



## Hot, dry June could mean water shortages

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Metro Vancouver's reservoirs are full now, but an unusually hot, dry start to the summer combined with rapid snowmelt means the area could be facing water shortages later in the year.

"We're in as good a condition as we can be for this time of year," said Metro Vancouver spokesman Bill Morrell.

"We had a very normal spring in terms of rainfall, which charges the reservoirs. We have had some snowmelt that occurs during these warm-weather periods, so there is significant inflow."

But because most of the snowpack has melted, our water supply may have reached its peak, said Jim McKerr, chairman of the Coastal Water Suppliers Association.

The association includes municipalities, regional districts, improvement districts and private businesses involved with water supply along the B.C. coast and Vancouver Island. It provides education to members and lobbies the provincial government on water issues.

"[The reservoirs] might be full, but they are not going to stay that way because there is no snow," he said. "Once the snowpack is melted and it has run its course down the river, it's in the ocean. We don't have the ability [to use it in our water supply]."

The provincial government reported on June 1 that snow levels are 50 to 60 per cent of what they usually are at this time of year for Vancouver Island and the south coast. An updated report, expected to be similarly gloomy, will be issued later this week.

Of particular concern is the south interior, in the Nicola, Okanagan, Similkameen and Kootenay areas, where snowpacks at winter's end were 70 to 80 per cent of normal and rainfall in April and May was 40 to 60 per cent of normal.

"One of the comparative measures we evaluate is inflow to Okanagan Lake," said Allan Chapman, head of the government's River Forecast Centre. "For the November '08 to May '09 period, inflow to Okanagan Lake was only 39 per cent of normal."

Chapman said this year is the sixth driest since 1921.

"Unless the weather turns very wet very soon, the summer of 2009 appears destined to experience

very low river, lake and reservoir levels through the south interior, with the myriad of water-supply and ecosystem challenges that result," Chapman said in an e-mail Sunday.

McKerr, whose organization oversees water supply in some mainland B.C. areas south of Whistler and Vancouver Island, said reservoir levels have been lower than normal in the last five years, and this year "could be far worse than past years."

He said water supplies in the area he's concerned with are down substantially.

"I have to believe that we are seeing the impacts of climate change," he said. "With the way June has been, we are definitely heading for a very challenging late season."

While April and the first half of May were fairly normal in terms of weather, June has been hot and dry, said meteorologist Mark Madryga. He said there has only been one day of rain at the Vancouver International Airport since May 19.

"Normally in the first half of June, we should have 27 millimetres of rain. And we've had none," he said. "In the middle of July and August, it is not uncommon to have a long dry spell like this. But it is uncommon to have it in the middle of May and the middle of June."

The average temperature this month has been 18.7 C, significantly higher than the usual 15.2. "It's way above normal," he said. "It's been mid-summer weather here the last three weeks."

McKerr said the quality of water declines with warm weather because of a process called stratification, which increases the concentration of solid particles in water.

He predicts we will see the effects of the warm, dry weather on our water supply "fairly soon."

"It's all going to depend on what Mother Nature does for the next month. If this trend of hot, arid dry temperatures with high winds continues, which all creates evaporation, it's going to be fairly quick. If it stays cloudy and cool, and we get little bits of showers, it's going to take longer," he said.

The Old Farmer's Almanac predicts June will be cool and wet in southern B.C., with average temperatures of 14.5 and 65 millimetres of rain by the time the month is over, with even more rain in July and average temperatures of 15.5.

"I can't go beyond five or six days," said Madryga, "but this week doesn't look like we'll get much, if any, rain all week."

If temperatures stay warm, McKerr said it's possible some communities could face a fate similar to that of the Vancouver Island surfing town of Tofino in 2006, when its reservoir ran dry and the town ordered some businesses to close in order to preserve water. He said if Tofino hadn't built another reservoir since 2006, it would be at a "very high risk" of running out of water. "There are lots of communities [facing those risks]," he said.

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