

## **Managing Our Drinking Water** [overview]

We all depend on safe, accessible drinking water. It's too important to waste. The Greater Vancouver Regional District (GVRD) works in partnership with municipalities to deliver clean drinking water from the mountains to the taps of about two million residents. Together we've developed a comprehensive, detailed roadmap to ensure effective water access to mid-century and beyond. It's called the *Drinking Water Management Plan*. Most of the municipalities within the Greater Vancouver region are following this plan. The others manage their own water supply—White Rock, Bowen Island, Belcarra, and Lions Bay.

As a resident, you can share the challenge of ensuring reliable, safe, and economical water supply for future generations. We invite your input and support for this new plan.

### ***The basis for the plan: sustainability***

The GVRD conducts business using the *Sustainable Region Initiative* (SRI). This document provides a framework for all our activities. The framework embraces environmental integrity, social well-being, and economic prosperity. It also calls for more specific plans such as the Drinking Water Management Plan, which we introduce to you here. The GVRD developed the SRI with the involvement of many residents and agencies who are committed to keeping our region the way we want it now, 25 or even 100 years into the future.

We're also guided by another document, the *Watershed Management Plan*. It commits our three watersheds to provide clean, safe water, above all else. You can get either of these documents from our website or our information centre.

### ***How we supply clean water***

Our drinking water comes from the lakes in three mountain watershed areas—Capilano, Seymour, and Coquitlam. The 585 square kilometers of forest in the watersheds are closed to public access to protect them. The water is collected, disinfected at the source, and distributed throughout the region by a system of dams, water mains, pumping stations, and reservoirs. The GVRD's system includes over 500 kilometers of large transmission water mains, 22 large service reservoirs, and 15 pump stations.

There are also eight *rechlorination* stations. Here, more chlorine may be added if daily water-quality monitoring shows bacteria starting to grow. This can happen because the chlorine added at the source eventually breaks down when sitting in reservoirs and pipes. Regardless of the type of primary disinfection used at the water source, secondary disinfection with chlorine is always used to continue safe-guarding the water as it travels to homes, businesses, and industries in the Greater Vancouver area.

The GVRD manages the watersheds, monitors and treats the water, and transmits the water to municipal reservoirs. A special subsidiary of the GVRD—the Greater Vancouver *Water District*—supplies all the water, at wholesale price, to participating municipalities. The municipalities then distribute the water to their users. Municipalities

pay for the water with the money from residents' water service bills and commercial metering. Municipalities also provide some pumping, smaller storage reservoirs, water-quality sampling, and rechlorination as needed.

The GVRD budgeted \$100 million for water in 2004. Much of this money goes to special projects such as building the new Seymour-Capilano Filtration Plant, estimated at \$600 million to complete. Other recurring costs in 2004 include about \$11 million to replace or repair the large water mains.

### ***How to keep up with population growth***

Even though our region receives so much rainfall in the autumn and winter, storage capacity is limited. Once the dams and reservoirs are filled, they can't capture any more water. So most of the rainfall and snowmelt in the watersheds can't be stored for later use when dry weather comes and demand increases. Providing more daily water to a growing population comes at a big cost—digging up roads for more pipes, buying land for more reservoirs, building bigger dams, more treatment plants, and so on. We all want to avoid this. And we want to put off as long as possible the enormous investment that may one day be needed to draw from a new water source.

So we've identified some cost-effective ways to work with our current three water sources to minimize ongoing building and to forestall the need for new water sources until beyond the middle of the century. One way is to avoid using drinking water for other purposes. For example, sprinkling restrictions alone are already delaying the need for new water sources for decades. Another way is to manage the current system to maximize its capacity. For example, reducing leaks in our water mains and reservoirs can boost reserves by up to 16%.

The Drinking Water Management Plan is flexible. It can adapt to future changes in the region and to take advantage of improvements in the science of water management. The plan will be reviewed every two years and updated every five.

### ***How the plan effects you***

[TO GET]

### ***Acting on the plan***

We've determined a wide range of actions that will accomplish the following goals:

1. Provide clean, safe drinking water by
  - Managing from source to tap
  - Dealing with known risks
  - Securing additional water supplies
2. Create water-efficient communities by
  - Using drinking water sustainably
  - Matching water quality to usage requirements

3. Get the most out of our water system by
  - Managing the infrastructure with an eye to the future
  - Effective partnerships

For each of these goals you can find a separate fact sheet that details our plan of action.

### ***Contact information***

[to be supplied]