

Water Supply Outlook Mid-Summer 2005

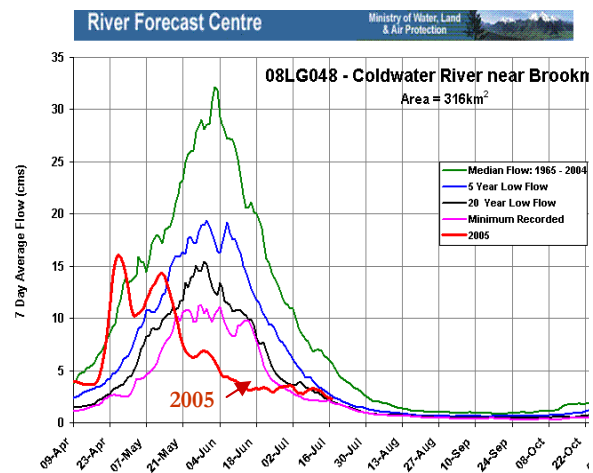
LOW STREAM FLOW POTENTIAL COLDWATER, NICOLA and SIMILKAMEEN REGIONS

CURRENT WATER SUPPLIES

Snowmelt in the spring of 2005 was 2-3 weeks earlier than normal. Some regions also had below normal snowpacks, including the Similkameen, south and west Okanagan, the southern Kootenays, and portions of the Middle and Lower Fraser such as the Nicola and Coldwater, and these areas experienced very subdued spring snowmelt runoff.

Sustained rainfall in June and early July has improved stream flow conditions and ground water levels in many areas of the province. As of July 18, 2005, the Nicola River above Nicola Lake is currently at median flow for mid-July. However, the flow of the Nicola River below Merritt is at the 5-year return period low flow level for mid-July. The Coldwater basin appears to have received much less rainfall and flows in Coldwater River remain at the 20-year return period low flow level. Cayoosh Creek near Lillooet is also approaching the 20-year return period low flow level. The Tulameen River below Vuich Creek and at Princeton and the Similkameen River near Hedley are below the 5-year return period low flow level. With warmer temperatures and drier weather, stream flows in these areas will drop quickly.

The Province is continuing to closely monitor the situation. Information about streamflows, groundwater levels, precipitation, and snowpack is available on the River Forecast Centre's website: <http://wlapwww.gov.bc.ca/rfc>



CLIMATE CHANGE

Climate change projections generally predict that British Columbia could expect warmer but wetter winters (i.e. more rain, less snowpack), earlier snowmelt and higher runoff, and lower summer streamflows that need to be managed for longer periods of hot and dry weather. The changing patterns will also affect groundwater recharge and withdrawals. Information about climate change in British Columbia is available on the following websites:

<http://wlapwww.gov.bc.ca/air/climate/> or
www.ec.gc.ca/climate/

While climate change projections are focused on longer term trends, the recent years of low snowpack at lower elevations, advanced snowmelt, and low flow conditions in the summer demonstrate that we need to be prepared for weather variability now, and for the future.

DRINKING WATER

Low water levels can result in warmer water temperatures and an increase in the concentrations of nutrients or contaminants, which can lead to poor water quality. Planning to ensure that there is an alternate drinking water source available is important. Having the water quality tested in an alternate supply now means that you will be ready if you need to move to that supply later in the summer. Plan in advance if activities such as disinfection seem likely, and be prepared for more intensive monitoring if your supplies experience low water levels. For information and updates on the Provincial Drinking Water Program, visit: www.healthservices.gov.bc.ca/protect/water.html.

FISH AND AQUATIC ECOSYSTEMS

Low water levels in streams are deadly for fish. When water levels drop in rivers and streams, fish and other aquatic life can be stranded in small pools. Low water flows can also lead to higher water temperatures, which increase stress and deaths in fish and other aquatic species. Low water can also expose physical barriers that prevent fish from reaching spawning grounds and may affect fish that have already been identified by the *Species At Risk Act* as an endangered species.

For information regarding fish habitat protection and the brochure "Complying with the Fisheries Act", visit:

www-heb.pac.dfo-mpo.gc.ca/publications/publications_e.htm

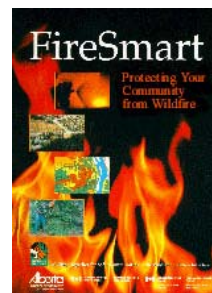
AGRICULTURE

Many of the sources for irrigation water in British Columbia are surface water supplies that are snowmelt-fed and therefore at risk during low flows. Low flow conditions can limit the water available for irrigation during the growing season for many crops, and during the hottest and driest part of the summer. Without appropriate amounts of water, many crops will be stressed, and for crops that take longer to establish themselves such as fruit trees and grape vines, the

impact of one summer's low flows can be long term. The economic prosperity and food supplies of entire regions can be affected by the impacts that low flows can have on agriculture. To learn about improving irrigation efficiency and different strategies for managing during times of reduced water availability visit: www.agf.gov.bc.ca/drought/index.htm

FOREST FIRES

Low water levels and hot and dry weather certainly can increase communities' vulnerability to forest fires. However, if a region receives rainfall, the moisture may be sufficient to decrease the chances of a forest fire, even if it is not enough to significantly raise stream flows. In the case of a forest fire, local water supplies may be used for fire fighting, leaving communities to use alternative sources that may not meet Provincial drinking water standards. For information on forest fires and reducing the risk to personal property from wild fires: www.for.gov.bc.ca/protect/



DAM SAFETY

In many parts of the province, stream and river flow is not adequate to provide the water supply required for our various needs. As a result, there are over 2000 licensed storage dams in BC that store water. It is important that dam owners inspect their dams as well as maintain and operate them in accordance with the conditions of their water licence and the Operation, Maintenance and Surveillance Manual. Storing water above the full supply level in a reservoir can have serious dam safety implications. Dam safety information is available at:

www.lwbc.bc.ca/03water/dams/index.html

WHAT CAN YOU DO?

Withdrawal of water for domestic, agricultural and industrial use contributes to low stream flows. Reducing water use and protecting vulnerable water supplies will help ensure that there is sufficient water to last throughout the summer.

If you share your water source with other licensees, you are encouraged to work together to share the resource and meet instream needs.

Water conservation tips include:

- Check for leaks in infrastructure, pipes and hoses, and encourage water users to do the same
- Implement watering restrictions, promote watering only early in the morning, not during the hottest point of the day, and on gardens only—not driveways, roads or sidewalks. A monthly or weekly irrigation schedule can be developed by using the landscape irrigation calculator at: www.irrigationbc.com.
- For agricultural irrigation, implement an irrigation scheduling program using real time weather data from www.farmwest.com and

soil moisture sensing equipment at: www.agf.gov.bc.ca/drought

- Improve water system efficiencies when and wherever possible.
- Educate large users and your local community on the supply system and the need for water conservation.
- Implement drought response and water conservation plans.
- Communicate with your customers and community about low water levels and what they can do to reduce water waste.

REGULAR UPDATES

The status of snow packs, stream flows and drought conditions in the province are provided on the River Forecast Centre website: <http://wlapwww.gov.bc.ca/rfc>

If you would like to receive regular updates by email, please send an email to: LWBC.Drought@gov.bc.ca using the subject line: Email updates.



CONTACTS:

Drinking Water Quality Concerns

Local Health Authorities

<http://www.healthservices.gov.bc.ca/socsec/contacts.html>

Community Water Shortages

Provincial Emergency Program

www.pep.bc.ca/about_pep/offices.html

Fisheries Information and Fish Flow Requirements

Local Fisheries and Oceans Canada (DFO) office

www.dfo-mpo.gc.ca/Contact_e.htm

OR

Ministry of Environment Regional Office

http://wlapwww.gov.bc.ca/esd/esd_reg_ops.htm

Water Allocation Questions

Land and Water BC, Inc. Regional Office

www.lwbc.bc.ca/07contact/regions.html