

PEACE RIVER REGIONAL DISTRICT ELECTORAL AREA DIRECTORS COMMITTEE MEETING

A G E N D A

for the meeting to be held on Thursday, June 19, 2014 in the
Regional District Office Boardroom, 1981 Alaska Avenue,
Dawson Creek, BC, commencing at 10 a.m.

1. Call to Order: Director Goodings to Chair the meeting
2. Director's Notice of New Business:
3. Adoption of Agenda:
4. Adoption of Minutes:
M-1 Electoral Area Directors' Committee Meeting Minutes of May 22, 2104.
5. Business Arising from the Minutes:
6. Delegations:
D-1 Kathy Sawchuk, Superintendent and Allan Van Tassel, Director of Operations, regarding Changes to School Bus Transportation within School District No. 59.
7. Correspondence:
C-1 Email from Leah Mellott, General Manager, Electoral Area Administration, Regional District of North Okanagan, regarding her General Manager position.
8. Reports:
R-1 June 13, 2014 report from Jodi MacLean, Assistant Manager of Development Services regarding One Island Lake Water Monitoring.
9. New Business:
10. Diary:
11. Adjournment:



**PEACE RIVER REGIONAL DISTRICT
ELECTORAL AREA DIRECTORS' COMMITTEE
MEETING MINUTES**

M-1

DATE: May 22, 2014
TIME: 10 a.m.
PLACE: Regional District Office Boardroom, Dawson Creek, BC
PRESENT:

Directors: Karen Goodings, Electoral Area 'B' and Meeting Chair
Arthur Hadland, Electoral Area 'C'
Leonard Hiebert, Electoral Area 'D'
Jerrilyn Schembri, Electoral Area 'E'

Staff: Chris Cvik, Chief Administrative Officer
Shannon Anderson, Deputy Chief Administrative Officer
Bruce Simard, General Manager of Development Services
Fran Haughian, Communications Manager / Commission Liaison
Jodi MacLean, Assistant Manager of Development Services
Jacqueline Burton, Bylaw Enforcement Officer
Barb Coburn, Recording Secretary

Call to Order Chair Goodings called the meeting to order at 10:05 a.m.

ADOPTION OF AGENDA:

May 21, 2014 Agenda

MOVED by Director Schembri, SECONDED by Director Hadland,
That the Electoral Area Directors' Committee agenda for the May 22, 2014 meeting, be adopted,
including items of new business:
Call to Order: Director Goodings to Chair the meeting
Director's Notice of New Business:
Adoption of Agenda:
Minutes:
M-1 Electoral Area Directors' Committee Meeting Minutes of February 20, 2014
Business Arising from the Minutes:
Delegations:
Correspondence:
Reports:
R-1 Verbal Report from Fran Haughian, Communications Manager / Commission Liaison regarding
2014 Communications Plan.
R-2 May 12, 2014 Report from Jacqueline Burton, Bylaw Enforcement Officer regarding Enforcement
File Update
New Business:
NB-1 Strategic Plan
NB-2 Mayor's Caucus
NB-3 Penwar
NB-4 Draft Regional Agricultural Plan
Diary:
Adjournment:

CARRIED.

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MINUTES:

M-1
EADC Meeting Minutes of
February 20, 2014

MOVED by Director Hadland, SECONDED by Director Schembri,
That the Electoral Area Directors Committee minutes of February 20, 2014 be adopted.
CARRIED.

BUSINESS ARISING:

BA-1
Care Facilities

The Directors discussed the need for more care facilities for seniors to meet the three stages of their care, independent, assisted and long-term. It was noted that there are successful facilities operating privately in both Alberta and Saskatchewan. It was also noted that the majority of the seniors in care come from the rural areas and therefore it makes sense that the Electoral Area Directors contribute to the associated costs.

MOVED by Director Hadland, SECONDED by Director Schembri,
That the Electoral Area Directors Committee recommend to the Regional Board that the Regional Board authorize staff to arrange a workshop including representatives from the various care facilities, Northern Health and member municipalities to discuss and come to a consensus on what is needed to be able to move forward to achieve identified goals.
CARRIED.

REPORTS:

R-1)
Communications Plan

Fran Haughian, Communications Manager / Commission Liaison updated the Directors on the communication initiative she is developing. In an attempt to get the word out about what the Directors are doing in their respective areas, following are some of the ideas or actions:

- a three-page layout in the Northeast News to come out soon;
- the same information was produced in a pamphlet that is to be included with rural tax notices;
- draft a plan for the Directors' review and suggestions;
- once approved, develop web pages for each electoral area;
- retained Trina Gower to do life style pictures from around the Regional District;
- contacted Eagle Vision Productions to produce a general Regional District story and individual videos of each electoral area to be included on the Directors' web pages; and
- start hosting community meetings in the electoral areas.

A category has been established on the Peace River Regional District website where meeting notes can be placed. She asked the Directors that if they attend meetings without staff, please forward any notes they take to her to be placed on the RD website. The directors suggested an informal staging would be more relaxing for the residents at the meetings and may encourage them to participate in open, informative and friendly discussions.

R-2)
Enforcement File Update

The Directors reviewed the Enforcement File Update report and expressed appreciation for the job well done by Jacqueline Burton, Bylaw Enforcement Officer.

NEW BUSINESS:

NB-1
PRRD Strategic Plan

A discussion ensued regarding the Strategic Plan. During the discussion, it was requested that a tracking system of outstanding board resolutions be created.

MOVED by Director Hadland, SECONDED by Director Schembri,
That the Electoral Area Directors Committee recommend to the Regional Board that staff be requested to produce a tracking system of outstanding board resolutions in a format that can be presented to the Board on a regular basis.

CARRIED.

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NEW BUSINESS:

NB-2
Mayor's Caucus

The Directors discussed the issue of the secrecy surrounding the Mayors' Caucus meetings. The concern is the lack of open communication with the Electoral Area Directors.

MOVED by Director Hadland, SECONDED by Director Hiebert,
That the Electoral Area Directors Committee recommend to the Regional Board that, due to the potential impact on the rural community and in the spirit of open governance, the Mayors of the member municipalities share with the Board the purpose and issues being discussed at the Mayors' Caucus meetings.

CARRIED.

NB-3
PNWER Annual Summit

Director Schembri noted that an invitation and preliminary schedule for the Pacific Northwest Economic Region (PNWER) 2014 Annual Summit to be held in Whistler, BC from July 20 to 24 is on the next Regional Board Agenda. She encouraged the directors to attend as it is well worth it.

Recess

The meeting recessed for lunch at 12 p.m.

Reconvene

The meeting reconvened at 12:40 p.m.

NB-4)
Draft Regional Agricultural Plan

Bruce Simard, General Manager of Development Services distributed copies of the proposed Regional Agricultural Plan. He explained there are four strategic areas, twenty initiatives, thirty-two policy statements and twenty-five action items. The plan is for a fifteen to twenty year period.

The plan has been reviewed by the Agriculture Advisory Committee; presented in sections, and has also been presented at thirteen public meetings with the suggestions incorporated into it.

The Directors suggested the following:

- have a consultant present the plan to the public, a different face from the Building Bylaw;
- the concern that this was downloaded from the Ministry of Agriculture;
- ensure all affected stakeholders have had an opportunity to comment

There were also the following comments:

- Page 54 there were three farmer markets mentioned; it is believed Hudson' Hope and Pouce Coupe also have them;
- Page 36, 2.1.5, first paragraph, reword 'facilitated by regulations'

Chair Gooding suggested the Directors scrutinize the plan very closely and bring back comments and suggestions. Bruce Simard suggested the directors attend the next Agriculture Advisory Committee on June 17, 2014 at 10 a.m. as it would be a good time to discuss their ideas.

9) Adjournment

MOVED by Director Hadland, SECONDED by Director Hiebert,
That the meeting adjourn.

CARRIED

The meeting adjourned at 1:40 p.m.

Karen Goodings, Chair

Barb Coburn, Recording Secretary

June 19, 2014

From: Leah Mellott [<mailto:Leah.Mellott@rdno.ca>]
Sent: February-13-14 9:58 AM
To: 'Karen Goodings'
Subject: RE: EA manager

Hi Karen,

It is a senior management position (equivalent to our other General Manager positions for Finance, Engineering, Planning, Parks, etc.).

There is a bit of history regarding how the position evolved. A Greater Vernon Governance Service was established and two Commissions were formed: 1) Greater Vernon Services Commission and 2) Electoral Area Services Commission. Both Commissions were given delegated authority from the Board. At that time, the General Manager of Electoral Area Administration position was established. A few years later both Commissions were disbanded, however the GM, Electoral Area Admin position remained intact.

The Electoral Area Directors strongly value the position and "demanded" that the position stay intact. The Electoral Area Directors are 100% responsible for funding my compensation so the other Board members don't concern themselves with it.

Hope this helps !

:) Leah

Leah Mellott, CHRP, General Manager
Electoral Area Administration
Regional District of North Okanagan
Direct Line: (250) 550-3722
Confidential Fax: (250) 550-3723
Mobile: (250) 308-9356

From: Karen Goodings [<mailto:kgooding@pris.bc.ca>]
Sent: Wednesday, February 12, 2014 9:05 PM
To: Leah Mellott
Subject: EA manager

Hi again, I am trying to get ahead of the game by thinking what questions might come up in regard to our doing this same type of EA assistance.

1. Is this a management position? Or does it fall under the union agreements?
2. Did your regional district board discuss and agree to the job description and function?

Thanks for your help

Karen

June 19, 2014

THIS AGREEMENT dated for reference «Date», 2011.

BETWEEN:

REGIONAL DISTRICT OF NORTH OKANAGAN, a regional district incorporated pursuant to the *Local Government Act* with an office at 9848 Aberdeen Road, Coldstream, British Columbia, V1B 2K9

(the “District”)

AND:

LEAH MELLOTT
9498 Eastside Road
Vernon, BC V1H 1K7

(the “Employee”)

(collectively: the “Parties”)

WHEREAS:

- A. The District may establish the terms and conditions of employment of its employees pursuant to Section 200 of the *Local Government Act*, R.S.B.C. 1996, c.323 as it is amended from time to time.
- B. The District has agreed to appoint and employ the Employee as its General Manager, Electoral Area Administration, and the Employee has agreed to accept the appointment as General Manager, Electoral Area Administration for the District.

IN CONSIDERATION of the mutual promises contained herein, the Parties agree and covenant as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 In this Agreement:

- (a) “*Local Government Act*” means the *Local Government Act*, R.S.B.C. 1996, c.323 as it is amended from time to time;
- (b) “*Community Charter*” means the *Community Charter*, S.B.C. 2003, c.26 as it is amended from time to time;
- (c) “District” means the Regional District of North Okanagan as it may exist from time to time;
- (d) “Board” means the board of directors of the Regional District;
- (e) “Chair” means the chair of the Board pursuant to the *Local Government Act*;
- (f) In this Agreement words in the singular include the plural, and words in the plural include the singular;

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- (g) In this Agreement words importing male persons include female persons and corporations, and words importing female persons include male persons and corporations;
- (h) Where a word is defined in this Agreement, other parts of speech and grammatical forms of the same word have corresponding meanings;
- (i) The division of this Agreement into sections, subsections and paragraphs is for convenience of reference only, and will not affect the interpretation of this Agreement; and
- (j) The words “hereto”, “herein”, “hereunder”, and words of similar import, have reference to this Agreement as a whole and not to any particular section, subsection, or paragraph of this Agreement.

2 APPOINTMENT and EMPLOYMENT

- 2.1 The Employee is employed by the District as its General Manager, Electoral Area Administration effective April 18, 2011, pursuant to the terms and conditions set out in this Agreement.

3. PROBATION PERIOD

- 3.1 This Offer of Employment includes a probationary period of six (6) consecutive months so ending on October 18, 2011. During this period, the Employee's performance and suitability will be evaluated by the District.

4. DUTIES OF EMPLOYEE

- 4.1 The Employee agrees to perform all of the duties necessary to carry out the Employee's position and to ensure that the District is operated efficiently, in accordance with the *Local Government Act*, and in accordance with the standards set by the Board from time to time.
- 4.2 Without limiting the generality of 4.1, the Employee's duties include the duties and responsibilities set out in the attached Schedule 'A' and such changes as may be mutually agreed to between the Administrator and the Employee.
- 4.3 This offer is conditional upon the Employee agreeing to abide by the enclosed Employment Conditions, which are fundamental and integral to this Agreement (Schedule 'B'). It is hereby recognized and acknowledged that a significant aspect of this position requires the General Manager to represent the interests of the Electoral Area directors in an advocacy role which could be viewed as contrary to the interests of other participants of the RDNO, and this would not in and of itself constitute grounds for dismissal with just cause.
- 4.4 If the Employee is of the opinion that the District has breached or altered a fundamental term of this Agreement that the Employee will not accept, the Employee must give the Administrator written notice of the Employee's opinion within 14 calendar days of the event. The Administrator will then convene a meeting to discuss the Employee's opinion within 30 calendar days of receiving the Employee's opinion.

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- 4.5 Nothing in 4.4 or this Agreement generally, shall be construed as limiting the District's right to terminate the Employee's employment according to common law principles, the provisions of this Agreement, the *Community Charter*, or the *Local Government Act*.

5. SALARY and PAYMENT

- 5.1 For the Employee's service hereunder the District will pay to the Employee, salary in accordance with the minimum step of the General Manager payscale (Level G) (the "Salary").
- 5.2 The Salary will accrue to the Employee day by day and will be paid in equal two week installments by direct deposit.
- 5.3 The Salary is subject to statutory deductions including Income Tax, Canada Pension Plan, Employment Insurance, and any deductions as may be authorized by the Employee in writing from time to time.
- 5.4 Provided there is satisfactory performance, upon completion of the Employee's probationary period, the salary will be adjusted to mid step of the General Manager payscale (Level G). The Employee's performance and salary will be reviewed on an annual basis thereafter.
- 5.5 The Employee will be entitled to general pay adjustments granted to all employees.
- 5.6 As part of management, the Employee is expected to attend work during normal office hours, which are currently 8:00 a.m. to 4:30 p.m. Monday to Friday, as well as additional hours for evening meetings and weekend work. Compensation and benefits have been established with this in mind, therefore no additional compensation will be paid for work performed outside of regular hours. These working hours currently allow for a compressed work schedule with one day off during each 70-hour two-week pay period. The hours of work are subject to change by the District in order to meet its needs (e.g. removal of compressed work schedule; evening meetings, etc.).

6. VACATIONS

- 6.1 The Employee will be entitled to vacation in accordance with District policy for management employees as amended from time to time. To accommodate scheduling and District business needs, and to prevent significant vacation balance accumulations, the District reserves the right to schedule paid vacation.
- 6.2 For purposes of calculating vacation entitlement, the Employee's anniversary is deemed October 22, 2001.

7. BENEFITS and PENSION PLAN

- 7.1 The Employee shall continue to participate in the benefit plan made available by the District from time to time to its employees. The benefit package includes Municipal Pension Plan, Medical Services Plan, and Group Health Benefits (Dental, Extended Health Care, Life Insurance and Long Term Disability Insurance).

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- 7.2 The premiums for Long Term Disability are paid by the employee. Premiums for medical, dental, extended health care and life insurance are paid by the District. The contributions to the Municipal Pension Plan are paid by both the employee and the District.
- 7.3 Please note that the District is not an insurer of the benefits plans. Its liability is limited to the payment of premiums or portions of premiums as explained. All Benefits are subject to the terms of the provider's policy and plan from time to time in effect and are subject to change at the provider's or, where applicable, the District's discretion. Any disputes about eligibility for or participation in Health Benefits or Pension Plan benefits are matters between the Employee and the Provider under its policy.
- 7.4 The Employee will accrue and be paid out sick leave accumulation in accordance with District policy as amended from time to time.

For purposes of calculating sick leave payout, the Employee's anniversary date is deemed October 22, 2001.

8. VEHICLE and HOME OFFICE EXPENSES

- 8.1 The Employee will own and maintain a reliable motor vehicle (the "Employee's Vehicle") to travel within the District, and to local government offices that participate in inter-regional services.
- 8.2 The Employee will ensure that the Employee's Vehicle is at the District office during normal work hours, and is available for other meetings on weekends and beyond normal work hours.
- 8.3 The Employee will ensure that the Employee's Vehicle is covered by "Business Use" insurance in accordance with Insurance Corporation of B.C. regulations.
- 8.4 The District will reimburse the Employee for travel on District business in the Employee's vehicle at the rate per kilometer established from time to time by the District for reimbursement of its employees.
- 8.5 The Employee will maintain an office at the Employee's home which includes a computer system capable of remotely accessing the District office's computer system. The District will reimburse the Employee \$300.00 per year for the business use of a home office and personal computer and will pay any costs related directly to linking the Employee's home computer to the District's office computer system.

9. EMPLOYMENT EXPENSES and PROFESSIONAL DEVELOPMENT

- 9.1 The Employee will be reimbursed for reasonable expenses incurred in the course of her employment with the District, pursuant to the expense policies of the District, as they exist from time to time.
- 9.2 The District will pay the Employee's reasonable membership costs and dues for professional organizations appropriate to the Employee's position. The District will also pay the Employee's costs and dues for membership in the BC Human Resources Management Association and for maintaining Canadian Human Resources Professional (CHRP) certification.

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- 9.3 The District will pay the reasonable costs of the Employee's attendance at professional development and meetings and sessions of associations appropriate to the Employee's position.
- 9.4 The District may pay the Employee's reasonable costs of joining associations directly related to Local Government and attendance at respective meetings.

10. TERMINATION and NOTICE

- 10.1 The District may terminate this Agreement summarily, without notice or any payment in lieu thereof, if the Employee gives the District just cause to do so.
- 10.2 If there is no just cause for the Employee's dismissal, the maximum notice or Salary in lieu of notice (or combination thereof, which the District in its sole discretion can determine) (the "Notice"), which the District shall be liable for upon termination shall be three months' Notice plus one additional month's Notice for each consecutive completed year of service, or prorated for each part year of service, to a maximum Notice of twelve (12) months.
- 10.3 In this section, service is calculated from the Employee's Hire Date (October 22, 2001) to the date termination is effected. The Salary shall be the Salary as of date of termination and shall not include any other amounts, allowances or benefits.
- 10.4 The Employee's legal right to notice or compensation in lieu is governed by this provision, not by the common law.

11. GENERAL

- 11.1 Other terms and conditions of the Employee's employment are set out in District policies issued from time to time. If District policies and this agreement conflict, this agreement shall prevail to the extent of the inconsistency.
- 11.2 This Agreement describes the Employee's entire employment agreement with the District. It supersedes and replaces any prior or collateral agreements or representations, whether oral or written. The terms of this Agreement can only be amended in writing and signed by the Employee and the District.

12. GOVERNING LAW and ARBITRATION

- 12.1 This Agreement shall be governed exclusively by and construed in accordance with the laws of the Province of British Columbia, and shall in all respects be treated as a British Columbia contract.
- 12.2 Any dispute, controversy or claim arising out of or relating to this Agreement or its breach, that cannot be resolved by the parties, shall, upon either of the parties to this Agreement giving written notice to the other, be submitted to arbitration in the City of Vernon, British Columbia or any other venue agreed upon by the parties, pursuant to the Commercial Arbitration Act of British Columbia, as amended from time to time (the "Arbitration Act") or by any other form of arbitration mutually acceptable to the parties. Such dispute, controversy or claim shall be determined by a one-person arbitration board.

- 12.3 Any award or order rendered by the arbitrator shall be final, conclusive and binding upon the parties, and judgment may be entered on the arbitrator's award or order in any court having jurisdiction.
- 12.4 The expenses of such arbitration shall be borne as determined by the Arbitrator based on the award or order rendered.

13. WAIVER

- 13.1 No waiver of this Agreement or of any covenant, condition, or limitation herein contained will be valid, unless made in writing and duly executed by the Party to be charged therewith.
- 13.2 No evidence of any waiver will be offered or received in evidence of any proceeding, arbitration, or litigation between the Parties hereto, arising out of or affecting this Agreement, or the rights or obligations of the parties hereunder, unless such waiver is in writing and duly executed as aforesaid.

14. SEVERABILITY

- 14.1 Should any part of this Agreement be declared invalid, such declaration will not affect the validity of any remaining portion of this Agreement.

15. NOTICES

- 15.1 Any notice or other communication required or permitted to be given hereunder will be sufficiently given if hand delivered to the party to whom it is given or mailed in British Columbia by prepaid registered mail addressed to such party at the addresses set out herein or at such other address as the party has notified the other, in writing. Any notice or other communication so mailed will be deemed to have been given and received on the third postal delivery day following the date of its mailing. Any notice or other communication hand delivered will be deemed to have been given and received on the day it is delivered, or the following business day if delivered after 4:00 p.m. or on a non-business day.

16. CONSIDERATION

- 16.1 The Parties agree that this Agreement has been executed by each of them in consideration of the mutual promises and covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged.
- 16.2 The parties waive any and all defences relating to an alleged failure or lack of consideration in connection with the making of this Agreement.

17. BURDEN and BENEFIT

- 17.1 This Agreement will enure to the benefit of and be binding upon, the District, the Employee, and the successors of the District.

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17.2 Unless otherwise agreed to in writing, this Agreement shall survive changes in the District and its business including but not limited to the passage of time, changes in position, duties or responsibilities and compensation.

18. SIGNING

18.1 The Parties may execute this Agreement in counterparts.

Enclosures: Schedule 'A' – Duties and Responsibilities
Schedule 'B' – Employment Conditions

IN WITNESS WHEREOF the parties hereto have executed this Agreement:

The Corporate Seal of the «Name» is
hereunto affixed in the presence of:

«Name»
Administrator

Date

c/s

SIGNED, SEALED AND DELIVERED by)
«Name» in the presence of:)
)
)
)
_____)
Name)
)
)
)
_____)
Address)
)
)
)
_____)
Occupation)

«Name»
Date

June 19, 2014

SCHEDULE 'A'

DUTIES AND RESPONSIBILITIES

Job Title:	General Manager
Department:	Electoral Area Administration

JOB SUMMARY

Reporting to the Administrator, the General Manager, Electoral Area Administration is responsible for the overall coordination of activities related to the Electoral Area Advisory Committee (EAAC), particularly in the presentation and followup of the EAAC agenda business management and administration of the function. This position is the principal contact for the Electoral Area directors for day-to-day enquiries and serving the needs of the electoral areas and the region overall.

The General Manager, Electoral Area Administration is a member of the Senior Management Team and participates in development of strategic and corporate goals / objectives, business plans and budgets.

DUTIES / RESPONSIBILITIES

- | |
|---|
| <ul style="list-style-type: none"> • Act as staff liaison for the Electoral Area directors - provide advice, research and draft documents, oversee calendars, coordinate activities, and coordinate attendance at elected official engagements |
| <ul style="list-style-type: none"> • Represent the Electoral Area directors in discussions / meetings at the inter-governmental level |
| <ul style="list-style-type: none"> • Attend EAAC meetings in the capacity of staff liaison. Assist with formulation of recommendations to the Board. |
| <ul style="list-style-type: none"> • Prepare reports, briefs, plans and background documentation for EAAC meetings and oversee preparation of meeting agendas |
| <ul style="list-style-type: none"> • Initiate actions and coordinate and monitor assigned tasks emerging from meetings. Such actions may include initiation of special projects such as contracts and service agreements, feasibility and other studies, surveys and development plans |
| <ul style="list-style-type: none"> • Formulate recommendations with respect to policies, procedures, bylaws, programs, budgets and long term planning |
| <ul style="list-style-type: none"> • Develop and monitor budgets, and approve expenditures |
| <ul style="list-style-type: none"> • Contribute as a member of the Senior Management Team |
| <ul style="list-style-type: none"> • Maintain harmonious working relationships with municipal and Regional District staff, elected officials, members of the business community and the general public |
| <ul style="list-style-type: none"> • Perform other duties as may be assigned from time to time |
| <ul style="list-style-type: none"> • Undertake emergency training and assist as directed in supporting the Regional District's emergency response mandate. Duties assigned during an emergency may differ from regular duties |

C-1**SUPERVISION RECEIVED AND EXERCISED**

Immediate Supervisor:	Administrator
Positions directly supervised:	Clerk
This position is responsible for:	
<input checked="" type="checkbox"/> Assigning Work	<input checked="" type="checkbox"/> Evaluating Work
<input checked="" type="checkbox"/> Reviewing Work	<input type="checkbox"/> Disciplining Employee(s) – in consultation with the Administrator

KNOWLEDGE, SKILLS and ABILITIES REQUIRED

Education:	<ul style="list-style-type: none"> Completion of post-secondary education in public administration or business administration Membership or eligibility for membership in a relevant professional association
Experience:	<ul style="list-style-type: none"> Five (5) years of increasingly responsible relevant experience, preferably including experience in local or regional government Thorough knowledge of the <i>Local Government Act and Community Charter</i> and other relevant legislation as it applies to Electoral Area administration Experience in the public consultation process Sound working knowledge of legal documents and contract administration
Specific Skills:	<ul style="list-style-type: none"> Demonstrated ability to work effectively and independently to achieve results and resolve problems in a complex political environment Ability to deal effectively with elected officials and the public with tact and diplomacy Excellent communication skills, both verbal and written – particularly the ability to prepare written reports and make presentations Ability to analyze and interpret financial statements and statistical data

CLASSIFICATION

Paygrade: G	Full-time (Management)
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JOB DESCRIPTION

Original dated: <u>March 15, 2011</u>	Revised: _____
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SCHEDULE 'B'

EMPLOYMENT CONDITIONS

C-1

The Trust Relationship

1. The District expects and requires as fundamental terms of your employment that you will:
 - a. At all times, maintain a level of honesty, professionalism, deportment and good character commensurate with the community standing and level of public trust instilled in your position.
 - b. Use your best efforts to promote the interests of the District and devote your full working time and attention to the District's business. The role of advocate for the Electoral Areas is deemed to be consistent with the interests of the Regional District.
 - c. Carry out your duties efficiently and in accordance with the *Local Government Act* and the standards set by the District from time to time;
 - d. Be cautious of engaging in interests or practices which may bring you into conflict with your duties and responsibilities to the District or be damaging to the District's goodwill and reputation. Related to this:
 - (i) If you wish to engage in outside business or employment in any capacity, which may result in a conflict of interest with the District's interests, you **must** first obtain the District's written approval which approval will not be unreasonably withheld; and
 - (ii) If you have reason to believe other private or personal interests may bring you into conflict with the District's interests, you **must** disclose these interests to the District.

Confidential and Proprietary Information

2. All information not already in the public domain and emanating from the District's affairs in any form is confidential and the property of the District ("Confidential and Proprietary Information"). Such Information must not, throughout your employment or following its termination for any reason, leave the District premises without prior authorization or be copied, downloaded or disclosed to unauthorized persons, including members of the public, the media, friends or relatives. Confidential and Proprietary Information includes:

Information about members of the public, financial information, contracts and forms (whether blank or containing detail), strategy related documents, minutes of meetings, employment agreements and other personal or personnel related information (including pertaining to yourself), policies and procedures, research, new developments and products, computer data, internal correspondence and e-mails.

When you leave the District's employment, you must return all Confidential and Proprietary Information to the District and delete all such Information from all technologies in your possession.

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Indemnification

3. The District will indemnify the Employee for any claim brought against the Employee arising out of the proper performance of the Employee's duties, and shall provide legal counsel to the Employee for the purpose of defending any claim or action brought against the Employee arising out of the proper performance of his duties (the "Indemnity").
4. The Indemnity survives the termination of this Agreement.
5. The Indemnity is void and unenforceable as against the District if the Employee has acted fraudulently, dishonestly, maliciously, has engaged in willful misconduct, been grossly negligent, or has committed libel or slander.

General

6. Failure or refusal to abide by these Conditions of Employment and/or to abide by the District's policies, rules, standards and expectations during your employment will be considered just cause for disciplinary action (warnings, suspensions with or without pay, demotions and/or being placed on probation) or termination for cause as appropriate.

I have read, understand and agree to the Employment Conditions set out above.

Signature

Date

Print Name



Peace River Regional District REPORT

R-1

To: Electoral Area Directors Committee

Date: June 13, 2014

From: Jodi MacLean, Assistant Manager of Development Services

Subject: One Island Lake – Water Monitoring

PURPOSE:

To inform the Electoral Area Directors of the results of the One Island Lake water quality study conducted by the Ministry of Environment and volunteers.

BACKGROUND:

Between 2011 and 2013, the BC Lake Stewardship Society, the Ministry of Environment, and several volunteers who live or own property around One Island Lake collected and analyzed water samples from the lake. The results were published in the 8-page hand-out which was mailed to all One Island Lake property-owners and presented to the One Island Lake Ratepayers Association during their Annual General Meeting held on May 18, 2014, by MoE Water Quality Technician Kirsten Heslop. A copy is posted online at

http://www.env.gov.bc.ca/epd/regions/omineca/water/brochures/pdf/one_island_lake2011-2013.pdf

Jodi MacLean and Ken Sehn from MoFLNRO Water Stewardship branch also attended the meeting to respond to question from the community members. The PRRD assisted the Ministry of Environment by preparing envelopes and mailing the hand-outs (the Ministry did not have access to due to mailing addresses of property owners due to the *Freedom of Information and Protection of Privacy Act*). The mail out consisted of 49 envelopes.

The results show that the lake is healthy with acceptable levels of dissolved oxygen, phosphorus, and water clarity. The lake was, therefore, classified as mesotrophic (a lake with intermediate productivity). By comparison, the same program had previously sampled Swan Lake and Charlie Lake finding them both to be eutrophic (high nutrient levels, low clarity).

Attendees of the meeting were interested in obtaining copies of the PRRD Lakeshore Development Guidelines but only 4 were available for distribution. The Guidelines classify One Island Lake as a 'Limited Development Lake' in which it is recommended that plans be reviewed prior to development. Section 8 of the PRRD Lakeshore Development Guidelines lists some best-practice principles and guidelines for site design and development within the shore zone with respect to minimizing impacts to the lake. Several in attendance were interested in how their properties compared to the guidelines and questioned whether there could be a non-binding assessment.

June 19, 2014

Staff Initials:

Dept. Head: *Bruce Simard*

CAO:



One Island Lake

2011 - 2013



Ministry of
Environment

*A partnership between the BC Lake Stewardship Society
and the Ministry of Environment*

The Importance of One Island Lake & its Watershed

British Columbians want lakes to provide good water quality, aesthetics and recreational opportunities. When these features are not apparent in recreational lakes, questions arise. People begin to wonder if the water quality is getting worse, if the lake has been affected by land development, and what conditions will result from more development within the watershed.

The BC Lake Stewardship Society (BCLSS), in partnership with the Ministry of Environment (MoE), has designed a program, entitled *The BC Lake Stewardship and Monitoring Program* (BCLSMP), to help answer these questions. Through regular water sample collections, we can begin to understand a lake's current water quality, identify the preferred uses for a given lake, and monitor water quality changes resulting from land development within the lake's watershed. The level for a particular lake depends on study objectives as well as funding and human resources available. This report provides the 2011 - 2013 results of a Level 3 program for One Island Lake.

Through regular status reports, the BCLSMP can provide communities with monitoring results specific to their local lake and with educational material on lake protection issues in general. This useful information can help communities play a more active role in the protection of the lake resource. Finally, this program allows government to use its limited resources efficiently thanks to the help of area volunteers and the BC Lake Stewardship Society.

Volunteers have been collecting ice-on/ice-off for the past 40 years (Johnston 2014, Pers. Comm.). One Island Lake's monitoring program began in 2011 and was conducted by the One Island Lake volunteers (in partnership with the MoE). Level 3 sampling in 2011 - 2013 was supported by the MoE. This report summarizes information derived from the program. Qual-

ity of the data has been found to be acceptable. Data quality information is available upon request.

A **watershed** is defined as the entire area of land that moves the water it receives to a common waterbody. The term watershed is misused when describing only the land immediately around a waterbody or the waterbody itself. The true definition represents a much larger area than most people normally consider. The watershed area of One Island Lake is 6.14 km².



Watersheds are where much of the ongoing hydrological cycle takes place and play a crucial role in the purification of water. Although no "new" water is ever made, it is continuously recycled as it moves through watersheds and other hydrologic compartments. The quality of the water resource is largely determined by a watershed's capacity to buffer impacts and absorb pollution.

Every component of a watershed (vegetation, soil, wildlife, etc.) has

an important function in maintaining good water quality and a healthy aquatic environment. It is a common misconception that detrimental land use practices will not impact water quality if they are kept away from the area immediately surrounding a water body. Poor land-use practices anywhere in a watershed can eventually impact the water quality of the downstream environment.

Human activities that impact water bodies range from small but widespread and numerous *non-point* sources throughout the watershed to large *point* sources of concentrated pollution (e.g. waste discharge outfalls, spills, etc). Undisturbed watersheds have the ability to purify water and repair small amounts of damage from pollution and alterations. However, modifications to the landscape and increased levels of pollution impair this ability. **June 19, 2014**

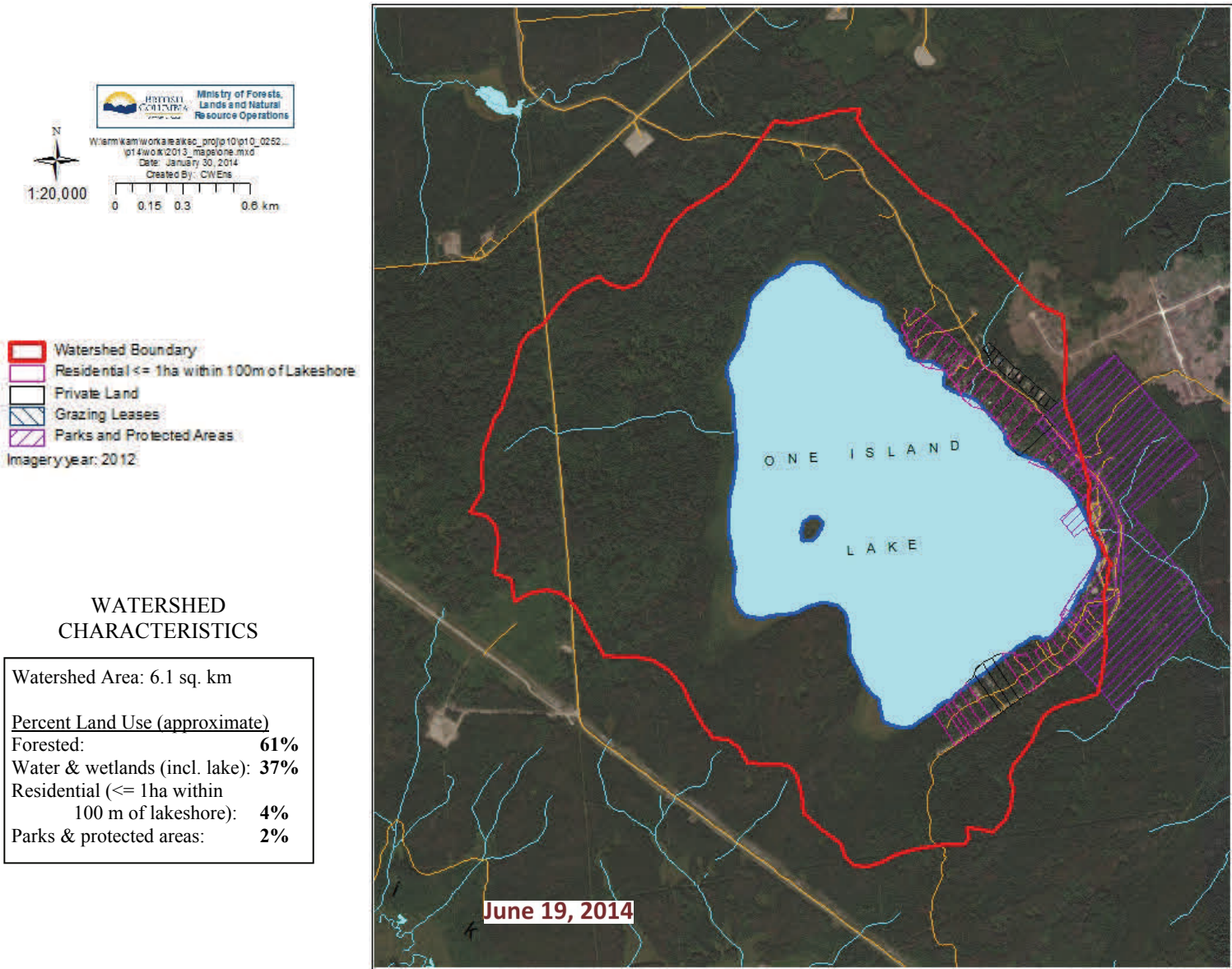
One Island Lake is located in the Omineca-Peace region, 60 km southeast of Dawson Creek, B.C. The lake has a maximum depth of 10.7 m, a mean depth of 3.5 m and lies at an elevation of 896 m. Its surface area is 157.8 hectares and it has a shoreline perimeter of 5.3 km. The lake contains the following fish species: brook stickleback, brook trout, finescale dace, rainbow trout, west-slope (yellowstone) cutthroat trout (Habitat Wizard, 2014). One Island Lake has been stocked with rainbow trout and brook trout since 1955 (Habitat Wizard, 2014).

R-1

One Island Lake has no significant surface inflow, however some local residents note that there are spring and groundwater influences (Heslop 2014, Pers. Comm.). Volunteers also report that approximately 80% of the water going into the lake comes from rainfall and snowpack behind the island on the west side of the lake (Johnston 2014, Pers. Comm.). There is one outflow stream (currently unnamed) which contains a small weir and is located on the southeast side of the lake (within the One Island Provincial Park boundary) (Heslop 2014, Pers. Comm.). The flushing rate, a factor that affects water quality, is the rate of water replacement in a lake and depends on the amount of inflow and outflow of a lake. The higher the flushing rate, the faster excess nutrients can be removed from the system. The flushing rate for One Island Lake is currently unknown at this time, however it is a relatively small watershed for the size of the lake, which would imply a small inflow volume and likely a long water exchange time (Nordin 2014, Pers. Comm.).

The majority of the watershed is forested and the main land uses are residential and recreational (Ens, 2014). Volunteers also report that there is oil and gas exploration on the west side of the lake, behind the island (Johnston 2014, Pers. Comm.). There are 53 lots, with approximately 80 seasonal cabins located along the eastern shore (Johnston 2014, Pers. Comm.). The One Island Provincial Park is located along the eastern shoreline and provides recreational opportunities such as boating, swimming, camping and picnicking (MacDonald, 2005). The lake drains into the headwaters of the Kiskatinaw River, which provides drinking water to the communities of Dawson Creek and Pouce Coupe downstream (MacDonald, 2005). In 2000, the Peace River Regional District (PRRD) developed Lakeshore Development Guidelines in order to provide valuable development and conservation guidelines ecologically sensitive lakeshore areas (PRRD, 2000).

One Island Lake Watershed and Land Use Map



WATERSHED CHARACTERISTICS

Watershed Area: 6.1 sq. km	
<u>Percent Land Use (approximate)</u>	
Forested:	61%
Water & wetlands (incl. lake):	37%
Residential (<= 1ha within 100 m of lakeshore):	4%
Parks & protected areas:	2%

Non-Point Source Pollution and One Island Lake

R-1

Point source pollution originates from municipal or industrial effluent outfalls. Other pollution sources exist over broader areas and may be hard to isolate as distinct effluents. These are referred to as non-point sources of pollution (NPS). Shoreline modification, urban stormwater runoff, onsite septic systems, agriculture, and forestry are common contributors to NPS pollution. One of the most detrimental effects of NPS pollution is phosphorus loading to water bodies. The amount of total phosphorus (TP) in a lake can be greatly influenced by human activities. If local soils and vegetation do not retain this phosphorus, it will enter watercourses where it will become available for algal production.

Onsite Septic Systems and Grey Water

Onsite septic systems effectively treat human waste water and wash water (grey water) as long as they are properly located, designed, installed, and **maintained**. When these systems fail, they become significant sources of nutrients and pathogens. Poorly maintained pit privies, used for the disposal of human waste and grey water, can also be significant contributors.

Properly located and maintained septic tanks do not pose a threat to the environment, however, mismanaged or poorly located tanks can result in a health hazard and/or excessive nutrient loading to the lake. Excessive nutrients such as phosphorus can cause a variety of problems including increased plant

growth and algal blooms.

Stormwater Runoff

Lawn and garden fertilizer, sediment eroded from modified shorelines or infill projects, oil and fuel leaks from vehicles, snowmobiles and boats, road salt, and litter can all be washed by rain and snowmelt from properties and streets into watercourses. Phosphorus and sediment are of greatest concern, providing nutrients and/or a rooting medium for aquatic plants and algae. Pavement prevents water infiltration to soils, collects hydrocarbon contaminants during dry weather and increases direct runoff of these contaminants to lakes during storm events.

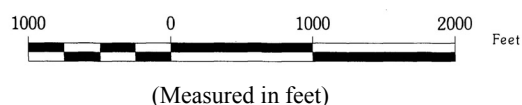
Forestry

Timber harvesting can include clear cutting, road building, and land disturbances, which alter water flow and potentially increase sediment and phosphorus inputs to water bodies.

Boating

Oil and fuel leaks are the main concerns of boat operation on small lakes. With larger boats, sewage and grey water discharges are issues. Other problems include the spread of aquatic plants and the dumping of litter. In shallow water operations, the churning up of bottom sediments and nutrients is a concern.

One Island Lake Bathymetric Map

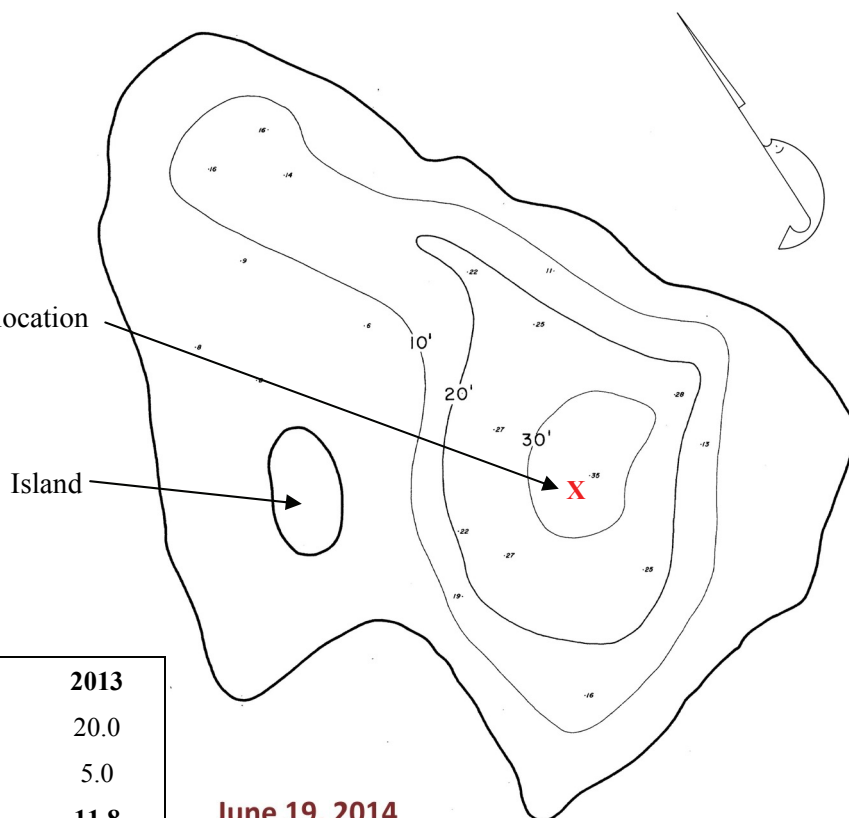


Lake characteristics

Area: 1.58 km²
Max depth: 10.7 m
Mean depth: 3.5 m
Shoreline length: 5.3 km
Elevation: 896 m

X = Deep Site sampling location

Island



June 19, 2014

Map obtained from FISS (lake surveyed in 1958)

<u>Trophic Characteristics</u>	2011	2012	2013
Max. Surface Temp. (°C)	17.0	20.0	20.0
Min Near-bottom Oxygen (mg/L)	3.0	6.0	5.0
Avg. Summer Surface TP (µg/L)	12.8	12.5	11.8
Avg. Chlorophyll <i>a</i> , or "Chl <i>a</i> " (µg/L)	4.2	3.3	3.1
Avg. Summer Secchi Depth (m)	4.3	5.1	4.9

What's Going on Inside One Island Lake?

R-1

Temperature

Lakes show a variety of annual temperature patterns based on their location and depth. Most interior lakes form layers (stratify), with the coldest summer water near the bottom. Because colder water is more dense, it resists mixing into the warmer, upper layer for much of the summer. In spring and fall, these lakes usually mix from top to bottom (overturn) as wind energy overcomes the reduced temperature and density differences between surface and bottom waters. In the winter, lakes re-stratify under ice with the most dense water (4°C) near the bottom. One Island Lake appears to be polymictic during the sample years, as it only weakly stratifies between mixing events that occur throughout the summer months.

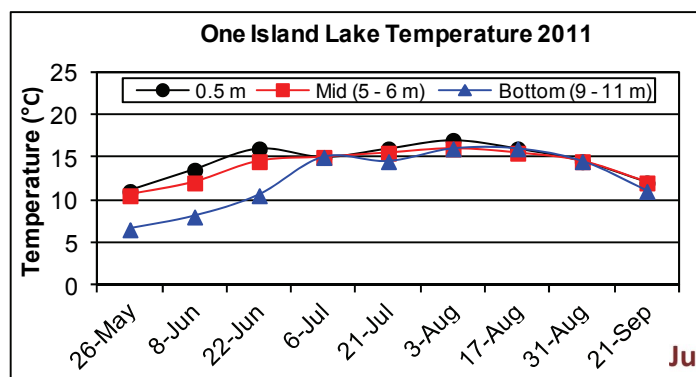
Lakes of only a few metres depth tend to mix throughout the summer or layer only temporarily, depending on wind conditions. In winter, the temperature pattern of these lakes is similar to that of deeper lakes.

Temperature stratification patterns are very important to lake water quality. They determine much of the seasonal oxygen, phosphorus and algal conditions. When abundant, algae can create problems for most lake users.

The review of ice-on and ice-off dates is important to the growing issue of climate change, particularly with how it is affecting B.C. lakes. As previously mentioned, volunteers have been collecting ice data for approximately 40 years.

Temperature was measured on One Island Lake from 2011 to 2013. Maximum surface temperature ranged between 17°C and 20°C across the sampling years. Data from May 26, 2011 show that surface warming had begun at the time the lake was sampled and that the lake was weakly stratified until experiencing a mixing event on Jul. 6, 2011 (see graph below). It is interesting to note that the dissolved oxygen data for Jun. 8, 2011 was not homogeneous, however total phosphorus was homogeneous throughout the water column. The 2012 spring sampling data show that surface warming had already begun, while spring data from 2013 indicate the lake was fully mixed during the time of sampling.

In all sampling years, the lake showed brief periods of weak stratification; however, in general the lake remained relatively well mixed throughout the summer months and into the fall. Because of this, there is no clear date for fall overturn in 2011. Temperature data from 2012 and 2013 show that the lake remained fully mixed from Sep. 5 and Aug. 28 (respectively) onward.

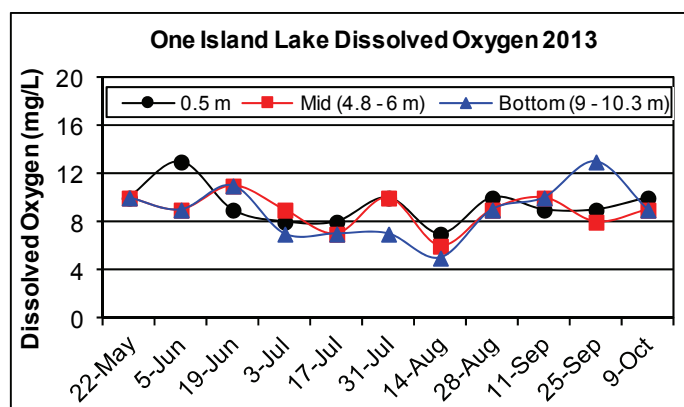


Dissolved Oxygen

Oxygen is essential to life in lakes. It enters lake water from the air by wind action and plant photosynthesis. Oxygen is consumed by respiration of animals and plants in summer, including the decomposition of dead organisms by bacteria. A great deal can be learned about the health of a lake by studying oxygen patterns and levels.

Lakes that are unproductive (oligotrophic) will have sufficient oxygen to support life at all depths through the year. But as lakes become more productive (eutrophic), and increasing quantities of plants and animals respire and decay, more oxygen consumption occurs, especially near the bottom where dead organisms accumulate.

In productive lakes, oxygen in the isolated bottom layer may deplete rapidly (often to anoxia), forcing fish to move into the upper layer (salmonids are stressed when oxygen levels fall below about 20% saturation) where temperatures may be too warm. Fish kills can occur when decomposing or respiring algae use up the oxygen. In the summer, this can happen on calm nights after an algal bloom, but most fish kills occur during late winter or at initial spring mixing because oxygen has been depleted under winter ice.



The figure above summarizes the 2013 dissolved oxygen (DO) data for One Island Lake, and indicates the lake was fully mixed on May 22. This is also supported by the May 22, 2013 temperature data. The 2013 DO graph is generally representative of the other sampling years, however in 2011 the spring DO concentration in the bottom waters was not replenished likely due to incomplete spring mixing.

Seasonal DO profiles from 2011-2013 for One Island Lake show that the DO levels fluctuate slightly depending on the occurrence of mixing events, however generally remained oxygenated throughout the summer months. The 2011 DO level varied between approximately 3 mg/L and 10 mg/L from mid-Jun. through Oct.

Based on the DO profiles, the lake appears to be partially mixed on May 23, 2012 and fully mixed on May 22, 2013. As previously mentioned, spring overturn was not captured in 2011 as the lake was weakly stratified at the time of sampling. The lake appears to be fully mixed on Jul. 6, 2011, based on both the temperature and DO profiles.

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Trophic Status and Phosphorus

The term “trophic status” is used to describe a lake’s level of productivity and depends on the amount of nutrients available for plant growth, including tiny floating algae called phytoplankton. Algae are important to the overall ecology of the lake because they are food for zooplankton, which in turn are food for other organisms, including fish. In most lakes, phosphorus is the nutrient in shortest supply and thus acts to limit the production of aquatic life. When in excess, phosphorus accelerates growth and may artificially age a lake. As mentioned earlier (page 3), **total phosphorus (TP)** in a lake can be greatly influenced by human activities.

The trophic status of a lake can be determined by measuring productivity. The more productive a lake is the higher the algal growth and therefore the less clear the water becomes. Water clarity is measured using a **Secchi disc**. Productivity is also determined by measuring nutrient levels and **chlorophyll** (the green photosynthetic pigment of algae). The concentration of chlorophyll *a* in lake water is an indicator of the density of algae present in that same water and is directly related to the Secchi depth. Phosphorus concentrations measured during spring overturn can be used to predict summer algal productivity.

Lakes of low productivity are referred to as **oligotrophic**, meaning they are typically clear water lakes with low nutrient levels (1-10 µg/L TP), sparse plant life (0-2 µg/L chl. *a*) and low fish production. Lakes of high productivity are **eutrophic**. They have abundant plant life (>7 µg/L chl. *a*) including algae, because of higher nutrient levels (>30 µg/L TP). Lakes with an intermediate productivity are called **mesotrophic** (10-30 µg/L TP and 2-7 µg/L chl. *a*) and generally combine the qualities of oligotrophic and eutrophic lakes.

Lake sediments can themselves be a major source of **ortho-phosphorus (OP)**, a form of **total dissolved phosphorus (TDP)**. If deep-water oxygen becomes depleted (i.e. anoxic), a chemical shift occurs in bottom sediments. This shift causes sediment to release ortho-phosphorus to overlying waters. This **internal loading** of phosphorus can be natural but is often the result of external phosphorus addition. Lakes displaying internal loading have elevated algal levels and generally lack recreational appeal.

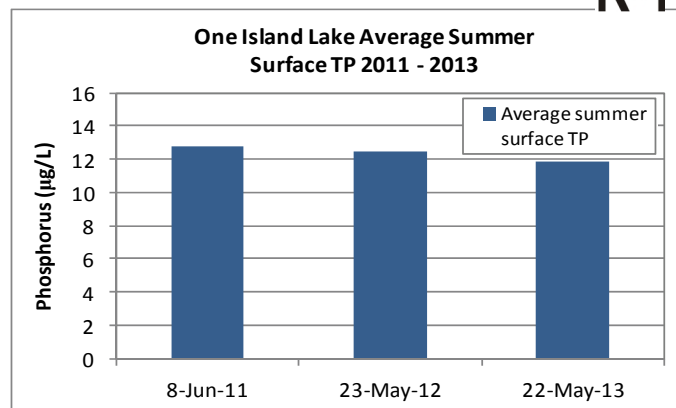
One Island Lake’s historical spring TP values are shown in the Trophic Characteristics table on page 3. The average TP values from 2011-2013 ranged between 8 µg/L and 35 µg/L. The differences between the average spring TP values may be due to whether or not the lake is fully mixed in the spring, or in the fall before the lake freezes (Nordin, 2014, Pers. Comm.). Based on 2011 TP data, the lake appears to be mixed on Jun. 8, even though the temperature and DO profiles suggest the lake was not homogeneous. One explanation for this may be that because of the random mixing events, especially in the spring, the lake may thermally stratify fairly quickly after mixing while changes in TP may not be as quick to happen, as the uptake or sedimentation of phosphorus are slower processes (Nordin 2014, Pers. Comm.).

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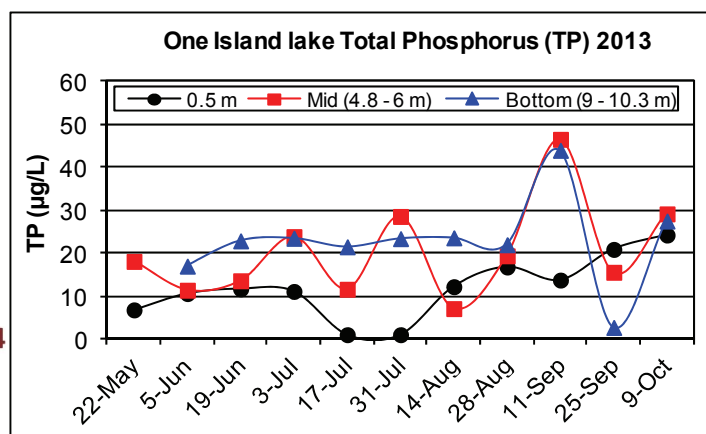
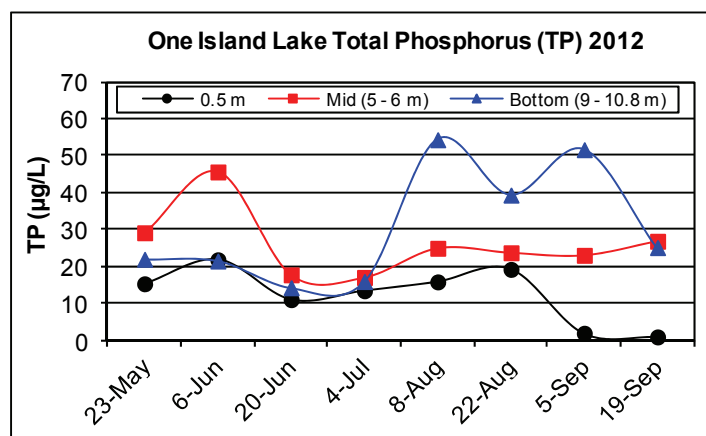
Since it does not appear that the lake experienced complete spring overturn in 2011 and 2012, average summer TP (surface

readings only) were used to determine trophic status. Therefore, average summer surface TP values classify One Island Lake as mesotrophic in all sampling years (Nordin, 1985). The following graph shows the average summer surface TP for 2011-2013.

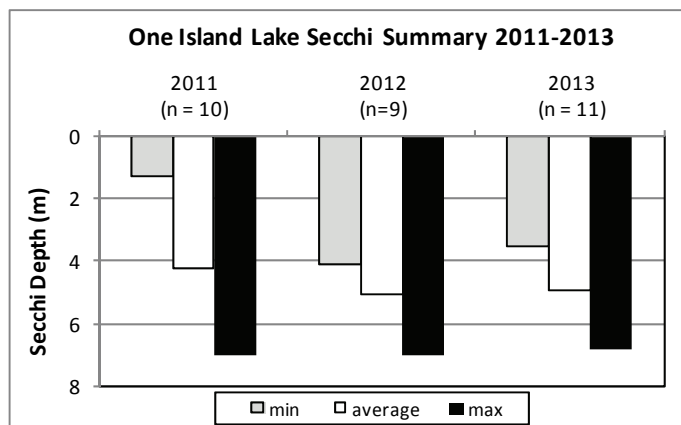
R-1



The 2011 TP data show that the lake is mixed throughout the entire sampling season, whereas 2012 and 2013 TP data show phosphorus cycling patterns throughout the summer. Internal phosphorus loading occurs when the bottom sediments release OP into the bottom waters, generally under anoxic (i.e. oxygen deprived) conditions (Nordin 2011, Pers. Comm.). The graph below shows that bottom TP increased on Aug. 8 and Sep. 5, 2012, which coincides with an increase in OP on Sep. 5. These are likely internal loading events, however DO remained between 7 mg/L and 10 mg/L in the bottom water, suggesting it may be due to bacteria in the bottom sediments breaking down organic matter and releasing OP, as opposed the release of OP from the bottom sediments under anoxic conditions (Nordin 2011, Pers. Comm.). It is difficult to de-

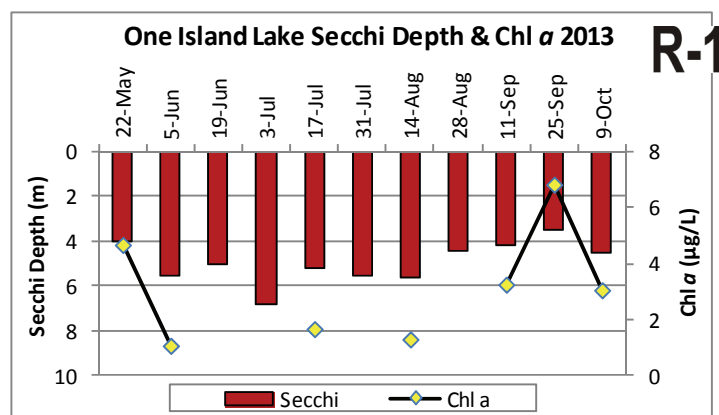
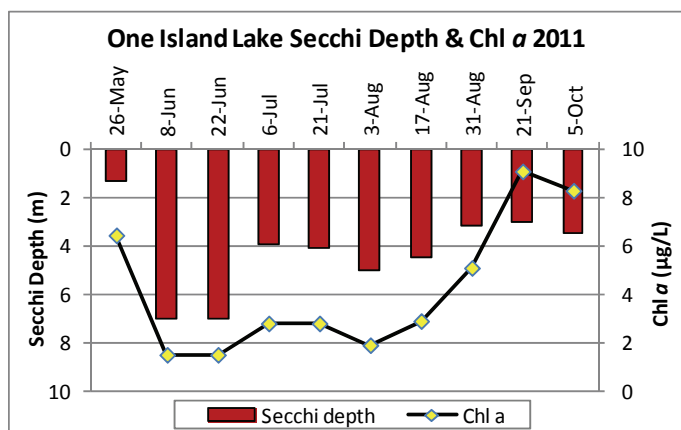


termine the amount of internal loading without first calculating the overall phosphorus budget for a lake, which is beyond the scope of this report. Data for 2013 (below) also show a large peak in TP at mid and bottom depths on Sep. 11, however there was no corresponding increase in OP, therefore it is not likely to be an internal loading event.



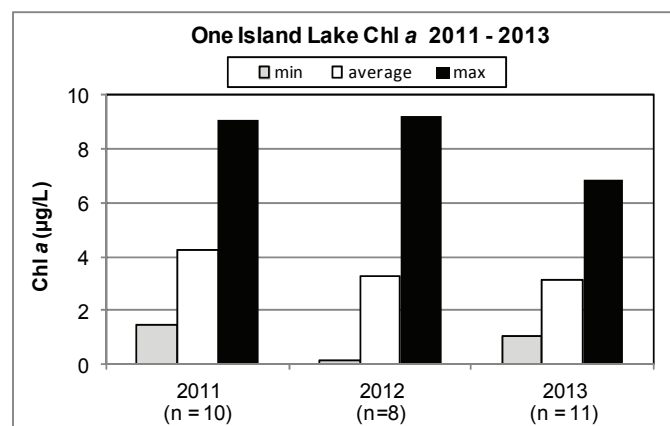
The graph above shows the minimum, average and maximum Secchi readings on One Island Lake from 2011-2013, as well as the number of readings in each year (n). Average Secchi depth between 2011 and 2013 ranged from 4.3 m (2011) to 5.1 m (2012). The 2011-2013 data indicate that the clarity of One Island Lake remained relatively stable over the sampling years. Based on the average Secchi values, One Island Lake was exhibiting mesotrophic conditions (3-6 m Secchi depth) for all years measured (Nordin, 1985).

The following graphs shows seasonal Secchi and chl *a* in One Island Lake for 2011. Seasonal Secchi depths for One Island Lake ranged from 1.3 m (May 23) to 7.0 m (Jun. 8th and Jun.



22) in 2011. Generally as chl *a* readings increase, Secchi depth (i.e. water clarity) decreases. In 2011, algal concentrations (measured as chl *a*) decrease between May 26th and Jun. 8th, then appear to increase with a decrease in Secchi depth throughout the summer, suggesting that Secchi values in One Island Lake are somewhat correlated to chl *a*. Secchi and chl *a* data from 2012 and 2013 do not follow this trend. It is important to note that the minimum data requirements (12 evenly spaced samples between ice-off and fall overturn) were not attained in all sampling years. A minimum of 12 samples are required in order to more clearly understand the seasonal trends.

The graph below shows that the average chl *a* values for each year were: 4.2 µg/L (2011), 3.3 µg/L (2012) and 3.1 µg/L (2013). These values place the lake in the mesotrophic category during the sampling years. In general, the highest chl *a* values occur from mid August through September, indicating the greatest algal growth during these months.



Aquatic Plants

Aquatic plants are an essential part of a healthy lake. Factors that affect the type and amount of plants found in a lake include the level of nutrients (i.e. phosphorus), temperature, and introduction of invasive species.

Aquatic plants were surveyed in One Island Lake (Warrington, 1980) and include: *Potamogeton pectinatus* (sago pondweed), *Potamogeton praelongus* (white-stem pondweed), *Potamogeton spp.* (pondweed), *Equisetum fluviatile* (water horsetail), *Equisetum spp.* (horsetail), *Myriophyllum sibiricum* (northern water milfoil, a native species), *Myriophyllum spp.* (milfoil), *Potentilla palustris* (marsh cinquefoil), *Nuphar variegatum* (bullhead pond lily), *Nu-*

par spp. (pond lily), *Ludwigia palustris* (false loosestrife), *Carex spp.* (sedge), *Hippuris vulgaris* (common mare's tail), and *Acorus calamus* (sweetflag).

Aquatic plants play an important role in the lifecycles of aquatic insects, provide food and shelter from predators for young fish, and also provide food for waterfowl, beavers and muskrats.

Many aquatic plant species can spread between lakes via boaters potentially resulting in species introduction. Be sure to check for and remove all aquatic plant fragments from boats and trailers before entering or when leaving a lake. **June 19, 2014**

Should Further Monitoring Be Done on One Island Lake? ^{R-1}

Spring temperature and DO profiles for 2011 suggest that the lake did not fully mix. In general, the lake remained relatively mixed throughout the summer months, with some periods of weak stratification throughout the summer months. Based on average spring TP, One Island Lake exhibited oligotrophic conditions in 2011 and mesotrophic conditions in 2012 and 2013. Average chl *a* and average summer Secchi indicate that One Island Lake is mesotrophic in all sampling years. The OP data from 2012 show that the bottom waters may have been experiencing internal loading of phosphorus (as a result of bacterial processes, as previously discussed) on Sep. 5; however, there appears to be no internal loading events in the other sampling years. Based on the chemistry data, internal loading is likely not a regular phenomenon and the differences in average spring TP concentration may likely be due to whether or not the lake is fully mixing before ice-on in the previous fall or after ice-off in the spring (Nordin 2014, Pers. Comm.). Full DO/T profiles (e.g. at every meter) may provide a clearer picture of the occurrence and timing of mixing events.

The *One Island Lake Shoreline Survey* was completed for the Ministry of Environment in November 2005, which found the shoreline of One Island Lake to be in relatively good condition as compared to Swan, Norman, Tabor, Nukko and Ness lakes (MacDonald, 2005). Volunteers note that roads have been constructed in the western portion of the watershed (behind the island) to facilitate oil and gas exploration (Johnston 2014, Pers. Comm.).

Volunteers have expressed interest in continued water quality monitoring. Additional Secchi and surface temperature measurements will also provide valuable long term records and help to identify early warning signs should there be a deterioration in water quality. Volunteers are also encouraged to continue recording ice on/off dates as these are valuable for climate change studies.

In the winter of 2013, a pickup truck broke through the ice and sunk to the bottom of the lake and was removed via ice crane on Feb. 19, 2013. The fuel tank was intact, therefore contamination is thought to be minimal (Heslop 2014, Pers. Comm.).

Tips to Keep One Island Lake Healthy

Yard Maintenance, Landscaping & Gardening

- Minimize the disturbance of shoreline areas by maintaining natural vegetation cover.
- Minimize high-maintenance grassed areas.
- Replant lakeside grassed areas with native vegetation.
- Do not import fine fill.
- Use paving stones instead of pavement.
- Stop or limit the use of fertilizers and pesticides.
- Do not use fertilizers in areas where the potential for water contamination is high, such as sandy soils, steep slopes, or compacted soils.
- Do not apply fertilizers or pesticides before or during rain due to the likelihood of runoff.
- Hand pull weeds rather than using herbicides.
- Use natural insecticides such as diatomaceous earth. Prune infested vegetation and use natural predators to keep pests in check. Pesticides can kill beneficial and desirable insects, such as lady bugs, as well as pests.
- Compost yard and kitchen waste and use it to boost your garden's health as an alternative to chemical fertilizers.
- Pick up after your pets as pet waste can lead to bacterial contamination of the lake water.

Onsite Sewage Systems

- Inspect your system yearly, and have the septic tank pumped every 2 to 5 years by a septic service company. Regular pumping is cheaper than having to rebuild a drain-field.
- Use phosphate-free soaps and detergents.
- Don't put toxic chemicals (paints, varnishes, thinners, waste oils, photographic solutions, or pesticides) down the drain because they can kill the bacteria at work in your onsite sewage system and can contaminate water-bodies.

- Conserve water: run the washing machine and dishwasher only when full and use only low-flow showerheads and toilets.

Auto Maintenance

- Use a drop cloth if you fix problems yourself.
- Recycle used motor oil, antifreeze, and batteries.
- Use phosphate-free biodegradable products to clean your car. Wash your car over gravel or grassy areas, but not over sewage systems.

Boating

- Do not throw trash overboard or use lakes or other waterbodies as toilets.
- Use biodegradable, phosphate-free cleaners instead of harmful chemicals.
- Conduct major maintenance chores on land.
- Use absorbent bilge pads to soak up minor leaks or spills.
- Check for and remove all aquatic plant fragments from boats and trailers before entering or leaving a lake. Eurasian milfoil is an aggressive invasive aquatic weed. Be sure to familiarize yourself with this plant and remove and discard any fragments.
- Do not use metal drums in dock construction. They rust, sink and become unwanted debris. Use polystyrene (completely contained and sealed in UV treated material) or washed plastic barrel floats. All floats should be labeled with the owner's name, phone number and confirmation that barrels have been properly emptied and washed.
- Leading by example is often the best method of improving practices - help educate fellow boaters.

June 19, 2014

Who to Contact for More Information

R-1

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Skye Dunbar (BCLSS)

Technical Review by:

Rick Nordin (Limnologist)

Kirsten Heslop (Ministry of Environment)

Report Produced by:

Skye Dunbar (BCLSS)

Photo Credits:

Laurel MacDonald (Ministry of Environment)

Land Use Map & Statistics:

Chris Ens (Ministry of Forests, Lands and Natural Resource Operations, Thompson-Nicola Region)

Bathymetric Map:

Fisheries Information Summary System

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June 19, 2014

Updated: January 21, 2014

ELECTORAL AREA DIRECTORS' COMMITTEE

DIARY ITEMS

<u>Item</u>	<u>Status</u>	<u>Notes</u>	<u>Diarized</u>
1. LED Speed Signs	Ongoing	reconsider the cost of purchasing and installing LED speed signs along remote roads	June 20, 2013
2. Fracking	Ongoing	use of water for fracking for oil and gas exploration	January 16, 2014