

# WHISKEY CREEK

Water Service Area Annual Report

Prepared by:



REGIONAL DISTRICT OF NANAIMO

Water Services Department

June 2011





#### **Table of Contents**

| 1.  | Introduction   | 1      |
|-----|--|--------|
| 2.  | Whiskey Creek Water Service Area 2.1 Source Water 2.2 Reservoirs 2.3 Distribution System | 1<br>1 |
| 3.  | Water Sampling and Testing Program   | 2      |
| 4.  | Water Quality - Source Water and Distribution System                                     | 2      |
| 5.  | Water Quality Inquiries and Complaints   | 2      |
| 6.  | Water Consumption  | 3      |
| 7.  | Maintenance Program  | 3      |
| 8.  | Water Service Area Projects  | 3      |
| 9.  | Emergency Response Plan  | 4      |
| 10. | Cross Connection Control   | 4      |
| 11. | Closing  | 4      |
| App | endix A - Map of Whiskey Creek Water Service Area  |        |
| App | endix B - Water Quality Testing Results  |        |
| App | endix C - Emergency Response Plan  |        |





#### 1. Introduction

The following annual report describes the Whiskey Creek Water Service Area and summarizes the water quality and production data from 2010. This report also includes a summary of inquiries and complaints, completed and proposed maintenance activities, the Emergency Response Plan, and the Cross Connection Control Program.

This report is to be submitted to the Vancouver Island Health Authority by the Spring of 2011.

#### 2. Whiskey Creek Water Service Area

The Whiskey Creek water system was constructed in the 1970s and was initially operated by the Subdivision Developer, Westerlea Estates Ltd. The water system is located eight kilometres southwest of Qualicum Beach on the south side of Highway 4. There are 126 residential lots connected to the water system. Since the year 2000, an elected committee has been responsible for the operation and maintenance of the system. The elected committee formed the Whiskey Creek Water District and consisted of three part-time operators. Local contractors were hired for repairs and improvements when required. In January 2011, at the request of local residents and after a successful petition process, the ownership and operation of the Whiskey Creek Water District was transferred to the RDN. A map of the Whiskey Creek Water Service Area is provided in Appendix A for reference.

#### 2.1 Source Water

Two water licences allow surface water to be extracted from nearby Crocker Creek. An emergency backup generator is available in the event of a power failure. Water from Crocker Creek is temporarily stored in a raw water storage pond next to the pumphouse on Hebert Road. Perforated pipe under the bed of the pond carries water into a concrete wet well containing two submersible pumps. These pumps deliver water through a pressure filter to a water storage reservoir. The water is dosed with chlorine and a polymer upstream of the filter. Drinking water is pumped into the water system via two booster pumps.

#### 2.2 Reservoirs

One service reservoir (concrete) is present at 979 Poplar Way, and has a capacity of 195 m<sup>3</sup> (43,000 imperial gallons).

#### 2.3 Distribution System

The water distribution system in Whiskey Creek is summarized in the table below. There are 9 fire hydrants and 4 flush-outs in the system.

| Watermain Material                                  | Length of mains in Whiskey<br>Creek Water Service Area | Prevalence in Water<br>Service Area |
|---|--|-------------------------------------|
| Asbestos-concrete: 100mm or smaller 150mm or larger | 1,280 m<br>1,920 m                                     | 40%<br>60%                          |





#### 3. Water Sampling and Testing Program

Water sampling and testing was carried out by the Whiskey Creek Water District operators (not the RDN) until January 2011. A limited amount of historic test results are available, and are attached in Appendix B of this report. In 2011, the proposed water sampling program by RDN staff is given in the table below.

| Timing                                  | Location                         | Tests  |
|---|----------------------------------|--|
| Weekly<br>(Health Dept.<br>Requirement) | BC Centre for<br>Disease Control | Total coliforms, E.Coli  |
| Weekly                                  | RDN (in-house)<br>Laboratory     | Total coliforms, E.Coli<br>Temperature, pH, Conductivity<br>Chlorine residual, Salinity, TDS                                     |
| Monthly                                 | RDN (in-house)<br>Laboratory     | Total Iron and Manganese   |
| Quarterly                               | North Island Labs                | Trihalomethanes (THMs), Total coliforms, and E.Coli at the reservoir site  |
| Annual Source<br>Water Testing          | North Island Labs                | Complete potability testing of raw source water (every Fall) including tannins and lignins                                       |
| Annual System<br>Water Testing          | North Island Labs                | Complete potability testing of distribution system water (every Spring) including tannins, lignins, Giardia, and Cryptosporidium |

#### 4. Water Quality - Source Water and Distribution System

Up-to-date water quality reports and lab data are posted monthly on the RDN website at <a href="https://www.rdn.bc.ca">www.rdn.bc.ca</a> in the Environmental/Water section, under "Water Service Areas" then "WaterSmart Communities". Tables of water quality testing results for both the source water and distribution system are provided at the end of this report under Appendix B.

#### 5. Water Quality Inquiries and Complaints

Information gathered from the previous water system operators indicates that several complaints and inquiries were received from the Whiskey Creek water service area in 2010, and were typically related to colour, and/or chlorine taste and odours in the water.

Intersection of Brittain Blvd and Poplar Way in Whiskey Creek







#### 6. Water Consumption

According to the *Asset Condition Report* (2009) provided by Norm Winton, P.Eng.,the average annual water consumption in Whiskey Creek is 407 L/day/capita, based on an estimated population of 250 people. This consumption is slightly higher than the RDN system average of 305 L/day/capita in 2010. The report further indicates that several homes have swimming pools that are filled from the distribution system, but only 10% of residents water their lawn.

No metered household water consumption data is available from 2010. However, in order to standardize Whiskey Creek with other RDN water systems, metered water consumption is expected to be fully implemented by the end of 2011.

#### 7. Maintenance Program

In 2011, the RDN proposes that a weekly pump station inspection will be carried out to reduce or eliminate the risk of contamination and system failure, and to ensure the consistent application of chlorine for treatment purposes. Watermains will be flushed once annually. The 9 fire hydrants will be serviced (either 'A-level' or 'B-level') once annually.

Homeowners in the Whiskey Creek Water Service Area were notified in early 2011 that the fire hydrants in this system cannot be relied on for fire insurance purposes due to insufficient supply and capacity for fire flows. However, the RDN has twenty-four hour on-call coverage in place to respond to water system emergencies.

#### 8. Water Service Area Projects

#### 8.1 <u>2010 Completed Studies & Projects</u>

- Asset Condition Study of Whiskey Creek Water System was forwarded to the RDN;
- Transfer of Whiskey Creek Water System ownership and operation to the RDN was proposed to residents.

#### 8.2 2011 Proposed Projects & Upgrades

- Finalize RDN water system ownership and acquire water licenses on Crocker Creek;
- Replace/upgrade water meters;
- Install a control panel at the raw water station;
- Install alarms at the pumphouse and reservoir site, along with communication lines to the RDN Utilities office;
- Install stand-alone water sampling stations;
- Update the outdoor sprinkling regulations;
- Prepare a Draft Cross Connection Control Bylaw;
- Carry out a comprehensive water conservation campaign (Team WaterSmart);
- Update and improve the RDN website at <a href="www.rdn.bc.ca">www.rdn.bc.ca</a>;
- Update the Emergency Response Plan;
- Utilize the Auto E-message service to notify member residents of water service disruptions and upcoming maintenance activities;
- Apply a low-flush toilet incentive;
- Continue quality control through regular testing and monitoring of the water system; and
- Complete additional educational programs.





#### 9. Emergency Response Plan

The Regional District Emergency Response Plan (ERP) contains procedures and contact information to efficiently respond to water system emergencies such as contamination of water supply, loss of supply, and pump failure. Copies of the ERP are available on our website, at each RDN office, in each pumphouse, and in each Water Services vehicle. A copy of the ERP is also attached to this report in Appendix C.

#### 10. Cross Connection Control

Cross connection controls being proposed for the Whiskey Creek water system in 2011 include the installation of dual check valves at each service connection (if absent), mandatory fire hydrant use permits, and the creation of water supply bylaw(s) noting discontinued service if a threat to the water supply is perceived by staff.

#### 11. Closing

An annual report for the year 2011 will be prepared and submitted to the Vancouver Island Health Authority in the Spring of 2012. Annual reports are also available on our website at <a href="https://www.rdn.bc.ca">www.rdn.bc.ca</a> in the Environmental/Water section, under "Water Service Areas" then "WaterSmart Communities".





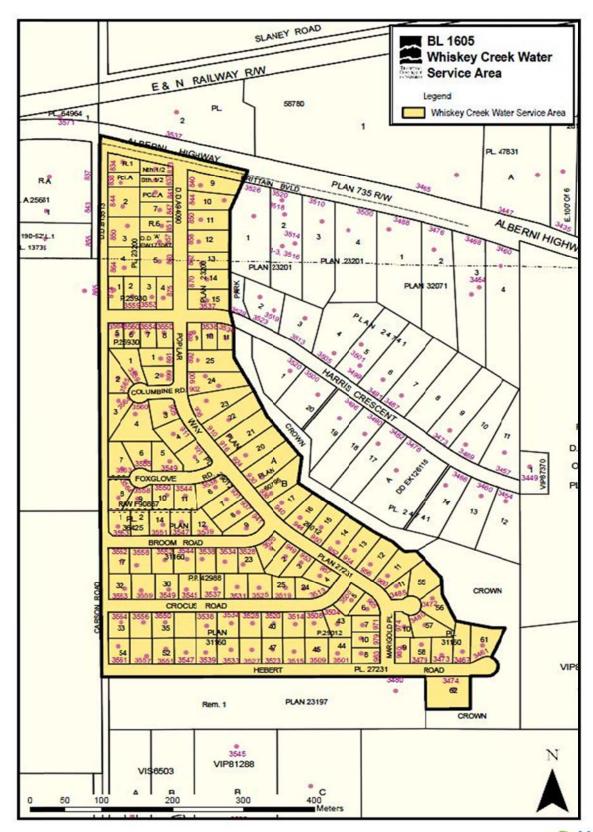
#### APPENIDX A

# MAP OF WHISKEY CREEK WATER SERVICE AREA





#### WHISKEY CREEK WATER SERVICE AREA







#### **APPENDIX B**

WATER QUALITY TESTING RESULTS



#### WHISKEY CREEK WATER DISTRICT

#### **Facility Location:**

979 Poplar Way Qualicum Beach

Facility Information: Facility Type: DWC

#### Facility Sampling History:

| Location  | Date        | Total Coliform | E. Coli |
|---|-------------|----------------|---------|
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 4-Jan-2011  | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 14-Dec-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 7-Dec-2010  | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 30-Nov-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 23-Nov-2010 | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 17-Nov-2010 | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 2-Nov-2010  | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 19-Oct-2010 | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 12-Oct-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 5-Oct-2010  | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 28-Sep-2010 | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 21-Sep-2010 | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 14-Sep-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 8-Sep-2010  | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 1-Sep-2010  | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 24-Aug-2010 | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 17-Aug-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 10-Aug-2010 | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 3-Aug-2010  | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 27-Jul-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 20-Jul-2010 | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 13-Jul-2010 | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 7-Jul-2010  | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 22-Jun-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 15-Jun-2010 | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 9-Jun-2010  | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 1-Jun-2010  | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 26-May-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 18-May-2010 | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 11-May-2010 | L1             | L1      |
|   |             |                |         |

#### Interpreting Sample Reports

In VIHA, the results of drinking water sampling are reported using the following coding system:

- L1 Less than 1 (no detectable bacteria) Meaning: No bacteria present
- OG Overgrown Meaning: Too many background bacteria to give an accurate count
- EST Estimated Count and
- A Sample not tested; Too long in transit
- C Sample leaked/broken in transit
- D Sample not tested; No collection date given.

#### WHISKEY CREEK WATER DISTRICT

#### **Facility Location:**

979 Poplar Way Qualicum Beach

#### Facility Information:

Facility Type: DWC

#### Facility Sampling History:

| Location  | Date        | Total Coliform | E. Coli |
|---|-------------|----------------|---------|
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 11-May-2010 | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 4-May-2010  | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 27-Apr-2010 | H              |         |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 20-Apr-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 13-Apr-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 6-Apr-2010  | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 30-Mar-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 23-Mar-2010 | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 17-Mar-2010 | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 10-Mar-2010 | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 2-Mar-2010  | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 23-Feb-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 9-Feb-2010  | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 2-Feb-2010  | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 19-Jan-2010 | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 12-Jan-2010 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 6-Jan-2010  | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 15-Dec-2009 | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 1-Dec-2009  | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 25-Nov-2009 | L1             | L1      |
| AUDIT Whiskey Creek RAW Water, RAW WATER                                | 25-Nov-2009 | 35.0           | 2.0     |
| AUDIT Whiskey Creek Water District, AUDIT Whiskey Creek Water District  | 25-Nov-2009 | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 17-Nov-2009 | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 3-Nov-2009  | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 20-Oct-2009 | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 13-Oct-2009 | L1             | L1      |
| 3564 Foxglove Road, Whiskey Creek, 3564 Foxglove Road, Whiskey Creek BC | 6-Oct-2009  | L1             | L1      |
| 3561 Hebert Road, Whiskey Creek, 3561 Hebert Road, Whiskey Creek BC     | 30-Sep-2009 | L1             | L1      |
| 899 Poplar Way, Whiskey Creek, 899 Poplar Way, Whiskey Creek BC         | 23-Sep-2009 | L1             | L1      |
| 844 Carson Road, Whiskey Creek, 844 Carson Road, Whiskey Creek BC       | 15-Sep-2009 | L1             | L1      |

#### **Interpreting Sample Reports**

In VIHA, the results of drinking water sampling are reported using the following coding system:

- L1 Less than 1 (no detectable bacteria) Meaning: No bacteria present
- OG Overgrown Meaning: Too many background bacteria to give an accurate count
- EST Estimated Count and
- A Sample not tested; Too long in transit
- C Sample leaked/broken in transit
- D Sample not tested; No collection date given.



# North Island Laboratories

9755 B Moray Avenue, Courtenay, B.C. V9N 8M9 Tel: (250) 338-7786 Fax: (250) 338-7553

#### **Certificate of Analysis**

Report To:

Whiskey Creek Water District

Lawrence Hawkes 979 Poplar Way Qualicum Beach, BC

V9K 1V9

Lab Number:

75600

Date Reported:

4 Sep 09

Date Completed:

4 Sep 09

Date Received:

26 Aug 09 12:27

75600-01

**Poplar Way** 

Reservoir

Pump

Sampled By:

Sampling Date:

26 Aug 09 0:00

| Test                             | Result    | Units        | Drinking Water Guideline |
|----------------------------------|-----------|--------------|--------------------------|
| Alkalinity                       | 45        | mg/L         |                          |
| Colour - Apparent                | 12        | Colour units | 15 AO                    |
| Conductivity                     | 94.7      | uS           |                          |
| Hardness (CaCO3)                 | 190       | mg/L         | 80-100                   |
| pН                               | 7.6       | pH Units     | 6.5-8.5                  |
| Total Dissolved Solids           | 84        | mg/L         | 500 AO                   |
| Turbidity                        | <0.5      | NTU's        | 5 AO                     |
| Chloride                         | 4.6       | mg/L         | 250 AO                   |
| Fluoride                         | <1.0      | mg/L         | 1.5 MAC                  |
| Nitrate (N)                      | 0.1       | mg/L         | 10 MAC                   |
| Nitrite (N)                      | <0.1      | mg/L         | 3.2 MAC                  |
| Sulphate                         | <2.0      | mg/L         | 500 AO                   |
| T-Aluminium                      | 0.192     | mg/L         | 0.1 Operational Std.     |
| T-Antimony                       | < 0.0002  | mg/L         | 0.006 MAC                |
| T-Arsenic                        | 0.0002    | mg/L         | 0.010 MAC                |
| T-Barium                         | 0.001     | mg/L         | 1.0 MAC                  |
| T-Boron                          | < 0.005   | mg/L         | 5 IMAC                   |
| T-Cadmium                        | < 0.00001 | mg/L         | 0.005 MAC                |
| T-Calcium                        | 53.3      | mg/L         | olous Male               |
| T-Chromium                       | 0.0005    | mg/L         | 0.05 MAC                 |
| T-Copper                         | 0.001     | mg/L         | 1.0 AO                   |
| T-Iron                           | 0.051     | mg/L         | 0.3 AO                   |
| T-Lead                           | 0.0003    | mg/L         | 0.010 MAC                |
| T-Lithium                        | < 0.001   | mg/L         | 0.010 MAC                |
| T-Magnesium                      | 13.4      | mg/L         |                          |
| T-Manganese                      | 0.0005    | mg/L         | 0.05 AO                  |
| T-Mercury                        | < 0.01    | ug/L         | 1 ug/L MAC               |
| AO = Aasthotic Objective MAC - M |           |              | I Ug/L MAC               |

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC

> = Greater than; < = Less than

Results relate only to samples as submitted. This certificate must not be reprocuced, except in its entirety, without written consent from the laboratory. Canadian Drinking Water Guidelines as listed on Dec. 5th, 2005 and are subject to

04/09/2009 12:39

Page 1 of 4



# North Island Laboratories

2755 β Moray Avenue, Courtenay, B.C. V9N 8M9 Tel: (250) 338-7786 Fax: (250) 338-7553

75600-01 Po

Poplar Way

Reservoir

Pump

Sampled By:

Sampling Date:

26 Aug 09 0:00

| Test                  | Result    | Units     | Drinking Water Guideline |
|-----------------------|-----------|-----------|--------------------------|
| T-Nickel              | < 0.001   | mg/L      |                          |
| T-Phosphorus          | 0.032     | mg/L      |                          |
| T-Potassium           | 0.8       | mg/L      |                          |
| T-Selenium            | < 0.0006  | mg/L      | 0.01 MAC                 |
| T-Silver              | < 0.00001 | mg/L      |                          |
| T-Sodium              | 101       | mg/L      | 200 AO                   |
| T-Uranium             | < 0.0004  | mg/L      | 0.02 MAC                 |
| T-Zinc                | 0.007     | mg/L      | 5 AO                     |
| Total Coliforms (DES) | <1.0      | MPN/100mL | <1                       |
| E. coli (DES)         | <1.0      | MPN/100mL | <1                       |
| Tannins & Lignins     | 0.1       | mg/L      | 0.4 AO                   |



#### **APPENDIX C**

#### **EMERGENCY RESPONSE PLAN**





# EMERGENCY RESPONSE PLAN

REGIONAL DISTRICT
OF
NANAIMO

**WATER SYSTEMS** 



#### Contents

| • | <ul><li>Prime Responsibilities</li><li>Emergency Response</li></ul>  | and Recovery Actions | ı   |
|---|--|----------------------|---|
| • | Communication Checklist - RDN Priority Contacts - Key Communication O  | ptions               | 2   |
| • | Emergency Contacts   |                      | 3-6   |
| • | Emergency Response Plan  - Contamination of Sour  - Loss of Source  - Flood Conditions  - Broken Water Main  - Chlorination Failure  - Pump Failure  - Power Failure  - Backflow or Back Siph  - Bacteria Count (RDN L | onage                | 7-9   |
| • | Appendices  - Boil Water Advisory No Boil Water Order Notic Unfit for Drinking Notic Service Interruption N  | re<br>ce             | 10<br>11<br>12<br>13  |
| • | Maps-Water Service Areas - Nanoose Bay Peninsul Neighbourhoods:  |                      | Map 1<br>Map 2<br>Map 3<br>Map 4<br>Map 5<br>Map 6              |
|   | <ul> <li>French Creek</li> <li>Surfside</li> <li>San Pareil</li> <li>Englishman River</li> <li>Melrose</li> <li>Decourcey</li> <li>Whiskey Creek</li> </ul>  |                      | Map 7<br>Map 8<br>Map 9<br>Map 10<br>Map 11<br>Map 12<br>Map 13 |





#### Prime Responsibilities

- Provide safe drinking water.
- Provide potable water for sanitation purposes.
- Provide water for fire suppression.
- Prevent unnecessary loss of stored water.
- Restore the integrity of the entire water system as soon as possible.
- Maintain integrity and quality of supply.

# Emergency Response and Recovery Actions

- Analyze the type and severity of the emergency.
- Provide emergency assistance to save lives.
- Reduce the probabilities of additional injuries or damage.
- Provide situational reporting to appropriate agencies as required.
- Perform emergency repairs based on priority demand.
- Return system to normal levels. (recovery)
- Evaluate response and preparedness plan.
- Revise plan as necessary.
- Provide maps, notices, and direction necessary for water recovery.





#### Communication Check List

In an emergency it will be important to contact the key people shown below. This will help reduce confusion and assist in ensuring any important messaging is done so correctly and quickly.

IF REQUIRED, CONTACT P.E.P or V.I.H.A. BEFORE MAKING THE FOLLOWING CONTACTS AS PER THE EMERGENCY PLANS

#### **RDN Priority Contacts**

| MANAGER OF WATER SERVICESMIKE DONNELLY (250) 390-6560         |  |
|---|--|
| G.M. REGIONAL & COMMUNITY UTILITIESJOHN FINNIE (250) 390-6560 |  |
| COMMUNICATIONS COORDINATOR ADRIENNE MERCER (250) 390-4111     |  |
| EMERGENCY COORDINATORJANI THOMAS                              |  |

#### **Key Communication Options**

#### **Management Support**

- Contact Electoral Area Director
- Contact the local radio station and provide a brief message if public health and safety are at risk. Follow up with a press release.

#### Field Staff Support

- Post notices on household front doors.
- Attach warning signs to existing Water Sprinkling Regulation signs in each community.
- Put up roadside signage at the entrance to the community.

#### **Administrative Support**

- Provide information message on the RDN web site.
- · Review after hours office and voice mail messaging.
- Provide notification to other RDN staff.





# Emergency Contact Numbers Personnel Contacts

| Name          | Position                        | Phone          |
|---------------|---------------------------------|----------------|
| Dave          | Chief Operator                  | (250) 248-4914 |
| Randy         | Operator II                     | (250) 248-4914 |
| Heather       | Operator III                    | (250) 248-4914 |
| Brian         | Operator III                    | (250) 248-4914 |
| Brad          | Operator II                     | (250) 248-4914 |
| Lyndon        | Operator II                     | (250) 248-4914 |
| Mike Donnelly | Manager of Water Services       | (250) 390-6560 |
| Deb Churko    | <b>Engineering Technologist</b> | (250) 390-6560 |
| Jack Eubank   | Bylaw Officer                   | (250) 390-6560 |
| John Finnie   | General Manager                 | (250) 390-6560 |





#### **Electoral Area Directors**

| Electoral Area | Director         | Phone    | email address             |
|----------------|------------------|----------|---------------------------|
| $\mathbf{A}$   | Joe Burnett      | 722-2656 | quaillanding@shaw.ca      |
| В              | Gisele Rudischer | 247-8795 | giselerudischer@gmail.com |
| C              | Maureen Young    | 754-5896 | Maureen_young@shaw.ca     |
| ${f E}$        | George Holme     | 468-7237 | gholme@shaw.ca            |
| $\mathbf{F}$   | Lou Biggemann    | 248-9078 | lwb@shaw.ca               |
| G              | Joe Stanhope     | 248-6401 | jstanhope@shaw.ca         |
| $\mathbf{H}$   | Dave Bartram     | 757-9737 | dwbartram@shaw.ca         |

#### **Government Agency Contacts**

| <b>Ministry of Environment</b>                 | Nanaimo (250)  | 751-3100       |
|--|----------------|----------------|
| <b>Department of Fisheries and Oceans</b>      | Nanaimo        | 754-0230       |
| <b>Provincial Emergency Preparedness (PEP)</b> |                |                |
| and Dangerous Goods Spills                     | Victoria       | 1-800-663-3456 |
| <b>Environmental Health Office</b>             | Parksville     | 947-8222       |
| Bill Wrathall, Env. Health Officer             | Parksville     | 947-8222       |
| <b>Environmental Health Office</b>             | Nanaimo        | 755-6215       |
| Murray Sexton, Public Health Engineer          | Nanaimo        | 755-6293       |
| Medical Health Officer                         | Nanaimo        | 740-6988       |
|  | or after hours | 1-800-204-6166 |
| City of Parksville Public Works                | Parksville     | 248-5412       |
| <b>Town of Qualicum Beach Public Works</b>     | Qualicum Beach | 752-6921       |
| District of Lantzville                         | Lantzville     | 390-4006       |

#### **Emergency**

| Hospital        | - Nanaimo                                    | 754-2141        |
|-----------------|--|-----------------|
| -               | - Parksville phone number (Nanaimo hospital) | 248-2332        |
| Ambulance       | - Parksville                                 | 911 or 248-3511 |
|                 | - Nanaimo                                    | 911 or 758-8181 |
| Police          | - Parksville                                 | 911 or 248-6111 |
|                 | - Nanaimo                                    | 911 or 754-2345 |
| Fire Department | - Parksville                                 | 911 or 248-3242 |
| _               | - Nanoose Bay                                | 911 or 468-7141 |
|                 | - Qualicum Beach                             | 911 or 752-6921 |
|                 | - Cedar                                      | 911 or 722-3122 |





#### **Priority Services**

**BC Hydro (Qualicum Beach number)** (250) 752-8012 or BC Hydro- Derek Leik 755-4734 1-888-769-3766 **Telus** 811-2323 or Telus- Paul McGrath cell 248-0983 741-7713 or 741-7716 **Teresen Gas** 248-4880 **Shaw Cable (Nanaimo)** 754-5571 **CP Rail** 1-800-716-9132 French Creek Pollution Control Centre 248-5794 **Chlorine Manufacturer (Brentagg)** 1-800-661-1830

#### **Community Contacts**

District 69 School Board Office

Nanoose Bay School

Nanoose Children's Centre

Nanoose Place

Nanoose Post Office

A68-7414

468-7414

468-7784

468-5339

Nanoose Post Office

468-7722

Naval Base (Department of National Defense)

756-5021 or 468-5004

#### **Excavation Services**

Shoreline Equipment (Doug Penny)
468-7759 or
755-9502 (cell)
Lundine Backhoe Service (Jim Lundine)
752-6808 or
951-1508 (cell)

#### **Electrical Contractors**

 Canem Electric
 468-1887

 East Isle Power (Harvey Sommerfeld)
 821-0415 or

 954-7463 (cell)
 954-7463 (cell)

 TC Trades (Tom Frenette)
 756-0077 or

 250-668-0078





#### Other Services

| Plumbing Services (Maci Motor – Pump Repair)             | (250) | 248-4423        |
|--|-------|-----------------|
| Bulk water supply (BC Water Service)                     |       | 954-3628        |
| Bottled water supply (Water Pure & Simple)               |       | 752-1373        |
| EPCOR (Parksville)                                       |       | 951-2460        |
| Sand and Gravel (Ozero)                                  |       | 752-1482        |
| Sand and Gravel (Luissier & Sons)                        |       | 468-9994        |
| Pump Trucks (Action Tank Service)                        |       | 248-3833        |
| Pump Trucks and Toilet Rentals (A-1 Septic)              |       | 248-4438        |
| Portable Washrooms (Coast Toilet Rentals)                |       | 753-7552        |
| <b>Running Water Enterprises (Water Hauling Service)</b> |       | 947-5197        |
| Woods Water Hauling                                      |       | 758-2677        |
| Fyfe's Well and Water Services                           |       | 752-4986 or     |
|  |       | 248-0830 (cell) |
|  |       |                 |

#### **Suppliers**

| Four Star Waterworks (piping)                         | 954-3546 |
|---|----------|
| Hwy Four Rentals (equipment & pumps)                  | 248-1100 |
| Iritex Pumps and Irrigation – (pumps)                 | 248-7028 |
| Windsor Plywood (miscellaneous building supplies)     | 752-3122 |
| Albertsons Hardware (miscellaneous building supplies) | 248-6888 |
| Robinson Rentals                                      | 753-2465 |
| <b>United Rentals</b>                                 | 758-3911 |

#### Media Services

| Adrienne Mercer, RDN Communications Coordinator | 1-877-607-4111 or |
|---|-------------------|
|   | 713-1075 (cell)   |
| Radio Station (CKWV) Nanaimo and Parksville     | 758-1131          |
| TV Station (CHEK)                               | 383-2435          |
| Newspaper (PQ News and The Weekender)           | 248-4341          |
| The Oceanside Star                              | 954-0600          |
| Nanaimo Daily News / Harbour City Star          | 729-4212          |





### **Emergency Response Plans**

#### Contamination of Source (Spills, Accidents, Vandalism)

Actions: Shut down pump

Notify Provincial Emergency Program (PEP)

Notify Health Unit

Notify all users if necessary under direction of Health Unit Contact government agencies for advice and assistance Contact local media for public service announcements

Post signs and deliver notices to homes and businesses. (See attached samples)

Arrange alternate source if necessary – i.e., bottled or bulk water

Advise RDN supervisory personnel

**Contacts:** Local Health Unit (Environmental Health Department)

Provincial Emergency Preparedness, Police, Ministry of Environment All schools and community centres – see "Priority Contacts" List

RCMP if there has been vandalism

#### Loss of Source - Loss Of Reservoir or Supply Lines

Actions: Ensure pumps are shut off. (To protect pump)

Notify all users

Contact government agencies for advice and assistance

Arrange alternate source – i.e., bottled water, bulk water, storage tank

Advise RDN supervisory personnel if necessary

Contacts: Local Health Unit (Environmental Health Department) and Ministry of Environment

#### Flood Conditions

**Actions:** Notify all users regarding the potential for water contamination, loss of

pump, power, etc, Users should be advised to store some drinking water in advance, and to boil any suspect water for two minutes or

disinfect with chlorine when flood conditions exist

Phone government contacts

Contact local media for public service announcement when customers

can not be reached by phone

Post signs or deliver notices if necessary. (See attached samples)
Arrange alternate source if possible – i.e. bottled water, bulk hauler or

storage tank

Advise RDN supervisory personnel

**Contacts:** Local Health Unit (Environment Health Department), Provincial Emergency

Preparedness, and Ministry of Environment





#### **Broken Water Main**

**Actions:** Shut pump off when backflow conditions have been prevented

Call for repairs as required - i.e. excavator, backhoe

Notify all users of interruption of service Advise local Public Health office Arrange alternate source if necessary Advise RDN supervisory personnel

Contacts: Advise local Public Health office. (Environmental Health Department)

#### Chlorination Failure

**Actions:** Advise local Public Health Office

Shut off well pumps. Monitor reservoir levels.

Notify all users to boil water for two minutes or take other disinfection procedures in accordance with recommendations of local health

officials

Post signs or deliver notices if necessary. (See attached samples)

Arrange chlorinator repairs

Advise RDN supervisory personnel

**Contacts:** Local Health Unit (Environmental Health Officer)

Chlorinator manufacturer

#### Pump Failure

**Actions:** Notify all users of interruption of service

Call for repairs: pump manufacturer if necessary

Advise local Public Health office (if interruption not short term)
Arrange alternate source if necessary – bottled or bulk water, etc.

Advise RDN supervisory personnel if necessary

**Contacts:** Local Health Unit (Environmental Health Department)

#### Power Failure

**Actions:** Call BC Hydro. Find out when power will be restored

Start back-up generator or arrange to get one

Notify all users about interruption of service if backup not capable of

maintaining supply

Post signs or deliver notices if necessary. (See attached samples)

Advise local Public Health Office

Arrange alternate source if necessary – bottled or bulk water, etc.

Advise RDN supervisory personnel

**Contacts:** Local Health Unit (Environmental Health Department)





#### Backflow or Back Siphonage

Actions: Advise Medical Health Officer at local Health unit

Notify all users to boil water for two minutes or take other disinfection procedures in

accordance with recommendations of local health officials

Purge and disinfect lines as directed, after corrections have been made Post signs or deliver notices if necessary. (See attached samples)

Advise RDN supervisory personnel

**Contacts:** Local Health Unit (Environmental Health Department)

#### Bacteria Count (RDN Lab)

**Actions:** Advise Medical Health Officer at local Health unit

Follow procedures in accordance with recommendations of local health

officials

Post signs or deliver notices if necessary. (See attached samples)

Advise RDN supervisory personnel

**Contacts:** Local Health Unit (Environment Health Department)





#### **APPENDICES**

| Boil Water Advisory Notice  | 10 |
|-----------------------------|----|
| Boil Water Order Notice     | 11 |
| Unfit for Drinking Notice   | 12 |
| Service Interruption Notice | 13 |





# sample NOTICE

# **Boil Water Advisory**

| Effecti | ve d | late: |  |
|---------|------|-------|--|
|         |      |       |  |

Please note that all water used for domestic purposes (drinking, cooking, etc.) should be boiled before consumption. The boiling should be at a rolling boil and for a minimum of one minute.

RDN Water Services staff are continually monitoring the water supply system and will provide updates as they become available.

Watch for information updates at www.rdn.bc.ca (WaterSmart) and listen to your local radio station for more information.

This advisory will be in effect until further notice.

For further information contact the





# sample NOTICE

### **Boil Water Order**

| <b>Effective</b> | date: |  |
|------------------|-------|--|
|                  |       |  |

Please note that all water used for domestic purposes (drinking, cooking, etc.) should be boiled before consumption. The boiling should be at a rolling boil and for a minimum of two minutes.

RDN Water Services staff are continually monitoring the water supply system and will provide updates as they become available.

Watch for information updates at www.rdn.bc.ca (WaterSmart) and listen to your local radio station for more information.

This order will be in effect until further notice.

For further information contact the





# WARNING

This Water is
Considered
Unfit for Drinking
or Domestic Use

| <b>Effective</b> | date: |  |
|------------------|-------|--|
|                  |       |  |

For further information contact the





# Sample NOTICE

# Water Supply Service Interruption

| Effective date |  |
|----------------|--|
|                |  |

Please be advised that your water service may be interrupted or off for periods during the day.

When service is resumed, the water may be discoloured. This is due to disturbed deposits in the pipes and is not harmful.

This advisory will be in effect until further notice.

For further information contact the





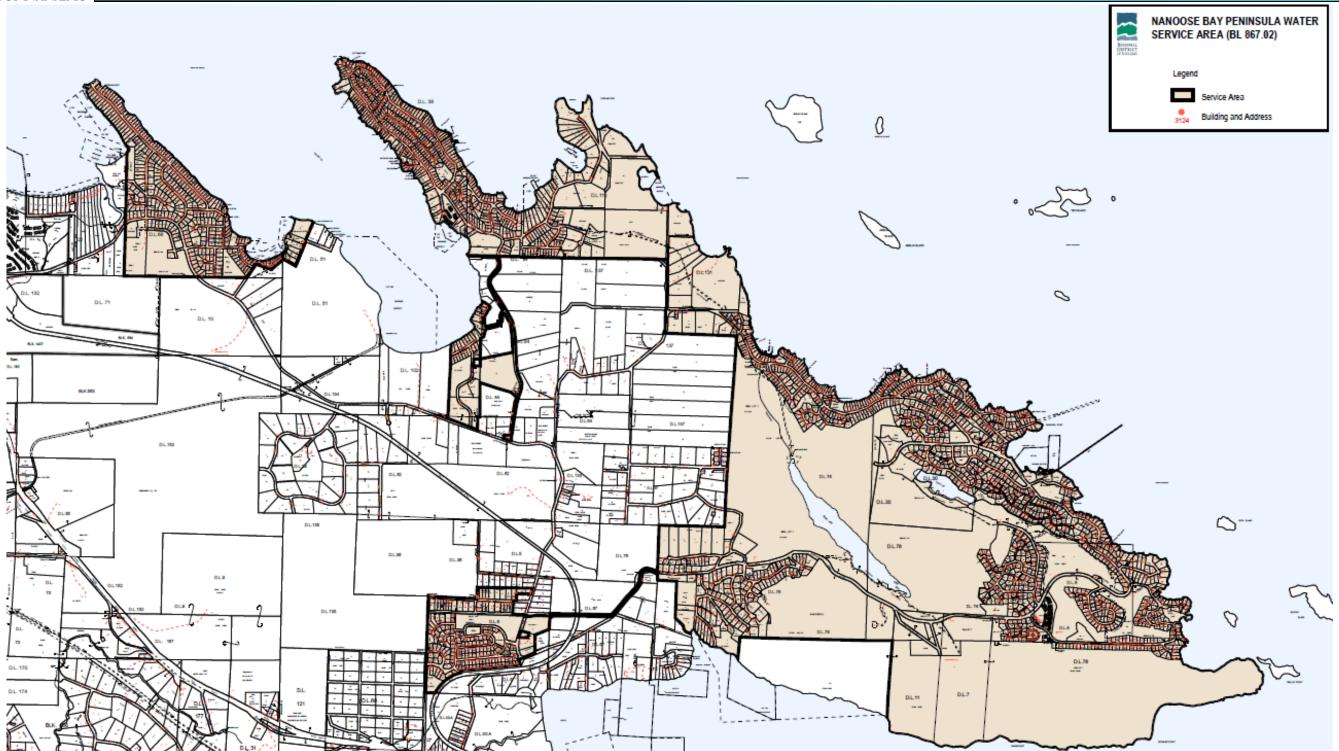
## MAPS Water Service Areas

| Nanoose Bay Peninsula Water Service Area | Map 1  |
|--|--------|
| Neighbourhoods: Madrona/Wall Beach       | Map 2  |
| Fairwinds                                | Map 3  |
| Arbutus Park                             | Map 4  |
| West Bay                                 | Map 5  |
| Driftwood                                | Map 6  |
| French Creek Water Service Area          | Map 7  |
| Surfside Water Service Area              | Map 8  |
| San Pareil Water Service Area            | Map 9  |
| Englishman River Water Service Area      | Map 10 |
| Melrose Water Service Area               | Map 11 |
| Decourcey Water Service Area             | Map 12 |
| Whiskey Creek Water Service Area         | Map 13 |





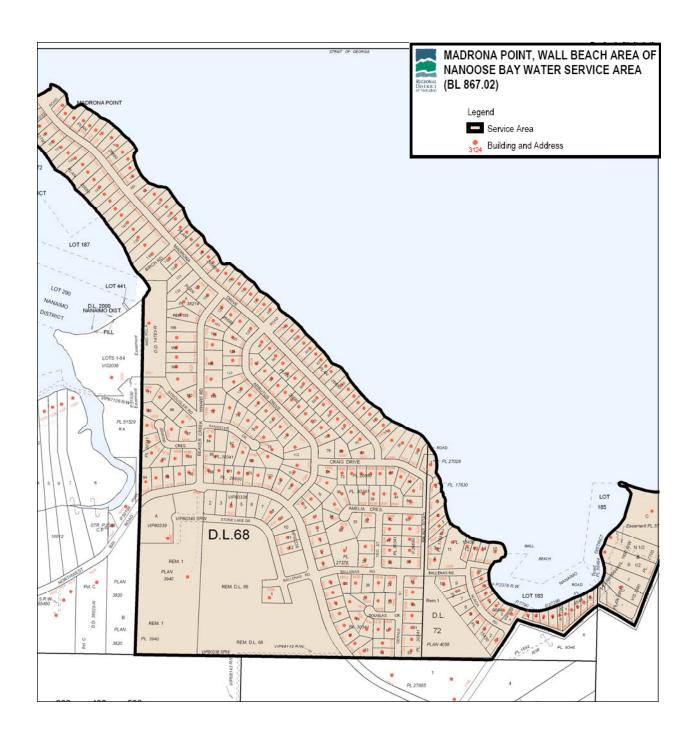




# MAP 1 NANOOSE BAY PENINSULA

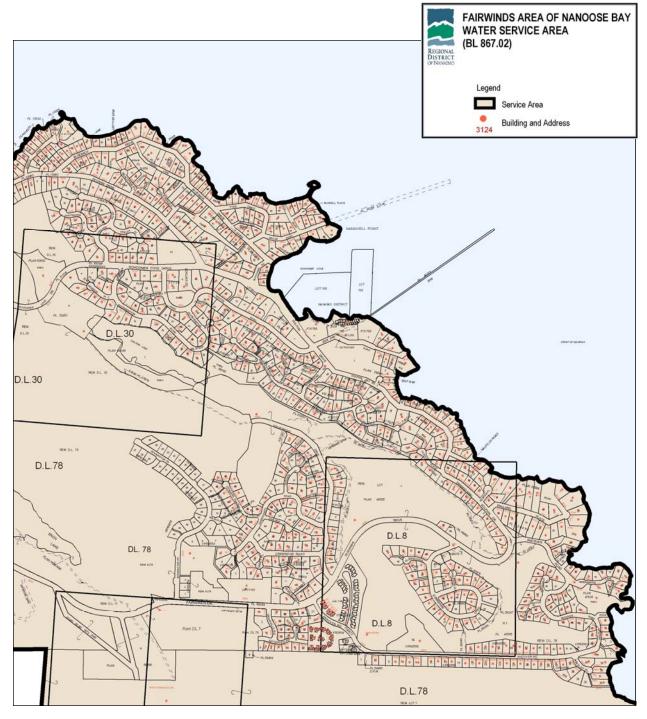
MAP 2





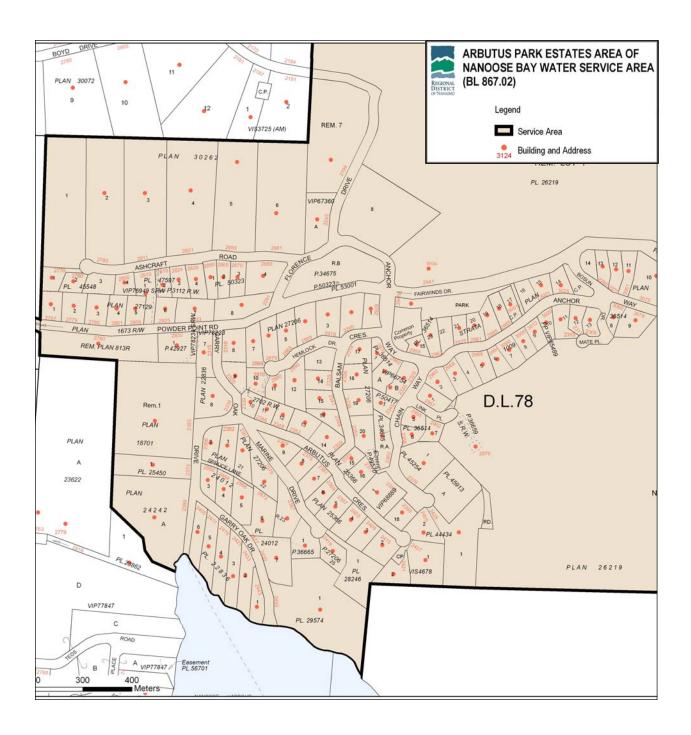






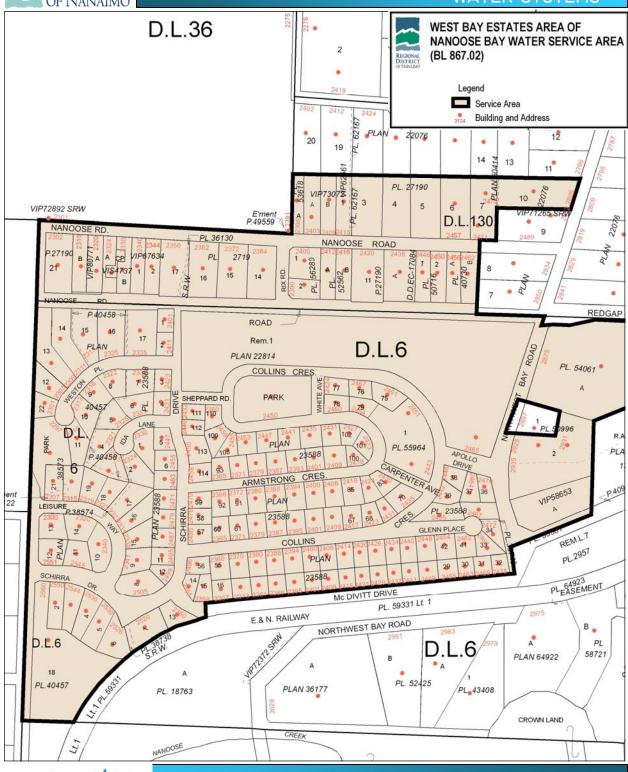




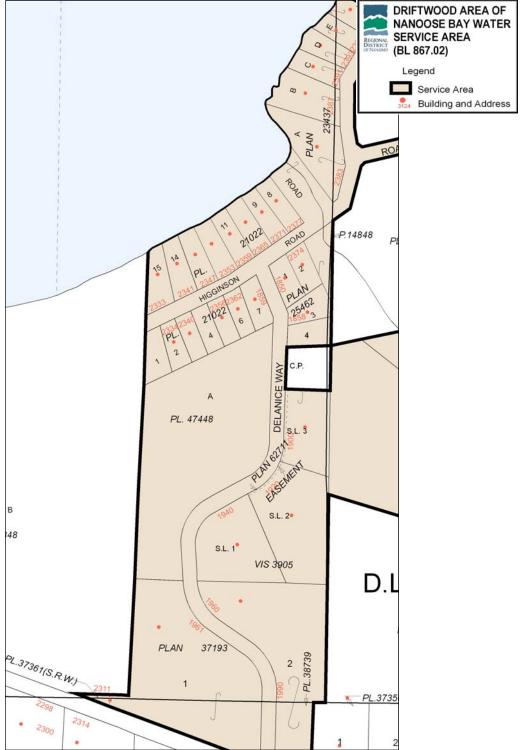








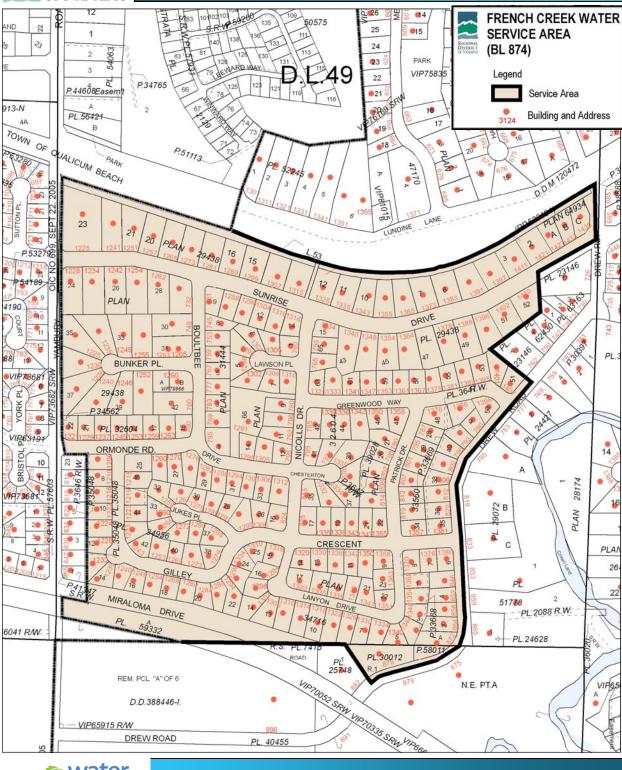




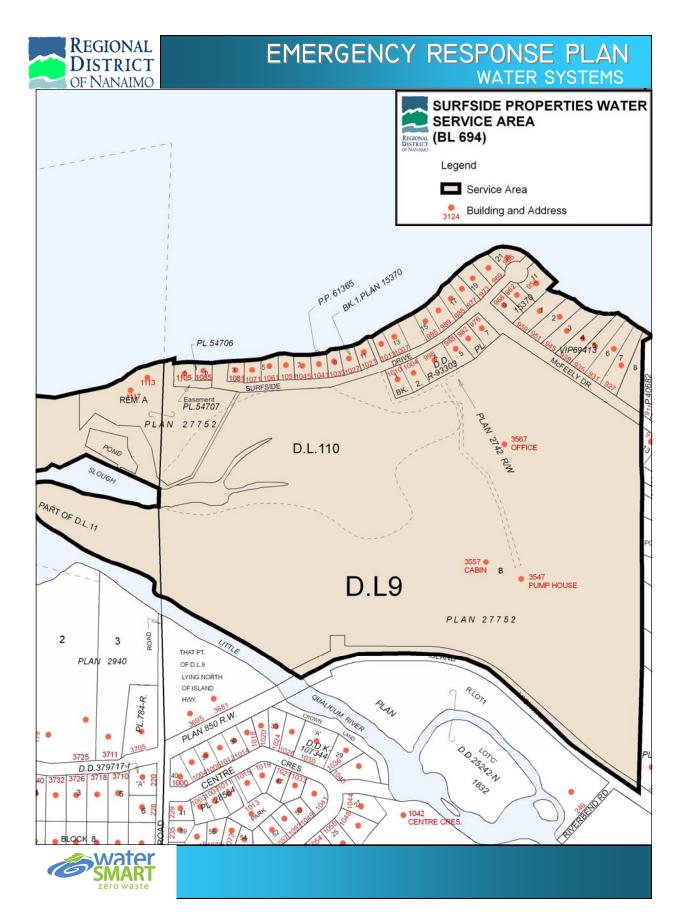


MAP 6 DRIFTWOOD

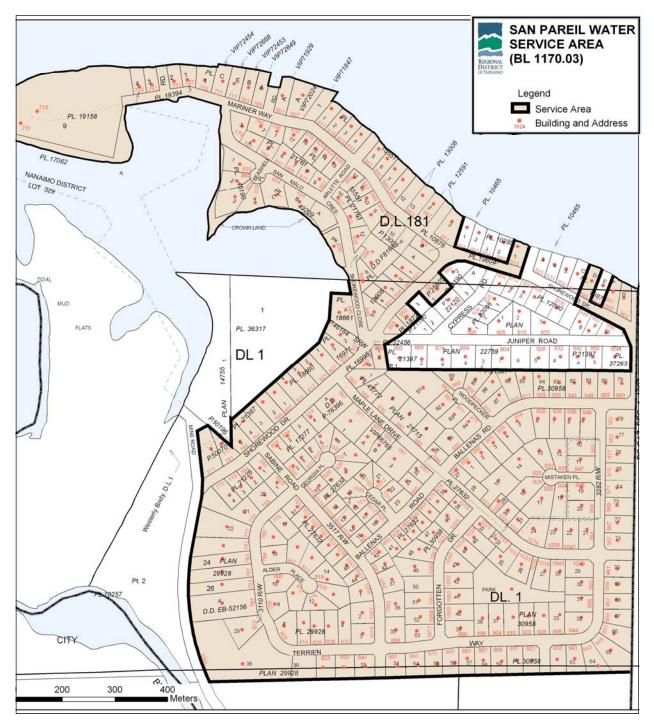




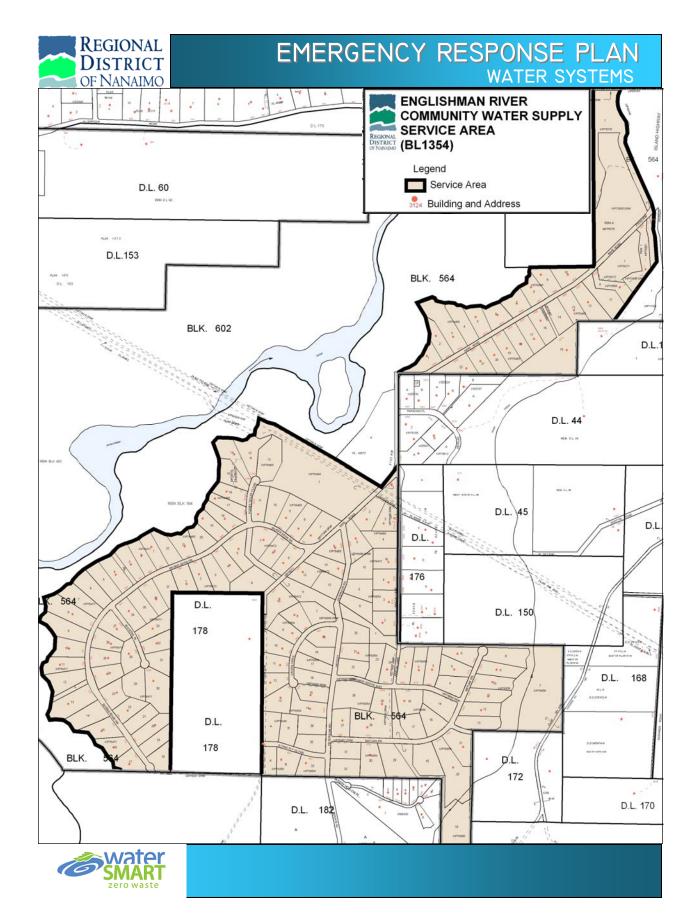






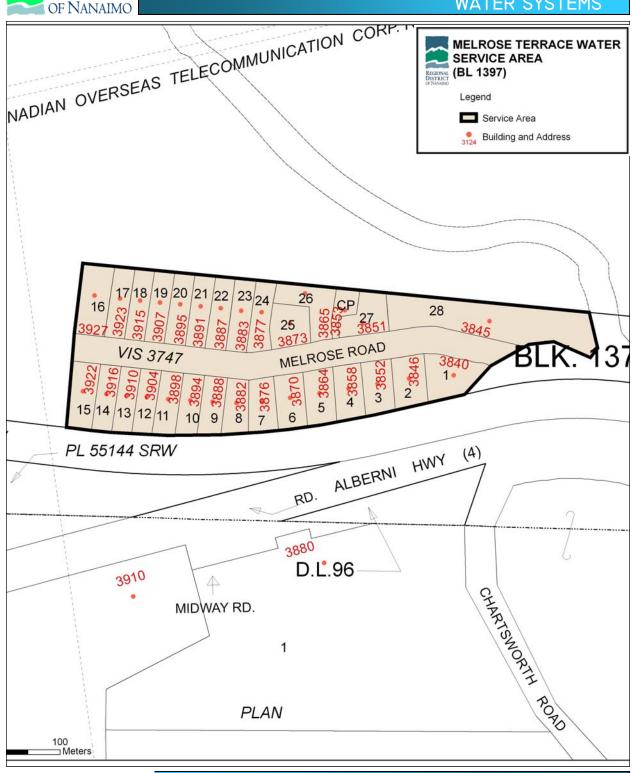






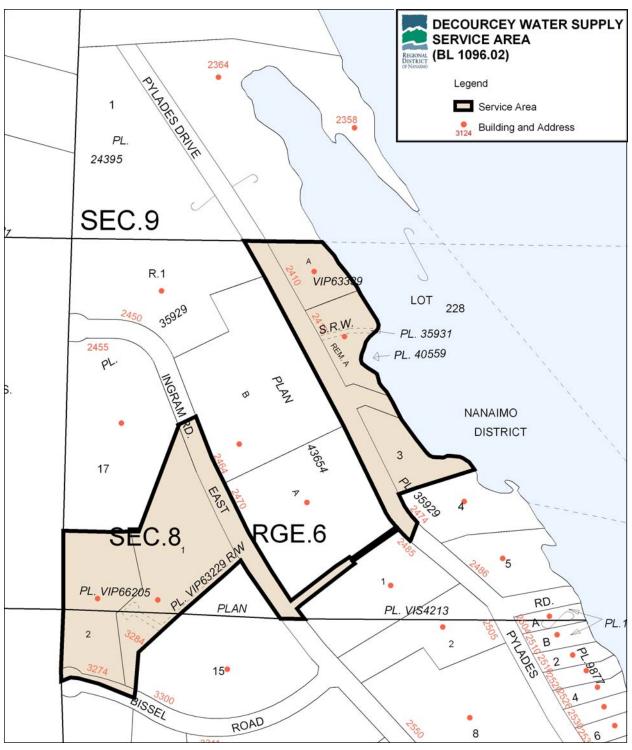
**MAP 11** 



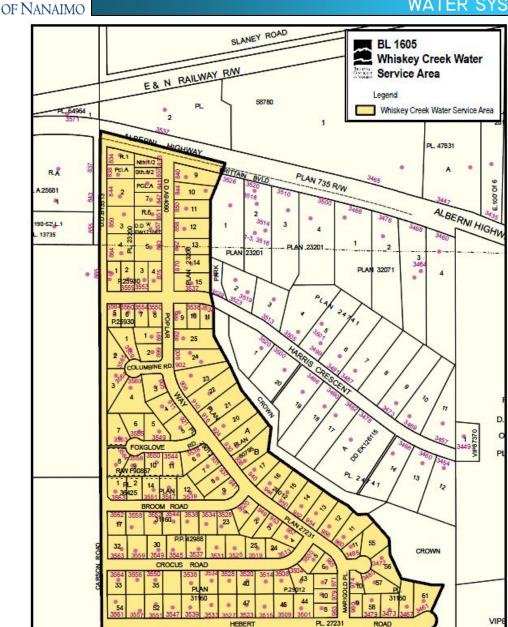












PLAN 23197

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# EMERGENCY RESPONSE PLAN WATER SYSTEMS

62

CROWN





REGIONAL DISTRICT