Fairwinds Water Service Area

Introduction

The Fairwinds Water Service Area was established in 1988 and comprises an area around Fairwinds Drive and Dolphin Drive on the NanOOSE Peninsula. There are currently 382 residential connections and 26 commercial connections to the water system. The water source for the Fairwinds Water Service area comes from a series of groundwater wells located nearby. The wells from Arbutus and West Bay water systems also provide some of the water needed. The water source is chlorinated and stored in two reservoirs. Fairwinds is now included in the NanOOSE Bay Peninsula Water Service Area which includes all seven systems on the NanOOSE Peninsula.

Detailed Description

Wells
One well is located on Tippet Road and the other two are located on NanOOSE Road.

<table>
<thead>
<tr>
<th>Well #/ Name</th>
<th>Well Depth</th>
<th>Wellhead protection?</th>
<th>Treated or Untreated by Chlorine</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>60.4 m</td>
<td>Yes</td>
<td>Treated</td>
</tr>
<tr>
<td>#2</td>
<td>65.2 m</td>
<td>Yes</td>
<td>Treated</td>
</tr>
<tr>
<td>#3</td>
<td>65.7 m</td>
<td>Yes</td>
<td>Treated</td>
</tr>
</tbody>
</table>

Reservoirs
There are two reservoirs; both have the capacity of approximately 150,000 gallons each.

Distribution System
The distribution system consists of a mix of 250mm, 200mm, 150mm and 100mm supply lines. All lines are PVC with the exception of the well lines which are ductile iron. Fire Hydrants are located throughout the system.

Maintenance Programs

Sources
Regular maintenance of the well head areas to ensure the risk of contamination or systems failure is reduced or eliminated.

Reservoirs
Reservoirs are flushed and cleaned every two years.

Distribution System
Water mains are flushed annually. Twice annually beginning in 2006.
**Fairwinds Water Service Area**

**Current Year Planned Maintenance / Improvements**

Fire Hydrant maintenance.

**Water Sampling and Testing Program**

See attached for all water testing reports.

The distribution system is tested using the following schedule.

<table>
<thead>
<tr>
<th>Timing</th>
<th>Location</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly</td>
<td>In house laboratory (RDN)</td>
<td>Fecal Coliforms, Total Coliforms, Temperature, PH, Chlorine, Total Dissolved Solids, Salinity, Conductivity, Iron, Manganese</td>
</tr>
<tr>
<td>Weekly (Health Dept. Required)</td>
<td>Independent Laboratory*</td>
<td>Fecal Coliforms, Total Coliforms</td>
</tr>
<tr>
<td>Monthly</td>
<td>Independent Laboratory*</td>
<td>Chloride</td>
</tr>
<tr>
<td>Quarterly</td>
<td>Independent Laboratory*</td>
<td>Chloride, Conductivity, Sodium, Total Dissolved Solids</td>
</tr>
<tr>
<td>Annual</td>
<td>Independent Laboratory*</td>
<td>Complete potability testing in both wells in October, Complete potability testing in system water (residence).</td>
</tr>
</tbody>
</table>

*North Island Laboratory.*

**Source Transmission and Distribution System Water Quality**

See attached lab analysis sheets

**Emergency Response Plan**

The Fairwinds Water Local Service Area Emergency response plan is attached for information. This document is updated annually to ensure contact and other relevant information is in place. The emergency Response Plan for part of the overall RDN’s Emergency Response Plan Document.
Fairwinds Water Service Area

Cross Connection Control Program

Cross connection control is largely achieved through the installation of dual check valves at every metering point in the system. A Cross Connection Control is being developed in 2007.

Water Quality Inquires and Complaints

Inquires were of a general nature related to the delivery of potable water to serviced properties. Most complaints were about water colour due in part to the high iron and manganese levels.