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**The Municipality of the Village of Lions Bay**

**DRINKING WATER QUALITY**

**ANNUAL REPORT**

**2006**

**Appendix D**

**Emergency Response Plan**

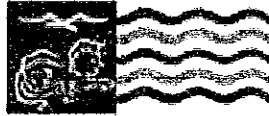
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## **CONTENTS**

Boil Water Advisory	3D
Power Failures	3D
Earthquakes	3D
Fire in the Watershed	4D
Water Pump Failure	4D
Chemical Contamination	4D
Disinfection Interruption	4D
Loss of Pressure	5D
Turbidity Events	5D
Water Line Breaks	5D



### **BOIL WATER ADVISORY**

If there is a need, or if Vancouver Coastal Health Authority (VCHA) orders the Village to issue a Boil Water Advisory (BWA):

- ❖ Identify the affected area,
- ❖ Report these findings to the person in charge,
- ❖ The person in charge will contact the Public Health Inspector (PHI),
- ❖ The person in charge will copy and have delivered by hand a printed BWA and post a notice at Lions Bay School, Lions Bay Post Office, Lions Bay General Store / Café, and Child Care facilities,
- ❖ The person in charge will, when appropriate, notify the radio and television stations that are listed in the plan,
- ❖ When it has been determined that all hazards and problems have been alleviated, the PHI will lift the BWA,
- ❖ The person in charge will reverse the above actions notifying all those concerned, and
- ❖ The person in charge will record all of the pertinent information regarding the event and prepare a report for the Medical Health Officer.

### **POWER FAILURES**

In the event of a Power Failure:

- ❖ Notify the Works Manager or his designate,
- ❖ Determine the extent of the outage,
- ❖ Notify BC Hydro,
- ❖ If an outage of more than 4 (four) hours is suspected, shut down the CL2 and run the system on manual,
- ❖ Monitor the tanks levels,
- ❖ Monitor and record the free CL2 in the system,
- ❖ When the power comes back on, reset the injector and check its function,
- ❖ Reset all alarms, and
- ❖ Reset all the pumps including the STP.

### **EARTHQUAKES**

In the event of an earthquake:

- ❖ Notify the Works Manager or his designate,
- ❖ Begin a system wide check for leaks or any other failures,
- ❖ Shut down any areas that appear to have problems,
- ❖ Notify VCHA if sections have been shut down and if necessary issue a BWA,
- ❖ Repair and flush lines with treated water, and
- ❖ Retest all zones and monitor.



### **FIRE IN THE WATERSHED**

In the event of a forest fire in the watershed:

- ❖ Notify the Works Manager or his designate,
- ❖ Notify BC Department of Forest,
- ❖ Call 911 and let them dispatch the affected Fire Department,
- ❖ Shut down the system at the affected intake,
- ❖ Notify Vancouver Coastal Health Authority,
- ❖ Notify Council,
- ❖ Monitor Raw Water for any contaminants, and
- ❖ Let BC Forest service know that we have an intake below and that we need to know if they are going to water bomb with any chemicals.

### **WATER PUMP FAILURE**

In the event of a pump failure:

- ❖ Shut down the affected pump,
- ❖ Notify the Works Manager or his designate,
- ❖ Notify all affected residents, and
- ❖ Change or repair pump and flush the affected area with treated water.

### **CHEMICAL CONTAMINATION**

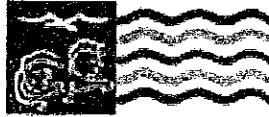
In the event of Chemical contamination such as oil, fuel, pesticides or any other type of substance that gets into or threatens to get into our water system including forest fire fighting activities:

- ❖ Shut down the affected intake or line,
- ❖ Begin determining the extent of contamination,
- ❖ Notify Vancouver Coastal Health Authority who will issue a "No Use Order",
- ❖ Notify the Works Manager or his designate,
- ❖ Call the listed radio and television stations and have them broadcast a "No Use Order" to the affected area,
- ❖ Hand deliver "Do Not Use Water" notices to the affected areas,
- ❖ Remedy the problem to the satisfaction of the Vancouver Coastal Health Authority, and
- ❖ Notify all those affected that the water is now safe to use again.

### **DISINFECTION INTERRUPTION**

In the event of an interruption of CL2 system:

- ❖ Check and record the free CL2 in the affected water tank,
- ❖ Shut down and make safe the CL2 injector,
- ❖ Shut down the intake valve for the water tank,



- ❖ Determine the amount of down time that is available before we need to refill the water tank,
- ❖ Notify the Works Manager or his designate,
- ❖ Begin repairs on the unit,
- ❖ If the downtime is going to be too long and we have to fill the tank, notify Vancouver Coastal Health Authority and issue a BWA (not necessary if do manual feed), and
- ❖ Add chlorine to reservoir manually and check residual on ongoing basis.

### **LOSS OF PRESSURE**

In the event of a system pressure loss due to high demand from high fire flow or a severe leak:

- ❖ Notify the Works Manager or his designate,
- ❖ Determine if there was a negative pressure or if there was always positive pressure,
- ❖ If a negative pressure is suspected, notify Vancouver Coastal Health Authority who will determine if we need to issue a BWA, and
- ❖ Flush the affected area and record the results and give them to the Health Inspector.

### **TURBIDITY EVENTS**

If the Turbidity is in the range of 1-3 NTU, increase monitoring. If the Turbidity reaches 4 NTU prepare to Take Off the system. If the Turbidity reaches 5 NTU:

- ❖ Notify the Works Manager or his designate,
- ❖ Contact Vancouver Coastal Health Authority and possibly issue a BWA,
- ❖ Check and record the free CL2 that is present at the same site as the turbidity sample was taken,
- ❖ Adjust the CL2 at the injection point if necessary, and
- ❖ Check with other purveyors like the District of West Vancouver to see at what point high turbidity events correlate with positive water samples.

### **WATER LINE BREAKS**

In the event of a water line break, where water pressure has maintained until the leak has been exposed so that there is no danger of any material flowing back into the break, there will be no need for any special condition to be applied. Flush the repair area with treated water before placing that area back in service.

In the event that the broken line is suspected of having a negative pressure:

- ❖ Notify the Works Manager or his delegate,
- ❖ Notify the Vancouver Coastal Health Authority for a possible BWA,
- ❖ Repair the break and flush the area with treated water, and
- ❖ Rescind the BWA if necessary.