Regional District of Nanaimo

DECOURCEY

Water Local Service Area
Annual Report

2006

REGIONAL DISTRICT OF NANAIMO

RDN WATERSMART ZERO WASTE

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Appendix A - Map of Decourcey Water Local Service Area

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1. Introduction

The following annual report describes the Decourcey 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. Decourcey Water System

The Decourcey Water Service Area was established in 1998 in a rural area south of Nanaimo, and comprises two properties on Bissel Road and two properties on Pylades Drive. The water source for the Decourcey Water Service Area comes from one groundwater well located nearby. The water supply is stored in one reservoir and is chlorinated manually. A map of the Decourcey Water System is provided in Appendix A for reference.

2.1 Groundwater Wells

One groundwater production well is present at 3284 Bissel Road, Cedar, B.C.

Well / Name	Well Depth	Wellhead Protection	Treated/Untreated with Chlorine
#1	61.0 m	Yes	Treated

2.2 Reservoirs

One steel reservoir is present at 3280 Bissel Road, and has a capacity of 136 m^3 (30,000 imperial gallons).

2.3 Distribution System

The water distribution system in Decourcey is comprised entirely of 150mm PVC watermains. Four 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
Monthly	North Island Labs	Chloride Fluoride Tri-Halomethanes
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

Very few complaints and inquiries were received from the Decourcey water service area, and were typically related to power outages.

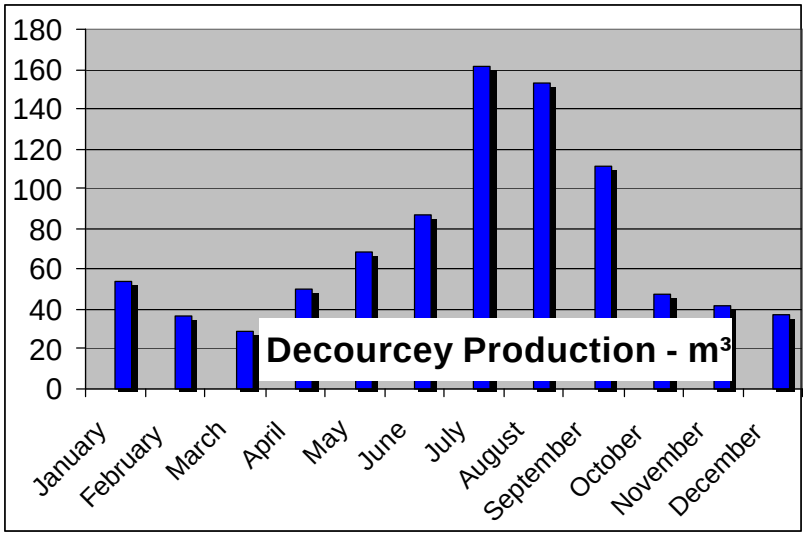
6. Groundwater Production and Average Consumption

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

Monthly Production

January	**53.4**	**m³**
February	**36**	**m³**
March	**29**	**m³**
***April**	**50.5**	**m³**
May	**68.9**	**m³**
June	**87**	**m³**
July	**161.9**	**m³**
August	**153**	**m³**
September	**111.3**	**m³**
October	**47**	**m³**
November	**41.8**	**m³**
December	**36.9**	**m³**

* indicates watermain flushing in April

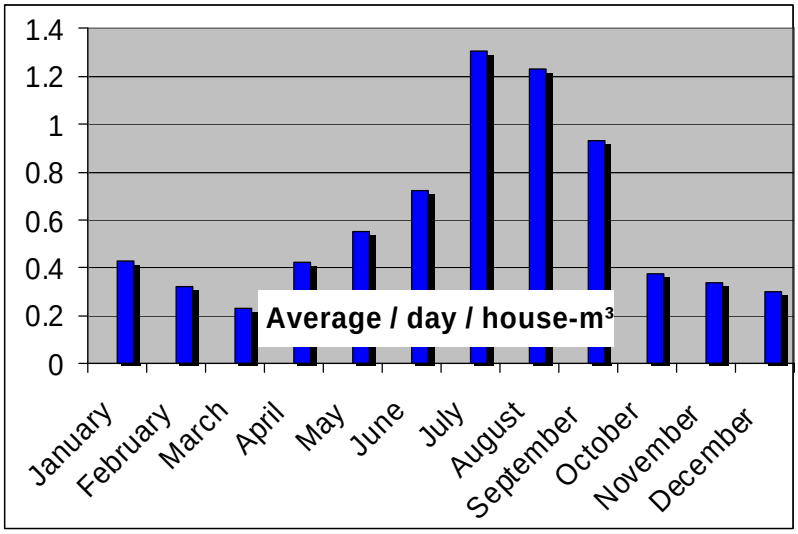


The average household water consumption per month is shown in the table and chart below.

Average / Day / House

January	**0.431**	**m³**
February	**0.321**	**m³**
March	**0.234**	**m³**
***April**	**0.421**	**m³**
May	**0.556**	**m³**
June	**0.725**	**m³**
July	**1.306**	**m³**
August	**1.234**	**m³**
September	**0.928**	**m³**
October	**0.379**	**m³**
November	**0.337**	**m³**
December	**0.298**	**m³**

* indicates watermain flushing in April



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 once annually; in the Spring.

8. Water System Projects

8.1 2006 Completed Projects

- 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

- Re-keying all locked facilities.
- Improving wellhead protection.
- Other security improvements.
- Developing objectives for a SCADA system.

8.3 2007 Proposed Studies

- Innovative water supply and re-use.
- 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 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.

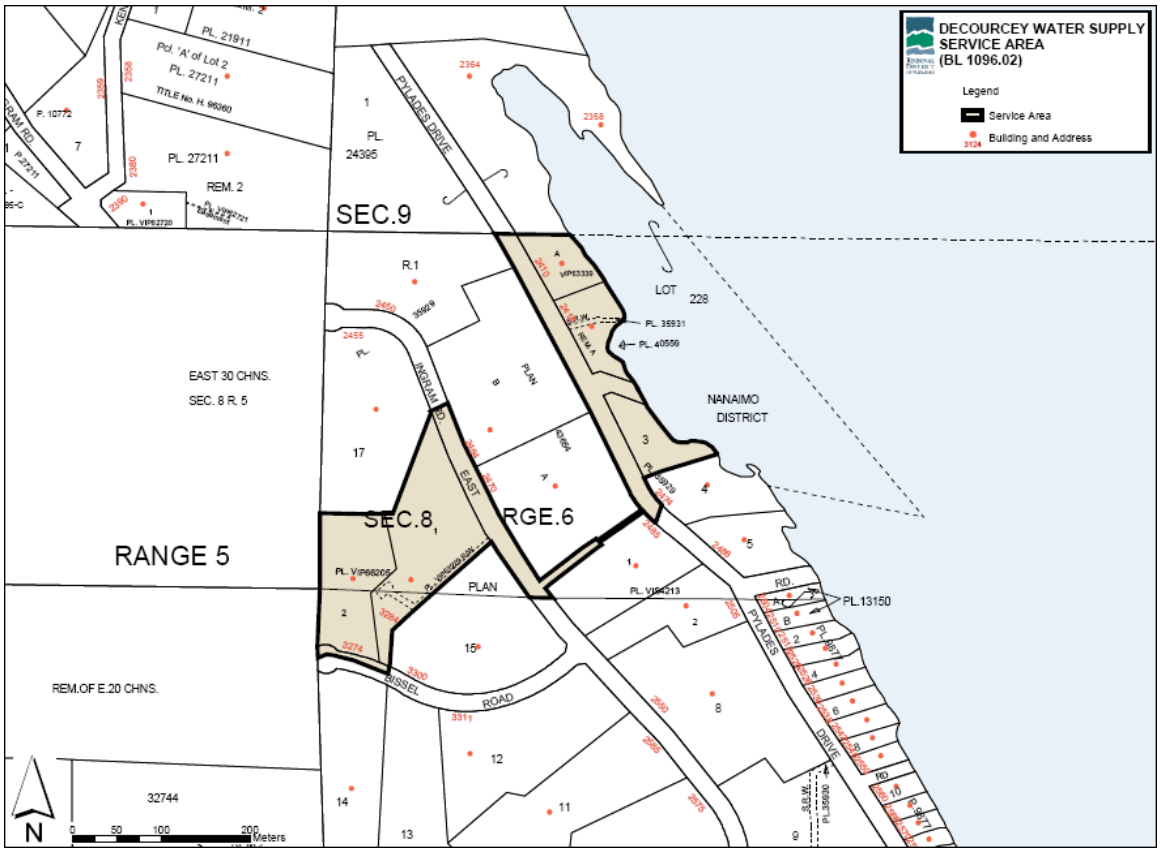
APPENIDX A

MAP OF DECOURCEY

WATER LOCAL SERVICE AREA

DECOURCEY

WATER LOCAL SERVICE AREA



APPENDIX B

WATER QUALITY TESTING RESULTS

APPENDIX C

EMERGENCY RESPONSE PLAN