

# BC Environment

## River Forecast Centre

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### Water Supply and Streamflow Conditions

Issued: October 4, 2009

A low pressure system over the province last week brought precipitation (both rainfall and snow at higher elevations) to most of southern BC resulting in some improvement in water levels for some gauged streams in the province. By the weekend, however, a high pressure ridge brought dry conditions with slightly above normal temperatures for southern BC. As a result, most streamflows in the South Coast and Southern Interior have remained stable or have again started to decline. The exception is the Nicola River above Nicola Lake, which continues to show slight improvement from the previous week (in part because of reduced water withdrawals). It remains below normal, near a 2-3 year return period low flow. Some gauged streams on the South Coast and Vancouver Island are experiencing low flows for the date. Areas of concern are:

- **Extremely Dry** (near or below previously recorded low for the date):
  - Kettle River and West Kettle River
  - Vaseux Creek and Whiteman Creek in the Okanagan
  - Squamish River and Clowhom River, on the South Coast
- **Dry** (5-10+ year return period low flow)
  - South Thompson – Coldwater River, Salmon River, Seymour River, lower Shuswap River near Enderby
  - Okanagan - Camp Creek, likely other ungauged rivers in the Okanagan
  - Tulameen River
  - Chemainus, Harris and Cruikshank rivers on Vancouver Island
  - Coquihalla, Chilliwack, and Stave rivers on the South Coast

### Areas of Low Flow Concern:

**Thompson Basin:** In the past week, locations in the Thompson basin received between 1 and 13 mm of precipitation. In the South Thompson, 12 mm was recorded at Sicamous, 5 mm at Salmon Arm, and 3 mm at Cahilty (Chase Creek). In the lower Thompson and Nicola, 10 mm was measured at Young Lake (Bonaparte), 5 mm at Thynne (Coldstream), and 11 mm at Glimpse (Upper Nicola). All of the gauged streams showed some improvement in water levels in response to the precipitation, but continue to be below or well below their median flows to date.

- The upper Nicola River has continued to improve slightly to a 2-3 year return period low flow. Some of the improvement in flows on the Nicola River above Nicola Lake results from reduced water withdrawals.
- Chase Creek has improved to a 2-3 year return period low flow for the date.
- The Coldwater River (Brookmere and Merritt) has improved slightly to near a 10-year return period low flow.
- The Seymour River near Seymour Arm and Shuswap River near Enderby remain stable at 5-10 year return period low flows.

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- The Salmon River near Salmon Arm and Falkland have improved slightly but continue to be at approximately 10-20 year return period low flows.
- The South Thompson River at Chase has fallen to below a 10 year return period low flow.

**Okanagan River and Kettle River Basin:** Light showers (1-3 mm) occurred in the Okanagan over the past week, while heavier precipitation was recorded in the Kettle (20 mm in the Upper Kettle and 7-14 mm in the West Kettle).

- The Kettle River and West Kettle River at Westbridge continue to be at or below their historic low flow of record. The Kettle River at Ferry (upstream of Grand Forks) remains below its previous low flow of record
- Vaseux Creek (in the southern Okanagan, east of Oliver) and Whiteman Creek are near or below their historic low flow of record
- Camp Creek (west Okanagan valley) is stable at a 5-10 year return period low flow
- Mission Creek has improved to between 2-4 year return period low flows for the date.

**Similkameen River Basin:** Light rain was recorded in the Similkameen basin during the past week, with 2 mm measured at Princeton, and 11 mm measured at Allison Pass (Upper Similkameen).

- The Tulameen River is stable at a 5-10 year return period low flow.
- The Similkameen River is near its median flow for the date.

**South Coast:** Significant precipitation was recorded on the South Coast mainland ranging from 17-65 mm, including 18 mm at Chilliwack, 55 mm in the Capilano, and 25 mm at UBC Research. Many gauged rivers continue to be at or near their median flows for the date; however, some rivers are experiencing low flows. The Squamish River and Clowhom River are currently both below their previous minimum flows of record for the date; the Coquihalla River and Chilliwack River are near 5-10 year return period low flows; the Stave River is below its previous minimum flow for the date. It is likely that other rivers and streams on the South Coast are experiencing low flow conditions.

**Vancouver Island:** Significant precipitation (22-88 mm) was also measured at locations on western Vancouver Island over the past week. Lesser amounts were recorded on eastern Vancouver Island, ranging from 3-18 mm. Many gauged rivers are at or near their median flows for the date. Exceptions include the Chemainus River near Westholme, which has fallen to near a 5-10 year return period low flow for the date; the Cruikshank River west of Courtney, which is at its minimum of record for the date; and Harris River west of Cowichan, which is near a 3-4 year low flow. It is likely that other rivers and streams on Vancouver Island are experiencing low flow conditions.

### Outlook:

The current weather forecast shows the strong upper level ridge over the southern portion of the province continuing to bring sunny, dry conditions with seasonal temperatures in the

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interior, and slightly above temperatures on the South Coast until mid-week. The exception is the eastern central portion of the interior (Cariboo, Monashees, Columbias) which will experience showers and flurries starting later today. A cooling trend for the remainder of the interior for the end of the week will drop temperatures to 3-5 degrees below normal, but conditions will remain dry. On the South Coast, temperatures will remain near normal, with a chance of showers by the end of the week. By Sunday, temperatures will warm up back to normal and will continue into the beginning of next week. With minimal precipitation forecast for most of southern BC, river levels are expected to decline into the beginning of next week.