

Regional District of Nanaimo

**WALL
BEACH**

**Water Local Service Area
Annual Report**

2006

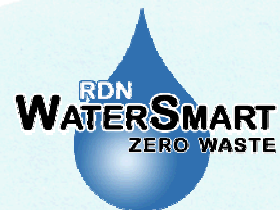


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Appendix A - Map of Wall Beach Water Local Service Area

Appendix B - Water Quality Testing Results

Appendix C - Emergency Response Plan

1. Introduction

The following annual report describes the Wall Beach 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. Wall Beach Water System

The Wall Beach Water Service Area was established in 1992 and comprises an area lying west of Seahaven Road on the Nanoose Peninsula. During the winter months the water source for Wall Beach comes from the Madrona #4 well located nearby, which is not chlorinated. The water supply is supplemented, when required, with chlorinated water from the Fairwinds water system. From May to October each year, the water source to Wall Beach is replaced by surface water from the Englishman River, which has been chlorinated. Both the groundwater and surface water sources are stored in the nearby Madrona reservoir. A map of the Wall Beach Water System is provided in Appendix A for reference.

2.1 Groundwater Wells

There are no groundwater production wells in the Wall Beach Water System. Drinking water is supplied from the adjacent Madrona Water System.

2.2 Reservoirs

No reservoirs are present in the Wall Beach Water System. Drinking water is stored in the nearby Madrona reservoir.

2.3 Distribution System

The water distribution system in Wall Beach is comprised of 100mm and 150mm asbestos-concrete watermains, and 150mm 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 adjacent Madrona water distribution system, which is considered to be representative of the drinking water in the Wall Beach water system. The following table includes a summary of all testing in the Madrona water system:

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 (from Madrona) are provided at the end of this report under Appendix B.

5. Water Quality Inquiries and Complaints

No complaints or inquiries were received from the Wall Beach water service area.

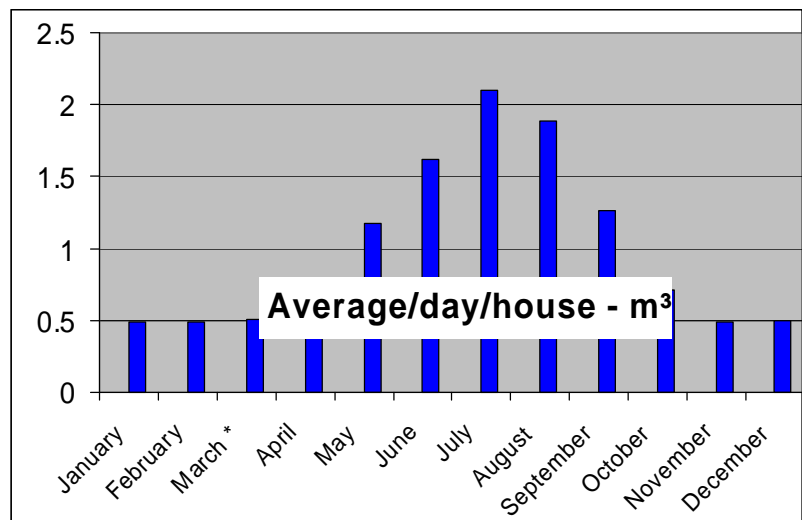
6. Groundwater Production and Average Consumption

No groundwater production takes place within the Wall Beach Water System. The average household water consumption per month is considered similar to the Madrona water system. The figures from the Madrona water system are shown in the table and chart below.

Average / Day / House

January	0.489	m³
February	0.482	m³
*March	0.516	m³
April	0.614	m³
May	1.174	m³
June	1.616	m³
July	2.105	m³
August	1.887	m³
September	1.257	m³
October	0.708	m³
November	0.484	M³
December	0.494	M³

* indicates watermain flushing in March



Household water consumption increased dramatically from May to September despite the implementation of outdoor watering restrictions.

7. Maintenance Program

Watermains are flushed once annually; in the Spring.

8. Water System Projects

8.1 2006 Completed Projects

- Water audit for the whole Nanoose Bay Peninsula (including Wall Beach) was completed.
- 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

- Madrona Bulk Water Pump Station Design (will bring bulk water to Wall Beach).
- Re-keying all locked facilities.
- 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.

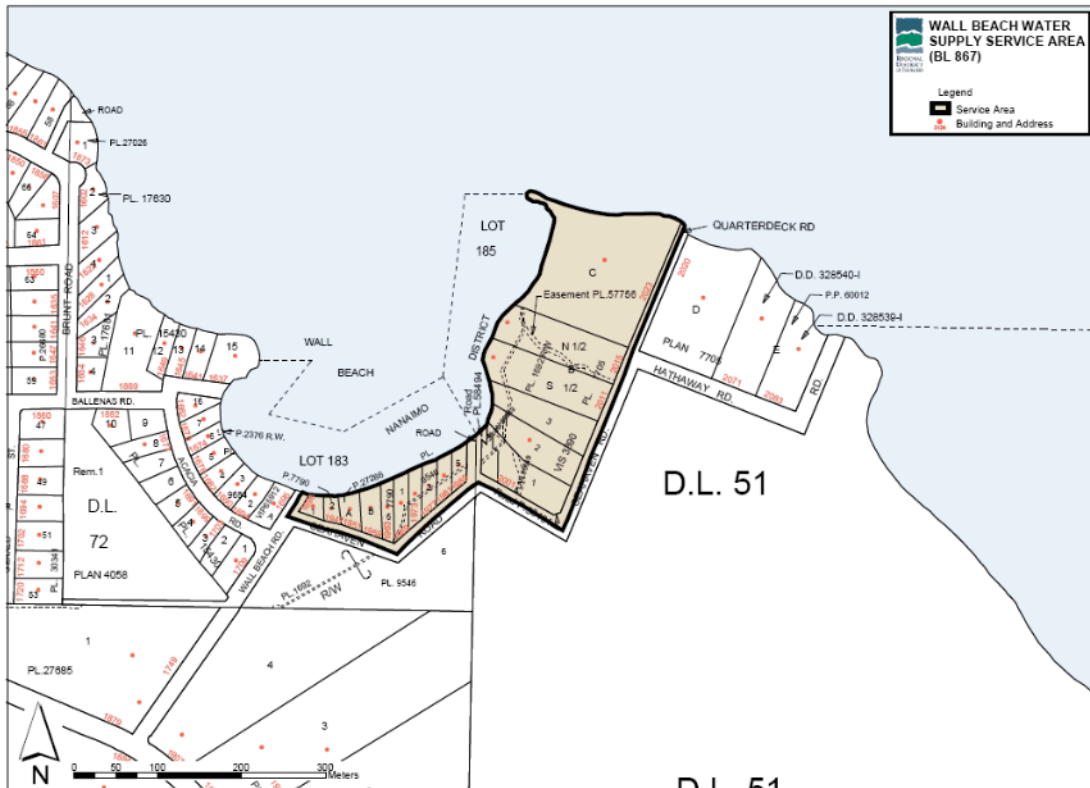
11. Closing

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 WALL BEACH
WATER LOCAL SERVICE AREA**

WALL BEACH WATER LOCAL SERVICE AREA



APPENDIX B

WATER QUALITY TESTING RESULTS

APPENDIX C

EMERGENCY RESPONSE PLAN