND INSURANCE

- 5.01 On the Commencement Date, you will deliver to us Security in the amount of \$0.00 which will:
 - (a) guarantee the performance of your obligations under this Permit;
 - (b) be in the form required by us; and
 - (c) remain in effect until we certify, in writing, that you have fully performed your obligations under this Permit.
- 5.02 Despite section 5.01, your obligations under that section are suspended for so long as you maintain in good standing other security acceptable to us to guarantee the performance of your obligations under this Permit and all other Dispositions held by you.
- 5.03 We may use the Security for the payment of any costs and expenses incurred by us to perform any of your obligations under this Permit that are not performed by you and, if such event occurs, you will, within 30 days of that event, deliver further Security to us in an amount equal to the amount drawn down by us.
- 5.04 After we certify, in writing, that you have fully performed your obligations under this Permit, we will return to you the Security maintained under section 5.01, less all amounts drawn down by us under section 5.03.
- 5.05 You acknowledge that we may, from time to time, notify you to
 - (a) change the form or amount of the Security; and
 - (b) provide and maintain another form of Security in replacement of or in addition to the Security posted by you under this Permit;

and you will, within 60 days of receiving such notice, deliver to us written confirmation that the change has been made or the replacement or additional form of Security has been provided by you.

5.06 You must

- (a) without limiting your obligations or liabilities under this Permit, at your expense, effect and keep in force during the Term the following insurance with insurers licensed to do business in Canada:
 - (i) Commercial General Liability insurance in an amount of not less than two million dollars \$2,000,000.00 inclusive per occurrence insuring against liability for personal injury, bodily injury (including death) and property damage, including coverage for all accidents or occurrences on the Permit Area or any improvements. Such policy will include cross liability, liability assumed under contract, provision to provide 30 days advance notice to us of material change or cancellation, and include us as an additional insured;
- (b) ensure that all insurance required to be maintained by you under this Permit is primary and does not require the sharing of any loss by any of our insurers;
- (c) within 10 working days of the Commencement Date of this Permit, provide to us evidence of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";
- (d) if the required insurance policy or policies expire or are cancelled before the end of the Term of this Permit, provide within 10 working days of the cancellation or expiration, evidence of new or renewal policy or policies of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";

- (e) notwithstanding subsections (c) or (d) above, if requested by us, provide to us certified copies of the required insurance policies to be maintained by you under this Permit.
- 5.07 We may, acting reasonably, from time to time, require you to
 - (a) change the amount of insurance set out in subsection 5.06(a); and
 - (b) provide and maintain another type or types of insurance in replacement of or in addition to the insurance previously required to be maintained by you under this Permit;

and you will, within 60 days of receiving such notice, cause the amounts and types to be changed and deliver to us a completed "Province of British Columbia Certificate of Insurance" for all insurance then required to be maintained by you under this Permit.

- 5.08 You shall provide, maintain, and pay for any additional insurance which you are required by law to carry, or which you consider necessary to insure risks not otherwise covered by the insurance specified in this Permit in your sole discretion.
- 5.09 You waive all rights of recourse against us with regard to damage to your own property.

ARTICLE VI - COVENANTS OF THE PERMITTEE

6.01 The Permittee must:

- pay the Permit Fee and other money payable under this Permit when due at the address of the Province first written above or at such place as the Province may specify from time to time;
- (b) pay when due all taxes, levies, charges and assessments that relate to operations of the Permittee under this Permit;
- (c) comply with all laws, bylaws, orders, directions, ordinances and regulations of any competent governmental authority in any way affecting the Permit Area, the Park, its use and occupation or the Permittee's operations under this Permit;
- (d) advise its employees, contractors, licensees, and agents of the laws and regulations respecting provincial parks and recreation areas and the conditions of this Permit respecting conduct in the permit Area:
- (e) keep the Permit Area in a safe, clean and sanitary condition to the satisfaction of the Province and make safe, clean and sanitary any portion of the Permit Area that the Province may direct by notice in writing to the Permittee;
- (f) remove from the Permit Area and the Park all garbage, debris and effluent resulting from its use of the Park and Permit Area under this Permit, except as otherwise permitted in the Management Plan Schedule;
- (g) comply with all orders and directions made, verbally or in writing, by a park officer (as defined in the Park Act) relating to the Park, this Permit or the Permit Area;
- (h) not construct, erect, place, repair, maintain or alter any building, fixture, equipment, structure or improvement in the Permit Area except as may be permitted by this Permit or with the prior written consent of the Province;
- take all reasonable precautions to prevent and suppress fires in the Permit Area;
- not interfere with free public access through, across and upon the Permit Area, unless otherwise specified in the Management Plan Schedule;
- (k) not interfere with or disrupt the activities and operations of other Permittee's or users in the Park;
- (I) use and occupy the Permit Area only in accordance with the provisions of this Permit;
- (m) not remove, destroy, damage, disturb or exploit any natural resource (as that term is defined in the Park Act) or any archaeological or cultural artefact found in or on the Permit Area except as may be permitted by this Permit, and only then in accordance with the Park Act and all other applicable laws;

- (n) not commit or allow any wilful or voluntary waste, damage or destruction in or upon the Permit Area;
- pay for or repair, as determined by the Province, any damage caused to the property of the Province by the Permittee, its employees, agents, contractors, or licensees;
- (p) upon the expiration, cancellation or termination of this Permit:
 - (i) peaceably guit and deliver up possession of the Permit Area to the Province,
 - (ii) remove all chattels and improvements of the Permittee from the Permit Area within 30 days of the expiration, cancellation or sooner termination of this Permit, unless otherwise advised in writing, by the Province,
 - (iii) deliver to the Province possession of all equipment, furnishings, fixtures, chattels and improvements owned by the Province in a state of good repair and working order, and
 - (iv) restore the Permit Area to the satisfaction of the Province;
 - (v) and to the extent necessary, this covenant will survive the expiration, cancellation or termination of this Permit; and
- (q) comply with all provisions of the schedules to this Permit.

ARTICLE VII - RIGHTS OF THE PROVINCE

- 7.01 The Province retains all rights in respect of the Park and Permit Area which are not expressly granted to the Permittee under this permit, including, without limitation:
 - (a) the right at all times for the Province, its authorized representatives, employees, and agents to have unimpeded access over and along all portions of the Permit Area and to inspect any portions of the Permit Area;
 - the right at all times to construct, repair, alter and maintain buildings, equipment, structures and improvements upon the Permit Area; and
 - (c) the right to grant further rights in respect of the Park and Permit Area, provided that such rights do not unreasonably impede, obstruct or compete with the rights of the Permittee under this Permit.

ARTICLE VIII - NOTICE

- 8.01 Any notice required to be given by either party to the other will be deemed to be given if it is in writing and is delivered by hand or prepaid registered mail to the address first written above or any other address that may be specified in writing by a party and a notice will be deemed to be delivered, if mailed, eight days after the time of mailing except, in the case of a postal interruption, actual receipt is required.
- 8.02 Notwithstanding section 8.01, any written notice to be given by the Province to the Permittee under this Permit will be effectively given if it is posted in a conspicuous place on the Permit Area.

ARTICLE IX - RENEWAL

- 9.01 Not later than 140 days prior to the Expiration Date, the Permittee may, by notice in writing delivered to the Province, apply to the Province for a renewal of this Permit.
- 9.02 Provided that the Permittee is not in default under this Permit and subject to the terms of the *Park Act*, the Province may renew this Permit upon the terms and conditions determined by the Province.
- 9.03 The Permittee acknowledges that nothing in this Permit obligates the Province to renew this Permit and the Province's decision in that respect is entirely within its discretion

ARTICLE X - TRANSFER

- 10.01 The Permittee must not assign, transfer, sublicence or grant any of the rights or privileges granted by this Permit without the prior written consent of, and on the terms and conditions determined by, the Province.
- 10.02 If the Permittee is a corporation then a change in the control (as that term is defined in subsection 2(3) of the Business Corporations Act) of the Permittee without the prior written consent of the Province is deemed to be a breach of section 10.01.

ARTICLE XI - CANCELLATION

11.01 In the event that

- (a) the Permittee defaults in the payment of the Permit Fee or other money payable under this Permit, and the default continues for 7 days after the giving of written notice of the default by the Province to the Permittee;
- (b) the Permittee fails to perform or observe any of the terms or conditions of this Permit, other than the payment of money, and the failure is not remedied within a period specified by the Province;
- (c) the Permittee has wilfully misrepresented information:
 - (I) on the application form which led to the granting of this Permit, or
 - (ii) required to be provided under the terms and conditions of this Permit;
- (d) the Permit Area is damaged or destroyed by any cause whatsoever;
- (e) the Park is closed by the Province;
- (f) the Permittee files a petition in bankruptcy, is adjudged bankrupt, is petitioned into bankruptcy, makes an assignment for the benefit of its creditors, becomes insolvent or takes the benefit or protection of any statute for bankrupt or insolvent debtors;
- (g) any of the Permittee's assets is seized in execution from the Permit Area;
- the Permittee, its employees, agents, contractors or licensees performs any act which in the opinion of the Province, affects the good standing or reputation of the Park, or adversely affects any other permit holder or park user within the Park;

the Province may cancel this Permit immediately by written notice to the Permittee.

- 11.02 In the event that the Permittee and the Province mutually agree in writing to terminate this Permit, the parties will be released and discharged from their obligations under this Permit, except as otherwise provided in this Permit.
- 11.03 The obligation of the Permittee
 - (a) to pay the Permit Fee and other money payable under this Permit; and
 - (b) to comply with Sections 4.01, 6.01(e), 6.01(o) and 6.01(p);

will survive the expiration, cancellation or termination of this Permit.

11.04 The Permittee will not be entitled to any compensation from the Province, in damages or otherwise, in respect of a cancellation or termination of this Permit.

ARTICLE XII - MISCELLANEOUS

- 12.01 This Permit may be inspected by the public at such times and at such places as the Province may determine.
- 12.02 Time is of the essence in this Permit.
- 12.03 Nothing in this Permit will be considered to have been waived by the Province unless such waiver is in writing.

- 12.04 During the term of this Permit, the Permittee will be an independent contractor and not the agent, employee or partner of the Province.
- 12.05 The Province will not be liable for any loss, damage, cost or expense resulting from the destruction of or damage to the Permittee's property or a disruption of the Permittee's operations under this Permit which result from strikes, flooding or other acts of God, vandalism, or any other interference to the Permittee's operation or property.

ARTICLE XIII- INTERPRETATION

- 13.01 In this Permit, unless the context otherwise requires, the singular includes the plural and the masculine includes the feminine, a corporation and body politic.
- 13.02 The captions and headings contained in the Permit are for convenience only and are not to be construed as defining or in any way limiting the scope or intent of the provisions of this Permit.
- 13.03 In this Permit, a reference to an enactment of the Province of British Columbia or of Canada includes a reference to any subsequent enactment of like effect, and unless the context otherwise requires, all statutes referred to in this Permit are enactments of the Province of British Columbia.
- 13.04 If any part of this Permit is found to be illegal or unenforceable, that part will be considered separate and severable and the remaining parts will be enforceable to the fullest extent permitted by law.
- 13.05 If all or part of the Permit Area is in a recreation area established or continued under the *Park Act*, this Permit is deemed to be a resource use permit as that term is defined in the *Park Act*.
- 13.06 All schedules to this Permit form an integral part of this Permit.

IN WITNESS WHEREOF the parties have duly executed this Permit.

SIGNED and DELIVERED on behalf of the Province by a duly authorized representative of the Province.

Duly Authorized Representative

Jennie Aikman
Print Name

Regional Director
Print Title

April 9, 2014

Date

MANAGEMENT PLAN SCHEDULE

PERMIT AREA DESCRIPTION

The Permittee is authorized to enter the Permit Area described below and outlined on the attached maps.

- Tetrahedron Park
 - Area adjacent to the outlet of Chapman Lake
 - Area adjacent to the outlet of Edwards Lake

Copyright

Chapman Lake Permit Area

Copyright

Edwards Lake Permit Area

Copyright

FEE(s)

Protected Land: Tetrahedron Park

Activities: Water Impoundments (dams and dykes)

Purpose: Rights of way and miscellaneous land use without structures - The use of a

defined area for a powerline, telephone line, pipeline or other service or utility right of way and other miscellaneous land use without structures - Company or local

government. Fee charged for this purpose is for each protected land.

Fee Description: \$500 or \$60 per hectare whichever is greater

Schedule K Ref: Part 3, Column 2, Item 4

Fees:

Item	Number	Rate	Total
Minimum Fee	1	\$500.00	\$500.00
Hectares	.1	\$60.00	\$60.00
Sub Total (based	on Fee Description	above):	\$500.00

Sub Total: \$500.00

Minimum Fee Required: \$500.00

(plus applicable taxes)

SPECIAL PROVISIONS

Purpose

This Permit is issued to the Permittee for the purpose of maintaining water impoundment infrastructure at Chapman and Edwards Lake in Tetrahedron Park

2. Permittee Designated Representative

The Permittee appoints the following representative to be responsible for liaison between BC Parks and the Permittee:

Name: Bryan Shoji Telephone: 604 885 6800 Fax: 604 885 7909

Email: Bryan.shoji@scrd.ca

BC Parks Representative(s):

Park, Protected Area or Conservancy Name	Area Supervisor	Phone	Email
Tetrahedron Park	Dylan Eyers	604-924-2226	Dylan.eyers@gov.bc.ca

4. Conditions of Term

This permit shall be deemed valid until such time that it has expired under Article 2.01 and that water licences described above are valid and in good standing and that activities carried out are permitted under:

- (a) the conditional water licences and;
- (b) this permit.

5. Water Regulations

All activities relating to maintaining water impoundment structures and regulating water levels must be in accordance with the *Water Act*.

Flight Access

- (a) The use of a helicopter for access to the structures is acceptable. The Permittee shall notify BC Parks as early as feasibly possible prior to any flights into Tetrahedron Park so that BC Parks may utilize available space or service of the helicopter for park operation purposes.
- (b) If the Permittee chooses to use a helicopter company to access the structure the Permittee will cause any Person/Sub-licencee providing aviation services related to the Permittee's performance of this Permit to carry, and to provide evidence to the Province of their compliance with this requirement, Aviation Liability insurance on all aircraft operated or used in the performance of this Permit insuring against bodily injury, property damage, and passenger liability, in an amount not less than the limits of liability imposed by any Canadian Aviation Regulation and in any event not less than a per occurrence combined single limit of:
 - (i) \$3,000,000 for aircraft up to 5 passenger seats, or

- (ii) \$3,000,000 plus \$1,000,000 for each additional passenger seat for aircraft up to 10 passenger seats, or
- (iii) \$10,000,000 for aircraft over 10 passenger seats;

and this insurance must:

- (i) include the Province and the Permittee as additional insureds;
- (ii) be endorsed to provide the Province and the Permittee with 30 days advance written notice of cancellation or material change; and
- (iii) include a cross liability clause;

8. Report Requirements

The Permittee shall provide the Province with a report, due upon the anniversary date of the Permit, describing all activities undertaken as a result of this Permit for the previous year. Please submit this report to the following address:

Ministry of Environment PASB – Park Use Permits PO Box 9371 Stn Prov Govt Victoria BC V8W 9M3 Fax: 250-387-1695

9. Safety Regulations

The Permittee shall be responsible for all WorkSafeBC regulations and staff safety program and plans for all its staff and sub-contractors utilizing the Park to conduct activities authorized by this permit.

Renewal

It is understood by BC Parks and the Sunshine Coast Regional District that this permit shall be renewed pending a review of the terms of this Management Plan Schedule and providing the Sunshine Coast Regional District continues to require water management and structures outlined in this permit and the conditional water licences.



Ministry of Environment

Receipt

RETAIN THIS COPY FOR YOUR RECORDS

April 08, 2014

Receipt Number:

R536067

Received on behalf of:

Received Date:

April 08, 2014

Sunshine Coast Regional District

Payment Amount:

\$525.00

Reference Number:

102009

From:

Sunshine Coast Regional District

Description

Invoice

Authorization # Tracking #

Tax Paid

Amount Paid

Park Use Permit Fee

102714

305994

GST: \$25.00 \$525.00

Total:

\$525.00

GST/HST Registration #:

R107864738

Cash Handling Area/

PASB - Parks

Receipting Office:

Ministry Environment PASB - Park Use Permits

PO Box 9371 Stn Prov Govt

Victoria, BC V8W 9M3 (866) 433-7272

Payment Method:

Cheque/Money Order

Comments:

Payment for 2014/15 permit fees

Receipt Number: R536067

Page 1 of 1

From: Starck, Therese FLNR:EX

To: "bryan.shoji@scrd.ca"

Subject: Authorization #102714 Sunshine Coast Regional District -Issued Renewal 2014 to 2024

Date: April-09-14 11:18:00 AM

Attachments: Sunshine Coast Regional District Receipt.pdf
Sunshine Coast Regional District Final.pdf

Burishine Coast Regional District Final.pul

Hello Bryan,

Permit: Authorization #102714

Permittee: Sunshine Coast Regional District

Park: Tetrahedron Park

Purpose: Water Impoundments rights of way
Term: February 1, 2014 to January 31, 2024

Please find attached your renewed validated Park Use Permit Authorization #102714 for the purpose of water impoundments within Tetrahedron Park for the term February 1, 2014 to January 31, 2024.

I have also attached Receipt R536067 in the amount of \$525.00 for payment of the 2014/15 permit fees.

Please contact me if you have any questions or concerns.

Thérèse Starck

Fax 250-387-1695

Permit Officer, Park Use Permits – South Coast, Skeena and Kootenay Sections Ministry of Forests, Lands and Natural Resource Operations Permit and Authorization Service Bureau PO Box 9371 Stn Prov Govt Victoria BC V8W 9M3 Phone 1-866-433-7272 or 250-387-2928 press 3 Page 045 of 401 to/à Page 047 of 401

Withheld pursuant to/removed as

s.13; s.16

RE: Update on SCRD water situation

Friday, October 13, 2017 2:38 PM

Subject	RE: Update on SCRD water situation	
From	Monte Staats	
То	Rosenboom, Remko FLNR:EX; Dalziel, Rod ENV:EX; Platz, Chris ENV:	
Cc	Shane Walkey; Dave Crosby; Bryan Shoji	
Sent Thursday, August 13, 2015 4:03 PM		

Hi Remko, Chris and Rod,

As you all know, the SCRD is working swiftly to implement an emergency plan for accessing more water from Chapman Lake as our available water supply is likely not going to last us throughout this drought. As of now, the plan is to deploy a siphon system within the next few weeks in order to access lower reaches of the lake. We have recently received support from the Sechelt Indian Band for this emergency siphon.

The SCRD is currently working on a Section 8 application under the *Water Act* to gain approval for a Short term water use.

We are waiting for clarification on what is required in regards to our Park Use Permit, but hopefully all of the information provided in the Section 8 application will address any concerns from Parks.

We will be sending out the Section 8 application to Front Counter BC tomorrow. I will send out the tracking number assigned to the application and a PDF of the development plan for the siphon.

As time of the essence, please contact Shane Walkey or myself if you require more information.

Kind Regards,

Monte Staats, MLWS

Environmental Technician Infrastructure Services Department Sunshine Coast Regional District

Tel: 604 885 6800 ext 6489

Fax: 604 885 7909

email: monte.staats@scrd.ca

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Please consider the environment before printing this email

From: Monte Staats

Sent: Thursday, July 30, 2015 9:48 AM

To: 'Rosenboom, Remko FLNR:EX'; Dalziel, Rod ENV:EX

Cc: Shane Walkey; Dave Crosby; Bryan Shoji **Subject:** Update on SCRD water situation

Hi Remko and Rod.

We would like to follow up with you regarding our July 6 email on our water situation. As an update, our Stage 3 watering restrictions came into effect on July 10 and the community has responded extremely well by dropping their consumption by nearly 40%. We're hopeful that our supply can be

prolonged into October now if consumption remains low.

There are some uncertainties within the natural hydrologic system that we are we preparing for. We are anticipating that the natural inputs into the catchment area above Chapman Lake will dry up as time goes on, which will decrease the current recharge into our lake supply. Also, the amount of water coming from the watershed below the lakes is diminishing over time as well. These decreases in water from the natural systems may result in a more rapid depletion of our available water supply and could accelerate the need to implement a contingency plan.

We are now considering the option of a syphon rather than the pumps as our contingency. The siphon option is expected to pose minimal environmental risk compared to pumps as the foot print is smaller and the everyday need for fuel to operate is significantly lower. Our consultants are in the process of compiling a proposal for siphon and we will share the details of this option once we receive it.

As you know, Chapman Lake is in a Class A park and we want to ensure that we are in compliance with the *Water Act* and our park use permit if we have to increase our lake level draw down. We are still unsure what, if any, amendments need to be made to our existing park use permit to deploy a siphon (or pumps for that matter) and increase our draw down in the lake.

We are requesting the following information:

Remko: Can you please advise us on what we need to do and what you can do to approve accessing more water from Chapman lake? We understand that you can issue an temporary water use license? If this is our best option, how do we start this process?

Rod: Can you please advise what, if any, amendments to our PUP are required for the contingency plan option?

Ideally, we will not need to implement our contingency plan, but we want to make sure everything is in place early should our available water supply become exhausted.

Thanks for your continued support!

Monte Staats, MLWS

Environmental Technician Infrastructure Services Department Sunshine Coast Regional District

Tel: 604 885 6800 ext 6489

Fax: 604 885 7909

email: monte.staats@scrd.ca

3

Please consider the environment before printing this email

From: Dave Crosby

Sent: Monday, July 06, 2015 4:30 PM **To:** 'Rosenboom, Remko FLNR:EX'

Cc: Bryan Shoji; Shane Walkey; 'Rod.Dalziel@gov.bc.ca'; Monte Staats

Subject: Follow up on phone call re: Chapman Lake

Hi Remko,

Thank you for taking our call this afternoon. As we talked about, this summer is going to challenge many water supplies within the South Coast region of BC (and elsewhere of course too). Here on the Sunshine Coast, our main water supply is Chapman Creek, in which creek flows are regulated through impoundment structures on Chapman and Edwards Lakes, both of which are situated within

the Tetrahedron Provincial Park and are operated under Park Use Permit 102714 (attached).

For our water system, a prolonged period of drought may cause us to fully deplete our water storage capacity. As of right now, 75% of our supply is remaining and we are projecting that this will last until near the end of September. Although we are hoping for the best (rain!), we are planning for a prolonged period of drought. Our current conservation efforts are focused on demand side management and include:

- Already in stage 2 water restrictions (called on June 12 approximately 2 months earlier than last year)
- Calling stage 3 on July 10 (when our supplies are estimated to be at 70%)
- Set a community water conservation challenge by setting a daily water target for our customers
- Depending on how well the community responds to the water conservation challenge, we will be calling Stage 4 as early as the end of July
- We've increased our water conservation campaigning efforts
- We've enhanced patrols and enforcement

We feel that we are doing everything in our power to manage water demand but still recognize that these efforts may not be enough if drought conditions persist.

As we discussed, our contingency plan in the event of an emergency water situation is to fly pumps to Chapman Lake. In the event that pumping is necessary to maintain water to area residents, we want to ensure that we are in compliance with the Water and our Park use permit (PUP). As discussed, we are working with Rod Dalziel, BC Parks area supervisor for the Sunshine Coast (copied on this email) to determine what, if any, amendments need to be made to our PUP in order to use the pumps for additional draw down in Chapman Lake.

Can you please advise us on what our appropriate course of action would be under the *Water Act* to prepare for pumping?

Sincerely,

Dave Crosby
Manager of Utility Services
Sunshine Coast Regional District
Tel: 604 885 6821
dave.crosby@scrd.ca

Page 051 of 401 to/à Page 056 of 401

Withheld pursuant to/removed as

s.13; s.16

SCRD water license Chapman Creek

Friday, October 13, 2017 2/37 PM

Subject	SCRD water license Chapman Creek	
Fram	Monte Staats	
To	Platz, Chris ENV:EX	
Cc	Shane Walkey	
Sent.	Friday, August 14, 2015 10:44 AM	
Attachments	DOC	

Hi Chris,

Please attached the water license for Chapman Lake. The Section 8 application will be sent out later this afternoon.

Please let us know if you have any questions.

Thanks,

Monte

----Original Message----

From: xerox-finance@scred.ca [mailto:xerox-finance@scred.ca]

Sent: Friday, August 14, 2015 10:32 AM

To: Monte Staats

Subject: Scan from a Xerox WorkCentre

Please open the attached document. It was scanned and sent to you using a Xerox WorkCentre.

Attachment File Type: PDF, Multi-Page

WorkCentre Location: machine location not set

Device Name: xerox-finance

For more information on Xerox products and solutions, please visit http://www.xerox.com

Dist/Prec: 29C VAN - HOWE SOUND Region: 02 LOWER MAINLAND *****

Priority Date: 1967/07/13 Lic. Status Date: 1991/05/28 Licence Status: C Process Status: N/A Proc Status Date: -

Lic. Exp. Date: Balance Owed: 0.00

Appurtenancy: STOR FOR C 69217 16599 22345 & 107474 ALL ON CHAPMAN CREEK

(Client Last Updated: 1996/07/25 By Region: 00) Licensee No. 1

Client No:S.17 Work Phone: Home Phone: SUNSHINE COAST REGIONAL DISTRICT PO BOX 800 Other Phone: ------SECHELT BC Receives Bill: Y VON3A0

Permits Over Crown Land:

PCL No PCL Code Description 06A DAMS Acres Billed With Lic 11586 1.000 Y 11586 06B 8.000 Y

Total Licence Demand:

PUC Description 08A STONP Quantity/Units From To Irrigated Area 735.000 AF Jan.01 Dec.31 -

Licence Comments: STOR IN CHAPMAN LK

POD 1: Map No: WR 92.G.052

POD: AA Rediv: N PUC Description 08A STONP Quantity/Units Qty Sto Prom To 735.000 A T Jan.01 Dec.33 Irrigated Area Jan.01 Dec.31 POD Comments: WSC: 900

Source: Chapman Creek Gaz/Alias: G May 16, 1994

Sunshine Coast Regional District PO Box 800 Sechelt, BC VON 3A0

Dear Sirs:

Re: Conditional Water Licence 50724

For reasons set out in the enclosed Order, the Assistant Regional Water Manager has deemed it appropriate to amend the above licence.

This new documentation should be attached to your copy of the licence.

The Water Act provides for the appeal of any decision made by an engineer appointed under the Act. Your right of appeal to this decision lies to the Comptroller of Water Rights, Parliament Buildings, Victoria, B.C. V8V 1X4, and must be made within 30 days of the date your licence was issued. Reasons for the appeal must be included with your letter of appeal.

Yours truly,

Robert A. Edwards, P. Eng.

Assistant Regional Water Manager

Lower Mainland Region

Enclosure

c.c. Comptroller of Water Rights

VINNER

WATER ACT

Section 15

File No. 0309244

In the matter of Conditional Water Licence 50724, which authorizes the storage of water from Chapman Creek and the reservoir is Chapman Lake.

Having determined that Conditional Licences 11728 and 50723 have been amended, and being satisfied that no persons rights will be injuriously affected, I hereby amend Clauses (d) and (g) of the said licence to read as follows:

- (d) The purpose for which the water is to be used is set out in Conditional Licences 69217, 16599, 22345 and 107474, or any licences issued in substitution thereof.
- (g) The land upon which the water is to be used and to which this licence is appurtenant is as set out in Conditional Licences 69217, 16599, 22345 and 107474, or any licences issued in substitution thereof.

Dated at Surrey, British Columbia, this 16th day of May, 1994.

Robert A. Edwards, P. Eng. Assistant Regional Water Manager

14th October, 1976.

Sunshine Coast Regional District, Box 800, Sechelt, B. C.

Dear Sirs:

Water application on Chapman Creek (storage in Chapman Lake)

Your water application on the above-named source has been investigated and we are now preparing two licence/s authorizing:

- (1) the diversion and use of 1,000,000 gallons a day of water for waterworks purpose on lands within the District boundaries.
- (2) the storage of 735 acre feet a year of water in support of the diversion licence.

s.c.R.D.

GL. 15 178

RECEIVED

A copy of the licence/s will be forwarded when ready.

Yours truly,

H.D. DeBeck, Comptroller of Water Rights.

Per: FwF

FWF/ht

Box 800 Sechelt, B.C. VON 3AO

OCT 12 78

5th October, 1978

RECEIVED

Enclosed please find certified copies of MDNAM/Conditional Water Licence No. 50723 and 50724.

A copy of Permit over Crown Land No. 11586 is also enclosed.

Any error in the licence or permit should be brought to my attention immediately.

The annual rental for the licence is \$20.90 &\$2.and for the Permit over Crown Land is \$12.00. These rentals are paid up to the , and subsequent rentals are due and payable in January of each year, at which time you will receive a statement.

Please remit \$21.00, which is the balance owing for 1978 rentals.

Water licences do not authorize entry on privately owned land for the construction of works. Consent of the owner must be secured or a right-of-way expropriated. Consent should be in proper form and registered in the Land Registry Office.

Permission for crossing roads or lands under the jurisdiction of any Government Department must be obtained from the Department concerned.

In order to keep a water licence in good standing the following must be observed:

(a) Continued beneficial use of the water, as authorized.

(b) Payment of annual rentals.

(c) Compliance with the terms of the licence.

(d) Compliance with terms of the Water Act.

IMPORTANT: In order to protect your interests kindly notify the Comptroller of Water Rights if:

- any change is made in your mailing address.

- you sell the land to which the licence is appurtenant.

- you propose to subdivide the land to which the licence is appurtenant.

- you propose to alter the works authorized under the licence.

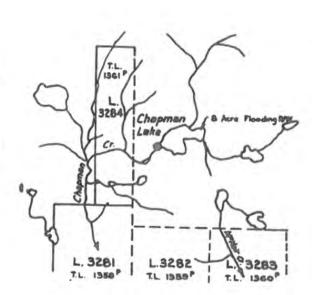
Comptroller of Water Rights.

Encl.

W.R.B. 21

G.1, NEW WESTMINSTER DISTRICT

Scale: 80 Chains to 1 Inch



LEGEND
Dem O
Ref. Map 92^G/NW (8-8)
Right of Wey

20-373-1007

Date 1st

Signature

Aug.

1978

CL 50724 File 0309244 R/W Permit Nº 11586

Howe Sound

Precinct

OCCUPATION OF CROWN LAND

Sunshine Coast Regional District of Box 800, Sechelt, B.C. VON 3A0

the holder(s) of Conditional/Fidal Water Licence(s) 50724
the high high half the storage of water in Chapman Lake

authorizing

is/are hereby

flooding and

authorized to occupy Crown land by constructing, maintaining, and operating thereon the works authorized under the said water licence and any licences which may be issued in substitution thereof.

(a) The Crown land which is authorized to be occupied under this permit is a portion of unsurveyed land, Group 1 New Westminster District,

the location of which is shown approximately on the plan attached to the said water licence.

(b) The approximate dimensions of the Crown land authorized to be occupied under this permit are

(1) demaits

1 agra

(2) glooded

8 acres

total area

9 acres

- (c) Subject to the payment of royalty, stumpage, and other compensation, and the obtaining of a licence to cut timber as provided under Condition 5, the permittee may cut and remove from the said land any timber, the removal of which is necessary to permit construction and maintenance of the said works, and clearing of the said land which may be flooded.
- (d) The annual rental for this permit is \$12,00 , which is subject to review and revision at any time at the discretion of the Crown.
- (e) This permit is appurtenant to the land, mine, or undertaking to which the aforesaid water licence is appurtenant.
- (f) The conditions relative to the rights granted under this permit are printed on the back of this form.

File No. 0309244

W.R. Radel
Assistant Deputy Minister of the Environment
Land and Water Management

Ref. Map 92G/NW (B-3)

W. R. Map

Date issued: 1st August, 1978 Permit No. 11586

CONDITIONAL WATER LICENCE

Sunshine Coast Regional District of Box 800, Sechelt, B.C. VON 3AO

is/are hereby authorized to store .

water as follows:-

- (a) The source(s) of the water-supply is/are Chapman Creek and the reservoir is Chapman Lake.
- (b) The point(s) of storage

is/are located as shown on the attached plan.

- (c) The date from which this licence shall have precedence is 18th July, 1974.
- (d) The purpose for which the water is to be used is as set out in Conditional Licences 11728, 16599, 22345 and 50723.
- (e) The maximum quantity of water which may be stored is 735 acre feet per armum,

and such additional quantity as the Engineer may from time to time determine should be allowed for losses.

- (f) The period of the year during which the water may be stored is the whole year.
- (g) The land upon which the water is to be used and to which this licence is appurtenant is as set out in Conditional Licences 11728, 16599, 22345 and 50723.
- (h) The works authorized to be constructed are dam,

which shall be located approximately as shown on the attached plan.

- (i) The construction of the said works shall be commenced on or before the 28th day of February, 1979, and shall be completed and the water beneficially used on or before the 31st day of December, 1990...
- (j) The rights granted under this licence are subject to a reserve established by Order in Council No. 2277/1967.
- (k) The Engineer for the Vancouver Water District may at any time, by an Order in writing, order the release of water from Chapman Lake in order to maintain a minimum flow in Chapman Creek for the preservation of fish life.

SCRD Request for Permit Amendment to Implement Emergency Water Measures (Tetrahedron Park)

Friday, October 13, 2017 2:36 PM

5ubject	SCRD Request for Permit Amendment to Implement Emergency Water Measures (Tetrahedron Park)	
From	Aikman, Jennie S ENV:EX	
To	Austad, Bob ENV:EX; Vander Steen, Benjamin ENV:EX	
C¢	Platz, Chris ENV:EX	
Sent	Friday, August 14, 2015 11:40 AM	

Hi Bob and Ben,

As you are probably aware through the media, Sunshine Coast Regional District (SCRD) has advanced to Level 4 water restrictions due to the extreme drought conditions and water shortages they are facing on the Sunshine Coast.

The water supply for communities within the SCRD, including Sechelt, is drawn from a reservoir of alpine lakes that are within Tetrahedron Provincial Park. The park was established in part to protect and preserve the watershed and community water supply. The park management plan supported the continued use of the park's upper lakes for this purpose. Consistent with the park management plan, the SCRD maintains infrastructure on Chapman Lake in Tetrahedron Park under a park use permit (land use occupancy). They also have a water licence under the *Water Act* which authorises the volume of their water takings.

SCRD has recently approached FLNRO (Water Stewardship Branch) and BC Parks to amend their water licence and permit to expand their infrastructure in order to use a siphon in the lake to draw additional water (1M cubic metres with a 5-metre draw-down).

It is our understanding that the SCRD have exhausted all other options, and this would be a temporary emergency measure to sustain the community water supply. We are reviewing the information they have submitted, and Chris and Rod have been in discussions with SCRD and FLNRO regarding options, ecological impacts (including fisheries impacts), and other considerations. It should be noted there are apparently no fish present in Chapman Lake, but Chapman Creek which flows from the lake is a fish-bearing stream.

At this point we are considering a park use permit amendment to temporarily allow the siphon infrastructure, subject to conditions of their *Water Act* licence.

I am bringing this to your attention so you are in the loop, and to notify you that the Tetrahedron Advisory Committee is aware of the SCRD's plans and has voiced concerns over further drawdown of the lake. It is possible their members may take this to the Minister and/or media. You should also be aware that SCRD has consulted with thes.16

s.16

For your interest, here is a link – provided by Rod – showing the current extent of the drawdown on the lake:

http://www.scrd.ca/files/File/Administration/News/11836927 1612112279042604 510395994163216074 n.jpg

Please contact myself or Chris Platz if you have any questions.

Jennie

Jennie Aikman

Regional Director, South Coast Region BC Parks, Ministry of Environment

Sunshine Coast Regional District (SCRD) – PUP #102714

Tetrahedron Park - Chapman Lake

UPDATE

14 August 15

- Rod Dalziel has taken the lead on this file coordinating with the SCRD, FLNRO (Water Management, stakeholders and public)
- Folder has been created for files regarding this issue at V:\1_PPA Files\S Coast Region\PPA
 Ops\Areas\Sunshine Coast Area\Issues\Chapman Lake Water
- Rod had a good discussion with Monte Staats (SCRD main contact)
 - o to discuss water situation
 - Went to Stage 4 water restrictions as of Aug 13th
 - Chapman Lake current available supply is nearly exhausted and have been supplementing with supply from Edwards Lake
 - Estimated to be ~38 days of available supply remaining between Chapman and Edwards Lakes
 - Water Act amendment application
 - SCRD will submitting Section 8 Water Act amendment application today
 - This will be a 24 month temporary application to remove an additional 1,000,000 m³/year; if this is fully used this is estimated to be an additional 5m drop in the Chapman Lake water levels (has dropped 3m already of 32m total lake depth)
 - This is expected to give ~45 more days of available water
 - SCRD will provide copy of application to BC Parks when submitted to FLNRO
 - PUP amendment application
 - SCRD is proposing installation of siphoning system into Chapman Lake to access water (as described in Water Act amendment above)
 - SCRD has had report/proposal prepared of siphoning proposal
 - Will provide to BC Parks
 - Rod will (again) provide details for application process
 - SCRD has gained letter of support from Sechelt FN
 - Subject to the SCRD conducting Archeology assessment of exposed lakeshore
 - I am unclear of how this process would work; need clarification on how this would be coordinated with BC Parks
 - SCRD will provide to BC Parks
 - SCRD is requesting BC Parks letter of support for their Water Act application
 - I gave no indication either way until the application is reviewed
 - SCRD has offered to provide as many flights as reasonable required to site to review and assess situation
 - Tentatively arranged flight for Thurs 20 Aug 15

- Rod has left messages with FLNRO (James Davies and Remko Rosenbloom) to touch base on the SCRD's Section 8 amendment to their Water Act license
 - 15:30 Rod had phone conversation with James Davies
 - James just wanted to ensure BC Parks was in the loop regarding the temporary
 Water license amendment and siphoning proposal
 - · Has not been received application at this time
 - His main concerns are being able to supply sufficient water supply to Chapman Creek to conserve fisheries values as well drinking water to SCRD
 - James indicated there may be request in application for secondary sources of water from additional lakes in the park but did not have specifics at this point
- Rod has given Meghan Coupar with FrontCounter BC a heads up on the impending PUP amendment application and has requested it be given very high priority
 - Meghan indicated she would put it as high priority when received

17 Aug 15

- Rod spoke with Remko Rosenboom (Manager Water Authorizations, FLNRO) this morning regarding the situation. A couple points he raised were:
 - concerns around possible increased sediment with the proposed siphoning system (unsure of material below water levels (ie. bedrock etc..)
 - As well he believes the SCRD is not releasing enough water into Chapman Creek required to support the fisheries values which puts even greater urgency on the situation if they bring those levels up as well
 - Remko believes that as unfortunate as it is the situation is serious and releasing more water is certainly needed for both supplying the SCRD and the Chapman Creek fisheries values
- Remko will be responsible for authorizing the temporary Section 8 Water Act permit that the SCRD submitted last Friday. He stated that he is able to include any requirements into the permit including the length of term (SCRD has requested 24 months)
 - Remko has requested that if BC Parks would like to see any requirements added to this temporary permit that we could have those to him by Friday (after the flight Rod has with the SCRD on 20 Aug 15).

MINISTRY OF ENVIRONMENT INFORMATION NOTE

August 18, 2015 File: 280-20 CLIFF/tracking #: To be

provided

PREPARED FOR: Mary Polak, Minister of Environment

ISSUE: Sunshine Coast Regional District Request for Permit Amendment to Implement Emergency Water Measures in Tetrahedron Provincial Park.

BACKGROUND:

On August 13, the Sunshine Coast Regional District (SCRD) advanced to Level 4 water restrictions due to the extreme drought conditions and water shortages on the Sunshine Coast. Gray and Chapman Creeks, both of which have headwaters in Tetrahedron Provincial Park, are the principle sources of domestic drinking water to coastal communities within the SCRD, including Sechelt and Gibsons. Water is drawn from a system of alpine lakes that are within the park, including Chapman Lake and Edwards Lake.

Tetrahedron Park was established in part to preserve the watershed and community water supply. The park management plan supported the continued use of the park's alpine lakes for this purpose. Consistent with the park management plan, the SCRD maintains infrastructure on Chapman and Edwards Lakes in Tetrahedron Park under a park use permit (land use occupancy). They also have a water license under the *Water Act* which authorises the volume of their water removal.

According to the SCRD, the available supply at Chapman Lake is nearly exhausted and the Regional District has been supplementing with supply from Edwards Lake. The SCRD estimates there to be approximately 38 days of available supply remaining between Chapman and Edwards Lakes as of August 14, 2015.

SCRD approached the Water Stewardship Branch (FLNRO) and BC Parks for amendments to their water license and park use permit, to expand their infrastructure in the park. Specifically, SCRD would like to install and employ a siphon system to draw additional water from the lake system.

SCRD are applying for a temporary amendment to their water license to remove an additional 1,000,000 m³, through a *Water Act*, Section 8 Approval for short term use of water . This volume is expected to provide approximately 45 more days of available water to the community water supply. If fully used this is estimated to result in an additional 5-metre drop in Chapman Lake water levels. Under current use, the lake level has dropped 3 metres out of 32-metre total lake depth.

DISCUSSION:

The SCRD have confirmed they have exhausted all other options, and this would be a temporary emergency measure to sustain the community water supply. Regional staff are reviewing the information they have provided as part of their *Water Act* Section 8 application.

Regional staff have also been in discussions with SCRD and FLNRO regarding options, ecological impacts including fisheries impacts, and other considerations. The Chapman and Gray Creeks, which flow out of Tetrahedron Provincial Park, support anadromous species below impassable barriers outside of park boundaries. Fish hatcheries are located at the outlets of both creeks, and rely on consistent water quality and quantity to support their continued operation. Staff at the Water Stewardship Branch have identified that the main concerns are centered around being able to supply sufficient water supply to Chapman Creek to conserve fisheries values while sustaining drinking water to SCRD.

In the late 1990s the SCRD proposed installing a floating pump station at Chapman Lake, to expand capacity for drinking water while also ensuring adequate flows for fish downstream in Chapman Creek. Although the floating pump proposal differed from the current proposal in the mechanism of accessing additional water, the older proposal appears to have been very similar in potential impacts. For example, as with the current proposal, installing the floating pump station would have allowed for additional lake drawdown of up to 5 metres. In 1999, Whitehead Environmental Consultants prepared an extensive impact assessment for this proposal on behalf of the SCRD and in accordance with the BC Parks Impact Assessment Process guidelines. The conclusion of the assessment was that the residual impacts of the proposed pumping system were acceptable in view of the ecological benefits of ensuring water flow downstream and the socioeconomic benefits of providing additional drinking water. The SCRD held public consultations and received comments from the public and other agencies on the project and impact assessment. Concerns included general impacts of additional drawdown on the ecology and aesthetics of the lake, the fuel used to power the pump and potential for spills, and the ability of the system to consistently function and ensure adequate flows for fish downstream. It is not clear from the files why the proposal to install a floating pump station was never implemented, but the SCRD's siphon proposal does address a number of the concerns raised through the 1999 process.

BC Parks is anticipating the SCRD will be submitting a park use permit amendment application this week. BC Parks is considering granting an amendment to temporarily allow the expanded water-removal infrastructure, subject to approval and conditions of the Section 8 *Water Act* amendment. SCRD has indicated they will need to have their authorizations in place to begin the installation of the siphon system by the end of August 2015.

The Tetrahedron Advisory Committee is aware of the SCRD's plans and has voiced concerns over further drawdown of the lake. It is possible their members may take their concerns to the media.

s.16

NEXT STEPS:

Regional staff will review the permit amendment application, and will put forward a recommendation to the Regional Director pending completion of the adjudication of the Section 8 *Water Act* approval with a target to have a decision by the end of August.

Contact:	Alternate Contact:	Prepared by:
Jim Standen, Assistant	Bob Austad, Executive	Jennie Aikman, Regional Director
Deputy Minister	Director	
BC Parks and	Regional Operations, BC	South Coast Region
Conservation Officer	Parks	
Service		
(250) 387-1288	(250) 356-9241	(604) 924-2227

Reviewed by	Initials	Date
DM		
DMO		
ADM		
ED		
Author	JA	Aug.16

Chapman Creek Emergency Siphoning Proposal – Summary of information from similar 1999 proposal and impact Assessment

Following summary and comments by Joanna Hirner, Conservation Specialist, South Coast, BC Parks

August 19, 2015

Summary of 1999 floating pump station proposal and impact assessment:

In the late 1990s Sunshine Coast Regional District (SCRD) proposed installing a floating pump station at Chapman Lake, to expand capacity for drinking water while also ensuring adequate flows for fish downstream in Chapman Creek. Although the floating pump proposal differed from the current proposal in the mechanism of accessing additional water, the older proposal appears to have been very similar in potential impacts. For example, as with the current proposal, installing the floating pump station would have allowed for additional lake drawdown of up to 5 m. In 1999, Whitehead Environmental Consultants prepared an extensive impact assessment for this proposal on behalf of the SCRD and in accordance with the BC Parks Impact Assessment Process guidelines. The conclusion of the assessment was that the residual impacts of the proposed pumping system were acceptable in view of the ecological benefits of ensuring water flow downstream and the socioeconomic benefits of providing additional drinking water. The SCRD held public consultations and received comments from the public and other agencies on the project and impact assessment. Concerns included general impacts of additional drawdown on the ecology and aesthetics of the lake, the fuel used to power the pump and potential for spills, and the ability of the system to consistently function and ensure adequate flows for fish downstream. It is not clear from the files why the proposal to install a floating pump station was never implemented.

Other key pieces of information from the 1999 impact assessment relevant to the 2015 proposal:

1. *Flows for fish:* During the 1999 process, Fisheries and Oceans (and others) provided advice on minimum flow required to sustain fish populations in Chapman Creek. The following was recommended: 0.5 m³/s was the preferred minimum, 0.4 m³/s was an acceptable minimum, and the absolute lowest sustainable minimum was 0.3 m³/s. See Appendix 1 of Whitehead (1999) for letters from DFO and BC Ministry of Environment, Lands and Parks (MELP) that reference these recommendations. The floating pump proposal provided two options for minimum flows: Option 1 was 0.35 m³/s, and option 2 was 0.4 m³/s. DFO and MELP both identified Option 2 as preferred based on fish concerns. Following review of the 1999 impact assessment, both DFO and MELP provided comment letters (also attached).

The 2015 Section 8 *Water Act* application estimates that flow rates will be in the range of 440-500 L/s (0.44-0.5 m³/s) using the siphon. The application also provides some information about flow rates during the summer dry season in recent years: flow rates as low 100 L/s (0.1 m³/s) are reported, suggesting the siphon system could provide improved flow for fish during the summer dry season.

- 2. Consideration of a siphon during 1999 process: Use of a siphon system was considered as part of the 1999 impact assessment process. See p. 48 of Whitehead (1999) and attached letter from Dayton Knight Engineering Consultants. Several disadvantages of the siphon system were noted, including: the section of upper Chapman Creek between the dam and the siphon outflow would be dry, the long pipeline required for the siphon would likely require blasting and machinery access to upper Chapman Creek, and the need for monitoring the siphon for loss of prime and use of a standby pump to re-prime the siphon. The letter from Dayton Knight also references problems with "water column separation" that could cut off flows downstream. This information raises a couple of questions from me for SCRD and their consultants:
 - a. Are the issues and risks around potential failure of the siphon raised in 1999 adequately addressed in the current situation, by having a priming pump and fulltime operators on-site during siphon operations?
 - b. Will blasting and other forms of relatively intrusive construction be needed to install the pipes downstream of the dam?
- 3. Contingency planning for siphon failure: Finally, one of the concerns raised during the 1999 process is that if water levels in Chapman Lake are allowed to drop below current maximum drawdown, flow downstream of the dam will be completely dependent on the pump/siphon, and if the pump/siphon fails, downstream flow could stop completely with catastrophic effects for fish. So one other question for SCRD: are there contingency plans for the event of failure of the siphon, other than having operators continuously onsite to monitor siphon function?

FW: Sunshine Coast Regional District Section 8 application

Thursday, October 12, 2017 3:31 PM

Subject	FW: Sunshine Coast Regional District Section 8 application	
Fram	Hirner, Joanna ENV:EX	
To	Platz, Chris ENV:EX; Aikman, Jennie S ENV:EX	
Cc	Dalziel, Rod ENV:EX	
Sent.	Wednesday, August 19, 2015 4:18 PM	
Attachments	Dayton Knight Sip DFO Comment MoEComme ntLetter19 Chapman Creek Eme	

FYI

From: Hirner, Joanna ENV:EX

Sent: Wednesday, August 19, 2015 4:18 PM

To: Rosenboom, Remko FLNR:EX

Cc: Dalziel, Rod ENV:EX

Subject: Sunshine Coast Regional District Section 8 application

Hi Remko,

I'm working to help Rod Dalziel in the BC Parks response to the proposal to install a siphon system in Chapman Lake in Tetrahedron Park. As part of that work, I have reviewed some historical information from a similar 1999 proposal to install a floating pump station in Chapman Lake. There are a lot of parallels and information relevant to the current situation. Perhaps you already have some of this information, but I thought I would share the results of my review, along with some key documents from the 1999 process, attached. One key document that I summarize but that I haven't attached is the 1999 impact assessment (referred to as Whitehead 1999 in my summary). Please let me know if you would like me to send it or post it on a network drive that you can access; it is 8 MB so didn't want to send it without warning you first.

On page two of my summary document (in bold) there are a couple of questions I have about the current SCRD proposal that came from my review of the 1999 information, that may also be relevant to your review of the Section 8 application.

Rod mentioned that there is an opportunity for BC Parks to put forward some requirements to be added to the Section 8 Approval if approved, as long as we have them to you by Friday. I'll work with Rod on that as well.

Best regards, Joanna

Joanna Hirner (MRM, RPBio) Conservation Specialist South Coast Region, BC Parks 604-924-2228



DAYTON & KNIGHT LTD.

Consulting Engineers

P.O. BOX 91247, (612 CLYDE AVENUE), WEST VANCOUVER, BRITISH COLUMBIA TELEPHONE: (604) 922-3255 FAX: (604) 922-3253 E-MAIL: dkeng@dayton-knight.Dn

October 21, 1999

OCT 2 5 1999 S.C.B.D.

Mr. S.K. Lehmann General Manager, Infrastructure Services Sunshine Coast Regional District P.O. Box 800 5477 Wharf Road Sechelt, B.C. V0N 3A0

Dear Mr. Lehmann:

RE: Chapman Lake Study

In response to the message from Mr. Carmichael and Mr. Burgerjohn dealing with a possible siphon at Chapman Lake, we advise:

- Our experience with large siphons has not been the best. If a siphon design is provided for the lake outlet, then we would recommend a pump (possibly slightly smaller) be an essential component as well.
- 2) The reason for our concerns is illustrated in the enclosed sketch:
 - a) The siphon needs to convey at least 0.3 cms (12.6 cfs) for Option 1 and 0.4 cms (16.2 cfs) for Option 2. For this a 600 mm (24-inch) pipe is required in order to minimize hydraulic losses which in turn makes a siphon operation possible (as long as the risks are understood) and minimizes the pump and genset size.
 - b) The risks with a siphon operation are significant, however. Water column separation at the 970 mm elevation are in the order of 8 metres which leaves a 10% factor of safety for Option 2 DD column separation. This is not enough and even if the risk was assumed dissolved air from the lake would require 24 hour manual attendance (or similar) to ensure system functioning.
 - c) If water column separation was to occur in late October/early November with the system unattended, then freezing of the pipe could cut off all flows in the Upper Chapman Creek drying up the lower creek until rains came which could mean no water supply or fishery water for 4-6 weeks in a 20 year drought.

The consequences of such a failure are too significant to assume the risk.

What we propose is to provide for a siphon system in the designs but we would not recommend the sole reliance on such mechanisms.

The provisions could include:

- a) extension of siphon 100 metres downstream
- A throttling valve and an AV.
- A check valved tee just upstream of floating pump station (bowls may not pass 16 cfs).

The cost premium is about \$50,000 - \$60,00 but the reduced OM costs should pay for the premium.

Please let us know if we can elaborate.

Yours truly,

Dayton & Knight Ltd.

Agris Berzins, P.Eng.

AB/ad \$8.162

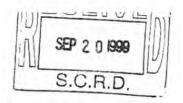
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Fisheries and Oceans

Pêches et Océans

Pacific Region R. Eliasen Habitat Engineering Technologist Coastal B.C. South 3225 Stephenson Point Road Nanaimo, B.C. V9T 1K3



5903-85-C125

September 15, 1999

Mr. S.K. Lehmann General Manager Infastructure Services Sunshine Coast Regional District 5477 Wharf Road Box 800 Sechelt, B.C. VON 3A0

Dear Mr. Lehmann:

Subject: IMPACT ASSESSMENT – SCRD PROPOSED WATER STORAGE PROJECT CHAPMAN LAKE FLOATING PUMP STATION

Thank you for the recent letter and attached subject report forwarded to this office on August 26, 1999. This letter will confirm that Fisheries and Oceans Canada has reviewed the impact assessment report "SUNSHINE COAST'S PROPOSED WATER STORAGE PROJECT (FLOATING PUMP STATION) ON CHAPMAN LAKE, IN TETRAHEDRON PROVINCIAL PARK" prepared by Whitehead Environmental Consultants Ltd.dated April 8, 1999 for B.C. Parks and the Regional District.

We agree with and accept the final conclusions reached in the above noted environmental impact assessment report by Mr. Alan Whitehead. From a fish perspective, points 5 and 6 of the Conclusions are particularly relevant to the highly valuable fisheries resources of Chapman Creek.

It is our understanding that the pumping system would only need to be activated during the summer months in drought periods that are equal to or greater than the 1:8 year return period drawing water (dead storage) from the Chapman lake. As stated in our earlier correspondence, the minimum acceptable Chapman Creek fish rearing flow is **0.4 cms** to protect the fisheries resource. As such, Fisheries and Oceans Canada will require that **Option 2** is implemented since Option 1 cannot provide the required discharge needed for the safety of the aquatic resources in Chapman Creek.

Canadä

Also, Dayton& Knight's December 1997 report concluded that the floating pump station can likely only provide the necessary flow requirements for both human and fish consumption for a period of 10 years. This conclusion was based on the projected population growth estimates within the expected service area. Alternative areas of storage and water supply will likely be required as early as the year 2010! Regardless of this rather short-term flow augmentation proposal, Fisheries and Oceans Canada endorses the floating pump station proposal and requests its early implementation to ensure the protection of the fisheries resource of Chapman Creek.

Should you have any questions related to this matter, you may contact me at 756-7278 at our Division office in Nanaimo. Your continued co-operation will be sincerely appreciated.

Yours truly,

R. Eliasen

Sr. Habitat Technologist Coastal B.C. South Division

cc:

B. MacDonald DFO Nanaimo

G. McBain CA Sechelt

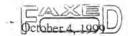
P. Harvey FT Powell River

M. Alam WMB-MELP Surrey

J. Summers F&W-MELP Surrey

S. Reid SCRD Sechelt







Our File: 58000-20/Chapman Lake Water Storage Project

S.K. Lehmann General Manager Infrastructure Services Sunshine Coast Regional District Box 800 Sechelt BC VON 3A0

Dear S.K. Lehmann:

Re: Impact Assessment - SCRD proposed Water Storage Project (Floating Pump Station) on Chapman Lake in Tetrahedron Provincial Park

This is in reply to your August 18, 1999, correspondence to Jim McCracken, Regional Director. The subject report, prepared by Alan J. Whitehead, M.Sc., R.P.Bio., and dated April 8, 1999, has been reviewed with respect to the interests of all regional programs.

Fish, Wildlife and Habitat Protection (FWHP) are in general agreement with the conclusion that "the anticipated impacts at the reservoir are considered an acceptable trade-off in exchange for the highly desirable benefits in lower Chapman Creek". Furthermore, it is agreed that potential impacts during construction can be easily mitigated using known technology. FWHP supports all recommendations for further baseline studies and subsequent short (i.e. construction phase) and long-term monitoring programs.

Land and Water Management have advised that there may be public safety issues related to hazardous shoreline conditions during periods of large drawdown, especially if steep lakebed topography is exposed. These should be assessed and, if deemed necessary, appropriate measures taken to ensure public safety.

S.K. Lehmann Our file: 58000-20/Chapman L Water Storage

Page 2 October 4, 1999

As you are probably aware, the SCRD will need to apply for a water licence for the additional storage that will be utilized over and above that covered by the current licence.

Thank you for the opportunity to comment on the report.

Sincerely,

Mike Willcox, B.Sc., P.B.D.

Environmental Assessment Officer Project Review Coordination Group

/mw

cc: Jim McCracken, Regional Director (RD 99-092)

Ross Kreye, Water Resources Planner, Land and Water Management

Brian Clark, Regional Manager, FWHP

Chapman Creek Emergency Siphoning Proposal – Summary of information from similar 1999 proposal and impact Assessment

Following summary and comments by Joanna Hirner, Conservation Specialist, South Coast, BC Parks

August 19, 2015

Summary of 1999 floating pump station proposal and impact assessment:

In the late 1990s Sunshine Coast Regional District (SCRD) proposed installing a floating pump station at Chapman Lake, to expand capacity for drinking water while also ensuring adequate flows for fish downstream in Chapman Creek. Although the floating pump proposal differed from the current proposal in the mechanism of accessing additional water, the older proposal appears to have been very similar in potential impacts. For example, as with the current proposal, installing the floating pump station would have allowed for additional lake drawdown of up to 5 m. In 1999, Whitehead Environmental Consultants prepared an extensive impact assessment for this proposal on behalf of the SCRD and in accordance with the BC Parks Impact Assessment Process guidelines. The conclusion of the assessment was that the residual impacts of the proposed pumping system were acceptable in view of the ecological benefits of ensuring water flow downstream and the socioeconomic benefits of providing additional drinking water. The SCRD held public consultations and received comments from the public and other agencies on the project and impact assessment. Concerns included general impacts of additional drawdown on the ecology and aesthetics of the lake, the fuel used to power the pump and potential for spills, and the ability of the system to consistently function and ensure adequate flows for fish downstream. It is not clear from the files why the proposal to install a floating pump station was never implemented.

Other key pieces of information from the 1999 impact assessment relevant to the 2015 proposal:

1. Flows for fish: During the 1999 process, Fisheries and Oceans (and others) provided advice on minimum flow required to sustain fish populations in Chapman Creek. The following was recommended: 0.5 m³/s was the preferred minimum, 0.4 m³/s was an acceptable minimum, and the absolute lowest sustainable minimum was 0.3 m³/s. See Appendix 1 of Whitehead (1999) for letters from DFO and BC Ministry of Environment, Lands and Parks (MELP) that reference these recommendations. The floating pump proposal provided two options for minimum flows: Option 1 was 0.35 m³/s, and option 2 was 0.4 m³/s. DFO and MELP both identified Option 2 as preferred based on fish concerns. Following review of the 1999 impact assessment, both DFO and MELP provided comment letters (also attached).

The 2015 Section 8 *Water Act* application estimates that flow rates will be in the range of 440-500 L/s (0.44-0.5 m³/s) using the siphon. The application also provides some information about flow rates during the summer dry season in recent years: flow rates as low 100 L/s (0.1 m³/s) are reported, suggesting the siphon system could provide improved flow for fish during the summer dry season.

- 2. Consideration of a siphon during 1999 process: Use of a siphon system was considered as part of the 1999 impact assessment process. See p. 48 of Whitehead (1999) and attached letter from Dayton Knight Engineering Consultants. Several disadvantages of the siphon system were noted, including: the section of upper Chapman Creek between the dam and the siphon outflow would be dry, the long pipeline required for the siphon would likely require blasting and machinery access to upper Chapman Creek, and the need for monitoring the siphon for loss of prime and use of a standby pump to re-prime the siphon. The letter from Dayton Knight also references problems with "water column separation" that could cut off flows downstream. This information raises a couple of questions from me for SCRD and their consultants:
 - a. Are the issues and risks around potential failure of the siphon raised in 1999 adequately addressed in the current situation, by having a priming pump and fulltime operators on-site during siphon operations?
 - b. Will blasting and other forms of relatively intrusive construction be needed to install the pipes downstream of the dam?
- 3. Contingency planning for siphon failure: Finally, one of the concerns raised during the 1999 process is that if water levels in Chapman Lake are allowed to drop below current maximum drawdown, flow downstream of the dam will be completely dependent on the pump/siphon, and if the pump/siphon fails, downstream flow could stop completely with catastrophic effects for fish. So one other question for SCRD: are there contingency plans for the event of failure of the siphon, other than having operators continuously onsite to monitor siphon function?

Questions for SCRD:

- 1. In 1999 certain issues and risks were identified associated with the siphon option to extract additional water. Issues included: the section of upper Chapman Creek between the dam and the siphon outflow would be dry, the long pipeline required for the siphon would likely require blasting and machinery access to upper Chapman Creek, and the need for monitoring the siphon for loss of prime and use of a standby pump to re-prime the siphon. Potential problems with "water column separation" that could cut off flows downstream was also identified as a concern. This information raises a couple of questions for SCRD and their consultants:
 - a. Are the issues and risks around potential failure of the siphon raised in 1999 adequately addressed by having a priming pump and full-time operators on-site during siphon operations?
 - b. Will blasting and other forms of relatively intrusive construction be needed to install the pipes downstream of the dam?
- 2. One of the concerns raised during the 1999 process is that if water levels in Chapman Lake are allowed to drop below current maximum drawdown, flow downstream of the dam will be completely dependent on the pump/siphon, and if the pump/siphon fails, downstream flow could stop completely with catastrophic effects for fish. So one other question for SCRD: are there contingency plans for the event of failure of the siphon, other than having operators continuously on-site to monitor siphon function?
- 3. Will the operators need to be on-site only during periods when the water is below the dam (i.e. when the siphon would be required)?
- 4. Accommodation: What will be the footprint and impacts of the equipment staging area and accommodation area? What facilities will be required, and where will these facilities be located? Will a generator be required for the operators' accommodations? What habitat or vegetation values will be lost or affected by the accommodation and equipment staging areas?
- 5. How noisy is the pump and its generator? How often would the pump be required to operate? Are there mitigation measures to dampen the sound of the pump/generator? Same questions about noise would apply if a generator was proposed for the operators' accommodation.
- 6. Can the siphon pump be powered by something other than a diesel generator? I.e. something that is quieter and fueled by something less toxic in the event of a fuel spill? Can the operator's accommodation avoid using a generator?
- 7. How often will helicopters be going in and out of the site during the period where siphoning is required?

Draft recommendations for mitigation and conditions, for the Water Act Section 8 approval and/or Park Use Permit:

The Water Act Section 8 application references plans and programs for environmental management and monitoring, including water quality monitoring, environmental monitoring, emergency response planning for preventing and responding to spills of deleterious substances, and waste management including prevention of human wildlife conflicts. I would recommend that we ask that plans for these mitigation measures be developed as soon as possible and that BC Parks be given an opportunity to review and request changes to the plans if required. These plans should be informed by the 1999 Impact Assessment for the proposed floating pump station at Chapman Lake (Whitehead 1999) and appropriate best management practices, in particular the BC Standards and Best Practices for Instream Works

(http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf).

Environmental monitoring should be daily during installation and testing of the siphon, and equipment that could cause negative environmental impacts during operations, such as siphon intakes, pumps and generators, should be regularly inspected. The environmental monitor must have the authority to order suspension of work if necessary if significant negative environmental effects are occurring.

There may be public safety issues associated with hazardous shoreline conditions during periods of large drawdown, especially if steep lakebed topography is exposed. These should be assessed and, if deemed necessary, appropriate measures taken to ensure public safety.

The footprints associated with the areas for staging, installation and accommodation for operators should all be minimized. Foot and equipment traffic should be confined to designated lowest impact corridors or trails to minimize trampling impacts.

Some mitigation measures/conditions associated with noise and use of generators may be required, but depends on the details of what is being proposed.

Temporary impacts associated with equipment staging areas, siphon installation, and accommodations, should be restored as necessary.

The 1999 impact assessment recommended monitoring of the environmental impacts of increased drawdown of Chapman Lake. This included monitoring of water quality, fish and amphibians (as indicators of lake ecology), and riparian vegetation in and around Chapman Lake. I would recommend that SCRD undertake monitoring of these values if the siphon proposal is approved.

Recognizing that wildlife are sensitive to disturbance from helicopters, maintain an appropriate separation distance from animals (500 m line-of-sight is a recommended default) and take immediate action to increase separation distances if animals react to the helicopter.

RE: PUP 102714 amendment application

Friday, October 13, 2017 1:25 PM

Subject	RE: PUP 102714 amendment application
From	Dalziel, Rod ENV:EX
To	Hirner, Joanna ENV:EX
Sent	Friday, August 21, 2015 11:23 AM

Great thanks Joanna, I will include these points and fire off to Water folks and we can have further discussion when it comes to the PUP.

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

PO Box 950, 6451 Sechelt Inlet Road, Sechelt, BC V0N 3A0

2: Desk (604) 885-6755 Mobile (604) 741-1967 Fax (604) 885-2445

Rod.Dalziel@gov.bc.ca

Visit the BC Parks website @ bcparks.ca



BRITISH BC Parks

From: Hirner, Joanna ENV:EX

Sent: Friday, August 21, 2015 11:18 AM

To: Dalziel, Rod ENV:EX

Subject: Re: PUP 102714 amendment application

Hi Rod.

I just read the environmental monitoring program document that Monte provided with the PUP application. Otherwise the info provided for the PUP looks like it is the same as what was provided for the Water Act application.

From reading the environmental monitoring program doc, it looks to me like they aren't planning on providing us with any further detailed environmental management plans, which would make the first draft recommendation/condition I made on p. 2 of the attached no longer applicable. The plan provided in the document looks okay, but I thought there were a few things missing that we could address by including as conditions in the Water Act approval and/or PUP:

- Ensure equipment and machinery are in good operating condition (power washed), free of leaks, excess oil, and grease. No equipment refuelling or servicing should be undertaken within 30 m of any watercourse or surface water drainage.
- Ensure all hydraulic machinery entering a stream uses environmentally sensitive hydraulic fluids that are non-toxic to aquatic life and that are readily or inherently biodegradable.
- Keep a spill containment kit readily accessible onsite in the event of a release of a
 deleterious substance to the environment. Train onsite staff in its use. Immediately report
 any spill of a substance that is toxic, polluting, or deleterious to aquatic life of reportable
 quantities to the Provincial Emergency Program 24-hour phone line at 1-800-663-3456.
- Food and garbage associated with accommodation must be stored in bear-proof containers to prevent wildlife attraction. Garbage must be disposed of off-site and removed regularly to prevent odours and wildlife attraction.

The first three come directly from the Standards and Best Practices for In-stream works. The

fourth I made up (so feel free to edit or replace with something similar).

The monitoring program does not include a proposal for longer term monitoring of ecological impacts of drawdown, such as fish or vegetation monitoring, as was recommended in the 1999 assessment. Although this proposal is potentially more temporary than the 1999 proposal, it may still be reasonable to make a request for some longer-term impact monitoring; this would be a good point to discuss later with Chris and Jennie for possible inclusion in the Park Use Permit.

Bye for now, Joanna

Joanna Hirner (RPBio) Conservation Specialist BC Parks, South Coast Region 604-924-2228

From: Dalziel, Rod ENV:EX

Sent: Thursday, August 20, 2015 9:16 AM

To: Hirner, Joanna ENV:EX

Subject: FW: PUP 102714 amendment application

FYI...

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

PO Box 950, 6451 Sechelt Inlet Road, Sechelt, BC V0N 3A0

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BRITISH BC Parks

From: Monte Staats [mailto:Monte.Staats@scrd.ca]
Sent: Wednesday, August 19, 2015 4:34 PM

To: FrontCounter BC FLNR:EX

Cc: Dalziel, Rod ENV:EX; Platz, Chris ENV:EX; Bryan Shoji; Shane Walkey

Subject: PUP 102714 amendment application

Hi,

Please find attached our park use permit application for an amendment to the Sunshine Coast Regional Districts Park Permit #102714. We are requesting to amend our permit area at Chapman Lake in order to deploy an emergency siphon system into our primary drinking water storage reservoir (Chapman Lake) as our current available water supply is at risk of becoming fully depleted within the next 25 to 30 days due to the extreme drought conditions we have experienced this year. This is an urgent matter and we are hopeful to start this job within the next week.

The following documents are attached:

- Park use permit application form
- The development plan for the siphon
- Letter of support from the Sechelt Indian Band (email format)
- Engineering plans in the "Letter report.pdf" (originally designed for 300 mm siphon but pipe diameter has since been reduced to 200 mm for ease of install)
- Map of the proposed new permit area

- Environmental impact assessment for lake drawdown
- Proposed environmental monitoring program

If you have any questions, please let me know.

Thanks,

Monte Staats, MLWS

Environmental Technician Infrastructure Services Department **Sunshine Coast Regional District**

Tel: 604 885 6800 ext 6489

Fax: 604 885 7909

email: monte.staats@scrd.ca



Please consider the environment before printing this email

RE: Tetrahedron Park - SCRD PUP

Thursday, October 12, 2017 1:06 PM

Subject	RE: Tetrahedron Park - SCRD PUP
From	Dalziel, Rod ENV:EX
То	Coupar, Meghan FLNR:EX
Sent	Friday, August 21, 2015 3:54 PM

I just got off the phone with Chris actually. It would not be required in this case only for Recreation Permits as part of the advertisement process. Thanks Meghan.

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

PO Box 950, 6451 Sechelt Inlet Road, Sechelt, BC V0N 3A0

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Rod.Dalziel@gov.bc.ca

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BRITISH BC Parks

From: Coupar, Meghan FLNR:EX Sent: Friday, August 21, 2015 3:53 PM

To: Dalziel, Rod ENV:EX

Subject: RE: Tetrahedron Park - SCRD PUP

We think that the tab is there for the Area Supervisor to add the day the NOI is posted but we never

touch those tabs.

Sorry I can't be more helpful. Maybe Chris Platz would know?

Meghan Coupar

Parks Permit Clerk

FrontCounter BC - South Coast Regional Office South Coast, Haida Gwaii/South Island Sections

Tel: (604) 586-4439 Fax: (604) 586-4434

Toll Free: 1-877-855-3222

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From: Dalziel, Rod ENV:EX

Sent: Friday, August 21, 2015 3:35 PM

To: Coupar, Meghan FLNR:EX

Subject: RE: Tetrahedron Park - SCRD PUP

What was the "Post Notice of Intent" tab I clicked at the top of the Tech Review page? What does it do? Nothing popped up when I did so or gave options for providing info other than giving a posting date and option to remove or repost?

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

PO Box 950, 6451 Sechelt Inlet Road, Sechelt, BC V0N 3A0

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: Rod.Dalziel@gov.bc.ca

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From: Coupar, Meghan FLNR:EX Sent: Friday, August 21, 2015 3:31 PM

To: Dalziel, Rod ENV:EX

Subject: RE: Tetrahedron Park - SCRD PUP

I never done a Notice of Intent Advertisement, so I checked and we don't do them as a Permit Clerk.

Sorry!

Meghan Coupar

Parks Permit Clerk

FrontCounter BC - South Coast Regional Office South Coast, Haida Gwaii/South Island Sections

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appreciate your input.

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From: Dalziel, Rod ENV:EX

Sent: Friday, August 21, 2015 3:08 PM

To: Coupar, Meghan FLNR:EX

Subject: RE: Tetrahedron Park - SCRD PUP

Great thanks, Meghan. What do I need to do for Notice of Intent Advertisement?

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

: PO Box 950, 6451 Sechelt Inlet Road, Sechelt, BC V0N 3A0

: Desk (604) 885-6755 Mobile (604) 741-1967 Fax (604) 885-2445

(a): Rod.Dalziel@gov.bc.ca

Visit the BC Parks website @ bcparks.ca



BRITISH BC Parks

From: Coupar, Meghan FLNR:EX Sent: Friday, August 21, 2015 2:04 PM

To: Dalziel, Rod ENV:EX

Subject: RE: Tetrahedron Park - SCRD PUP

Hi Rod,

The amendment application is in EPUPS now, T #342040.

Thanks,

Meghan Coupar

Parks Permit Clerk

FrontCounter BC - South Coast Regional Office South Coast, Haida Gwaii/South Island Sections

Tel: (604) 586-4439 Fax: (604) 586-4434

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appreciate your input.

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From: Dalziel, Rod ENV:EX

Sent: Friday, August 21, 2015 11:20 AM

To: Coupar, Meghan FLNR:EX

Subject: RE: Tetrahedron Park - SCRD PUP

Hello Meghan,

The amendment application was submitted to FrontCounter at the end of the day on Wednesday. I am hoping to work on this permit today and over the weekend. Thanks for your support on making

this a priority. Cheers,

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

PO Box 950, 6451 Sechelt Inlet Road, Sechelt, BC V0N 3A0

2: Desk (604) 885-6755 Mobile (604) 741-1967 Fax (604) 885-2445

: Rod.Dalziel@gov.bc.ca

Visit the BC Parks website @ bcparks.ca



BRITISH BC Parks

From: Coupar, Meghan FLNR:EX Sent: Friday, August 14, 2015 3:13 PM

To: Dalziel, Rod ENV:EX
Cc: Myketa, Donna FLNR:EX

Subject: RE: Tetrahedron Park - SCRD PUP

Hi Rod,

Thank you for the heads up, I will watch for their amendment application and make sure that it is one of my top priorities.

The only delays that might come up are the films, they seem to be picking up again.

Just so you know, I'll be away on Monday and back on Tuesday. If anything comes in while I'm away, I'll make sure to take care of it on Tuesday morning.

Thanks,

Meghan Coupar

Parks Permit Clerk

FrontCounter BC - South Coast Regional Office South Coast, Haida Gwaii/South Island Sections

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From: Dalziel, Rod ENV:EX

Sent: Friday, August 14, 2015 1:48 PM

To: Coupar, Meghan FLNR:EX

Subject: Tetrahedron Park - SCRD PUP

Hello Meghan,

I just wanted to give you heads up. Due to the extreme drought conditions on the Sunshine Coast the Sunshine Coast Regional District (SCRD) will be submitting an amendment application to their PUP #102714 to allow for additional draw down of Chapman Lake within Tetrahedron Park. I expect this to be submitted very soon. I am hoping we will be able to put a very high priority on processing this application. Please let me know if you foresee any issues with this.

Cheers,

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

PO Box 950, 6451 Sechelt Inlet Road, Sechelt, BC V0N 3A0

2: Desk (604) 885-6755 Mobile (604) 741-1967 Fax (604) 885-2445







August 21, 2015 Approval File: 2003865

Monte Staats Sunshine Coast Regional District 1975 Field Road Sechelt, BC, V0N 3A1

Dear Sir/Madam:

Re: Short Term use of Water - Approval 2003865 - on Chapman Lake

Your application of August 14, 2015 for Short Term Use of Water has been granted and the approval document verifying this is attached. This approval or a copy of it should be kept at the work site so that it may be shown to a government official upon request.

This document represents the terms and conditions under which the Province is prepared to approve your application for short term use of water but it does not relieve you of any legal obligations under other local government, provincial or federal legislation.

Should you encounter any difficulties meeting the requirements as set out in this approval, or should it be necessary to amend the approval, please contact this office prior to any work or diversion of water.

The eastern end of the Chapman Lake is to be monitored for potential stream or lakebed responses resulting from changes to the water levels and precipitation events; this may be done as part of the Environmental Monitor weekly visit.

You are to prepare a plan for maintaining or removing the siphon works installed under this Approval. All works associated with the siphon diversion are to be maintained or removed in accordance with a plan to the satisfaction of the Regional Water Manager.

You are required to report the volume of water diverted under this Short Term Use of Water Approval. Based on the volume of water diverted via the siphon, additional Short Term Use of Water fees may be requested from the Sunshine Coast Regional District.

If the event of an incident or failure of the siphon, you are referred to the S.38 of the Fisheries Act, in which you have the Duty to Notify the Department of Fisheries and Oceans.

Major changes to the August 2015 construction plan, such as blasting, cut slopes, infill of land, must be approved by the Regional Water Manager.

You are requested to forward lake levels to the shishall Nation, such that they can arrange for a Preliminary Field Reconnaissance of the exposed lake bed.

(604) 586-4444

A right of appeal from this decision lies to the Environmental Appeal Board. Notice of any appeal must:

- 1. Be in writing;
- 2. Include grounds for the appeal;
- 3. Be directed by registered mail or personally delivered to:

Chair, Environmental Appeal Board PO Box 9425 STN PROV GOVT Victoria BC V8W 9V1

- 4. Be delivered within 30 days from the date notice of the decision is given, and;
- 5. Be accompanied by a fee of \$25, payable to the Minister of Finance.

If you have any questions or concerns please contact the Water Information Technician at 604-586-4400.

Yours truly,

Remko Rosenboom, M.Sc., A.Ag. Assistant Regional Water Manager

Enclosure



Water Act

File: 2003865

APPROVAL WATER ACT - SECTION 8 (1) (Short Term Use of Water)

Sunshine Coast Regional District

is hereby authorized to divert and use water in the following manner:

- (a) The source of the water is Chapman Lake.
- (b) The purpose for which the water may be used is waterworks (local authority).
- (c) The land to which the water is to be used, and to which this approval is appurtenant, is the land within the boundaries of the Sunshine Coast Regional District.
- (d) The point of diversion is located near the outlet of Chapman Lake.
- (e) The works authorized are screened intakes, pipes, valves, priming pumps, lock block anchors.
- (f) The maximum quantity of water which may be diverted is 1,000,000 cubic meters in total at a maximum rate of 0.5 cubic meters per minute.
- (g) The period during which the water may be used is from August 24, 2015 to August 23, 2016.
- (h) The holder of this Approval shall take reasonable care to avoid damaging any land, works, trees or other property, and shall make full compensation to the owners for any damage or loss resulting from the exercise of the rights granted with this Approval.
- This Approval does not authorize entry onto privately held land.
- (j) This Approval does not constitute authority of any other agency.
- (k) The holder of this Approval shall retain a qualified Environmental Monitor to monitor Chapman Lake and Chapman Creek while water is being diverted under this Approval. In the event of an environmental incident or non-compliance with any of the terms or conditions of this Approval, the Environmental Monitor shall notify the Assistant Regional Water Manager (604-586-4400), within 24 hours.

File: 2003865

- (I) All works shall comply with "Section 8 Development Plan Short Term Water Use," prepared by Sunshine Coast Regional District, dated August 14, 2015, and "Emergency Water Supply at Chapman Lake," prepared by Opus DaytonKnight Consultants, dated August 13, 2015, and "Environmental Monitoring Plan – Siphon System at Chapman Lake," prepared by Sunshine Coast Regional District.
- (m) The discharge location of the siphon must be constructed, maintained and used so as not to obstruct the flow of water in the stream or to cause erosion or scour in the stream (streambank).
- (n) A spill containment kit and drip tray must be readily accessible on-site.
- (o) An as-built report (photos, construction markup) must be provided to the Regional Water Manager, within 30-days of completing the installation of the siphon works.
- (p) A copy of this Approval must be available for inspection, upon request, at the siphon works.
- (q) All works associated with the siphon diversion are to be maintained or removed in accordance with a plan to the satisfaction of the Regional Water Manager.
- (r) The holder of this Approval must provide a weekly report to the satisfaction of the Regional Water Manager, the report shall containing the following:
 - (i) The Environmental Monitor report of his visit to Chapman Lake;
 - (ii) The water quality parameters (turbidity, temperature, pH, conductivity, and colour) as measured at the SCRD Point of Diversion, or at a specified location on Chapman Creek or Chapman Lake;
 - (iii) The weekly water levels of Chapman Lake; and
 - (iv) The volume of water diverted via the siphon during this time period, and the accumulated volume to date.
- (s) The diversion of water authorized under this Approval may be restricted, prohibited, cancelled or suspended, at any time by an order in writing by the Regional Water Manager.
- (t) All work shall be carried out in accordance with the Ministry of Environment's "Standards and Best Practices for In-stream Works". The Ministry's guidance can be found at the following link: http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf
- (u) The intake must be screened to prevent the entry of fish and amphibians. For further guidance, you may refer to the Fisheries and Oceans "Freshwater Intake

File: 2003865

End-of-Pipe Fish Screen Guideline" at the following link: http://www.dfo-mpo.gc.ca/Library/223669.pdf.

(v) The holder of this Approval is required to adhere to all other applicable Federal and Provincial Regulations.

> Remko Rosenboom, M.Sc., A.Ag. Assistant Regional Water Manager

File: 2003865 Date issued: August 21, 2014 Approval: 2003865



PARK USE PERMIT

LAND USE / OCCUPANCY

This Park Use Permit No. **102714** (the "Permit") is issued under the authority of the *Park Act*

(the "Park")

See "Management Plan Schedule, Permit Area Description" for a complete list of Parks and Protected Areas

FROM:

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA, represented by the Minister responsible for the *Park Act* (the "Province") at the following address:

TO:

Sunshine Coast Regional District

(the "Permittee") at the following address:

Ministry of Environment BC Parks South Coast Region 200 - 10470 - 152nd Street Surrey BC V3R 0Y3 1975 Field RD Sechelt, BC V0N 3A1

THE PROVINCE AND THE PERMITTEE AGREE AS FOLLOWS:

ARTICLE I - GRANT OF PERMIT

1.01 The Province, on the terms and conditions of this Permit, grants to the Permittee permission to enter upon and use that part of the Park (the "Permit Area") described, and for the purposes described, in the Management Plan Schedule.

ARTICLE II - TERM

2.01 The duration of this Permit is for a term of 10 years commencing on February 1, 2014 (the "Commencement Date") and ending on January 31, 2024 (the "Expiration Date"), unless cancelled, terminated or renewed in accordance with the terms and conditions of this Permit.

ARTICLE III - FEES

- 3.01 The Permittee must pay to the Province a minimum fee (the "Permit Fee") of \$500.00 (plus applicable taxes) prior to Commencement date and on each anniversary of the commencement date during the term of this Permit.
- 3.02 The Province may, by notice to the Permittee not less than 30 days prior to each anniversary of the Commencement Date, increase the Permit Fee to an amount solely determined by the Province at its discretion, and the Permittee must pay the increased amount.
- 3.03 The Permittee must pay interest to the Province on money payable by the Permittee and owing to the Province under this Permit, at the rate of interest prescribed by the Financial Administration Act in respect of money owing to the Province, which interest will be calculated from the date that the money becomes payable to the Province.

ARTICLE IV - INDEMNITY

4.01 The Permittee will indemnify and save harmless the Province, its servants, employees and agents against all losses, claims, damages, actions, costs and expenses that the Province, its servants, employees and agents may sustain, incur, suffer or be put to at any time arising, directly or indirectly, from any act or omission of the Permittee, its employees, agents, contractors and licensees under this Permit, except for any liability arising from any independent, negligent act of the Province.

ARTICLE V - SECURITY AND INSURANCE

- 5.01 On the Commencement Date, you will deliver to us Security in the amount of which will: Not Required
 - (a) guarantee the performance of your obligations under this Permit;
 - (b) be in the form required by us; and
 - (c) remain in effect until we certify, in writing, that you have fully performed your obligations under this Permit.
- 5.02 Despite section 5.01, your obligations under that section are suspended for so long as you maintain in good standing other security acceptable to us to guarantee the performance of your obligations under this Permit and all other Dispositions held by you.
- 5.03 We may use the Security for the payment of any costs and expenses incurred by us to perform any of your obligations under this Permit that are not performed by you and, if such event occurs, you will, within 30 days of that event, deliver further Security to us in an amount equal to the amount drawn down by us.
- 5.04 After we certify, in writing, that you have fully performed your obligations under this Permit, we will return to you the Security maintained under section 5.01, less all amounts drawn down by us under section 5.03.
- 5.05 You acknowledge that we may, from time to time, notify you to
 - (a) change the form or amount of the Security; and
 - (b) provide and maintain another form of Security in replacement of or in addition to the Security posted by you under this Permit;

and you will, within 60 days of receiving such notice, deliver to us written confirmation that the change has been made or the replacement or additional form of Security has been provided by you.

5.06 You must

- (a) without limiting your obligations or liabilities under this Permit, at your expense, effect and keep in force during the Term the following insurance with insurers licensed to do business in Canada:
 - (i) Commercial General Liability insurance in an amount of not less than two million dollars \$2,000,000.00 inclusive per occurrence insuring against liability for personal injury, bodily injury (including death) and property damage, including coverage for all accidents or occurrences on the Permit Area or any improvements. Such policy will include cross liability, liability assumed under contract, provision to provide 30 days advance notice to us of material change or cancellation, and include us as an additional insured; See Attached Schedule
- (b) ensure that all insurance required to be maintained by you under this Permit is primary and does not require the sharing of any loss by any of our insurers;
- (c) within 10 working days of the Commencement Date of this Permit, provide to us evidence of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";
- (d) if the required insurance policy or policies expire or are cancelled before the end of the Term of this Permit, provide within 10 working days of the cancellation or expiration, evidence of new or renewal policy or policies of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";

- (e) notwithstanding subsections (c) or (d) above, if requested by us, provide to us certified copies of the required insurance policies to be maintained by you under this Permit.
- 5.07 We may, acting reasonably, from time to time, require you to
 - (a) change the amount of insurance set out in subsection 5.06(a); and
 - (b) provide and maintain another type or types of insurance in replacement of or in addition to the insurance previously required to be maintained by you under this Permit;
 - and you will, within 60 days of receiving such notice, cause the amounts and types to be changed and deliver to us a completed "Province of British Columbia Certificate of Insurance" for all insurance then required to be maintained by you under this Permit.
- 5.08 You shall provide, maintain, and pay for any additional insurance which you are required by law to carry, or which you consider necessary to insure risks not otherwise covered by the insurance specified in this Permit in your sole discretion.
- 5.09 You waive all rights of recourse against us with regard to damage to your own property.

ARTICLE VI - COVENANTS OF THE PERMITTEE

6.01 The Permittee must:

- pay the Permit Fee and other money payable under this Permit when due at the address of the Province first written above or at such place as the Province may specify from time to time;
- (b) pay when due all taxes, levies, charges and assessments that relate to operations of the Permittee under this Permit;
- (c) comply with all laws, bylaws, orders, directions, ordinances and regulations of any competent governmental authority in any way affecting the Permit Area, the Park, its use and occupation or the Permittee's operations under this Permit;
- (d) advise its employees, contractors, licensees, and agents of the laws and regulations respecting provincial parks and recreation areas and the conditions of this Permit respecting conduct in the permit Area:
- (e) keep the Permit Area in a safe, clean and sanitary condition to the satisfaction of the Province and make safe, clean and sanitary any portion of the Permit Area that the Province may direct by notice in writing to the Permittee;
- (f) remove from the Permit Area and the Park all garbage, debris and effluent resulting from its use of the Park and Permit Area under this Permit, except as otherwise permitted in the Management Plan Schedule;
- (g) comply with all orders and directions made, verbally or in writing, by a park officer (as defined in the Park Act) relating to the Park, this Permit or the Permit Area;
- (h) not construct, erect, place, repair, maintain or alter any building, fixture, equipment, structure or improvement in the Permit Area except as may be permitted by this Permit or with the prior written consent of the Province;
- (i) take all reasonable precautions to prevent and suppress fires in the Permit Area;
- (j) not interfere with free public access through, across and upon the Permit Area, unless otherwise specified in the Management Plan Schedule;
- (k) not interfere with or disrupt the activities and operations of other Permittee's or users in the Park;
- (I) use and occupy the Permit Area only in accordance with the provisions of this Permit;
- (m) not remove, destroy, damage, disturb or exploit any natural resource (as that term is defined in the Park Act) or any archaeological or cultural artefact found in or on the Permit Area except as may be permitted by this Permit, and only then in accordance with the Park Act and all other applicable laws;

- (n) not commit or allow any wilful or voluntary waste, damage or destruction in or upon the Permit Area;
- pay for or repair, as determined by the Province, any damage caused to the property of the Province by the Permittee, its employees, agents, contractors, or licensees;
- (p) upon the expiration, cancellation or termination of this Permit:
 - (i) peaceably guit and deliver up possession of the Permit Area to the Province,
 - (ii) remove all chattels and improvements of the Permittee from the Permit Area within 30 days of the expiration, cancellation or sooner termination of this Permit, unless otherwise advised in writing, by the Province,
 - (iii) deliver to the Province possession of all equipment, furnishings, fixtures, chattels and improvements owned by the Province in a state of good repair and working order, and
 - (iv) restore the Permit Area to the satisfaction of the Province;
 - (v) and to the extent necessary, this covenant will survive the expiration, cancellation or termination of this Permit; and
- (q) comply with all provisions of the schedules to this Permit.

ARTICLE VII - RIGHTS OF THE PROVINCE

- 7.01 The Province retains all rights in respect of the Park and Permit Area which are not expressly granted to the Permittee under this permit, including, without limitation:
 - (a) the right at all times for the Province, its authorized representatives, employees, and agents to have unimpeded access over and along all portions of the Permit Area and to inspect any portions of the Permit Area;
 - (b) the right at all times to construct, repair, alter and maintain buildings, equipment, structures and improvements upon the Permit Area; and
 - (c) the right to grant further rights in respect of the Park and Permit Area, provided that such rights do not unreasonably impede, obstruct or compete with the rights of the Permittee under this Permit.

ARTICLE VIII - NOTICE

- 8.01 Any notice required to be given by either party to the other will be deemed to be given if it is in writing and is delivered by hand or prepaid registered mail to the address first written above or any other address that may be specified in writing by a party and a notice will be deemed to be delivered, if mailed, eight days after the time of mailing except, in the case of a postal interruption, actual receipt is required.
- 8.02 Notwithstanding section 8.01, any written notice to be given by the Province to the Permittee under this Permit will be effectively given if it is posted in a conspicuous place on the Permit Area.

ARTICLE IX - RENEWAL

- 9.01 Not later than 140 days prior to the Expiration Date, the Permittee may, by notice in writing delivered to the Province, apply to the Province for a renewal of this Permit.
- 9.02 Provided that the Permittee is not in default under this Permit and subject to the terms of the *Park Act*, the Province may renew this Permit upon the terms and conditions determined by the Province.
- 9.03 The Permittee acknowledges that nothing in this Permit obligates the Province to renew this Permit and the Province's decision in that respect is entirely within its discretion

ARTICLE X - TRANSFER

- 10.01 The Permittee must not assign, transfer, sublicence or grant any of the rights or privileges granted by this Permit without the prior written consent of, and on the terms and conditions determined by, the Province.
- 10.02 If the Permittee is a corporation then a change in the control (as that term is defined in subsection 2(3) of the Business Corporations Act) of the Permittee without the prior written consent of the Province is deemed to be a breach of section 10.01.

ARTICLE XI - CANCELLATION

11.01 In the event that

- (a) the Permittee defaults in the payment of the Permit Fee or other money payable under this Permit, and the default continues for 7 days after the giving of written notice of the default by the Province to the Permittee;
- (b) the Permittee fails to perform or observe any of the terms or conditions of this Permit, other than the payment of money, and the failure is not remedied within a period specified by the Province;
- (c) the Permittee has wilfully misrepresented information:
 - (I) on the application form which led to the granting of this Permit, or
 - (ii) required to be provided under the terms and conditions of this Permit;
- (d) the Permit Area is damaged or destroyed by any cause whatsoever;
- (e) the Park is closed by the Province;
- (f) the Permittee files a petition in bankruptcy, is adjudged bankrupt, is petitioned into bankruptcy, makes an assignment for the benefit of its creditors, becomes insolvent or takes the benefit or protection of any statute for bankrupt or insolvent debtors;
- (g) any of the Permittee's assets is seized in execution from the Permit Area;
- the Permittee, its employees, agents, contractors or licensees performs any act which in the opinion of the Province, affects the good standing or reputation of the Park, or adversely affects any other permit holder or park user within the Park;

the Province may cancel this Permit immediately by written notice to the Permittee.

- 11.02 In the event that the Permittee and the Province mutually agree in writing to terminate this Permit, the parties will be released and discharged from their obligations under this Permit, except as otherwise provided in this Permit.
- 11.03 The obligation of the Permittee
 - (a) to pay the Permit Fee and other money payable under this Permit; and
 - (b) to comply with Sections 4.01, 6.01(e), 6.01(o) and 6.01(p);

will survive the expiration, cancellation or termination of this Permit.

11.04 The Permittee will not be entitled to any compensation from the Province, in damages or otherwise, in respect of a cancellation or termination of this Permit.

ARTICLE XII - MISCELLANEOUS

- 12.01 This Permit may be inspected by the public at such times and at such places as the Province may determine.
- 12.02 Time is of the essence in this Permit.
- 12.03 Nothing in this Permit will be considered to have been waived by the Province unless such waiver is in writing.

- 12.04 During the term of this Permit, the Permittee will be an independent contractor and not the agent, employee or partner of the Province.
- 12.05 The Province will not be liable for any loss, damage, cost or expense resulting from the destruction of or damage to the Permittee's property or a disruption of the Permittee's operations under this Permit which result from strikes, flooding or other acts of God, vandalism, or any other interference to the Permittee's operation or property.

ARTICLE XIII- INTERPRETATION

- 13.01 In this Permit, unless the context otherwise requires, the singular includes the plural and the masculine includes the feminine, a corporation and body politic.
- 13.02 The captions and headings contained in the Permit are for convenience only and are not to be construed as defining or in any way limiting the scope or intent of the provisions of this Permit.
- 13.03 In this Permit, a reference to an enactment of the Province of British Columbia or of Canada includes a reference to any subsequent enactment of like effect, and unless the context otherwise requires, all statutes referred to in this Permit are enactments of the Province of British Columbia.
- 13.04 If any part of this Permit is found to be illegal or unenforceable, that part will be considered separate and severable and the remaining parts will be enforceable to the fullest extent permitted by law.
- 13.05 If all or part of the Permit Area is in a recreation area established or continued under the *Park Act*, this Permit is deemed to be a resource use permit as that term is defined in the *Park Act*.
- 13.06 All schedules to this Permit form an integral part of this Permit.

IN WITNESS WHEREOF the parties have duly executed this Permit.

SIGNED and DELIVERED on behalf of the Province by a duly authorized representative of the Province.

[Sign]image:WordInterfaceSignatureImgObjId Duly Authorized Representative	
Print Name	
Regional Director	
Print Title	
[Sign]WordInterfaceCurrentDate	
Date	

MANAGEMENT PLAN SCHEDULE

PERMIT AREA DESCRIPTION

The Permittee is authorized to enter the Permit Area described below and outlined on the attached maps.

Permit Area Overview Map

- Tetrahedron Park
 - Area adjacent to the outlet of Chapman Lake
 - . Area adjacent to the outlet of Edwards Lake

Copyright

Chapman Lake Permit Area

Copyright

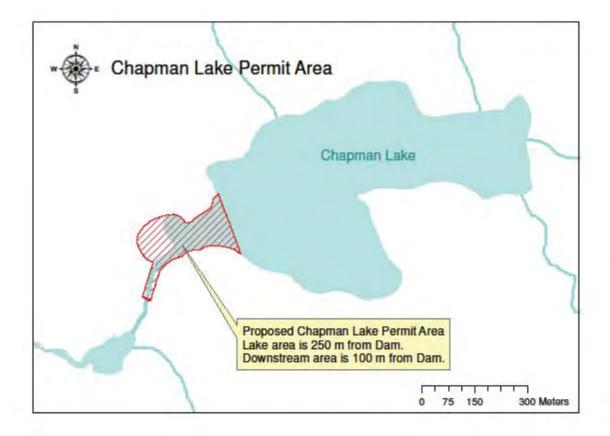


Edwards Lake Permit Area

Copyright



Temporary Chapman Lake Permit Area



FEE(s)

Protected Land: Tetrahedron Park

Base Facility:

Activities: Water Impoundments (dams and dykes)

Purpose: Rights of way and miscellaneous land use without structures - The use of a

defined area for a powerline, telephone line, pipeline or other service or utility right of way and other miscellaneous land use without structures - Company or local

government. Fee charged for this purpose is for each protected land.

Fee Description: \$500 or \$60 per hectare whichever is greater

Schedule K Ref: Part 3, Column 2, Item 4(b)

Fees:

Item	Number	Rate	Total
Minimum Fee	1	\$500.00	\$500.00
Hectares	- 0	\$60.00	\$60.00
Sub Total (based	on Fee Description	above).	\$500.00

Sub Total: \$500.00

Minimum Fee Required: \$500.00

(plus applicable taxes)

SPECIAL PROVISIONS

Purpose

This Permit is issued to the Permittee for the purpose of maintaining water impoundment infrastructure at Chapman and Edwards Lake and helicopter pad at Chapman Lake in Tetrahedron Park.

2. Permittee Designated Representative

The Permittee appoints the following representative to be responsible for liaison between BC Parks and the Permittee:

Name: Bryan Shoji Telephone: 604 885 6800 Fax: 604 885 7909

Email: Bryan.shoji@scrd.ca

BC Parks Representative(s):

Park, Protected Area or Conservancy Name	Area Supervisor	Phone	Email
Tetrahedron Park	Rod Dalziel	604-885-6755	Rod.Dalziel@gov.bc.ca

4. Conditions of Term

This permit shall be deemed valid until such time that it has expired under Article 2.01 and that water licences described above are valid and in good standing and that activities carried out are permitted under:

- (a) the conditional water licences and;
- (b) this permit.

5. Water Regulations

All activities relating to maintaining water impoundment structures and regulating water levels must be in accordance with the *Water Act*.

6. Flight Access

- (a) The use of a helicopter for access to the structures is acceptable. The Permittee shall notify BC Parks as early as feasibly possible prior to any flights into Tetrahedron Park so that BC Parks may utilize available space or service of the helicopter for park operation purposes.
- (b) If the Permittee chooses to use a helicopter company to access the structure the Permittee will cause any Person/Sub-licensee providing aviation services related to the Permittee's performance of this Permit to carry, and to provide evidence to the Province of their compliance with this requirement, Aviation Liability insurance on all aircraft operated or used in the performance of this Permit insuring against bodily injury, property damage, and passenger liability, in an amount not less than the limits of liability imposed by any Canadian Aviation Regulation and in any event not less than a per occurrence combined single limit of:

- (i) \$3,000,000 for aircraft up to 5 passenger seats, or
- (ii) \$3,000,000 plus \$1,000,000 for each additional passenger seat for aircraft up to 10 passenger seats, or
- (iii) \$10,000,000 for aircraft over 10 passenger seats;

and this insurance must:

- (i) Include the Province and the Permittee as additional insureds;
- (ii) be endorsed to provide the Province and the Permittee with 30 days advance written notice of cancellation or material change; and
- (iii) include a cross liability clause;

Report Requirements

The Permittee shall provide the Province with a report, due upon the anniversary date of the Permit, describing all activities undertaken as a result of this Permit for the previous year. Please submit this report to the following address:

Ministry of Environment PASB – Park Use Permits PO Box 9371 Stn Prov Govt Victoria BC V8W 9M3 Fax: 250-387-1695

9. Safety Regulations

The Permittee shall be responsible for all WorkSafeBC regulations and staff safety program and plans for all its staff and sub-contractors utilizing the Park to conduct activities authorized by this permit.

10. Renewal

It is understood by BC Parks and the Sunshine Coast Regional District that this permit shall be renewed pending a review of the terms of this Management Plan Schedule and providing the Sunshine Coast Regional District continues to require water management and structures outlined in this permit and the conditional water licences.

11. Temporary Permit Amendment Conditions

(a) Term

The conditions of the temporary permit amendment will be valid during the period from permit approval until 2 weeks (14 days) following the expiry of the of the "Section 8 application - 100140509 – Short Term Water Use on Chapman Lake - Approval 2003865" on 23 August 2016. Therefore the temporary permit amendment will expire on 06 September 2016.

- (b) All works and monitoring shall be conducted as described in BC Standards and Best Practices for Instream Works (http://www.env.gov.bc.ca/wld/documents/bmp/iswstdsbpsmarch2004.pdf) and should be informed by the 1999 Impact Assessment for the proposed floating pump station at Chapman Lake (Whitehead 1999) and shall comply with "Section 8 Development Plan – Short Term Water Use" prepared by Sunshine Coast Regional District, dated 14 August 2015 and "Emergency Water Supply at Chapman Lake" prepared by Opus DaytonKnight Consultants, dated 13 August 2015 and "Environmental Monitoring Plan – Siphon System at Chapman Lake" prepared by Sunshine Coast Regional District.
- (c) Temporary additional infrastructure

- I. This will include equipment and materials required to access the additional water drawdown of Chapman Lake as permitted under the "Section 8 application 100140509 Short Term Water Use on Chapman Lake Approval 2003865" which will include pipes, intakes, valves, screens, lock blocks, pumps, small dock, rowboat, ladders, containment unit (fuel, pumps and equipment) as described in the Section 8 Development Plan (August 14, 2015).
- ii. Any amendments to this plan must be approved by the Area Supervisor.

(d) Temporary accommodation area

- The temporary accommodation will be constructed for use by the installation crew and the 24/7 onsite 2 person operator crew.
- The temporary accommodation area will include a tent, eating area, food and garbage storage and a portable toilet.
- iii. The location of temporary accommodation area must be approved by the Area Supervisor,
- iv. The temporary accommodation area facilities shall be removed when no longer required for the season to the satisfaction of the Area Supervisor.

(e) Environmental Monitor

- The Permittee shall retain a qualified Environmental Monitor to monitor Chapman Lake and Chapman Creek.
- ii. The Environmental Monitor shall be onsite during construction phase and weekly thereafter until lake water levels have returned to levels where the siphon is no longer required and in use.
- The environmental monitor must have the authority to order suspension of work if necessary if significant negative environmental effects are occurring.
- (f) Equipment that could cause negative environmental impacts during operations, such as siphon intakes, pumps and generators, should be regularly inspected.
- (g) Ensure equipment and machinery are in good operating condition (power washed), free of leaks, excess oil, and grease.
- (h) All pumps and fuel will be contained in spill proof containment unit.
- (i) Equipment refuelling or servicing must be undertaken within the spill proof containment unit.
- (j) Ensure all hydraulic machinery uses environmentally sensitive hydraulic fluids that are non-toxic to aquatic life and that are readily or inherently biodegradable.
- (k) Keep a spill containment kit readily accessible onsite in the event of a release of a deleterious substance to the environment. Train onsite staff in its safe and proper use. Immediately report any spill of a substance that is toxic, polluting, or deleterious to aquatic life of reportable quantities to the Provincial Emergency Program 24-hour phone line at 1-800-663-3456.
- The footprints associated with the areas for staging, installation and accommodation areas should all be minimized.
- (m) Foot and equipment traffic should be confined to designated lowest impact corridors or trails to minimize trampling impacts.
- (n) Recognizing that wildlife are sensitive to disturbance from helicopters, maintain an appropriate separation distance from animals (500 m line-of-sight is a recommended default) and take immediate action to increase separation distances if animals react to the helicopter.
- (o) Food and garbage associated with accommodation must be stored in bear-proof containers to prevent wildlife attraction. Garbage must be disposed of off-site and removed regularly to prevent odours and wildlife attraction.

(p) Monitoring

- As identified in the Whitehead 1999 Impact Assessment monitoring of the following values will be conducted - water quality, fish and amphibians (as indicators of lake ecology), and riparian vegetation in and around Chapman Lake.
- ii. .

(q) Reporting

- The Permittee will provide to BC Parks a report of monitoring activities and results from Special Provision 11.(p).
- The Permittee will provide to BC Parks the EM reports as identified in "Environmental Monitoring Plan – Siphon System at Chapman Lake" prepared by Sunshine Coast Regional District.
- iii. The Permittee will provide to BC Parks a copy of the Preliminary Field Reconnaissance for archaeology report.

(r) Removal and restoration

- Removal of temporary additional infrastructure must be completed by 06 September 2016 to the satisfaction of the Area Supervisor.
- Restoration of the temporary permit area must be completed to the satisfaction of the Area Supervisor.

MINISTRY OF ENVIRONMENT INFORMATION NOTE

August 18, 2015 File: 280-20 CLIFF/tracking #: 289031

PREPARED FOR: Honourable Mary Polak, Minister of Environment.

ISSUE: Sunshine Coast Regional District's Request for Permit Amendment to Implement Emergency Water Measures in Tetrahedron Park.

BACKGROUND:

On August 13, the Sunshine Coast Regional District (SCRD) advanced to Level 4 water restrictions due to the extreme drought conditions and water shortages on the Sunshine Coast. Gray and Chapman creeks, both of which have headwaters in Tetrahedron Park, are the principal sources of domestic drinking water to coastal communities within the SCRD, including Sechelt and Gibsons. Water is drawn from a system of alpine lakes that are within the park, including Chapman Lake and Edwards Lake.

Tetrahedron Park was established in part to preserve the watershed and community water supply. The park management plan supported the continued use of the park's alpine lakes for this purpose. Consistent with the park management plan, the SCRD maintains infrastructure on Chapman and Edwards lakes in Tetrahedron Park under a park use permit (land use occupancy). They also have a water license under the *Water Act* which authorises the volume of their water removal.

According to the SCRD, the available supply at Chapman Lake is nearly exhausted and the Regional District has been supplementing with supply from Edwards Lake. The SCRD estimates there to be approximately 38 days of available supply remaining between Chapman and Edwards lakes as of August 14, 2015.

SCRD approached the Water Stewardship Branch (FLNRO) and BC Parks for amendments to their water license and park use permit, to expand their infrastructure in the park. Specifically, SCRD would like to install and employ a siphon system, to be installed on a float in Chapman Lake, to draw additional water from the lake system.

SCRD are applying for a temporary amendment to their water license to remove an additional 1,000,000 m³, through a *Water Act*, Section 8 Approval for short term use of water. This volume is expected to provide approximately 45 more days of available water to the community water supply. If fully used this is estimated to result in an additional 5-metre drop in Chapman Lake water levels. Under current use, the lake level has dropped 3 metres out of 32-metre total lake depth.

DISCUSSION:

The SCRD have confirmed they have exhausted all other options, and this would be a temporary emergency measure to sustain the community water supply. Regional staff are reviewing the information they have provided as part of their *Water Act* Section 8 application.

Regional staff have also been in discussions with SCRD and FLNRO regarding options, ecological impacts including fisheries impacts, and other considerations. The Chapman and Gray creeks, which flow out of Tetrahedron Park, support anadromous species below impassable barriers outside of park boundaries. Fish hatcheries are located at the outlets of both creeks, and rely on consistent water quality and quantity to support their continued operation. Staff at the Water Stewardship Branch have identified that the main concerns are centered around being able to supply sufficient water supply to Chapman Creek to conserve fisheries values while sustaining drinking water to SCRD.

In the late 1990s the SCRD proposed installing a floating pump station at Chapman Lake, to expand capacity for drinking water while also ensuring adequate flows for fish downstream in Chapman Creek. Although the floating pump proposal differed from the current proposal in the mechanism of accessing additional water, the older proposal appears to have been very similar in potential impacts. For example, as with the current proposal, installing the floating pump station would have allowed for additional lake drawdown of up to 5 metres. In 1999, Whitehead Environmental Consultants prepared an extensive impact assessment for this proposal on behalf of the SCRD and in accordance with the BC Parks Impact Assessment Process guidelines. The conclusion of the assessment was that the residual impacts of the proposed pumping system were acceptable in view of the ecological benefits of ensuring water flow downstream and the socioeconomic benefits of providing additional drinking water. The SCRD held public consultations and received comments from the public and other agencies on the project and impact assessment. Concerns included general impacts of additional drawdown on the ecology and aesthetics of the lake, the fuel used to power the pump and potential for spills, and the ability of the system to consistently function and ensure adequate flows for fish downstream from the Department of Fisheries and Oceans. Prior to the issue being resolved, local government elections occurred and the new regional district members decided to abandon the proposal and instead focus on water conservation efforts.

BC Parks is anticipating the SCRD will be submitting a park use permit amendment application this week. SCRD has indicated they will need to have their authorizations in place to begin the installation of the siphon system by the end of August 2015. The park is a Class A park, and amending the existing permit to allow additional activities may not be allowed under *Park Act* authorities.

The Tetrahedron Advisory Committee is aware of the SCRD's plans and has voiced concerns over further drawdown of the lake. It is possible their members may take their concerns to the media.

s.16

NEXT STEPS:

Regional staff will review the permit amendment application, and will put forward a recommendation to the Regional Director pending completion of the adjudication of the Section 8 *Water Act* approval with a target to have a decision by the end of August.

Contact: Alternate Contact: Prepared by:

Jim Standen, Assistant Bob Austad, Executive Jennie Aikman, Regional Director

Deputy Minister Director

BC Parks and Regional Operations, BC South Coast Region

Conservation Officer Parks

Service

(250) 387-1288

(250) 356-9241

(604) 924-2227

Reviewed by	Initials	Date
DM		
DMO		1
ADM		
ED		
Author	JA	Aug.16

RE: SCRD PUP 102714 amendment_JH Comments

Friday, October 13, 2017 1:26 PM

Subject	RE: SCRD PUP 102714 amendment_JH Comments					
From	Hirner, Joanna ENV:EX					
То	Platz, Chris ENV:EX; Dalziel, Rod ENV:EX					
Sent	Wednesday, August 26, 2015 1:55 PM					
Attachments	RE Question fish in Cha DRAFT PUP amendme					

Hi guys

I've attached the PUP with Chris' and now my comments (my first comment is on p. 12 of 15). Regarding monitoring there is a really long comment in there. In a nutshell I discussed with Jennie including a requirement for longer term monitoring and she didn't think it was reasonable given the temporary nature of the drawdown. I am somewhat okay with this, although upon further reflection, I do have some concerns as noted in my comments. If you would like me to weigh in on further discussion with Jennie on this before the PUP is finalized please let me know (or Jennie can connect with me directly).

Also, through this process it has been identified that the current outflow pipe on the dam does not have a fish screen on it. I asked the FLNRO fish biologists what they thought about this and lain Lunn recommended that a fish screen be added to the existing outflow pipe (see attached). Could we require this through the permit amendment, or should we make this request by some other means? It seems to me with the lake being drawn down (presumably making the pipe outflow quite accessible) and all the work going on, now would be a good time to add the screen.

Thanks!

Joanna

From: Platz, Chris ENV:EX

Sent: Monday, August 24, 2015 8:50 AM
To: Dalziel, Rod ENV:EX; Hirner, Joanna ENV:EX
Subject: RE: SCRD PUP 102714 amendment

Hi Rod,

I have added a few comments and ideas (attached). Good job on this amendment, you will need to be very diligent in your comments and document uploading to ePUP's.

Chris

From: Dalziel, Rod ENV:EX

Sent: Saturday, August 22, 2015 3:49 PM
To: Platz, Chris ENV:EX; Hirner, Joanna ENV:EX
Subject: SCRD PUP 102714 amendment

Hello Chris and Joanna,

Could you please review the draft I have prepared? The only changes from the previous PUP are the Permit Area maps and in Special Provisions 1, 3 and additional of Special Provision 11.

Joanna I require help with details and procedures for Special Provision 11.(p)

Cheers,

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

PO Box 950, 6451 Sechelt Inlet Road, Sechelt, BC V0N 3A0

2: Desk (604) 885-6755 Mobile (604) 741-1967 Fax (604) 885-2445

: Rod.Dalziel@gov.bc.ca

Visit the BC Parks website @ bcparks.ca



BC Parks

Balsom, Tami CSNR:EX

From: Lunn, Iain C FLNR:EX

Sent: Tuesday, August 25, 2015 3:01 PM

To: Hirner, Joanna ENV:EX; Jesson, Duane A FLNR:EX; Miyazaki, Kenji FLNR:EX; Willcox,

Michael FLNR:EX

Cc: Dalziel, Rod ENV:EX

Subject: RE: Question: fish in Chapman Lake, Tetrahedron Provincial Park and Chapman Creek,

Sunshine Coast

Hi Joanna:

Sorry for the delayed response. \$.13

s.13 It would probably be best if the Char/Steelhead guys responded to your note however, they are both away right now. So you get me. In answer to your questions:

- It is my understanding that Cutthroat trout are the native trout species and Dolly Varden the native char species
 on the Sunshine Coast. I suppose it is possible the Dolly Varden could be Bull Trout but, unlikely...
- I do not have any recent information on Chapman Lake.
- I agree, a fish screen be placed on both the siphon intake and the outflow pipe. It would be best to keep the Rainbow trout isolated if possible.
- Regarding downstream Cutthroat and Steelhead, any additional flow that can be added to the Creek will be a
 benefit to the fish. I have talked to DFO about the required minimum flows and they are disappointed with what
 the Water Licence specifies.

Sorry I could not be of more help. Char/Steelhead guys return in a week.

lain

From: Hirner, Joanna ENV:EX

Sent: Thursday, August 20, 2015 4:27 PM

To: Jesson, Duane A FLNR:EX; Lunn, Iain C FLNR:EX; Miyazaki, Kenji FLNR:EX; Willcox, Michael FLNR:EX

Cc: Dalziel, Rod ENV:EX

Subject: Question: fish in Chapman Lake, Tetrahedron Provincial Park and Chapman Creek, Sunshine Coast

Importance: High

Hello fish folks,

Perhaps you have already heard about this through Water Allocation, but the Sunshine Coast Regional District has put in an emergency proposal to extract additional water from Chapman Lake within Tetrahedron Provincial Park. Chapman Lake is the main source of water for most of the Sunshine Coast Regional District, and with the drought, water levels are predicted to drop below the dam outflow on the lake within several weeks. So they would like to install a siphon to access additional water and bring it over the dam, resulting in additional drawdown of up to 5 m in the lake water levels. They are applying for a Water Act Section 8 application for additional short term use of water as well as an amendment to their park use permit.

There was a similar proposal in 1999 to install a floating pump station to access additional water and similarly draw down the lake levels 5 m more than the current maximum. A fairly thorough impact assessment was done at that time and can be applied in many ways to the current situation because although the technology being used to access the water is different, the impacts will be similar. At that time DFO and MoE were consulted and recommended maintaining a flow of at least 0.4 cubic metres per second in Chapman Creek downstream of the dam. The current proposal is estimated to be able to maintain flows of 0.4-0.5 cubic metres per second, which apparently is an improvement on low

flows that have been experienced in recent years, as long as the siphon continues to function properly. The current proposal will have operators onsite throughout use of the siphon to ensure it is working consistently.

Just wondering if you have any comments on this from a fish perspective. Specifically:

- -The historical fish information and 1999 impact assessment suggests there are Dolly Varden and rainbow trout in the lake. These species were both stocked in the lake but the impact assessment noted that it was unclear if any native populations existed before stocking. The most recent information I could find on fish in the lake was from 1999. Do you have any more recent information? Any chance the Dolly Varden could be bull trout?
- -The SCRD have suggested they may not need to put a fish screen on their siphon because the existing outflow pipe from the dam doesn't have a fish screen. Seems like maybe the outcome should be that a fish screen be added to both the outflow pipe and siphon, rather than the other way round. Wonder what your thoughts are on that.
- -Wonder if you have any comments or concerns about this proposal from the perspective of steelhead or cutthroat downstream in Chapman Creek.

If it's possible to respond quickly that would be great, and if you have any suggestions of conditions to put on any approvals they would be welcome. The SCRD is hoping to start work on this as soon as possible, so we (BC Parks and Water) have been asked to respond ASAP.

Thanks! Joanna

Joanna Hirner (MRM, RPBio) Conservation Specialist South Coast Region, BC Parks 604-924-2228





Ministry of Environment

PARK USE PERMIT

LAND USE / OCCUPANCY

This Park Use Permit No. 102714 (the "Permit") is issued under the authority of the Park Act

(the "Park")

See "Management Plan Schedule, Permit Area Description" for a complete list of Parks and Protected Areas

FROM:

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA, represented by the Minister responsible for the *Park Act* (the "Province") at the following address:

TO:

Sunshine Coast Regional District

(the "Permittee") at the following address:

Ministry of Environment BC Parks South Coast Region 200 - 10470 - 152nd Street Surrey BC V3R 0Y3 1975 Field RD Sechelt, BC V0N 3A1

THE PROVINCE AND THE PERMITTEE AGREE AS FOLLOWS:

ARTICLE I - GRANT OF PERMIT

1.01 The Province, on the terms and conditions of this Permit, grants to the Permittee permission to enter upon and use that part of the Park (the "Permit Area") described, and for the purposes described, in the Management Plan Schedule.

ARTICLE II - TERM

2.01 The duration of this Permit is for a term of 10 years commencing on February 1, 2014 (the "Commencement Date") and ending on January 31, 2024 (the "Expiration Date"), unless cancelled, terminated or renewed in accordance with the terms and conditions of this Permit.

ARTICLE III - FEES

- 3.01 The Permittee must pay to the Province a minimum fee (the "Permit Fee") of \$500.00 (plus applicable taxes) prior to Commencement date and on each anniversary of the commencement date during the term of this Permit.
- 3.02 The Province may, by notice to the Permittee not less than 30 days prior to each anniversary of the Commencement Date, increase the Permit Fee to an amount solely determined by the Province at its discretion, and the Permittee must pay the increased amount.
- 3.03 The Permittee must pay interest to the Province on money payable by the Permittee and owing to the Province under this Permit, at the rate of interest prescribed by the Financial Administration Act in respect of money owing to the Province, which interest will be calculated from the date that the money becomes payable to the Province.

ARTICLE IV - INDEMNITY

4.01 The Permittee will indemnify and save harmless the Province, its servants, employees and agents against all losses, claims, damages, actions, costs and expenses that the Province, its servants, employees and agents may sustain, incur, suffer or be put to at any time arising, directly or indirectly, from any act or omission of the Permittee, its employees, agents, contractors and licensees under this Permit, except for any liability arising from any independent, negligent act of the Province.

ARTICLE V - SECURITY AND INSURANCE

- 5.01 On the Commencement Date, you will deliver to us Security in the amount of which will: Not Required
 - (a) guarantee the performance of your obligations under this Permit;
 - (b) be in the form required by us; and
 - (c) remain in effect until we certify, in writing, that you have fully performed your obligations under this Permit.
- 5.02 Despite section 5.01, your obligations under that section are suspended for so long as you maintain in good standing other security acceptable to us to guarantee the performance of your obligations under this Permit and all other Dispositions held by you.
- 5.03 We may use the Security for the payment of any costs and expenses incurred by us to perform any of your obligations under this Permit that are not performed by you and, if such event occurs, you will, within 30 days of that event, deliver further Security to us in an amount equal to the amount drawn down by us.
- 5.04 After we certify, in writing, that you have fully performed your obligations under this Permit, we will return to you the Security maintained under section 5.01, less all amounts drawn down by us under section 5.03.
- 5.05 You acknowledge that we may, from time to time, notify you to
 - (a) change the form or amount of the Security; and
 - (b) provide and maintain another form of Security in replacement of or in addition to the Security posted by you under this Permit;

and you will, within 60 days of receiving such notice, deliver to us written confirmation that the change has been made or the replacement or additional form of Security has been provided by you.

5.06 You must

- (a) without limiting your obligations or liabilities under this Permit, at your expense, effect and keep in force during the Term the following insurance with insurers licensed to do business in Canada:
 - (i) Commercial General Liability insurance in an amount of not less than two million dollars \$2,000,000.00 inclusive per occurrence insuring against liability for personal injury, bodily injury (including death) and property damage, including coverage for all accidents or occurrences on the Permit Area or any improvements. Such policy will include cross liability, liability assumed under contract, provision to provide 30 days advance notice to us of material change or cancellation, and include us as an additional insured; See Attached Schedule
- (b) ensure that all insurance required to be maintained by you under this Permit is primary and does not require the sharing of any loss by any of our insurers;
- (c) within 10 working days of the Commencement Date of this Permit, provide to us evidence of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";
- (d) if the required insurance policy or policies expire or are cancelled before the end of the Term of this Permit, provide within 10 working days of the cancellation or expiration, evidence of new or renewal policy or policies of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";

- (e) notwithstanding subsections (c) or (d) above, if requested by us, provide to us certified copies of the required insurance policies to be maintained by you under this Permit.
- 5.07 We may, acting reasonably, from time to time, require you to
 - (a) change the amount of insurance set out in subsection 5.06(a); and
 - (b) provide and maintain another type or types of insurance in replacement of or in addition to the insurance previously required to be maintained by you under this Permit;

and you will, within 60 days of receiving such notice, cause the amounts and types to be changed and deliver to us a completed "Province of British Columbia Certificate of Insurance" for all insurance then required to be maintained by you under this Permit.

- 5.08 You shall provide, maintain, and pay for any additional insurance which you are required by law to carry, or which you consider necessary to insure risks not otherwise covered by the insurance specified in this Permit in your sole discretion.
- 5.09 You waive all rights of recourse against us with regard to damage to your own property.

ARTICLE VI - COVENANTS OF THE PERMITTEE

6.01 The Permittee must:

- pay the Permit Fee and other money payable under this Permit when due at the address of the Province first written above or at such place as the Province may specify from time to time;
- (b) pay when due all taxes, levies, charges and assessments that relate to operations of the Permittee under this Permit;
- (c) comply with all laws, bylaws, orders, directions, ordinances and regulations of any competent governmental authority in any way affecting the Permit Area, the Park, its use and occupation or the Permittee's operations under this Permit;
- (d) advise its employees, contractors, licensees, and agents of the laws and regulations respecting provincial parks and recreation areas and the conditions of this Permit respecting conduct in the permit Area:
- keep the Permit Area in a safe, clean and sanitary condition to the satisfaction of the Province and make safe, clean and sanitary any portion of the Permit Area that the Province may direct by notice in writing to the Permittee;
- (f) remove from the Permit Area and the Park all garbage, debris and effluent resulting from its use of the Park and Permit Area under this Permit, except as otherwise permitted in the Management Plan Schedule;
- (g) comply with all orders and directions made, verbally or in writing, by a park officer (as defined in the Park Act) relating to the Park, this Permit or the Permit Area;
- (h) not construct, erect, place, repair, maintain or alter any building, fixture, equipment, structure or improvement in the Permit Area except as may be permitted by this Permit or with the prior written consent of the Province;
- (i) take all reasonable precautions to prevent and suppress fires in the Permit Area;
- not interfere with free public access through, across and upon the Permit Area, unless otherwise specified in the Management Plan Schedule;
- (k) not interfere with or disrupt the activities and operations of other Permittee's or users in the Park;
- (I) use and occupy the Permit Area only in accordance with the provisions of this Permit;
- (m) not remove, destroy, damage, disturb or exploit any natural resource (as that term is defined in the Park Act) or any archaeological or cultural artefact found in or on the Permit Area except as may be permitted by this Permit, and only then in accordance with the Park Act and all other applicable laws;

- (n) not commit or allow any wilful or voluntary waste, damage or destruction in or upon the Permit Area;
- pay for or repair, as determined by the Province, any damage caused to the property of the Province by the Permittee, its employees, agents, contractors, or licensees;
- (p) upon the expiration, cancellation or termination of this Permit:
 - (i) peaceably quit and deliver up possession of the Permit Area to the Province,
 - (ii) remove all chattels and improvements of the Permittee from the Permit Area within 30 days of the expiration, cancellation or sooner termination of this Permit, unless otherwise advised in writing, by the Province,
 - (iii) deliver to the Province possession of all equipment, furnishings, fixtures, chattels and improvements owned by the Province in a state of good repair and working order, and
 - (iv) restore the Permit Area to the satisfaction of the Province;
 - (v) and to the extent necessary, this covenant will survive the expiration, cancellation or termination of this Permit; and
- (q) comply with all provisions of the schedules to this Permit.

ARTICLE VII - RIGHTS OF THE PROVINCE

- 7.01 The Province retains all rights in respect of the Park and Permit Area which are not expressly granted to the Permittee under this permit, including, without limitation:
 - (a) the right at all times for the Province, its authorized representatives, employees, and agents to have unimpeded access over and along all portions of the Permit Area and to inspect any portions of the Permit Area;
 - the right at all times to construct, repair, alter and maintain buildings, equipment, structures and improvements upon the Permit Area; and
 - (c) the right to grant further rights in respect of the Park and Permit Area, provided that such rights do not unreasonably impede, obstruct or compete with the rights of the Permittee under this Permit.

ARTICLE VIII - NOTICE

- 8.01 Any notice required to be given by either party to the other will be deemed to be given if it is in writing and is delivered by hand or prepaid registered mail to the address first written above or any other address that may be specified in writing by a party and a notice will be deemed to be delivered, if mailed, eight days after the time of mailing except, in the case of a postal interruption, actual receipt is required.
- 8.02 Notwithstanding section 8.01, any written notice to be given by the Province to the Permittee under this Permit will be effectively given if it is posted in a conspicuous place on the Permit Area.

ARTICLE IX - RENEWAL

- 9.01 Not later than 140 days prior to the Expiration Date, the Permittee may, by notice in writing delivered to the Province, apply to the Province for a renewal of this Permit.
- 9.02 Provided that the Permittee is not in default under this Permit and subject to the terms of the *Park Act*, the Province may renew this Permit upon the terms and conditions determined by the Province.
- 9.03 The Permittee acknowledges that nothing in this Permit obligates the Province to renew this Permit and the Province's decision in that respect is entirely within its discretion

ARTICLE X - TRANSFER

- 10.01 The Permittee must not assign, transfer, sublicence or grant any of the rights or privileges granted by this Permit without the prior written consent of, and on the terms and conditions determined by, the Province.
- 10.02 If the Permittee is a corporation then a change in the control (as that term is defined in subsection 2(3) of the Business Corporations Act) of the Permittee without the prior written consent of the Province is deemed to be a breach of section 10.01.

ARTICLE XI - CANCELLATION

11.01 In the event that

- (a) the Permittee defaults in the payment of the Permit Fee or other money payable under this Permit, and the default continues for 7 days after the giving of written notice of the default by the Province to the Permittee:
- (b) the Permittee fails to perform or observe any of the terms or conditions of this Permit, other than the payment of money, and the failure is not remedied within a period specified by the Province;
- (c) the Permittee has wilfully misrepresented information:
 - (I) on the application form which led to the granting of this Permit, or
 - (ii) required to be provided under the terms and conditions of this Permit;
- (d) the Permit Area is damaged or destroyed by any cause whatsoever;
- (e) the Park is closed by the Province;
- (f) the Permittee files a petition in bankruptcy, is adjudged bankrupt, is petitioned into bankruptcy, makes an assignment for the benefit of its creditors, becomes insolvent or takes the benefit or protection of any statute for bankrupt or insolvent debtors;
- (g) any of the Permittee's assets is seized in execution from the Permit Area;
- the Permittee, its employees, agents, contractors or licensees performs any act which in the opinion of the Province, affects the good standing or reputation of the Park, or adversely affects any other permit holder or park user within the Park;

the Province may cancel this Permit immediately by written notice to the Permittee.

- 11.02 In the event that the Permittee and the Province mutually agree in writing to terminate this Permit, the parties will be released and discharged from their obligations under this Permit, except as otherwise provided in this Permit.
- 11.03 The obligation of the Permittee
 - (a) to pay the Permit Fee and other money payable under this Permit; and
 - (b) to comply with Sections 4.01, 6.01(e), 6.01(o) and 6.01(p);

will survive the expiration, cancellation or termination of this Permit.

11.04 The Permittee will not be entitled to any compensation from the Province, in damages or otherwise, in respect of a cancellation or termination of this Permit.

ARTICLE XII - MISCELLANEOUS

- 12.01 This Permit may be inspected by the public at such times and at such places as the Province may determine.
- 12.02 Time is of the essence in this Permit.
- 12.03 Nothing in this Permit will be considered to have been waived by the Province unless such waiver is in writing.

- 12.04 During the term of this Permit, the Permittee will be an independent contractor and not the agent, employee or partner of the Province.
- 12.05 The Province will not be liable for any loss, damage, cost or expense resulting from the destruction of or damage to the Permittee's property or a disruption of the Permittee's operations under this Permit which result from strikes, flooding or other acts of God, vandalism, or any other interference to the Permittee's operation or property.

ARTICLE XIII- INTERPRETATION

- 13.01 In this Permit, unless the context otherwise requires, the singular includes the plural and the masculine includes the feminine, a corporation and body politic.
- 13.02 The captions and headings contained in the Permit are for convenience only and are not to be construed as defining or in any way limiting the scope or intent of the provisions of this Permit.
- 13.03 In this Permit, a reference to an enactment of the Province of British Columbia or of Canada includes a reference to any subsequent enactment of like effect, and unless the context otherwise requires, all statutes referred to in this Permit are enactments of the Province of British Columbia.
- 13.04 If any part of this Permit is found to be illegal or unenforceable, that part will be considered separate and severable and the remaining parts will be enforceable to the fullest extent permitted by law.
- 13.05 If all or part of the Permit Area is in a recreation area established or continued under the Park Act, this Permit is deemed to be a resource use permit as that term is defined in the Park Act.
- 13.06 All schedules to this Permit form an integral part of this Permit.

IN WITNESS WHEREOF the parties have duly executed this Permit.

SIGNED and DELIVERED on behalf of the Province by a duly authorized representative of the Province.

[Sign]image:WordInterfaceSignatureImgObjld Duly Authorized Representative	
Print Name	
Regional Director	
Print Title	
[Sign]WordInterfaceCurrentDate	
Date	

MANAGEMENT PLAN SCHEDULE

PERMIT AREA DESCRIPTION

The Permittee is authorized to enter the Permit Area described below and outlined on the attached maps.

Permit Area Overview Map

- Tetrahedron Park
 - Area adjacent to the outlet of Chapman Lake
 - . Area adjacent to the outlet of Edwards Lake

Copyright

Chapman Lake Permit Area

Copyright

Comment [CP1]: Is this the current permit area or have we expanded to include the heli pad?



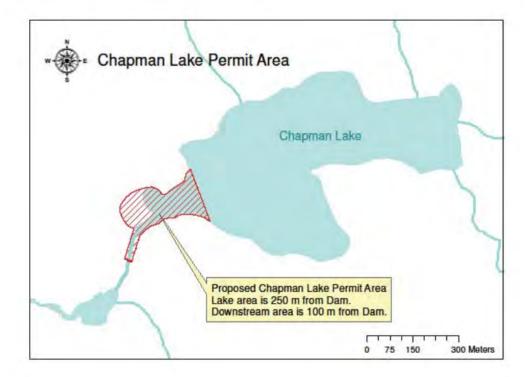
Edwards Lake Permit Area

Copyright



Temporary Chapman Lake Permit Area

Comment [CP2]: I think we should indicate the temporary term dates here!



FEE(s)

Protected Land: **Tetrahedron Park**

Base Facility:

Activities:

Water Impoundments (dams and dykes)

Purpose:

Rights of way and miscellaneous land use without structures - The use of a defined area for a powerline, telephone line, pipeline or other service or utility right of way and other miscellaneous land use without structures - Company or local

government. Fee charged for this purpose is for each protected land.

Fee Description:

\$500 or \$60 per hectare whichever is greater

Schedule K Ref:

Fees:

\$500 or \$60 per h Part 3, Column 2,	ectare whichever is Item 4(b)	Comment [CP3]: It looks like the permit area size has been increased. Do we increase the fee as per the regulations to include the new area?	
Item	Number	Rate	Total
Minimum Fee	.1	\$500.00	\$500.00
Hectares		\$60.00	\$60.00

Sub Total (based on Fee Description above):

Sub Total: \$500.00

Comment [CP3]: It looks like the

\$500.00

Minimum Fee Required: \$500.00

SPECIAL PROVISIONS

1. Purpose

This Permit is issued to the Permittee for the purpose of maintaining water impoundment infrastructure at Chapman and Edwards Lake and helicopter pad at Chapman Lake in Tetrahedron Park.

2. Permittee Designated Representative

The Permittee appoints the following representative to be responsible for liaison between BC Parks and the Permittee:

Name: Telephone: Bryan Shoji 604 885 6800

Fax:

604 885 7909

Email:

Bryan.shoji@scrd.ca

3. BC Parks Representative(s):

Park, Protected Area or Conservancy Name	Area Supervisor	Phone	Email
Tetrahedron Park	Rod Dalziel	604-885-6755	Rod.Dalziel@gov.bc.ca

4. Conditions of Term

This permit shall be deemed valid until such time that it has expired under Article 2.01 and that water licences described above are valid and in good standing and that activities carried out are permitted under:

- (a) the conditional water licences and;
- (b) this permit.

5. Water Regulations

All activities relating to maintaining water impoundment structures and regulating water levels must be in accordance with the *Water Act*.

6. Flight Access

- (a) The use of a helicopter for access to the structures is acceptable. The Permittee shall notify BC Parks as early as feasibly possible prior to any flights into Tetrahedron Park so that BC Parks may utilize available space or service of the helicopter for park operation purposes.
- (b) If the Permittee chooses to use a helicopter company to access the structure the Permittee will cause any Person/Sub-licensee providing aviation services related to the Permittee's performance of this Permit to carry, and to provide evidence to the Province of their compliance with this requirement, Aviation Liability insurance on all aircraft operated or used in the performance of this Permit insuring against bodily injury, property damage, and passenger liability, in an amount not less than the limits of liability imposed by any Canadian Aviation Regulation and in any event not less than a per occurrence combined single limit of:

Comment [HJE4]: I couldn't find reference to the water licences above... unless it was buried in the boiler plate and I couldn't find it.

- (i) \$3,000,000 for aircraft up to 5 passenger seats, or
- (ii) \$3,000,000 plus \$1,000,000 for each additional passenger seat for aircraft up to 10 passenger seats, or
- (iii) \$10,000,000 for aircraft over 10 passenger seats;

and this insurance must:

- include the Province and the Permittee as additional insureds;
- be endorsed to provide the Province and the Permittee with 30 days advance written notice of cancellation or material change; and
- (iii) include a cross liability clause;

8. Report Requirements

The Permittee shall provide the Province with a report, due upon the anniversary date of the Permit, describing all activities undertaken as a result of this Permit for the previous year. Please submit this report to the following address:

Ministry of Environment PASB – Park Use Permits PO Box 9371 Stn Prov Govt Victoria BC V8W 9M3 Fax: 250-387-1695

9. Safety Regulations

The Permittee shall be responsible for all WorkSafeBC regulations and staff safety program and plans for all its staff and sub-contractors utilizing the Park to conduct activities authorized by this permit.

10. Renewal

It is understood by BC Parks and the Sunshine Coast Regional District that this permit shall be renewed pending a review of the terms of this Management Plan Schedule and providing the Sunshine Coast Regional District continues to require water management and structures outlined in this permit and the conditional water licences.

11. Temporary Permit Amendment Conditions

- (a) Term
 The conditions of the temporary permit amendment will be valid during the period from permit approval until 2 weeks (14 days) following the expiry of the of the "Section 8 application 100140509 Short Term Water Use on Chapman Lake Approval 2003865" on 23 August 2016. Therefore the temporary permit amendment will expire on 06 September 2016.
- (b) All works and monitoring shall be conducted as described in BC Standards and Best Practices for Instream Works (https://www.env.gov.bc.ca/wld/documents/bmp/lswstdsbpsmarch2004.pdf) and should be informed by the 1999 Impact Assessment for the proposed floating pump station at Chapman Lake (Whitehead 1999) and shall comply with "Section 8 Development Plan – Short Term Water Use" prepared by Sunshine Coast Regional District, dated 194 August 2015 and "Emergency Water Supply Chapman Lake" prepared by Opus DaytonKnight Consultants, dated 13 August 2015 and "Environmental Monitoring Plan – Siphon System at Chapman Lake" prepared by Sunshine Coast Regional District.
- (c) Temporary additional infrastructure

- i. This will include equipment and materials required to access the additional water drawdown of Chapman Lake as permitted under the "Section 8 application 100140509 Short Term Water Use on Chapman Lake Approval 2003865" which will include pipes, intakes, valves, screens, lock blocks, pumps, small dock, rowboat, ladders, containment unit (fuel, pumps and equipment) as described in the Section 8 Development Plan (August 194, 2015).
- Any amendments to this plan must be approved by the Area Supervisor.

(d) Temporary accommodation area

- The temporary accommodation will be constructed for use by the installation crew and the 24/7 onsite 2 person operator crew.
- The temporary accommodation area will include a tent, eating area, food and garbage storage and a portable toilet.
- iii. The location of temporary accommodation area must be approved by the Area Supervisor.
- iv. The temporary accommodation area facilities shall be removed when no longer required for the season to the satisfaction of the Area Supervisor.

(e) Environmental Monitor

- The Permittee shall retain a qualified Environmental Monitor to monitor Chapman Lake and Chapman Creek.
- ii. The Environmental Monitor shall be onsite during construction phase and weekly thereafter until lake water levels have returned to levels where the siphon is no longer required and in use.
- iii. The environmental monitor must have the authority to order suspension of work if necessary toil prevent significant negative environmental effects from are occurring.
- (f) Equipment that could cause negative environmental impacts during operations, such as siphon intakes, pumps and generators, should be regularly inspected.
- (g) Ensure equipment and machinery are in good operating condition (power washed), free of leaks, excess oil, and grease.
- (h) All pumps and fuel will be contained in spill proof containment unit.
- (i) Equipment refuelling or servicing must be undertaken within the spill proof containment unit.
- Ensure all hydraulic machinery uses environmentally sensitive hydraulic fluids that are non-toxic to aquatic life and that are readily or inherently biodegradable.
- (k) Keep a spill containment kit readily accessible onsite in the event of a release of a deleterious substance to the environment. Train onsite staff in its safe and proper use. Immediately report any spill of a substance that is toxic, polluting, or deleterious to aquatic life of reportable quantities to the Provincial Emergency Program 24-hour phone line at 1-800-663-3456.
- The footprints associated with the areas for staging, installation and accommodation areas should all be minimized.
- (m) Foot and equipment traffic should be confined to designated lowest impact corridors or trails to minimize trampling impacts.
- (n) Recognizing that wildlife are sensitive to disturbance from helicopters, maintain an appropriate separation distance from animals (500 m line-of-sight is a recommended default) and take immediate action to increase separation distances if animals react to the helicopter.
- (o) Food and garbage associated with accommodation must be stored in bear-proof containers or otherwis protected from access by wildlife to prevent wildlife attraction. Garbage must be disposed of off-site and removed regularly to prevent odours and wildlife attraction.

s.13

(p) Monitoring

 As identified in the Whitehead 1999 Impact Assessment monitoring of the impacts of additional drawdown on the following values will be conducted - water quality, fish and amphibians (as indicators of lake ecology), and riparian vegetation in and around Chapman Lake. The monitoring plan will be developed to the satisfaction of BC Parks.

Comment [CP13]: I will let Joanna respond to this section.

s.13

(q) Reporting

i. The Permittee will provide to BC Parks environmental monitoring reports resulting from visits by the Environmental Monitor (as identified in "Environmental Monitoring Plan – Siphon System at Chapman Lake" prepared by Sunshine Coast Regional District) on a weekly basis.

i. a report of monitoring activities and results from Special Provision 11.(p).

The Permittee will provide to BC Parks the EM reports as identified in

"Environmental Monitoring Plan — Siphon System at Chapman Lake" prepared by

Sunshine Coast Regional District.

 Additional reporting as required under condition (r) of the "Section 8 application -100140509 – Short Term Water Use on Chapman Lake - Approval 2003865" issued on 23 August 2016 will also be provided to BC Parks on a weekly basis.

The Permittee will provide to BC Parks a copy of the Preliminary Field Reconnaissance for archaeology report.

(r) Removal and restoration

 Removal of temporary additional infrastructure must be completed by 06 September 2016 to th satisfaction of the Area Supervisor.

 Restoration of the temporary permit area must be completed to the satisfaction of the Area Supervisor.

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RE: Question: fish in Chapman Lake, Tetrahedron Provincial Park and Chapman Creek, Sunshine Coast

Friday, October 13, 2017 1:08 PM

Subject	RE: Question: fish in Chapman Lake, Tetrahedron Provincial Park and Chapman Creek, Sunshine Coast
From	Lunn, Iain C FLNR:EX
То	Dalziel, Rod ENV:EX; Hirner, Joanna ENV:EX; Jesson, Duane A FLNR:EX; Miyazaki, Kenji FLNR:EX; Willcox, Michael FLNR:EX
Sent	Wednesday, August 26, 2015 2:42 PM

Thanks for the note Rod. I didn't know about the action taken by Water Management. Regarding the fish screens, I got it wrong, I thought the outflow pipe and the siphon were between the lake and lower creek. If there are Rainbow trout in the lake it is important to take steps to isolate them to the lake and the upper creek if possible. Further, I am not familiar with the lake or the infrastructure being discussed thus, not the best person to advise whether or not the screens are necessary. A local biologist who has been on site and knows the equipment certainly will have a better idea of what is needed to protect Chapman Lake and Creek fish populations.

lain

From: Dalziel, Rod ENV:EX

Sent: Wednesday, August 26, 2015 2:18 PM

To: Lunn, Iain C FLNR:EX; Hirner, Joanna ENV:EX; Jesson, Duane A FLNR:EX; Miyazaki, Kenji

FLNR:EX; Willcox, Michael FLNR:EX

Subject: RE: Question: fish in Chapman Lake, Tetrahedron Provincial Park and Chapman Creek,

Sunshine Coast

Hello lain,

Thanks for your response. The SCRD is recommending removing the fish screen subject from the Short Term Use Water Act approval as this is the only means for fish to travel between the lake and upper creek (mind you it is a very short stretch before the creek falls a few metres over some falls). The SCRD indicated that they have received advice from Dave Bates (fish biologist) that the screens are not necessary. A screen on the siphoning pipes may also negatively impact the efficiency of the siphoning system.

Your thoughts on this appreciated.

FYI...The SCRD was just issued an Order under the Water Act regarding the downstream flow:

"You know that I'm fully aware of the critical water supply situation the SCRD is currently facing and I appreciate the initiatives taken to date to address them. As discussed during my visit 2 weeks ago the province, and DFO, also have to ensure that fish populations, like the pink salmon one on Chapman Creek, are adequately protected. Therefore agreements were reached between the parties on the minimum flow downstream of your intake, the most recent one was 200 l/s. As the recent monitoring learned us, instead of 200 l/s there is currently about 120 l/s percent in the creek due to a less accurate rating curve. In order to ensure adequate opportunities for the pink salmon to migrate and spawn, and to prevent a potential HADD under the Fisheries Act, I do not agree with the proposed delay of an increase of the flows downstream of your intake.

Therefore I, Remko Rosenboom, Assistant Regional Water Manager under the Water Act, referring to clause k) of Water Licence C050724 (copy attached), order the Sunshine Coast Regional District to:
- release an adequate volume of water from Chapman Lake to ensure that a minimum of 160 l/s is percent in the stream just downstream of your intake structure at Chapman Creek as of August 28,

2015 12AM; and,

- adjust this minimum flow to 200 l/s if flow continues to be the limiting factor for pink salmon to adequately migrate and spawn in the Chapman Creek watershed. This is to be determined thru daily monitoring by a qualified professional indicates; and,
- adjust this minimum flow to a volume determined thru an analysis of the critical instream flow levels for migration and spawning of pink salmon in the Chapman Creek Watershed if this study is approved by a Regional Water Manager."

Cheers,

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

PO Box 950, 6451 Sechelt Inlet Road, Sechelt, BC V0N 3A0

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BC Parks

From: Lunn, Iain C FLNR:EX

Sent: Tuesday, August 25, 2015 3:01 PM

To: Hirner, Joanna ENV:EX; Jesson, Duane A FLNR:EX; Miyazaki, Kenji FLNR:EX; Willcox, Michael

FLNR:EX

Cc: Dalziel, Rod ENV:EX

Subject: RE: Question: fish in Chapman Lake, Tetrahedron Provincial Park and Chapman Creek,

Sunshine Coast

Hi Joanna:

Sorry for the delayed response. \$.13

s.13 It would probably be best if the Char/Steelhead guys responded to your note however, they are both away right now. So you get me. In answer to your questions:

- It is my understanding that Cutthroat trout are the native trout species and Dolly Varden the
 native char species on the Sunshine Coast. I suppose it is possible the Dolly Varden could be
 Bull Trout but, unlikely.
- · I do not have any recent information on Chapman Lake.
- I agree, a fish screen be placed on both the siphon intake and the outflow pipe. It would be best to keep the Rainbow trout isolated if possible.
- Regarding downstream Cutthroat and Steelhead, any additional flow that can be added to the Creek will be a benefit to the fish. I have talked to DFO about the required minimum flows and they are disappointed with what the Water Licence specifies.

Sorry I could not be of more help. Char/Steelhead guys return in a week.

lain

From: Hirner, Joanna ENV:EX

Sent: Thursday, August 20, 2015 4:27 PM

To: Jesson, Duane A FLNR:EX; Lunn, Iain C FLNR:EX; Miyazaki, Kenji FLNR:EX; Willcox, Michael

FLNR:EX

Cc: Dalziel, Rod ENV:EX

Subject: Question: fish in Chapman Lake, Tetrahedron Provincial Park and Chapman Creek,

Sunshine Coast
Importance: High

Hello fish folks,

Perhaps you have already heard about this through Water Allocation, but the Sunshine Coast Regional District has put in an emergency proposal to extract additional water from Chapman Lake within Tetrahedron Provincial Park. Chapman Lake is the main source of water for most of the Sunshine Coast Regional District, and with the drought, water levels are predicted to drop below the

dam outflow on the lake within several weeks. So they would like to install a siphon to access additional water and bring it over the dam, resulting in additional drawdown of up to 5 m in the lake water levels. They are applying for a Water Act Section 8 application for additional short term use of water as well as an amendment to their park use permit.

There was a similar proposal in 1999 to install a floating pump station to access additional water and similarly draw down the lake levels 5 m more than the current maximum. A fairly thorough impact assessment was done at that time and can be applied in many ways to the current situation because although the technology being used to access the water is different, the impacts will be similar. At that time DFO and MoE were consulted and recommended maintaining a flow of at least 0.4 cubic metres per second in Chapman Creek downstream of the dam. The current proposal is estimated to be able to maintain flows of 0.4-0.5 cubic metres per second, which apparently is an improvement on low flows that have been experienced in recent years, as long as the siphon continues to function properly. The current proposal will have operators onsite throughout use of the siphon to ensure it is working consistently.

Just wondering if you have any comments on this from a fish perspective. Specifically:

- -The historical fish information and 1999 impact assessment suggests there are Dolly Varden and rainbow trout in the lake. These species were both stocked in the lake but the impact assessment noted that it was unclear if any native populations existed before stocking. The most recent information I could find on fish in the lake was from 1999. Do you have any more recent information? Any chance the Dolly Varden could be bull trout?
- -The SCRD have suggested they may not need to put a fish screen on their siphon because the existing outflow pipe from the dam doesn't have a fish screen. Seems like maybe the outcome should be that a fish screen be added to both the outflow pipe and siphon, rather than the other way round. Wonder what your thoughts are on that.
- -Wonder if you have any comments or concerns about this proposal from the perspective of steelhead or cutthroat downstream in Chapman Creek.

If it's possible to respond quickly that would be great, and if you have any suggestions of conditions to put on any approvals they would be welcome. The SCRD is hoping to start work on this as soon as possible, so we (BC Parks and Water) have been asked to respond ASAP.

Thanks! Joanna

Joanna Hirner (MRM, RPBio) Conservation Specialist South Coast Region, BC Parks 604-924-2228

RE: SCRD PUP 102714 amendment

Friday, October 13, 2017 1:08 PM

Subject	RE: SCRD PUP 102714 amendment				
From	Dalziel, Rod ENV:EX				
То	Hirner, Joanna ENV:EX				
Cc	Platz, Chris ENV:EX				
Sent	Wednesday, August 26, 2015 3:40 PM				

Thanks for the review and suggestions Joanna. I have incorporated them into the draft permit including the suggestion of "The monitoring plan will be developed to the satisfaction of BC Parks". The process is now with Chris for review.



Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

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BC Parks

From: Dalziel, Rod ENV:EX

Sent: Wednesday, August 26, 2015 2:12 PM **To:** Hirner, Joanna ENV:EX; Platz, Chris ENV:EX **Subject:** RE: SCRD PUP 102714 amendment

Thanks Joanna. I will review it now.

RE: fish screen. The SCRD is recommending removing this subject from the Water Act approval as this is the only means for fish to travel between the lake and upper creek (mind you it is a very short stretch before the creek falls a few metres over some falls). The SCRD indicated that they have received advice from Dave Bates (fish biologist) that the screens are not necessary. A screen on the siphoning pipes may also negatively impact the efficiency of the siphoning system.



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BC Parks

From: Hirner, Joanna ENV:EX

Sent: Wednesday, August 26, 2015 1:56 PM **To:** Platz, Chris ENV:EX; Dalziel, Rod ENV:EX **Subject:** RE: SCRD PUP 102714 amendment

Hi guys,

I've attached the PUP with Chris' and now my comments (my first comment is on p. 12 of 15). Regarding monitoring there is a really long comment in there. In a nutshell I discussed with Jennie

including a requirement for longer term monitoring and she didn't think it was reasonable given the temporary nature of the drawdown. I am somewhat okay with this, although upon further reflection, I do have some concerns as noted in my comments. If you would like me to weigh in on further discussion with Jennie on this before the PUP is finalized please let me know (or Jennie can connect with me directly).

Also, through this process it has been identified that the current outflow pipe on the dam does not have a fish screen on it. I asked the FLNRO fish biologists what they thought about this and Iain Lunn recommended that a fish screen be added to the existing outflow pipe (see attached). Could we require this through the permit amendment, or should we make this request by some other means? It seems to me with the lake being drawn down (presumably making the pipe outflow quite accessible) and all the work going on, now would be a good time to add the screen.

Thanks! Joanna

From: Platz, Chris ENV:EX

Sent: Monday, August 24, 2015 8:50 AM
To: Dalziel, Rod ENV:EX; Hirner, Joanna ENV:EX
Subject: RE: SCRD PUP 102714 amendment

Hi Rod,

I have added a few comments and ideas (attached). Good job on this amendment, you will need to be very diligent in your comments and document uploading to ePUP's.

Chris

From: Dalziel, Rod ENV:EX

Sent: Saturday, August 22, 2015 3:49 PM **To:** Platz, Chris ENV:EX; Hirner, Joanna ENV:EX **Subject:** SCRD PUP 102714 amendment

Hello Chris and Joanna,

Could you please review the draft I have prepared? The only changes from the previous PUP are the Permit Area maps and in Special Provisions 1, 3 and additional of Special Provision 11.

Joanna I require help with details and procedures for Special Provision 11.(p)

Cheers,

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

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Rod Dalyiel

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FW: Pending Decision on the SCRD Permit Amendment

Friday, October 13, 2017 9:42 AM

Subject	FW: Pending Decision on the SCRD Permit Amendment
From	Aikman, Jennie S ENV:EX
To	Platz, Chris ENV:EX
Sent	Thursday, August 27, 2015 11:09 AM

FYI. Will save to the file.

From: Bawtinheimer, Brian ENV:EX

Sent: Thursday, August 27, 2015 10:54 AM

To: Aikman, Jennie S ENV:EX

Cc: Austad, Bob ENV:EX; Vander Steen, Benjamin ENV:EX; Morrison, Ken ENV:EX; Ranson, David

ENV:EX

Subject: RE: Pending Decision on the SCRD Permit Amendment

Great info, Jennie – thx. Ben can advise on your last question but I think with the IN in, its more of a matter of a "heads up" email notice but Ben can decide. This should be on the list to brief Jim/Bob on when he is back next week.

CC'ing Ken as he is acting for me while I'm away and will have the designation portion, and David on the permitting side.

From: Aikman, Jennie S ENV:EX

Sent: Thursday, August 27, 2015 10:47 AM

To: Bawtinheimer, Brian ENV:EX

Cc: Austad, Bob ENV:EX; Vander Steen, Benjamin ENV:EX Subject: Pending Decision on the SCRD Permit Amendment

Importance: High

Hi Brian,

I want to give you notice that the SCRD's permit amendment application is now before me for decision.

A few points in follow-up to our previous discussions on this permit:

S. 14

- The permit amendment term is proposed to be one year plus two weeks this is to be consistent with their Water Act licence which has been granted for one year, plus an additional two weeks for the SCRD to remove their structures.
- We are providing SCRD a letter indicating that this permit amendment is a temporary emergency measure, and encouraging them to undertake long-range water supply planning and management so we are not facing a similar situation in the future.
- SCRD is seeking their permit amendment by Friday, August 28 so that they can commence installation of the siphon structure on Monday, August 31.

In terms of the stakeholders, the SCRD has been transparent about their process and so the
public (and members of the Tetrahedron Advisory Committee) are aware of the plans to install
the siphon. Rod was going to notifis.22 of the Advisory Committee once a decision has
been made on the permit amendment.

I checked eApprovals and confirmed that the Information Note on this matter is currently with Mark Zacharias for approval as acting DM. Please advise if you think we need to notify Mark and MO so they are informed of the pending decision to issue the amendment.

Jennie

Jennie Aikman

Regional Director South Coast Region, BC Parks Ministry of Environment

Office phone: (604) 924-2227 Cell phone: (778) 875-8494



Insert Date

File No: XXXXXX

Method of Delivery (REGISTERED MAIL, VIA FAX, OR VIA EMAIL)

Bryan Shoji General Manager, Infrastructure Services Sunshine Coast Regional District 1975 Field Road, Sechelt, BC V0N 3A1

Dear Bryan Shoji:

RE: Park Use Permit (PUP) #102714 amendment application

I am writing to inform you that the Park Use Permit amendment application the Sunshine Coast Regional District (SCRD) submitted on August 19, 2015 has been approved. Please carefully review the permit document including the Special Provisions required to ensure full compliance will all the permit provisions.

We understand this requested amendment to the existing Park Use Permit (#102714) is in response to an emergency situation and will enable the SCRD to meet the Regional District's community water needs and protect the fisheries values on the lower Chapman Creek; the importance of both are recognized by BC Parks. However, we emphasize that this amendment is a temporary emergency response to the extenuating circumstances the SCRD is currently experiencing. BC Parks strongly encourages the SCRD to develop a long-term solution to the water supply issue on the Sunshine Coast to avoid emergency measures like this being required in the future.

Sincerely,

Jennie Aikman South Coast Regional Director, BC Parks

WRITER INITIALS\typist initials

Enclosure(s): XXXX XXXX **Comment [RD1]:** Adjust Footer into if signed by Jennic

RE: SCRD PUP 102714 amendment

Thursday, October 12, 2017 1:06 PM

Subject	RE: SCRD PUP 102714 amendment
From	Aikman, Jennie S ENV:EX
То	Platz, Chris ENV:EX
Cc	Dalziel, Rod ENV:EX; Coupar, Meghan FLNR:EX
Sent	Thursday, August 27, 2015 12:05 PM

Thanks Chris and Rod. I am just finishing my review of the permit and drafting my decision rationale. I can send the letter to Brian once the permit is approved and Meghan is ready to send out the documentation.

From: Platz, Chris ENV:EX

Sent: Thursday, August 27, 2015 11:36 AM

To: Aikman, Jennie S ENV:EX Cc: Dalziel, Rod ENV:EX

Subject: FW: SCRD PUP 102714 amendment

Jennie, I ran the edits past Rod. He has accepted the edits and provided a final draft ready to be

formatted, sign and sent should you approve the permit amendment. Rod will be off tomorrow so it will be up to you or me to send the letter.

Chris

From: Dalziel, Rod ENV:EX

Sent: Thursday, August 27, 2015 11:31 AM

To: Platz, Chris ENV:EX

Subject: RE: SCRD PUP 102714 amendment

Hello Chris,

I am comfortable with the suggested edits and have attached the final letter ready for formatting and signature.

Cheers,

Rod Dalyiel

Sunshine Coast Area Supervisor

BC Parks - Ministry of Environment - South Coast Region

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BC Parks



27 August 2015

Method of Delivery (VIA EMAIL)

Jasmine Paul
Director
shishálh Nation
P.O. Box 740, 5555 Sunshine Coast Highway
Sechelt, BC
V0N 3A0

Dear Ms. Paul:

RE: Sunshine Coast Regional District (SCRD) Park Use Permit (PUP) amendment application

As you are aware the SCRD is currently developing plans and pursuing approvals for deployment of an emergency back-up plan for the Chapman Lake Water Supply System due to the prolonged drought situation.

The SCRD currently has a Park Use Permit (PUP #102714) for the purpose of maintaining water impoundment infrastructure at Chapman and Edwards Lakes in Tetrahedron Park within shishálh Nation traditional territory. The SCRD recently submitted (19 August 2015) a PUP amendment application to facilitate this emergency back-up plan which would include installation of a temporary siphon system to drawdown Chapman Lake and allow for a temporary accommodation camp for SCRD staff staying onsite. If approved this would permit the SCRD to install the infrastructure required to release the additional water identified in their Water Act - Section 8 (1) (Short Term Use of Water) Approval #2003865.

s.16

We are making you aware that BC Parks may be prepared to issue a temporary (valid until 06 Sept 2016) amendment to the SCRD PUP #102714 which will approve temporary installation of infrastructure to allow additional drawdown of Chapman Lake in conjunction with their Water Act - Section 8 (1) (Short Term Use of Water) Approval #2003865.

BC Parks recognizes that the SCRD proposal is a temporary emergency plan and will strongly encourage the SCRD to develop and implement a long-term solution to the water supply issue on the Sunshine Coast to avoid emergency measures like this being required in the future.

Sincerely,

Rod Dalziel

Sunshine Coast Area Supervisor BC Parks and Conservation Officer Division

Ministry of Environment

RD\rd

Page 145 of 401 to/à Page 146 of 401

Withheld pursuant to/removed as

DUPLICATE

From: Coupar, Meghan FLNR:EX

To: "monte.staats@scrd.ca"; "bryan.shoji@scrd.ca"

Cc: Aikman, Jennie S ENV:EX; Dalziel, Rod ENV:EX; Platz, Chris ENV:EX

Subject: Tracking #342040 Sunshine Coast Regional District - Request for Final Requirements (Draft Amendment Permit)

Date: Friday, August 28, 2015 9:35:00 AM

Attachments: T #342040 Sunshine Coast Regional District - Draft Amendment Permit.pdf

Appendix A - Standards and Practices for Instream Works.pdf

Appendix B - Impact Assessment Report.pdf

Appendix C - Development Plan.pdf

Appendix D - Emergency Water Supply at Chapman Lake Report.pdf

Appendix E - Environmental Monitoring Plan.pdf

Permit: Tracking #342040 / Authorization #102714

Permittee: Sunshine Coast Regional District

Park: Tetrahedron Park

Purpose: Amendment – Land Use Occupancy Term: February 1, 2014 to January 31, 2024

Hello Monte and Bryan,

Please find enclosed a **DRAFT** copy of Sunshine Coast Regional District's Amendment Park Use Permit for the term of February 1, 2014 to January 31, 2024 authorizing Water Impoundments (dams and dykes) within the above noted park.

Please carefully review the **DRAFT** copy of the Amendment Permit and confirm the terms and conditions of use in the above noted park. If revisions are required for this permit, please notify me, a FrontCounter BC office or the Area Supervisor as your request will need to be forwarded to the Regional Office for review and the Regional Director's approval. Revisions made by you to the **DRAFT** copy of the Amendment Permit document will not be included in the final copy of the permit.

In order to issue Sunshine Coast Regional District's Amendment Permit, we require the following item to be submitted:

 Written agreement (return email) of the terms and conditions of the Draft Amendment Permit.

Once we have received your approval that no changes are required to the Special Provisions and the above items, we will issue your permit and send you a final copy signed by the Regional Director. Your permit is not valid until you have received a final copy of the permit document. No activity authorized under this permit may take place without a valid permit.

If you have any questions or concerns regarding the above, you can contact me directly or call the FrontCounter BC Contact Centre, toll free at 1-877-855-3222 for assistance. If you would like to come into a FrontCounter BC office, the following link will provide you with a list of office locations nearest you: www.frontcounterbc.ca/locations.

Thank you,

Meghan Coupar

Parks Permit Clerk

FrontCounter BC - South Coast Regional Office South Coast, Haida Gwaii/South Island Sections

Page 148

Tel: (604) 586-4439 Fax: (604) 586-4434

Toll Free: 1-877-855-3222

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Development Plan – Emergency Siphon System

Sunshine Coast Regional District

August 19, 2015

Introduction

Chapman Creek is the main water supply for the Sunshine Coast as it supplies water to approximately 90% of the area residents (23,000 people). During the summer months, instream flows in Chapman Creek are regulated through impoundment structures on Chapman and Edwards Lakes, which are the main water storage reservoirs for the water system and both are situated within the Tetrahedron Provincial Park. The total available water storage capacity for withdrawal is 1.7 million m³.

Currently, the available water supply is at risk of becoming fully depleted as a result of the prolonged period of drought that has been experienced this summer (2015). In order to ensure the ongoing delivery of potable water to area residents and fresh water for environmental values, the Sunshine Coast Regional District is requesting an amendment to the existing park use permit (102714) to increase the permit area at Chapman Lake so an emergency siphon can be deployed to access an additional 1,000,000 m³ of water (5 m of additional storage – 8 m in total) in Chapman Lake.

Current Water Licensing

- Conditional water licence (storage in Chapman Lake) #C050724
 - 906,607 m³ per year (approximately 3 m of storage)

Design Aspects

The following design criteria was used to design the emergency siphon system:

Dam elevation: 974m

Bottom of dam channel elevation: 970m
 Channel dimensions: 90 m long x 2.2 m wide

Low water level: 968.8 m
 Low-low water level: 967 m
 Target flow rate: 400 – 550 L/S

The proposed siphon would consists of four (4) 200 mm diameter HDPE Dr_{11} siphon lines. The estimated length of each siphon is 250 m. The thicker Dr_{11} rating is intended to prevent the siphon line from collapsing in a vacuum as it will be largely unsupported while in operation. The HDPE Dr_{11} pipe is available in 15.2 m lengths, each length weighing about 400 lbs.

The staging area for accommodation (likely a small trailer or tent), portable toilets, and eating areas would be on the north side of the outlet channel about 100 m up from the existing helicopter pads.

The staging area for equipment would be above the high water mark at the end of the North side of the channel at the outlet of the lake. There are no access roads to the site. All access will be by helicopter or by foot under bad weather conditions. The intake to the siphon would be anchored with a lock block near the siphon prime valve, and a fish screen. The estimated lake depth that the screen would be set at is 963 m, or 4 m below the low-low water level elevation of 967 m.

The discharge lines would be positioned approximately 50 m downstream of the dam. The difference in elevation between the lake water surface and the outlet discharge elevation is critical in establishing a minimum discharge flow rate. The proposed outlet discharge elevation is a minimum of 9 m below the lowest lake surface level (elevation of 960 m). Refer to Attachment A for the stamped engineered design drawings.

The siphon will involve three 200mm HDPE pipes that are 250 m in length. The siphon will run over the existing dam structure from the Chapman Lake into Chapman Creek. The inlet will be installed at an elevation of 963 m, which is approximately 7 m below the current lake level (August 19, 2015) and will reach into the lake approximately 200 m from the existing dam. The inlet will be secured into place using a lock block and buoy. The outlet of the pipe will be located approximately 50m downstream of the existing dam at an approximate elevation of 965 m and will be secured using tie off ropes.

The installation of the siphon will involve fusing four or five pipe lengths will be fused together (60 to 75 m) for the inlet and the outlet. Due to the existing ground conditions in the wetted area of the lake (inlet) and the creek bed downstream of the dam (outlet), four or five pipe lengths will be fused together (60 to 75 m) on the exposed area of the lake bed directly adjacent to the dam and moved into place using the helicopter. For the outlet section, the helicopter will lift the discharge end of the pipe and drag it over the dam and place it in the creek at marked location. For the inlet section, the helicopter will lift the inlet end of pipe and place in a marked location. Once the inlet and outlet are in place the middle section will be fused together to connect the two ends.

Reservoir information

Under the SCRD's conditional water licence for storing water on Chapman Lake (#C050724), the SCRD is permitted to store 907,000 m³ of water, which equates to approximately 3m of total draw down. This request is proposing an additional 5m of drawdown (8m in total). Refer to Figure 1 for the map showing the bathymetry and key water levels.

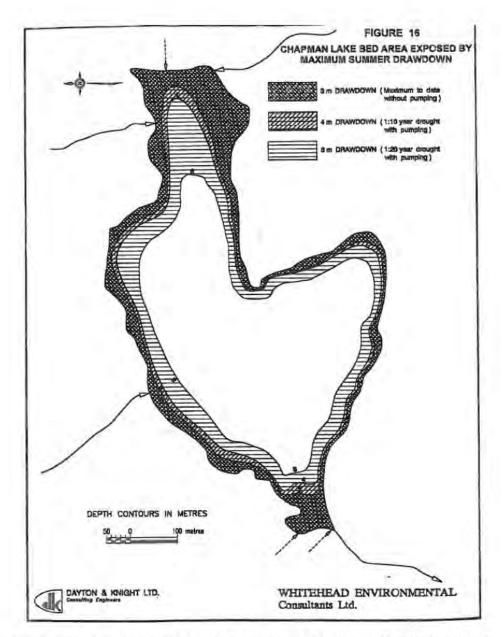


Figure 1. Chapman Lake bed area exposed by maximum drawdown (Referenced from "Impact Assessment – Sunshine Coast Proposed Water Storage Project (Floating Pump Station) on Chapman Lake in Tetrahedron Provincial Park" (1999))

Geotechnical Considerations

The watershed geology at higher elevation areas where the lakes are situated exhibits bedrock outcrops and mainly consist of glacial till, outwash and ice contact deposits, and post-glacial colluvium. Chapman Lake lies within an area of granitic rock of the late Jurassic and early crustaceous ages and is characterized by quartz diorite.

Seismic Considerations

There are no concerns with seismic activity from this proposal.

Project Related Considerations

Flooding – This proposal poses no risk to any flooding in the lake as the sole purpose of the siphon is to increase lake drawdown. There is also no risk to any flooding in the creek. The maximum flow rate from the proposed siphon system is 500 L/S and the creek is capable of withstanding flows higher than 10,000 L/S.

Erosion – There is no risk of erosion in the creek from the increased flows as the maximum flow from the proposed siphon is significantly less than typical peak flows. There is some risk of erosion from drawing down the lake and exposing the lake bed.

The exposed lake bed may be subject to erosion due to runoff and wave action. Runoff during heavy rainfall may result in some degree of erosion and transport of sediment into the water and this impact will be greatest immediately following the intense rains. However, the lake itself will act as a settling pond and is expected to naturally mitigate the potential for high levels of turbidity. Wave action can create turbulence that may re-suspend sediments, however, the impact of erosion from wave action is not considered significant (Whitehead, 1999).

Lands Related Issues

Chapman Lake is situated within the Tetrahedron Provincial Park, which is a Class A Provincial Park. The SCRD has a Land Use and Occupancy Park Use Permit (PUP) (102714) from the Ministry of Environment. Under the PUP, the permit area description includes the areas adjacent to the outlets of Chapman Lake and Edwards Lake in Tetrahedron Park (refer to Figure 2.).

Section 5 of the Special Provisions in the PUP reads:

 All activities relating to maintaining water impoundment structures and regulating water levels must be in accordance with the Water Act.

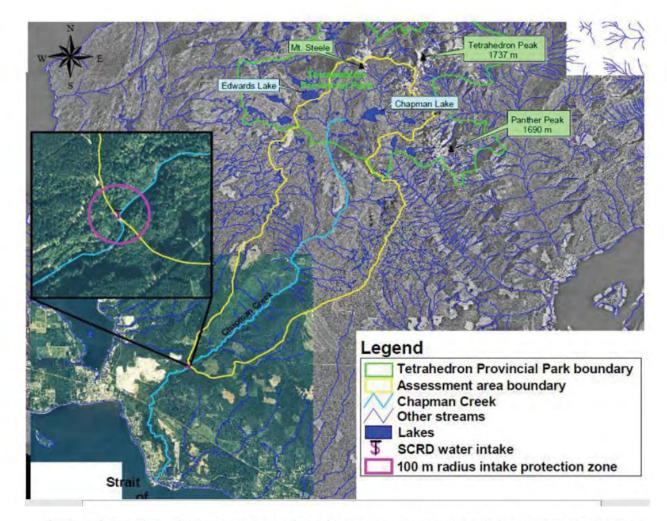


Figure 2. Delineation of the Chapman Creek drinking water watershed, including Chapman Lake and Edwards Lake, and the intake to the water treatment plant that supplies water to the Chapman Creek water system for area residents on the Sunshine Coast near Sechelt, BC

Water Related Issues

Water Quantity

Period of time: The proposal is for 45 Days based on 1,000,000 m³

Amount of water: 1,000,000 m³

Climatic Information:

Sunshine Coast climate is characterized by cool and wet winters and warm and dry summers (Figure 3). The summer season is the critical time of year for water supply, as this is when water demand is highest and available water supply is most limited. Trends over the last 50 years are suggesting that summer temperatures are increasing (Figure 4) and total summer precipitation is decreasing (Figure 5).

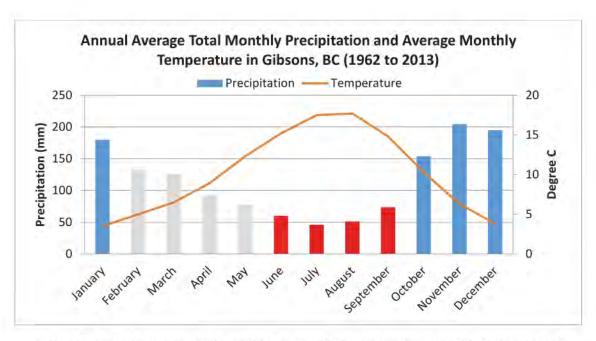


Figure 3: Annual average total monthly precipitation and average monthly temperature in Gibsons, BC (1962 to 2013)

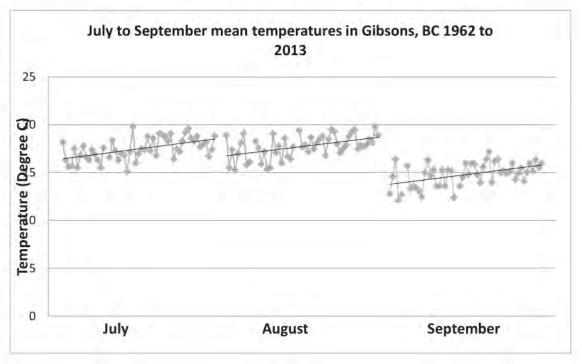


Figure 4: Historic monthly mean temperatures for July to September collected in Gibsons, BC from 1962 to 2013

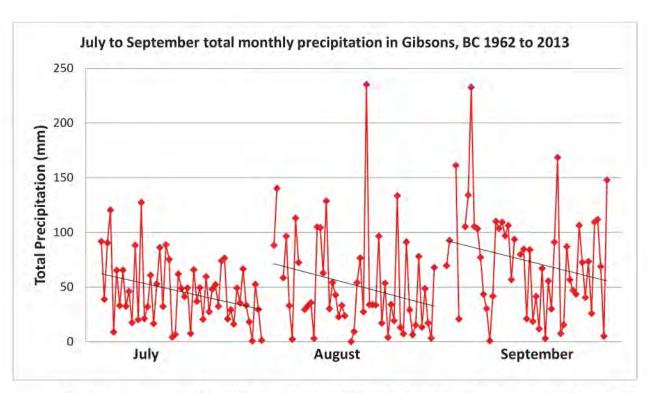


Figure 5: Historic monthly total monthly precipitation for July to October collected in Gibsons, BC from 1962 to 2013

Watershed Characteristics:

The Chapman Creek watershed area is approximately 65 km²

Chapman Lake is 31.2 ha in size and Lake catchment area is 6.58 km²

Sources into the reservoir:

The lake is fed by 2 main streams, both which enter at the east end of the basin.

Flow estimation methods:

Under natural conditions, the average outflow rate is approximately 500 L/S and the average retention time in the lake is 90 days (2006 Chapman Creek Source Assessment).

Outflow from the lake during the summer months are controlled when lake levels are below the top of the existing weir. Typically, controlled flows from the lake range from 100 L/S to 350 L/S. Measuring flows through the weir are performed by measuring pressure and flow in the outflow pipe.

The estimated flows under the proposed siphon system will range between 440 L/S and 500 L/S, which is based on the elevation at the intake and the outflow.

Hydrographs (mean annual discharge, maximum and minimum values)

The streamflow regime in Chapman Creek is defined as a hybrid regime, which is characterized by a winter freshet influenced by winter rain and a spring freshet influenced by spring snowmelt (Figure 6). Annual discharge patterns in Chapman Creek can act as an indicator for water supply for the Chapman

water system based on the timing and magnitude of annual flows, which is especially true for spring freshet (Pike *et al.*, 2010). When the timing of spring freshet occurs earlier in the season, it means that the winter snowpack is melting earlier and more rapidly, and the available water supply has to last longer during the summer season, which was the case for the water supply this year.

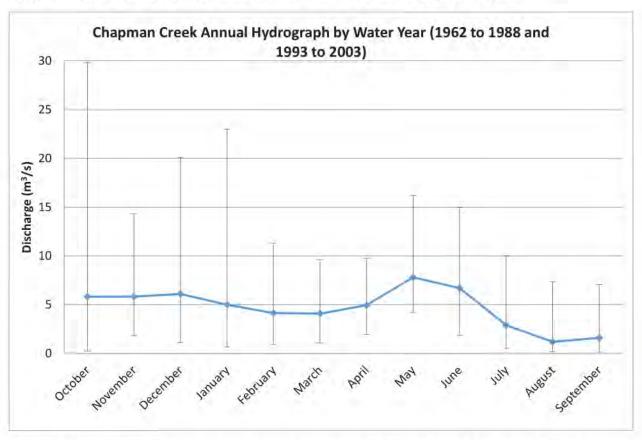


Figure 6. Average annual hydrograph (with maximum and minimum flows) for the water year (October to September) for Chapman Creek BC, from 1962 to 1988 and 1993 to 2003.

Monthly licensed water demand

The SCRD holds six waterworks on Chapman Creek. The licenses allow withdrawal of a maximum daily flow of 33.3 ML/d (7.325 Mgal/day) and an average annual flow of 20.5 ML/d (4.5 Mgal/day) from Chapman Creek.

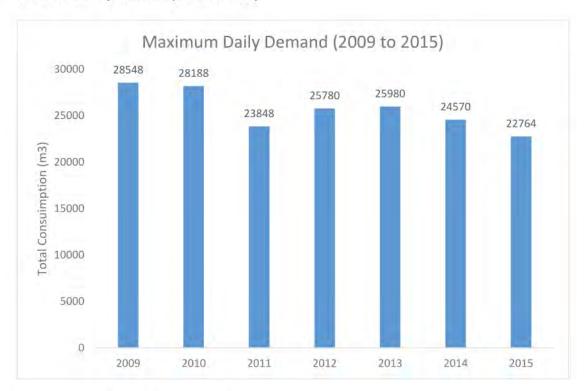
Projected Population

The population projections for the Chapman Water System (CWS) outlined in the SCRD's Comprehensive Regional Water Plan are outlined in the table below and are based a growth rate of 2% per year (high population growth rate scenario).

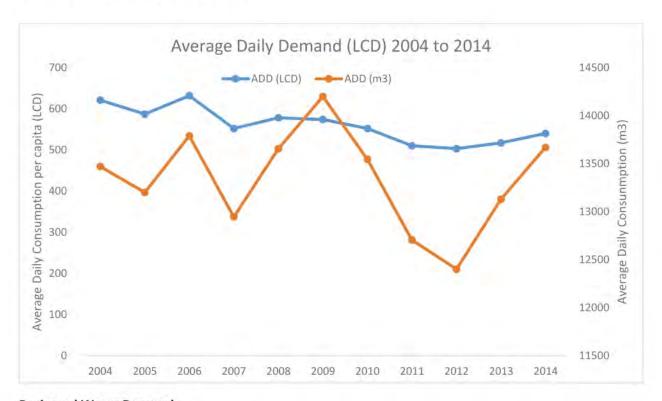
Year	2011	2016	2021	2026	2031	2036	Ann. Growth
Pop. in CWS	21,722	23,983	26,479	29,235	32,278	35,637	2%

Historic Water Uses for the Chapman Water System

Maximum Daily Demand (2009 to 2015)



Average Daily Demand (2004 to 2014)



Projected Water Demand

The projected water demands are based on water use projections under an intensive demand management and are projected in the following table.

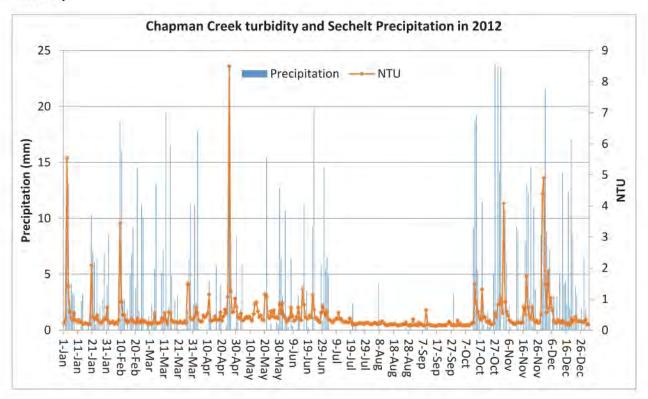
Year	2016	2021	2026	2031	2036
ADD (m3)	11,500	12,700	14,00	15,400	17,000

Water Quality

The impacts to water quality are expressed in the following charts, which were collected in 2012 when 3 m of the lake bed was exposed between September 15 and October 12. The data was collected from the intake in Chapman Creek at the SCRD's water treatment plant, which is approximately 17 Km from Chapman Lake. All of the charts include total daily precipitation data in order to show when the fall rains occurred as an indicator of increasing water levels.

Based on the following data collected in 2012, there appears to be no adverse impacts to water quality from increased lake level draw down.

Turbidity



Temperature