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1-866-936-1805

March 19, 2019

Attention Pipeline Integrity Division;

There is currently a Spring Runoff Advisory for the province of Alberta issued by Alberta Environment and Parks. Beginning March 17th, and continuing into next week, temperatures across the province are expected to rise to above or much above seasonal values. The mountain snowpack runoff is not expected to negatively impact water courses at this time. A rapid melt caused by the quick change to above normal temperatures combined with the existing snowpack in the plains may cause localized overland flooding as the water makes its way into streams. Over the next week, water levels will rise in the small creeks with a possibility of flooding in adjacent low-lying areas. No significant water level rises are expected in major rivers.

Snow Water Equivalent Percentages in March 2019 compared to April 2018:

- Athabasca – 101%
- Hay – 87%
- Peace river – 75%
- Beaver – 124%
- Battle – 83%
- North Saskatchewan – 112%
- Red Deer – 55%
- Remote imaging and satellite data show that snowpack in the plains regions of the Bow, Oldman and South Saskatchewan basins are also much less than conditions in April 2018.

The Peace River Ice Observation report has the ice front approximately 113 km upstream of the bridge at Dunvegan on March 12. The ice front has begun to slowly melt back downstream. As spring conditions begin to deteriorate ice covers, they are weakened and traveling on them is not recommended. Anyone taking part in activities near rivers should be aware of changing conditions. Below are the current Ice Observation Reports. Below are maps showing accumulated precipitation over the last week as well as the month of January.

If you require any depth of cover services or research into pipelines with potential problems, please let us know. Contact Jesse Toth (403-463-9113) or Derek Leiman (780-293-1810).

Ice Observation Reports:

- Peace River: The ice front is 113 km upstream of the bridge at Dunvegan.
- Athabasca River: currently none
- Other Alberta rivers: currently none

For more information on real-time precipitation and river data go to:

<http://environment.alberta.ca/apps/basins/default.aspx>

Behind every explore experience, is trust.

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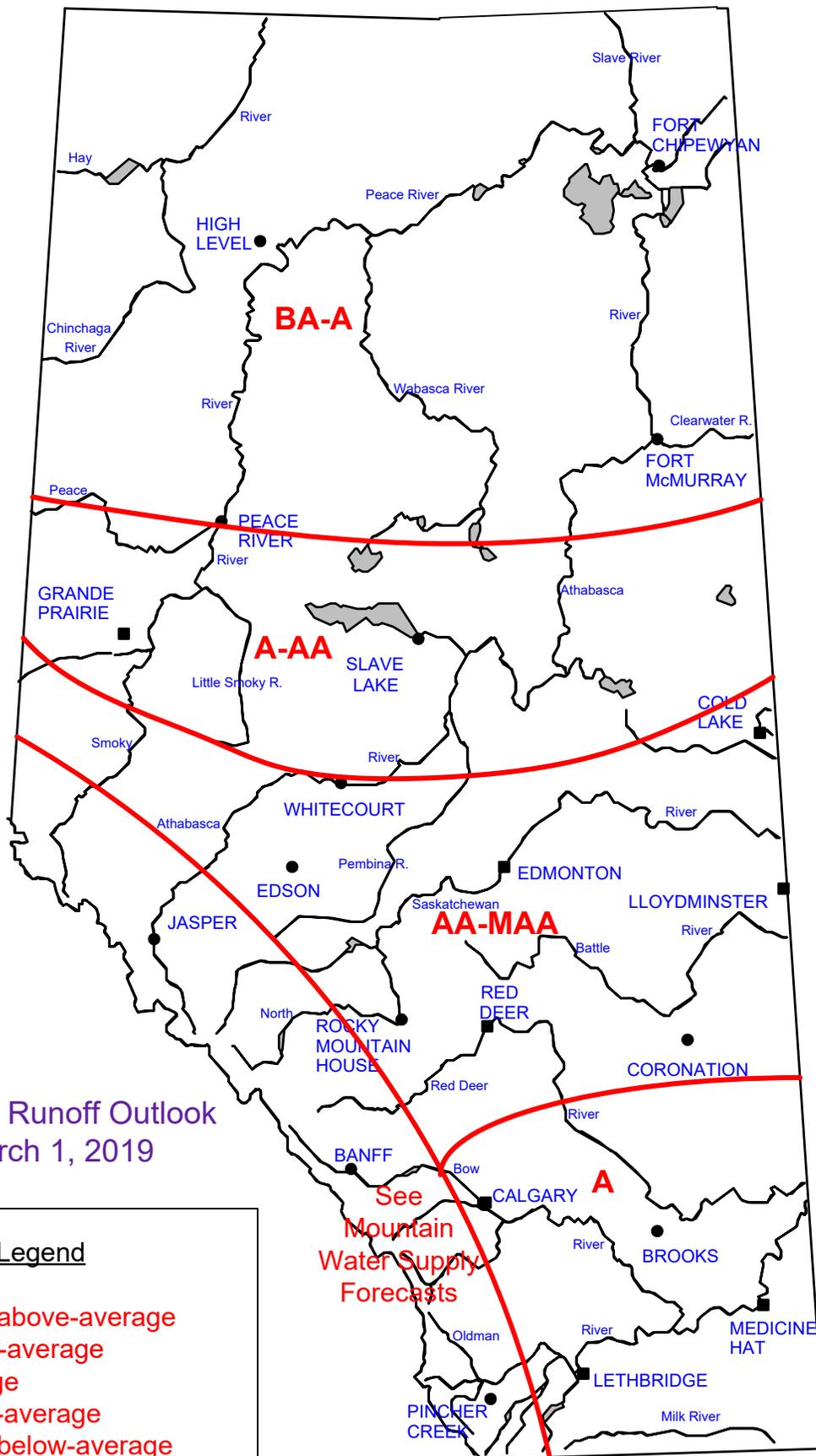
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Plains Spring Runoff Outlook
as of March 1, 2019

Legend

- MAA = Much-above-average
- AA = Above-average
- A = Average
- BA = Below-average
- MBA = Much-below-average
-  = Runoff complete for season

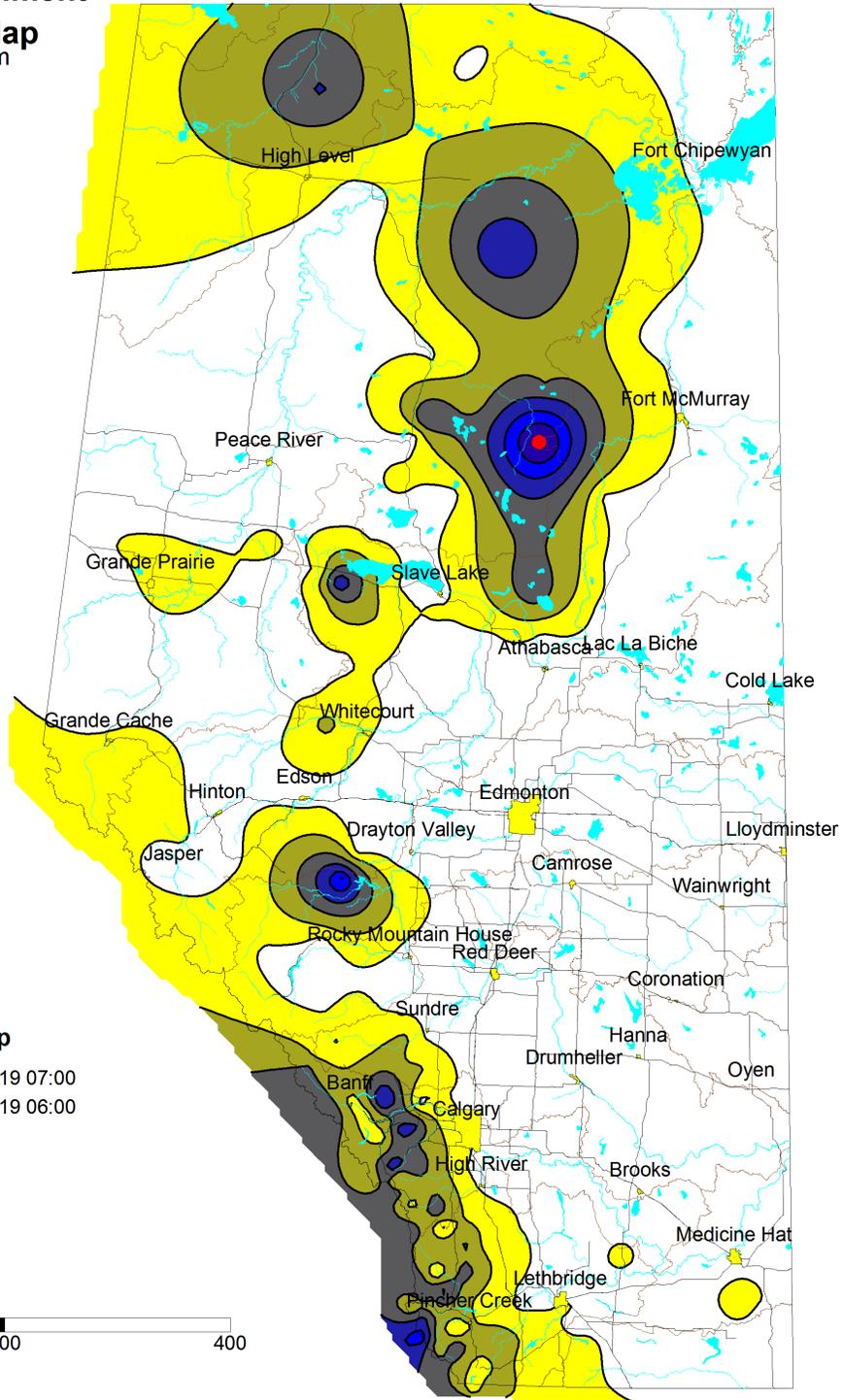
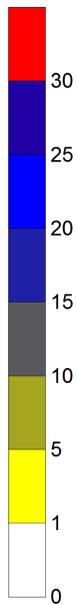
See
Mountain
Water Supply
Forecasts



Precipitation Maps

Alberta Environment

Precipitation Map
Contour Interval 5 mm

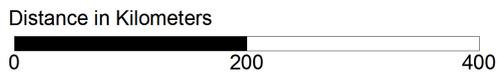


Kriging Contour Map

167 11 March 2019 07:00
18 March 2019 06:00

- Cities
- Rivers
- Basins
- Lakes

Roads



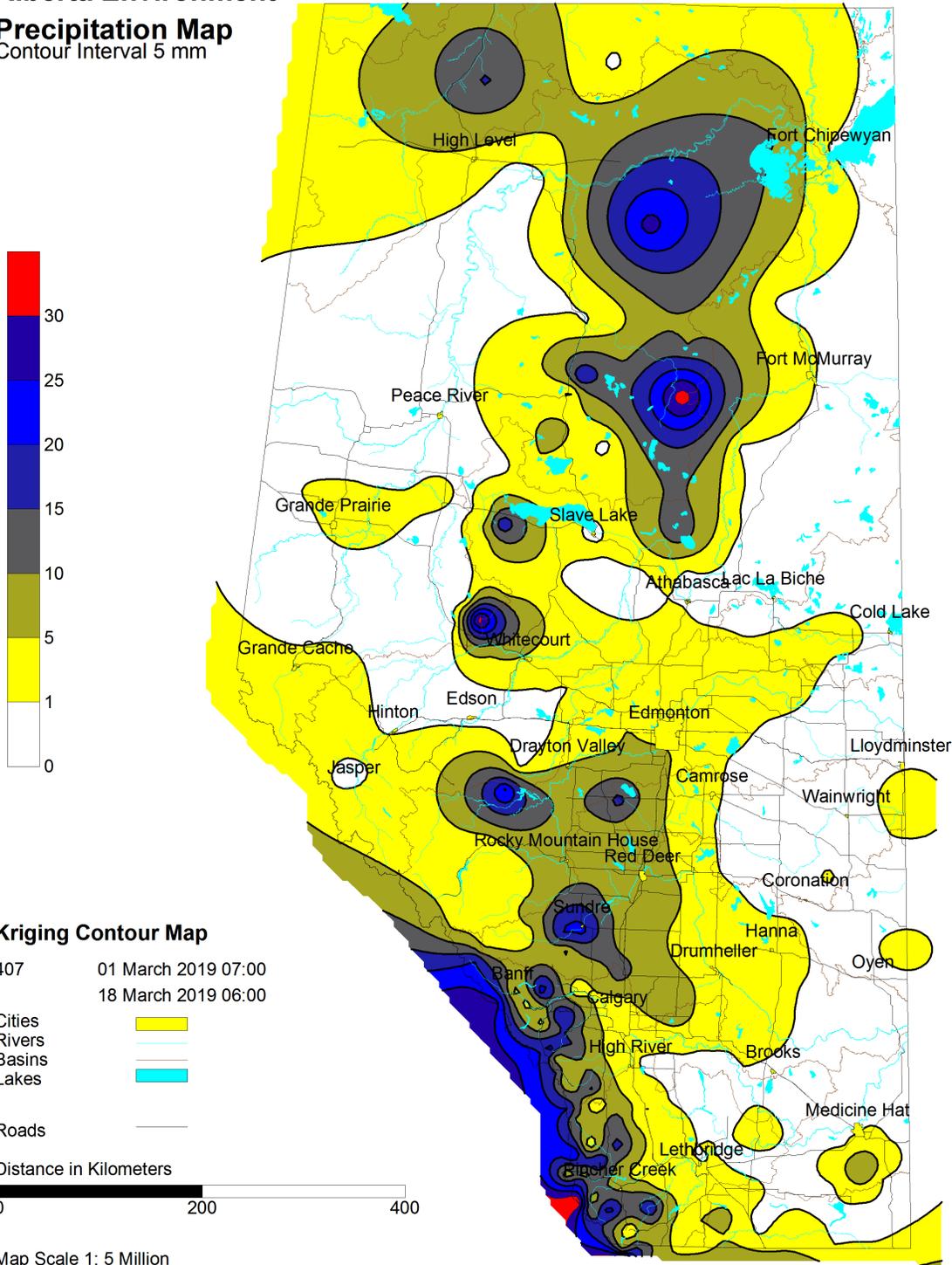
Map Scale 1: 5 Million



Precipitation Maps

Alberta Environment

Precipitation Map
Contour Interval 5 mm



RAT CREEK

MARCH 15, 2019: 06-26-050-13 W5M



UNNAMED CREEK

MARCH 15, 2019: 10-22-050-13 W5M





Forecaster Comments

 Weather

 River

 Flood

Issued at: 2019-03-15 4:16 PM

A Spring Runoff Advisory has been issued for the province, due to the forecasted much above seasonal temperatures expected on Sunday and continuing into next week. For more detailed information, please select 'Advisories' from the main menu, and select the Spring Runoff Advisory.

The latest ice front on the Peace River was located by satellite imagery on March 12. The ice front is now approximately 113 km upstream of the bridge at Dunvegan. The ice front has begun to slowly melt back downstream and should continue to do so with the forecast warm temperatures in the coming days.

As spring conditions begin to deteriorate ice covers, they are weakened and travelling on them is not recommended. Normal ice processes and temperature changes can destabilize ice covers and cause rapid changes in water levels. Anyone taking part in activities near rivers should be aware of changing conditions.

Ice affects water courses, making streamflow measurements inaccurate. As a result, some streamflow stations are taken offline for the winter season but these will resume operations as spring progresses. For those stations online, only water level measurements will be reported until measurements are no longer affected by ice.

River conditions across the province will continue to be monitored and advisories will be issued as required.

Real-time precipitation and river data are available at:
<https://rivers.alberta.ca> (<https://rivers.alberta.ca>)

All flow data posted on the AEP website is provisional and preliminary. Environment Canada's Water Survey of Canada is the official owner of this information and as such it is part of their mandate to validate the flow values and publish the finalized maximum instantaneous peak discharge and daily discharge values for all locations in Canada on their website - <http://www.ec.gc.ca/rhc-wsc/default.asp> (<http://www.ec.gc.ca/rhc-wsc/default.asp>). The validation of this data does not commence until the end of each calendar year.

Extreme caution should be taken when referring to the data posted to the AEP website - there is a disclaimer at the top of each data table outlining the need for caution. This is particularly true for large flow events when the gauge is affected by debris, damage, sediment in the river, re-alignment of the main river channel and over bank flow which cannot be measured.