

## **Coquitlam Reservoir Shutdown November 15, 2005**

On November 16, 2005, the GVRD's Coquitlam Reservoir will be taken out of service to allow B.C. Hydro to carry out their Coquitlam Dam seismic upgrade project. To facilitate the work, the GVRD has been relocating its existing large-diameter water main and intake tunnel to a more southern alignment to place it clear of the footprint of the new earth-fill dam. To connect the new section of main and intake tunnel to the existing intake tunnel and to the downstream water mains is a complex project that will require complete shutdown of the Coquitlam Intake for approximately three months.

### **Are there concerns about water quality related to the shutdown?**

Yes, because the shutdown eliminates the flexibility to vary sources that the GVRD normally has when all three water supplies are in service. This flexibility allows the GVRD to remove a supply from service should it become turbid due to the runoff associated with heavy rainfall. If either Capilano or Seymour becomes turbid during the Coquitlam shutdown period, then we will have no choice but to deliver the turbid water.

### **What is turbidity?**

Turbidity refers to the 'cloudiness' of water. During heavy rainfalls and runoff, suspended matter, mainly silts and clays wash into the drinking water reservoirs. This gives the water a cloudy or dirty appearance.

### **Why is turbidity a water quality issue, and is it safe to drink?**

Turbidity is a water quality issue because the particles that cause turbidity can interfere with disinfection by shielding micro-organisms that may be present from the disinfectant.

Although there has been no specific recorded case of an illness being traced to this cause, there is general agreement that increased turbidity would likely lead to some slight increased risk in gastrointestinal illness.

### **What precautions should residents take if particularly affected by water quality?**

Disinfectant levels are raised as a precaution when turbid water is present in the system. People who are immuno-compromised due to HIV or the effects of chemotherapy or anti-rejection medications should, as always, take additional precautions.

### **How will turbidity affect business and industry?**

Some businesses and industries could be affected by turbid water, and should take action to minimize or prevent impacts as appropriate.

### **If turbidity is more frequent during fall and winter months, why is the Coquitlam Reservoir being shut down now?**

The shutdown can only be done during the off-peak water demand season (November to March) because in spring summer and early fall all three sources are needed to meet the higher demands for water.

### **Why is turbidity likely to increase in our drinking water when the Coquitlam Reservoir is closed?**

Greater Vancouver's drinking water is supplied equally by three reservoirs in three watersheds – Capilano, Seymour and Coquitlam. During the Coquitlam shutdown, water will be supplied by the Capilano and Seymour Reservoirs only. Should a large storm cause a significant turbidity event at Capilano or Seymour while Coquitlam is out of service, there is the potential for a large area of the region to receive turbid water for a lengthy period of time. Should such an event occur, we will attempt to minimize the extent of delivery of turbid water. Options will be limited since it will be impossible to return Coquitlam to service until the tie-in work is complete.

### **Why wouldn't the GVRD just shut down the turbid source?**

The GVRD requires that two of its three source supplies be in service at all times during the off-peak water demand season, and so will have no operational flexibility in the event of turbidity in the Seymour and Capilano Reservoirs.

### **How is turbidity measured?**

Cloudiness in water is stated using nephelometric turbidity units (NTU). The GVRD uses both a real-time monitoring system in drinking water supply reservoirs and streams, and daily laboratory tests of water samples from the intakes to determine turbidity levels.

### **What turbidity standards apply to drinking water?**

Guidelines for Canadian Drinking Water Quality (set by Health Canada) set a guideline of 1 NTU.

### **Does the GVRD monitor turbidity, and during the shutdown, how will the GVRD communicate turbidity events to the public?**

The GVRD continuously monitors turbidity levels in its reservoirs, and posts daily readings at [www.gvrd.bc.ca](http://www.gvrd.bc.ca). During this shutdown period, the GVRD will monitor regional weather forecasts, and when large storms are expected to result in turbidity, will communicate this information to the public through standard media practices.

### **What other steps does GVRD take to minimize risks to drinking water quality?**

The GVRD's closed-watershed policy provides a barrier against water contamination from human sources. In addition, drinking water is treated at the source before delivery to consumers. The GVRD further reduces risks by stabilizing land (to prevent erosion along streambanks), responding to wildfires, and detecting and removing trespassers.

### **What additional steps is GVRD taking to improve drinking water quality?**

The GVRD is building a \$600-million filtration project in the Lower Seymour Conservation Reserve in North Vancouver. When the project is completed by 2009, the plant will filter water from the Seymour and Capilano Reservoirs. In addition to improving drinking water by removing micro-organisms, organics, silts and clays caused by heavy rainfall, filtration reduces the amount of chlorine required to maintain water quality.

### **For additional information:**

GVRD Info Centre: 604-432-6200

Website: [www.gvrd.bc.ca](http://www.gvrd.bc.ca)