

Regional District of Nanaimo

**FRENCH
CREEK**

**Water Local Service Area
Annual Report**

2006

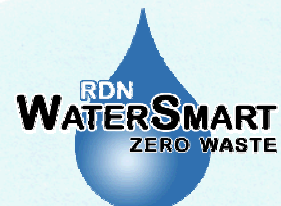


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Appendix A - Map of French Creek Water Local Service Area

Appendix B - Water Quality Testing Results

Appendix C - Emergency Response Plan

1. Introduction

The following annual report describes the French Creek Water Local Service Area and summarizes the water quality and production data from 2006. 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 2007.

2. French Creek Water System

The French Creek Water Service Area was established in 1980 and comprises an area west of Drew Road and south of the Island Highway between the City of Parksville and the Town of Qualicum Beach. The water source for the French Creek Water Service Area comes from a series of groundwater wells located within the Sandpiper subdivision. The water supply is chlorinated and stored in one reservoir. A map of the French Creek Water System is provided in Appendix A for reference.

2.1 Groundwater Wells

Six groundwater production wells are present in the area. See attachment for well locations.

Well / Name	Well Depth	In Use	Wellhead Protection	Treated/Untreated with Chlorine
#1	39.6 m	No	Yes	n/a
#2	40.5 m	Yes	Yes	Treated
#4	40.2 m	Yes	Yes	Treated
#5	50.3 m	No	Yes	n/a
#6	52.4 m	No	Yes	n/a
#7	39.6 m	Yes	Yes	Treated

French Creek Well #1 has not been used for several years due to low production and high iron levels. Well #1 is expected to be closed permanently in 2007. Wells #5 and #6 are temporarily not in use due to recently elevated levels of iron and manganese.

2.2 Reservoirs

One service reservoir (steel construction) is present at 1225 Sunrise Drive, Parksville, B.C. and has a capacity of 364 m³ (80,000 imperial gallons).

2.3 Distribution System

The water distribution system in French Creek is comprised of 150mm and 200mm asbestos-concrete watermains, and 100mm, 150mm and 200mm PVC watermains. Fire hydrants are located throughout the system.

3. Water Sampling and Testing Program

Water sampling and testing is carried out weekly in the distribution system. The following table includes a summary of all testing:

Timing	Location	Tests
Weekly	RDN (in-house) Laboratory	Total, Fecal coliforms Temperature, pH, Conductivity Chlorine residual, Salinity Total Dissolved Solids Iron, Manganese
Weekly (Health Dept. Requirement)	North Island Labs	Total, Fecal coliforms
Annual Source Water Testing	North Island Labs	Complete potability testing of each well
Annual System Water Testing	North Island Labs	Complete potability testing of distribution system

4. Water Quality - Source Water and Distribution System

Up-to-date water quality reports and lab data are posted monthly on the RDN website (www.rdn.bc.ca/WaterSmart). 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

A few complaints and inquiries were received from the French Creek water service area, and were typically related to isolated incidents of iron discolouration in the water.

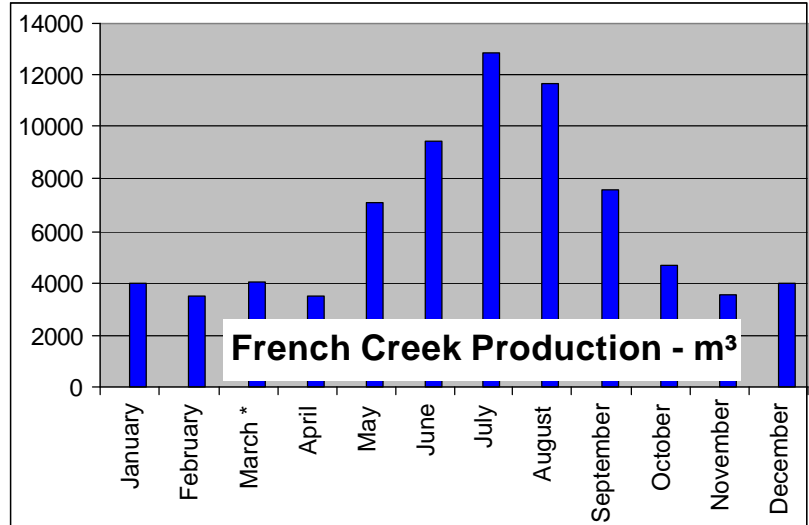
6. Groundwater Production and Average Consumption

Average monthly groundwater production (total from all wells) is shown in the table and chart below.

Monthly Production

January	4,013.5	m³
February	3,498.3	m³
*March	4,058.9	m³
April	3,469.0	m³
May	7,100.6	m³
June	9,475.6	m³
July	12,846.3	m³
August	11,677.3	m³
September	7,610.9	m³
October	4,672.4	m³
November	3,530.6	m³
December	3,984.4	m³

* indicates watermain flushing in March

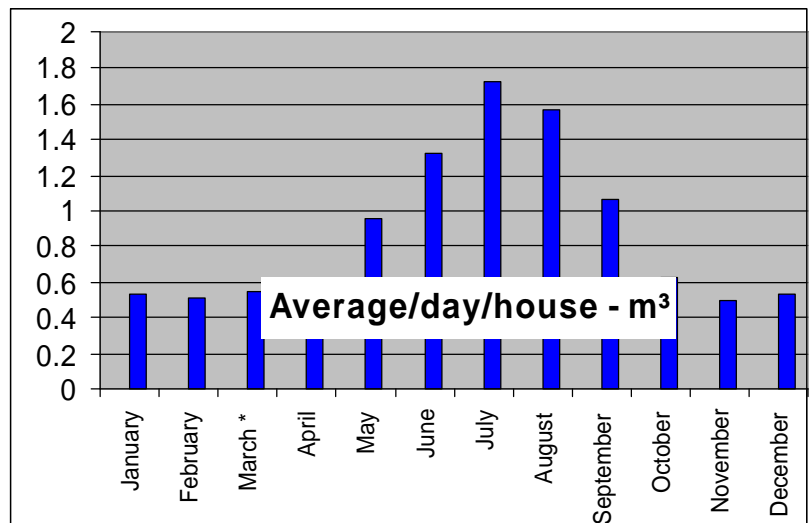


The average household water consumption per month is shown in the table and chart below.

Average / Day / House

January	0.539	m³
February	0.521	m³
*March	0.546	m³
April	0.482	m³
May	0.954	m³
June	1.316	m³
July	1.727	m³
August	1.570	m³
September	1.057	m³
October	0.628	m³
November	0.490	m³
December	0.536	m³

* indicates watermain flushing in March



Groundwater production and household water consumption both increased dramatically from May to September despite the implementation of outdoor watering restrictions.

7. Maintenance Program

Regular maintenance and inspections are completed around the wellhead areas to reduce or eliminate the risk of contamination and system failure. Watermains are flushed twice annually; in the Spring and Fall. Annual fire hydrant maintenance is completed in the Fall.

8. Water System Projects

8.1 2006 Completed Projects

- The steel reservoir was reconditioned and repainted.
- The wooden reservoir was removed.
- The circulation piping at the reservoir site was upgraded.
- A comprehensive water conservation program was carried out from May to October.
- A Standard Operating Procedures Manual was created for all routine Utilities duties.
- The Emergency Response Plan was reviewed and updated.
- A security review was completed by an independent agency and a report with recommendations was provided.
- A web-based Capital Asset Management Program was completed to inventory all water system pipes, valves, wells, reservoirs, hydrants, and manholes, etc. to assist with infrastructure replacement priorities.

8.2 2007 Proposed Projects & Upgrades

- Permanently close Well #1, in the main pumphouse.
- Install a circulating pump at the reservoir site.
- Repair the Well #2 Pumphouse.
- Replace piping from reservoir site to Sunrise Drive.
- Re-key all locked facilities.
- Other security improvements.
- Address the design of a SCADA system.

8.3 2007 Proposed Studies

- Innovative Water Supply and Reuse.
- Well redevelopment planning.
- Water Use Bylaw/Best Practices Review.

9. Emergency Response Plan

The Emergency Response Plan (ERP) was reviewed and updated in 2006. A copy of the ERP is attached in Appendix C.

10. Cross Connection Control

A formalized Cross Connection Control Program will be initiated in 2007. Cross connection controls already in-place include check valves at each residential and commercial water meter.

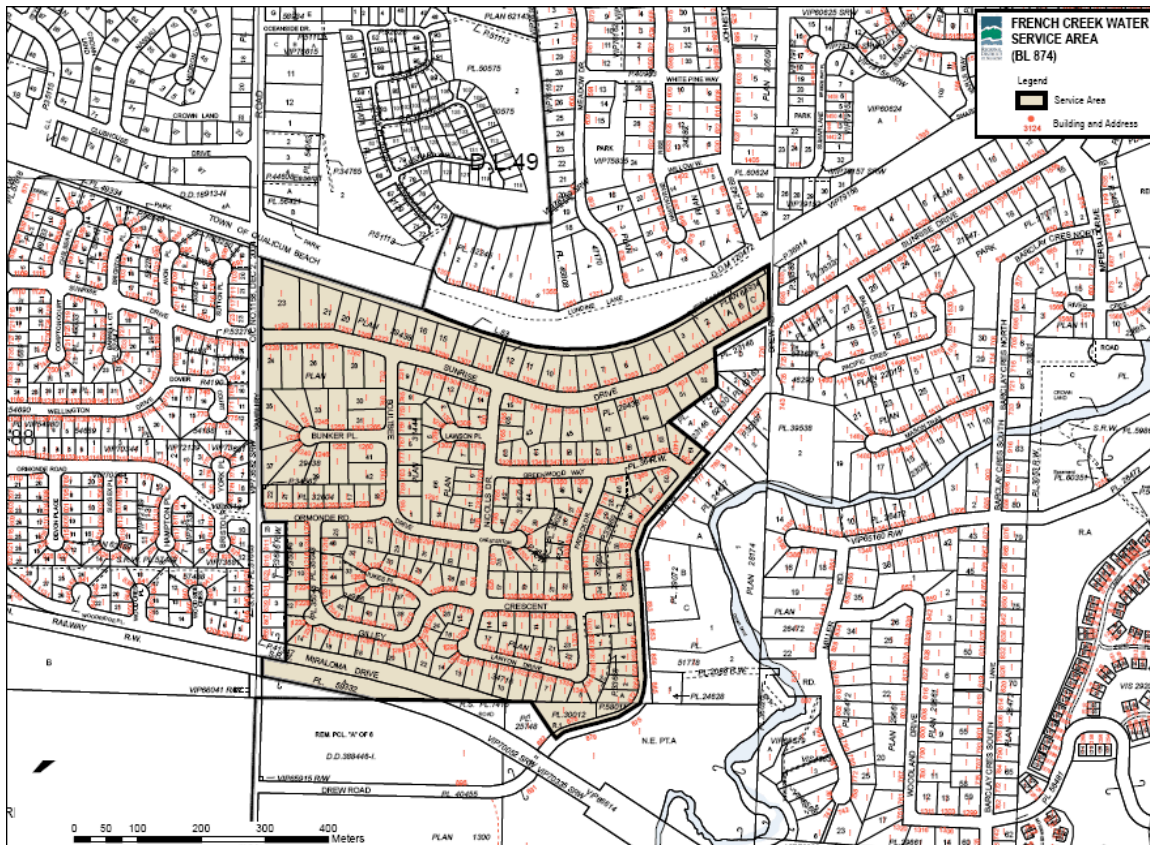
11. Closing

An annual report for the year 2007 will be prepared and submitted to the Vancouver Island Health Authority in the Spring of 2008. Annual reports are also available on our website at www.rdn.bc.ca/WaterSmart.

APPENIDX A

**MAP OF FRENCH CREEK
WATER LOCAL SERVICE AREA**

FRENCH CREEK WATER LOCAL SERVICE AREA



APPENDIX B

WATER QUALITY TESTING RESULTS

APPENDIX C

EMERGENCY RESPONSE PLAN