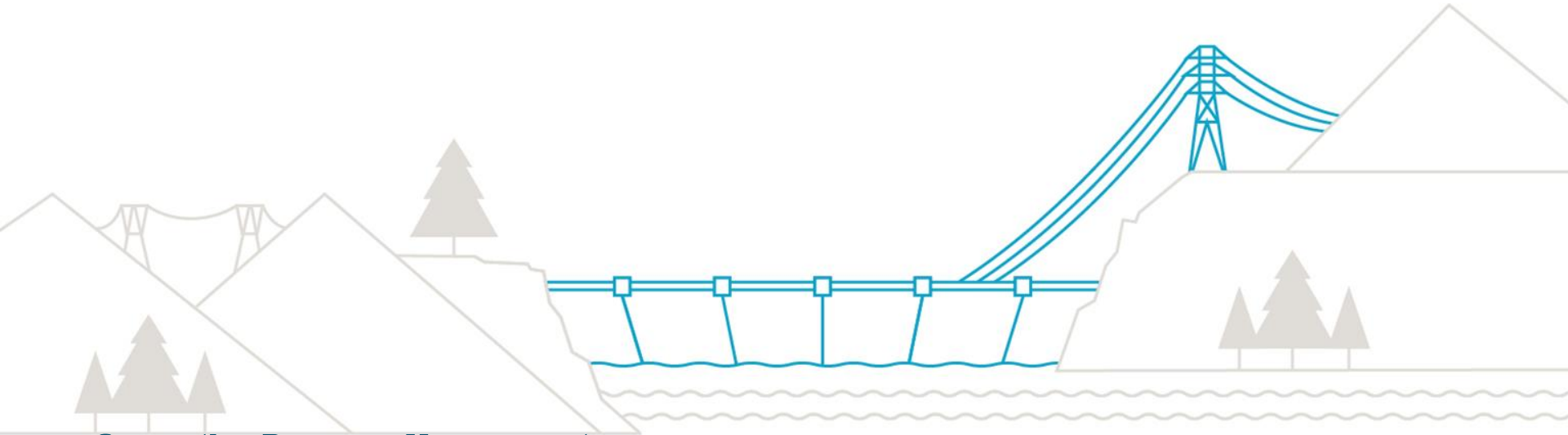


FY17 Operational Highlights

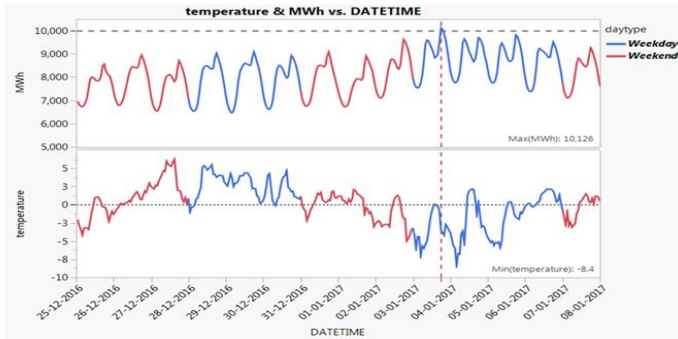


Generation Resource Management

15 May 2017

FY17 Operational Highlights

Peak time is Jan 3, 2017 at hour 18.



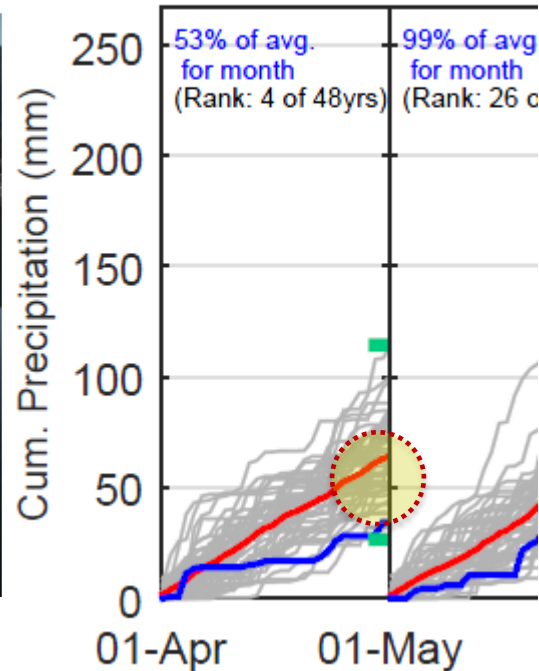
Year unfolded with a continuous suite of interesting operational events and multiple new records.

- **Early Freshet**
 - Record Inflows all basins
- **2nd Year Proportional Draft: Columbia**
- **Record Oct/Nov Monthly Inflow Volumes**
 - Multiple Basins
 - > 1/100 Return for 7 day volumes Vancouver Island
- **Longest Cold Snap ~30 years**
 - Set new hourly peak load (MW)
 - Record Monthly Energy Production (GWh) Dec & Jan
 - Record Daily MW Columbia and Peace
- **Record Precip March**
 - “Freshet” Routing on the US Columbia

Near Record April Precip Lows: Most Basins



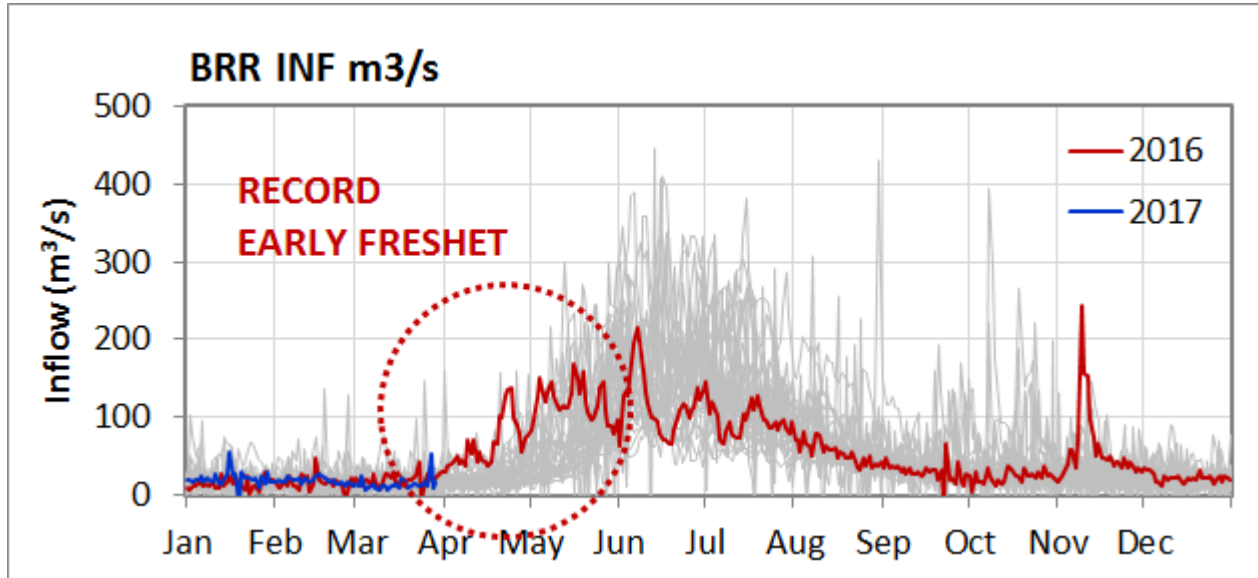
Arrow



Near record low April precipitation...

- LAJ, BRR, SON
- ASH, CMX, SCA, LDR
- **MCA, REV, HLK**
- **DDM, LIB, KLK**

Record Early Freshet: Most Basins

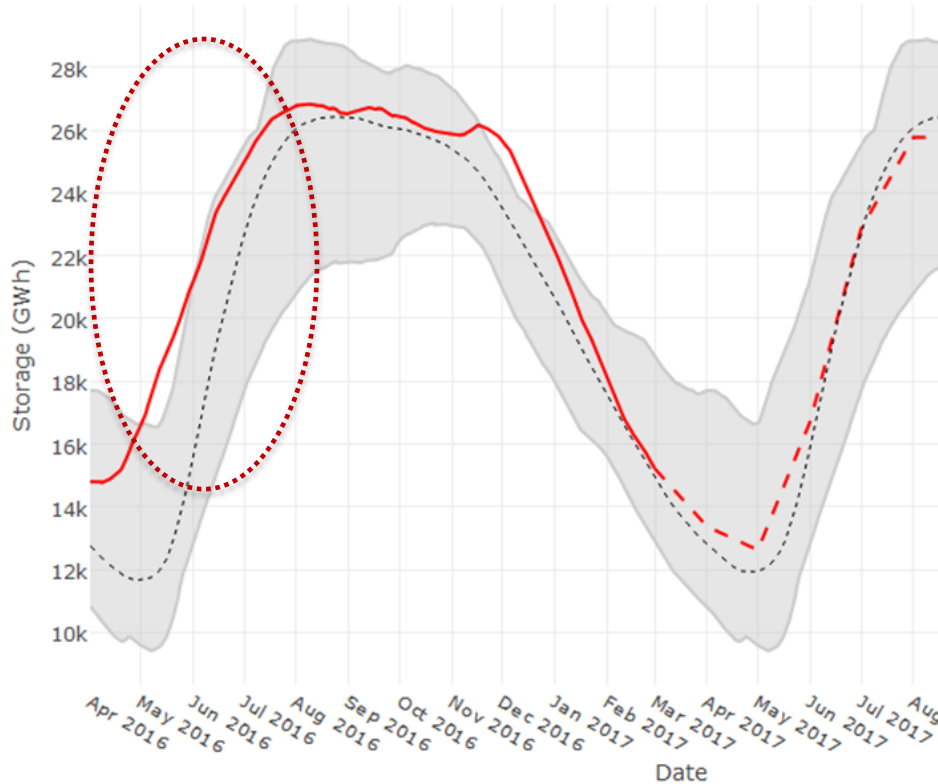


Coincident with Record April
Monthly Inflow Volumes

- GMS
- LAJ*, BRR, SON
- ASH, CMX, SCA, LDR
- **MCA, REV, HLK**
- **DDM, LIB, KLK**

Near Record System Storage (Energy):

System (Williston and Kinbasket)

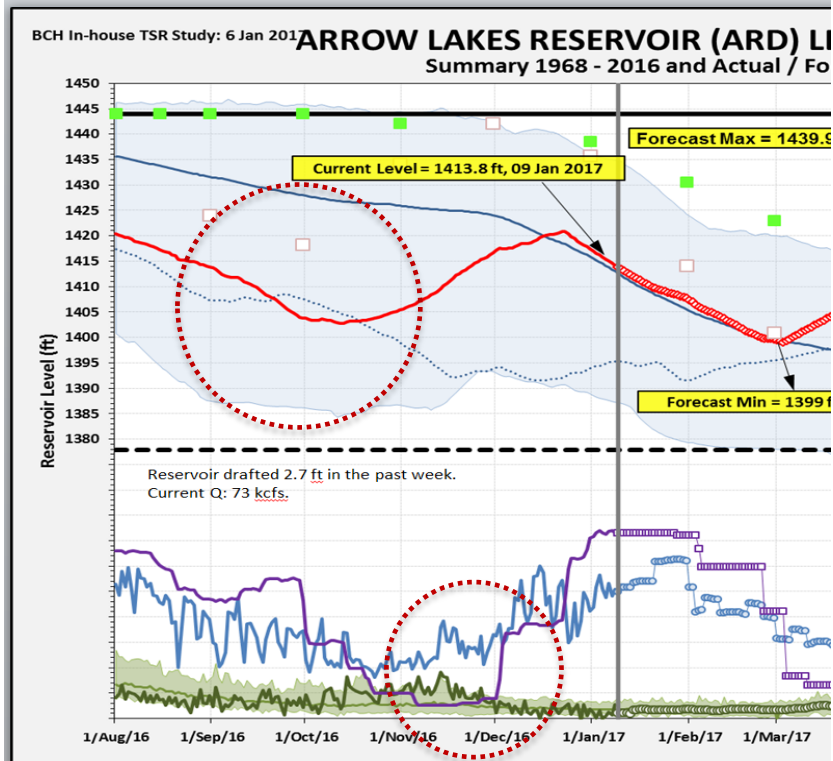


- Spring: May and June
- Winter: Dec



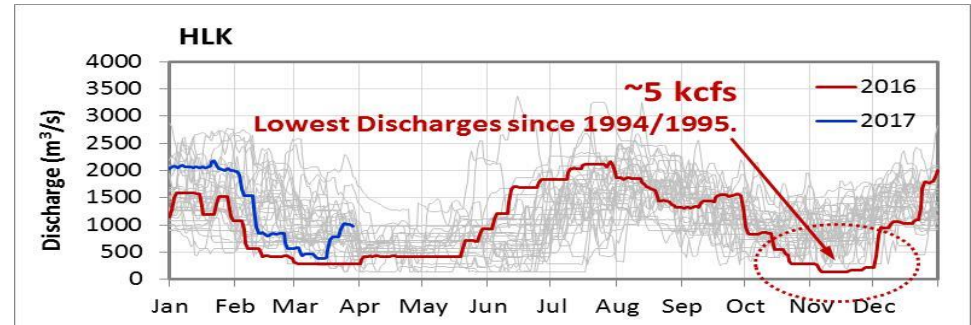
The normal full pool water level for Kinbasket Reservoir is 754.4 metres (2,475 feet). The reservoir can be operated up to 2 feet above its normal full pool level for public benefit if approved by the Comptroller of Water Rights.

Columbia System: Proportional Draft



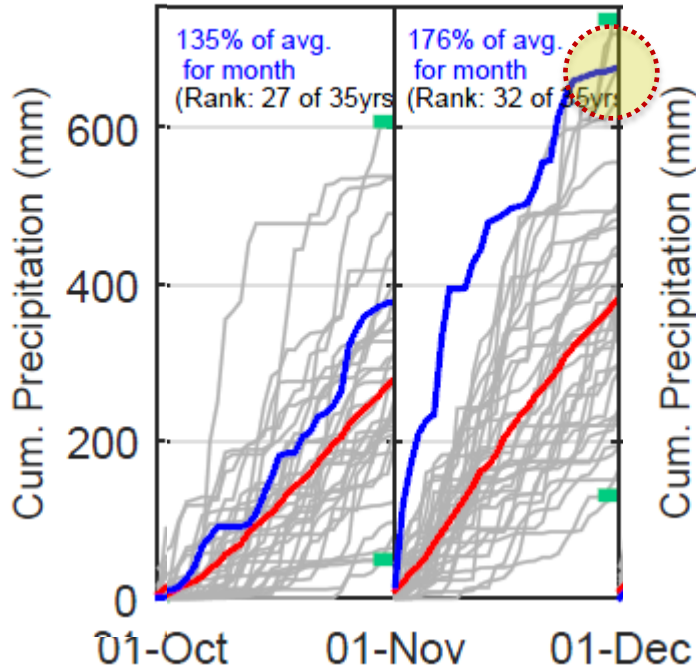
2nd Year of Proportional Draft: June through November

- Arrow: 2nd Year lower than average reservoir
- While Vancouver Island floods, record low discharges are set on the Columbia River.
- Arrow Discharges 5 kcfs: Lowest since 1990s.

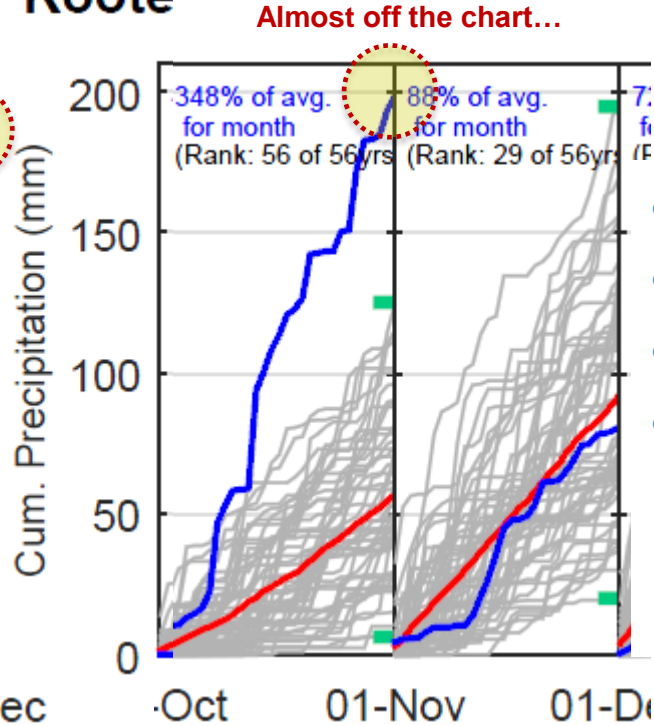


Near Record Oct/Nov Precip Highs: Most Basins

Strath

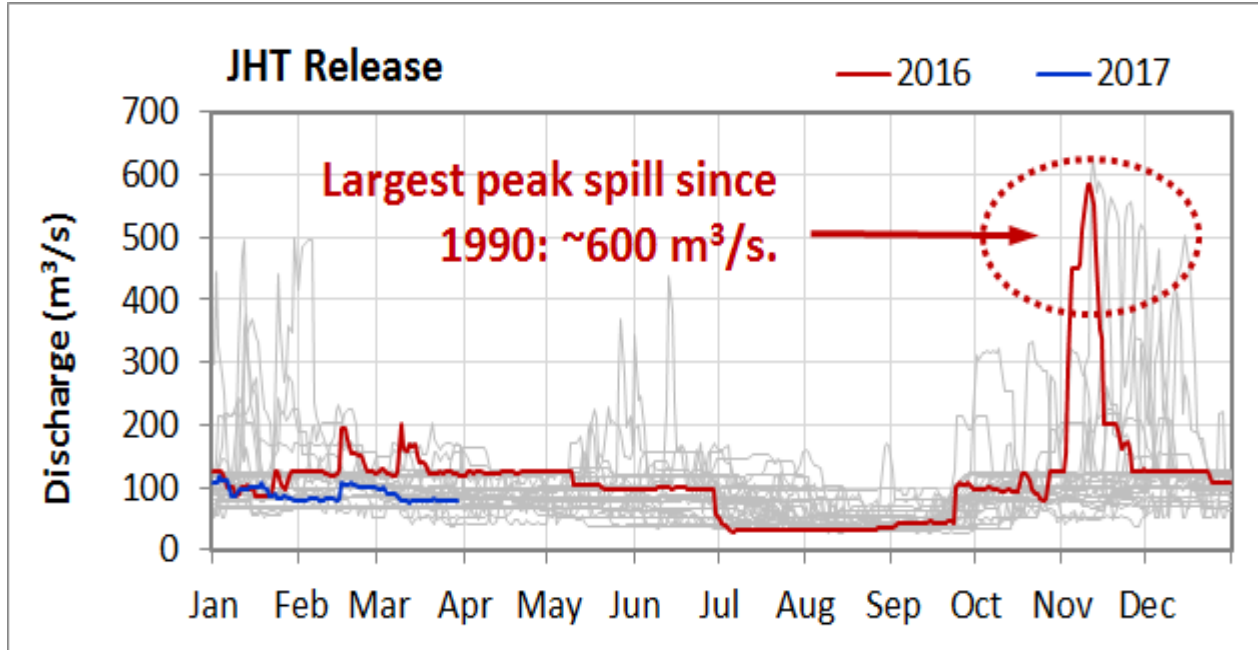


Koote



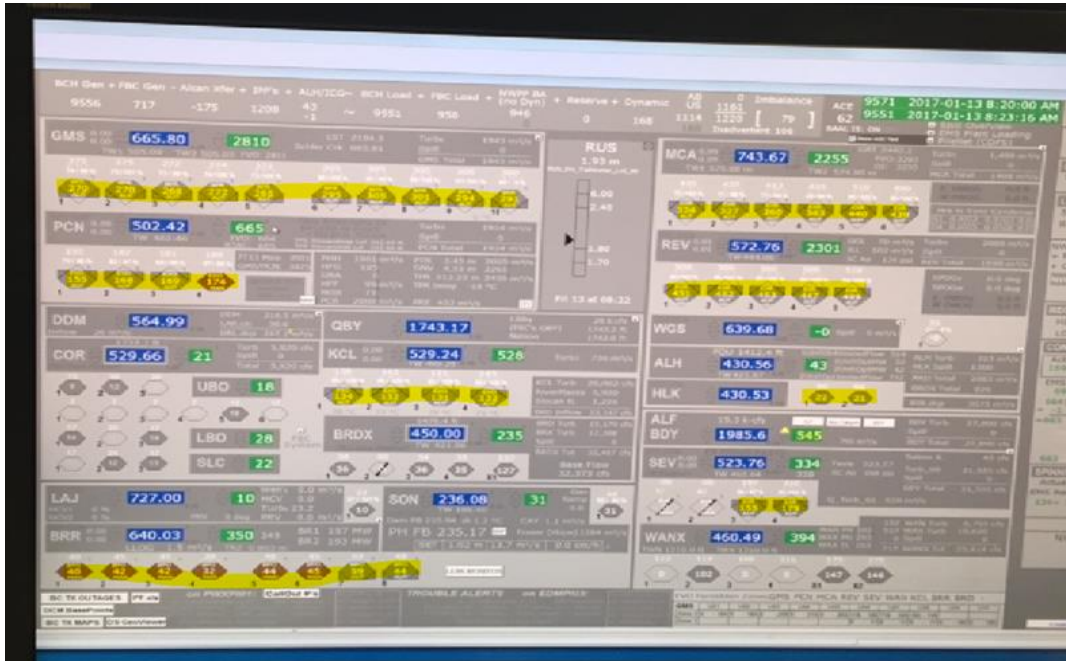
- LAJ, BRR, SON
- ASH, CMX, SCA, LDR
- MCA, REV, HLK
- DDM, LIB, KLK

October and November Flood Routing: Vancouver Island



Record Number MW and Generation

New hourly peak load: 3 Jan 2017 HE18 (10,193 MW)

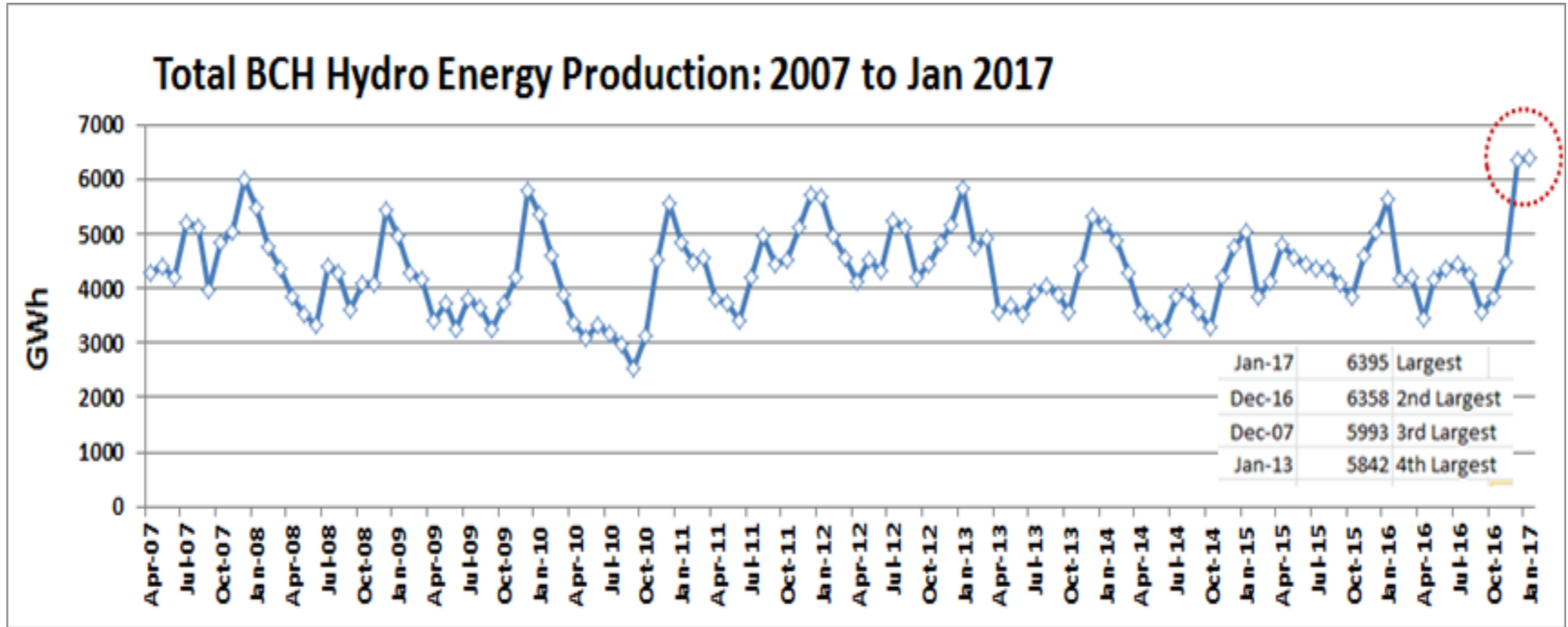


All Peace and Columbia units in service and running.

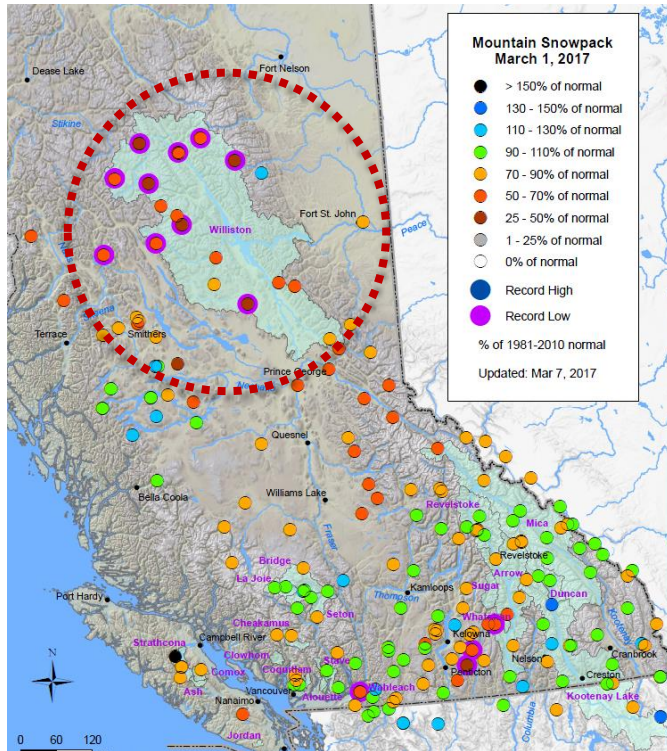
- First time 10xGMS and 4xPCN units with all the new units at MCA and REV.



Record(s) BCH Energy Production



System Snow Pack: March



Reduced Peace Snow Pack

- Normal and near normal March 1st snow pack
- Record and near record lows in the Peace.



The minimum and maximum licensed levels for Revelstoke Reservoir are 554.7 metres (1,820 feet) and 573.0 metres (1,880 feet) respectively. At most times, Revelstoke Reservoir levels are maintained at or above 571.5 metres (1,875 feet).

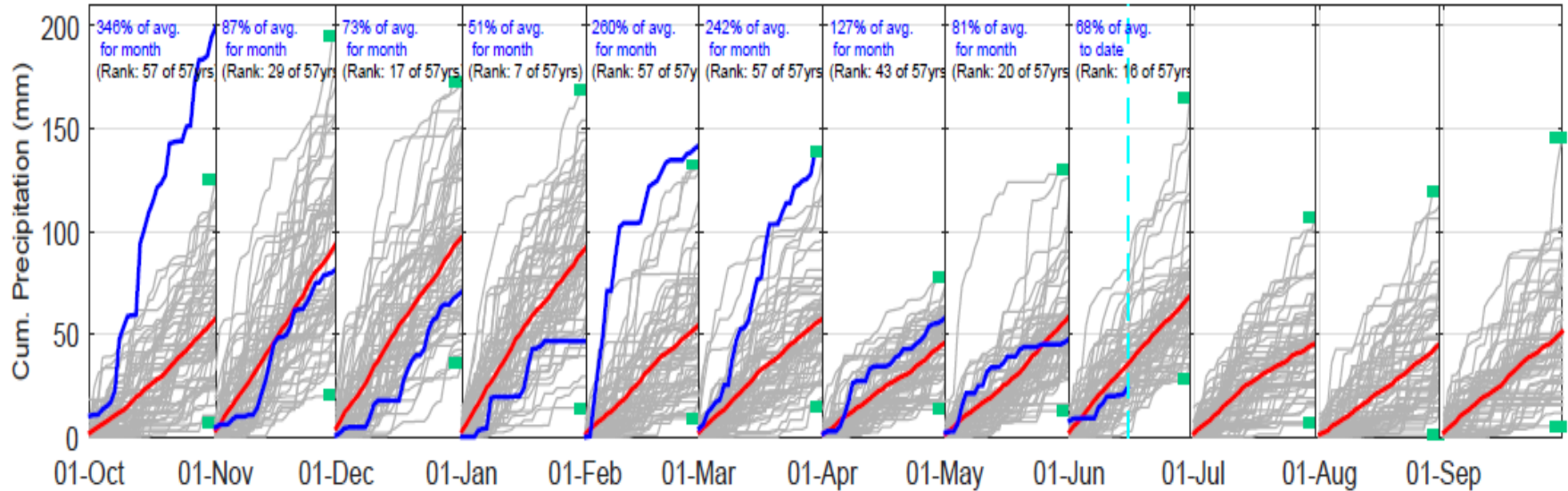
Columbia Basin Inflows

More surprises in Feb and Mar.

Kootenay

Water Year 2017

Updated 16-Jun-2017 12:19:10

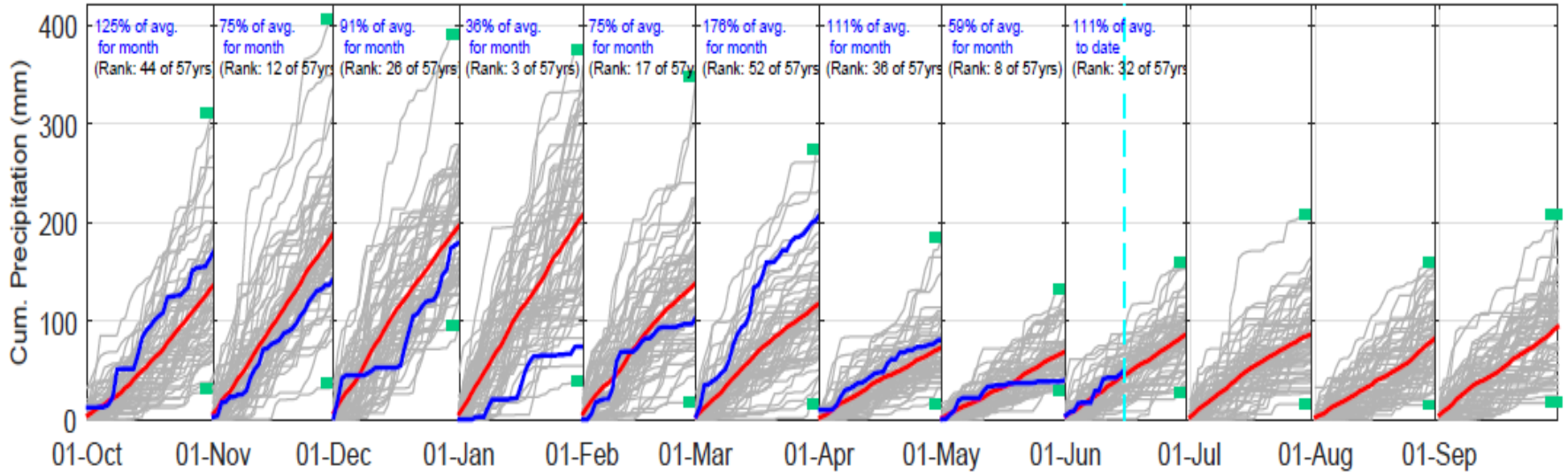


Columbia Basin Inflows

Mica

Water Year 2017

Updated 16-Jun-2017 12:19:29

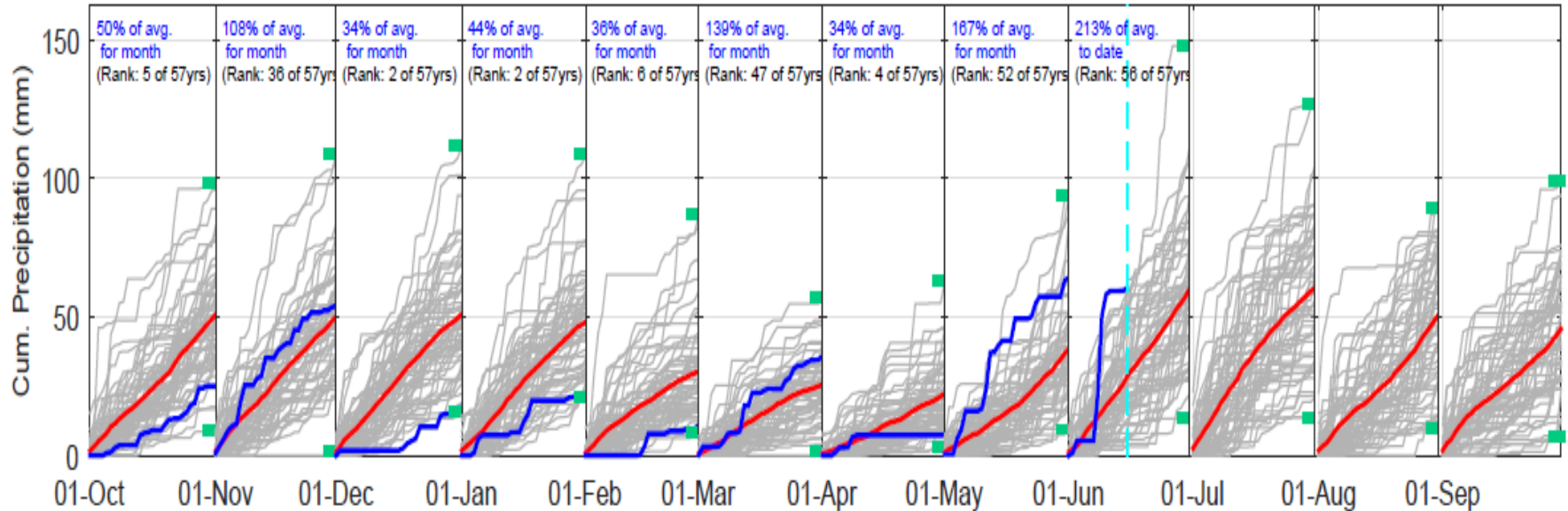


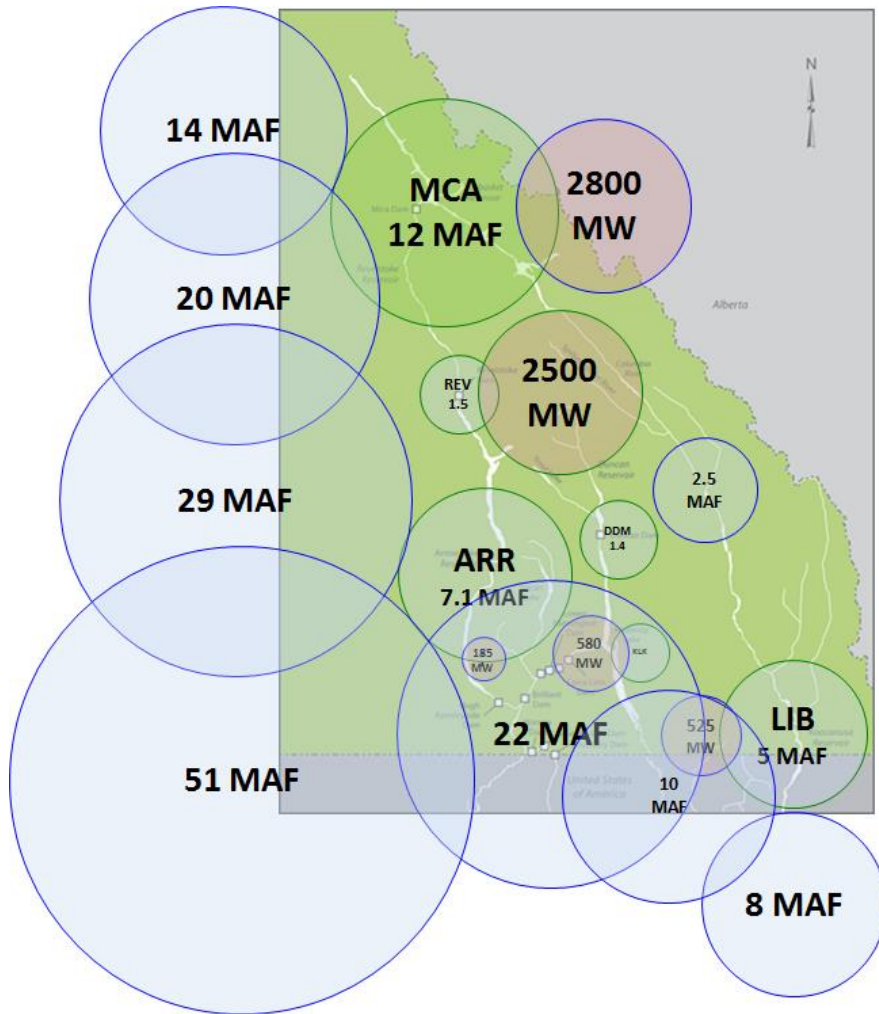
Peace Basin Inflows

Williston

Water Year 2017

Updated 16-Jun-2017 12:20:22

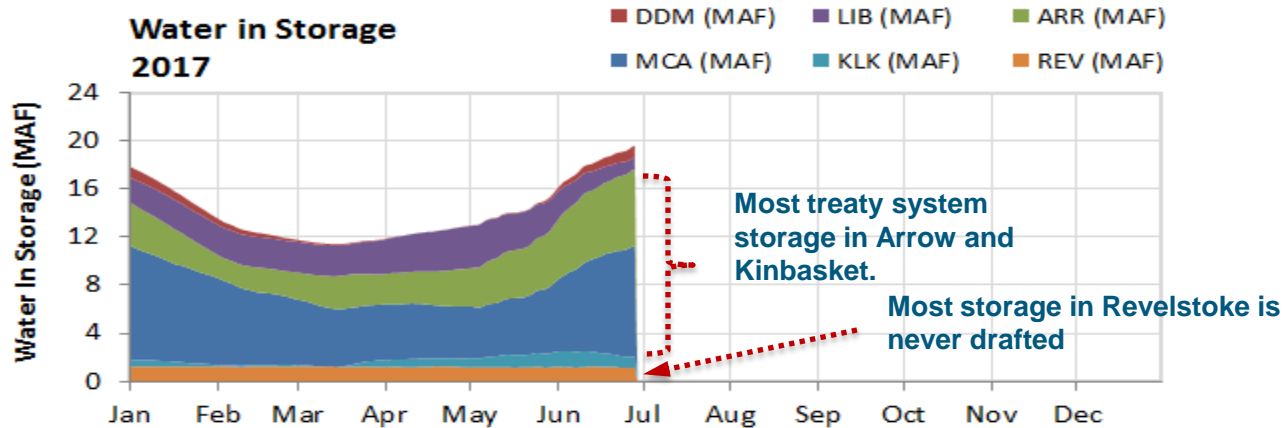
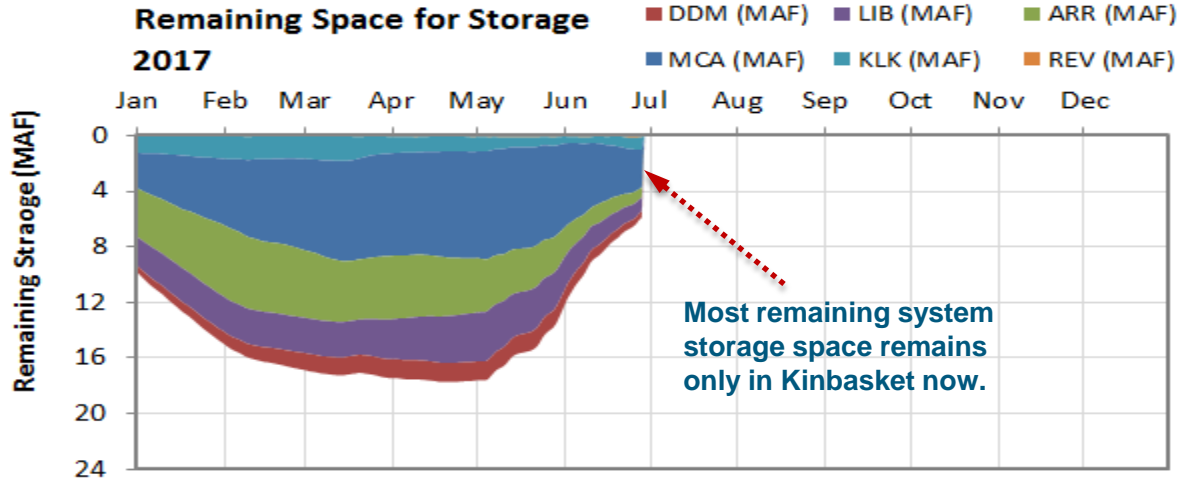




Columbia Basin Comparative Map:

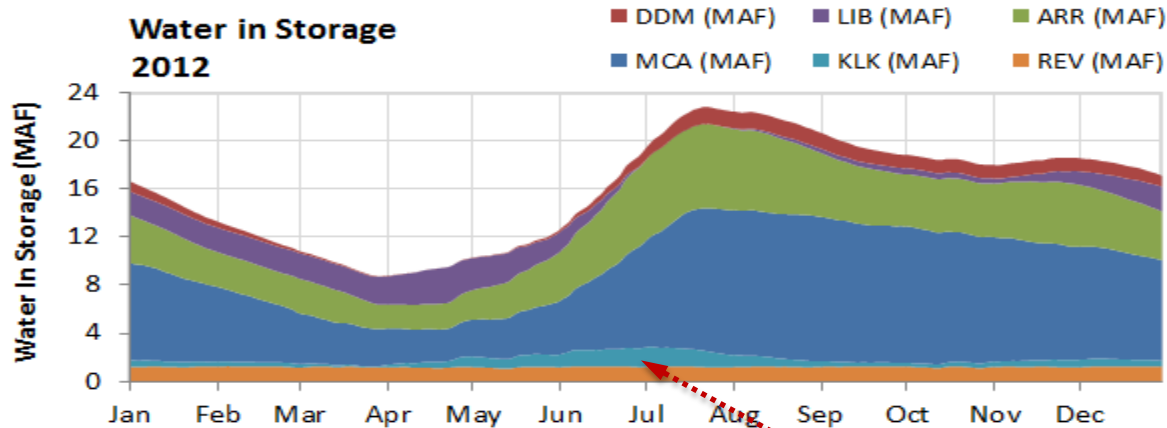
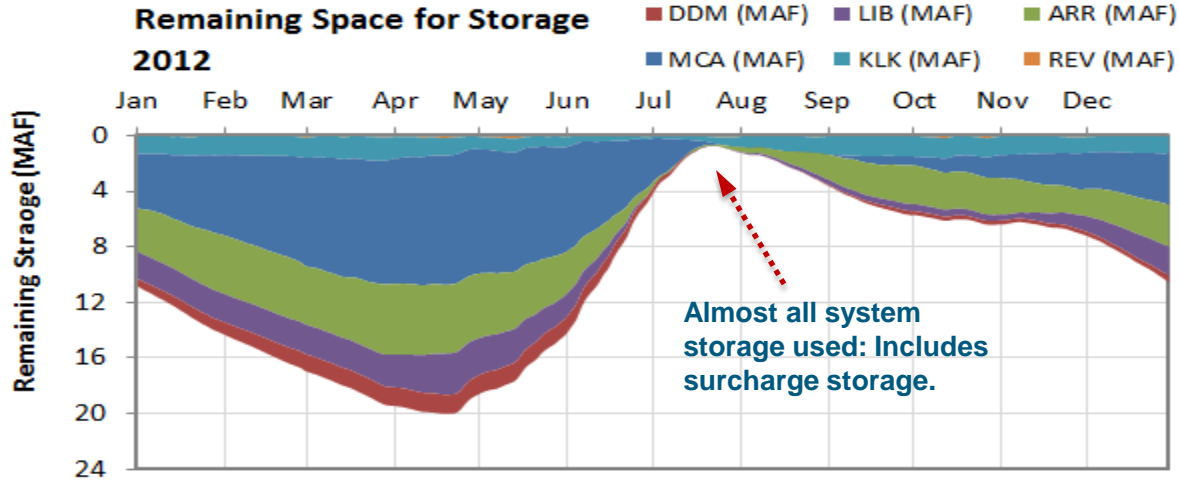
Inflow (Blue)
Storage (Green)
Capacity (Red)

Columbia Basin Storage



Columbia Basin Storage:

Compare to 2012



Peak levels in Kootenay Lake

