BC Environment
River Forecast Centre

Water Supply and Streamflow Conditions
Issued: August 18, 2009

Starting on August 9th, a widespread frontal precipitation event brought rainfall to Vancouver Island and the South Coast of BC. The precipitation moved eastward into the south central interior by August 13th and continued in many places up until August 15th. Rainfall warnings for the Okanagan, Boundary, Columbia and Kootenays were issued during this time. As a result, river levels have improved on most gauged streams in the southern half of the province, in some cases significantly. However, in certain areas streams are still very low. The effect of the sustained hot and dry weather is now also being reflected in the upper and mid Fraser River, with water levels continuing to decline over the past week and some streams at or near record low flows. Areas of concern are:

- **Extremely Dry** (near or below previously recorded low for the date)
    - Upper Nicola River and tributaries, upper Salmon River and tributaries (Falkland), upper Shuswap River (Lumby), upper Fraser River (Hansard, Shelley, Marguerite)
- **Dry to Very Dry** (10-25 year return period low flow) – South Thompson (Chase Creek and tributaries)/Shuswap (Enderby), Lower Thompson River (Spences) and tributaries, North Thompson and tributaries, Horsefly River, and Vaseux Creek in the Okanagan

Areas being monitored for Low Flow Concern:
Thompson Basin: Portions of the South Thompson basin received significant rainfall for August 10-15th. Fire Weather stations recorded 26 mm at Salmon Arm and 33 mm at Sicamous. By comparison, in the lower Thompson only 1- 4 mm was measured, with the exception of the Coldwater basin where the Fire Weather station at Thynne recorded 11 mm. River levels in some portions of the basin have continued to improve over the past week, particularly on the lower Nicola River, the Coldwater and the lower Salmon River. However, some streams continue to be very dry and near record low flows.

- The Nicola River above the lake continues to remain at a near record low flow.
- The Nicola River near Merritt and the Coldwater River near Brookmere have both improved to 5-year return period low flows.
- The Salmon River at Falkland, Seymour River at Seymour Arm, and Shuswap River near Lumby remain at or near record low flow for the date.
- The Salmon River near Salmon Arm has improved from a record low flows last week to a 5-year return period low flow for the date.
- Other rivers in the South Thompson basin (Chase Creek, Eagle River, and Shuswap near Enderby) are near 10-20 year return period low flows. This likely includes other ungauged Shuswap Lake and Shuswap River tributaries.
- The mainstem of the lower Thompson River at Spences Bridge and tributaries (Bonaparte River) have declined to below a 20-year return period low flow.
- The North Thompson River is now below a 20-year return period low flow and the Blue River is near a record low flow.

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Upper and Mid-Fraser Basin: Precipitation at Prince George has been above average from October through June, but two-thirds of normal since the beginning of July to date. The period of hot, dry weather appears to have melted off much of the high elevation snowpack that normally provides water to maintain streamflows in the upper Fraser into mid-August. As a result, the mainstem of the upper Fraser River is at or near record low flows for the period to date. This low flow trend on the Fraser is expected to continue downstream until the end of this week. However, some precipitation was received at the headwaters of the basin over the weekend and water levels are already starting to recover on the Fraser River near McBride and the upper tributaries.

- The Fraser River mainstem and Hansard, Shelly and Marguerite are at or near record low flows for the period to date.
- The Horsefly River is below a 10-year return period low flow.

Similkameen River Basin: A drought was declared in May 2009 for Osoyoos Lake by the International Osoyoos Lake Board of Control, based on a forecast of well below normal runoff for the Similkameen River. However, the precipitation event from August 10-14 brought significant rainfall to the basin and water levels have improved. Princeton measured 26 mm, and the Fire Weather stations at Allison Pass and Ashnola recorded 56 mm and 31 mm respectively.

- The Tulameen and Similkameen rivers are now at or above median levels

Okanagan River and Kettle River Basin: The Okanagan basin received significant rainfall last week, primarily on August 13-14. Kelowna and Penticton recorded 34 mm and 39 mm respectively, and the Fire Weather station at Fintry recorded 53 mm during that same event. As a result, water levels on most of the gauged streams in the Okanagan improved significantly and are near or above median. The exceptions are:

- Vaseux Creek (in the southern Okanagan, east of Oliver) has improved from its record low the previous week, but is still very dry and is at a 20-year return period low flow.
- The Kettle River has also improved but is currently at a 5-year low return period low flow.

South Coast: Much of the South Coast received significant rainfall from August 9-14. Vancouver Airport recorded 26 mm, while UBC Research and Chilliwack Nursery Fire Weather stations received 54mm and 38 mm, respectively. River levels have increased notably, to be near or above median levels.

- The upper Seymour River, the Chilliwack River, the Clowhom River, the Coquihalla River, and the Nicomekl River have all increased in level and are near or above median.

Vancouver Island: The precipitation event from August 9-13 brought significant rainfall to portions of Vancouver Island with 70 mm at Effingham on the west coast and 23 mm in the north at Port Hardy. On the east coast of the island, 3-10 mm was measured at most other weather stations. Some river levels have increased notably, to be near or above median levels.

- The Tsolum, and Browns and Chemainus rivers are above or near median.

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Outlook:
The current weather forecast for today through Thursday is for sun and above normal temperatures, followed by a return to seasonal normal temperatures but continuing dry conditions into early next week. Although river levels have improved in many areas over the past week, the hot dry weather may cause levels to fall once again and monitoring will be continued.