

LIBBY PROJECT INFLOW FORECAST, KAF 2003

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FORECAST DATE 1 Jan
   
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FORECAST'S KAF Drafts reflect VARQ flood control operations at Libby.
   
Apr-Aug runoff, Fort Steele 2670
   
Apr-Aug runoff, Libby Local 2191
   
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Apr-Aug runoff, Libby inflow 4861
   
Apr-Aug norm, 6248, 1971-2000 77.8%
   
Apr-Jul runoff 4390
   
May-Jul runoff 3984
   
Jan-Jul runoff 4906
   
Date-Jul runoff 4906
   
Date-Jul standard error 1069
   
Date-Jul confidence limit, 1.645 1759
   
Date-Jul 95% confidence 3148
   
Date-Jul 5% confidence 6665
   
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FLOOD CONTROL, DRAFT BY: 31 Jan 28 Feb 15 Mar
   
required draft, KAF 1400.0 1000.0 800.0
   
required elevation, FT 2426.7 2436.4 2441.1
   
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FORECAST COMPONENT SUMMARY FRO WP WP+NS SWE SWE+NS NSSPW INT TOTAL
   
FORT STEELE, B.C., (FS) 1.059 23.89 61.76 26.9 89.6 29.20
   
inches=(fro(1.309)+wp(0.068)+swe(0.067)+sp(0.167))-5.114
   
inches 1.386 4.200 6.005 4.876 -5.114 11.353
   
inches\*235.2=kaf ..... 2670
   
LIBBY LOCAL, (LL) 0.648 26.34 62.08 22.2 72.5 25.62
   
inches=(fro(0.921)+wp(0.086)+swe(0.046)+sp(0.152))-4.183
   
inches 0.596 5.339 3.334 3.894 -4.183 8.980
   
inches\*244.0=kaf ..... 2191

TERM DEFINITION
   
fall runoff is FRO
   
winter precip is WP
   
normal subsequent is NS
   
snow water equivalent is SWE
   
normal subsequent spring precip(weighted) is NSSPW
   
equation constant, or, y-INTERCEPT is INT
   
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OBSERVED DATA, usage, FS=Fort Steele, LL=Libby Local

WINTER PRECIP(WP), inches Oct Nov Dec
   
Banff FS 0.70 0.38 0.45
   
Brisco FS 0.09 0.98 1.28
   
Fernie LL 0.73 2.52 1.93
   
Kaslo FS 0.69 2.62 3.90
   
Rogers Pass FS 2.35 5.02 5.43
   
Fortine LL 0.04 0.90 1.26
   
Libby RS LL 1.50 1.78 3.67
   
Bonners Ferry LL 0.39 1.34 6.16
   
Polebridge LL 0.40 1.00 2.72

SNOW WATER EQUIVALENT(SWE), inches 31 DEC
   
Glacier FS 7.5
   
Kicking Horse FS 2.6
   
Kimberly LL 2.1
   
Marble Canyon FS 2.5
   
Mirror Lake FS 2.1
   
Morrissey Ridge FS & LL\*.5 6.9
   
New Fernie FS & LL 1.6
   
Sullivan Mine FS & LL 3.7
   
Red Mtn. LL 4.0
   
Weisel Divide LL 7.3

FALL RUNOFF(FRO), kaf Oct Nov SUM
   
Fort Steele f=235.2 151 98 249
   
Libby local f=244.0 80 78 158

f=, is to convert from basin inches to acre feet(x), or acre feet to basin inches(/).

LIBBY INFLOW, kaf Oct Nov Dec
   
231 176 186

Questions? Ken Soderlind, 503-808-3950; Chan Modini, 503-808-3958

Footnote:

1/ Forecasts for months other than the current month may be different than the official forecast released earlier. Differences are due to updated streamflow, precip, or snow data.