

Spokane River Forum Climate Change Modeling in the Inland Northwest What's the New Normal?

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125
YEARS OF SERVICE
1889-2014

River Operations Overview

- Spring- The Spokane river behaves like a river, not a lake, above the dam, until the snow has melted and we start to close spill gates. If the river flows are very high, river elevations will increase.
- Summer – Avista holds the level of CDA Lake at 2128 for recreation and public use. Because the dam spill gates are closed, the river above the dam looks like a lake.
- Fall – The Tuesday after labor day Avista starts to let water out of CDA Lake, drawing the lake down about 1 ½ feet per month until the river is in a natural state.
- Winter - At some point in December or January the outlet restriction at the river outlet becomes the determining factor of how much water will flow down the Spokane River. From then until we close the spill gates in June, the Post Falls dam has little or no effect on river flows or lake levels.

What's the New Norm?

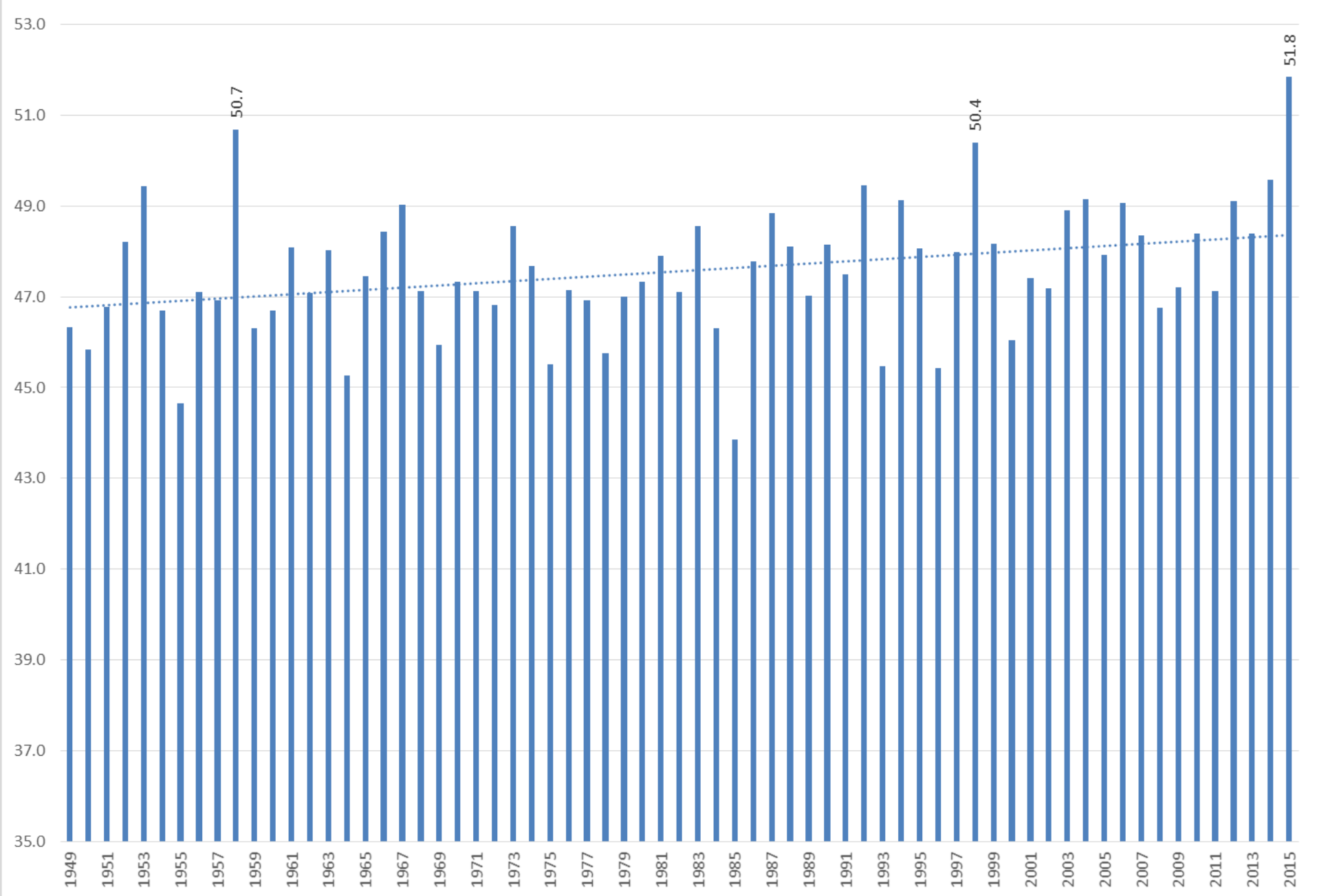
Low Elevation River Basin - While we agree that temperatures are rising, there will always be a lot of natural variability

The runoff (freshet) can occur any time between December and June.

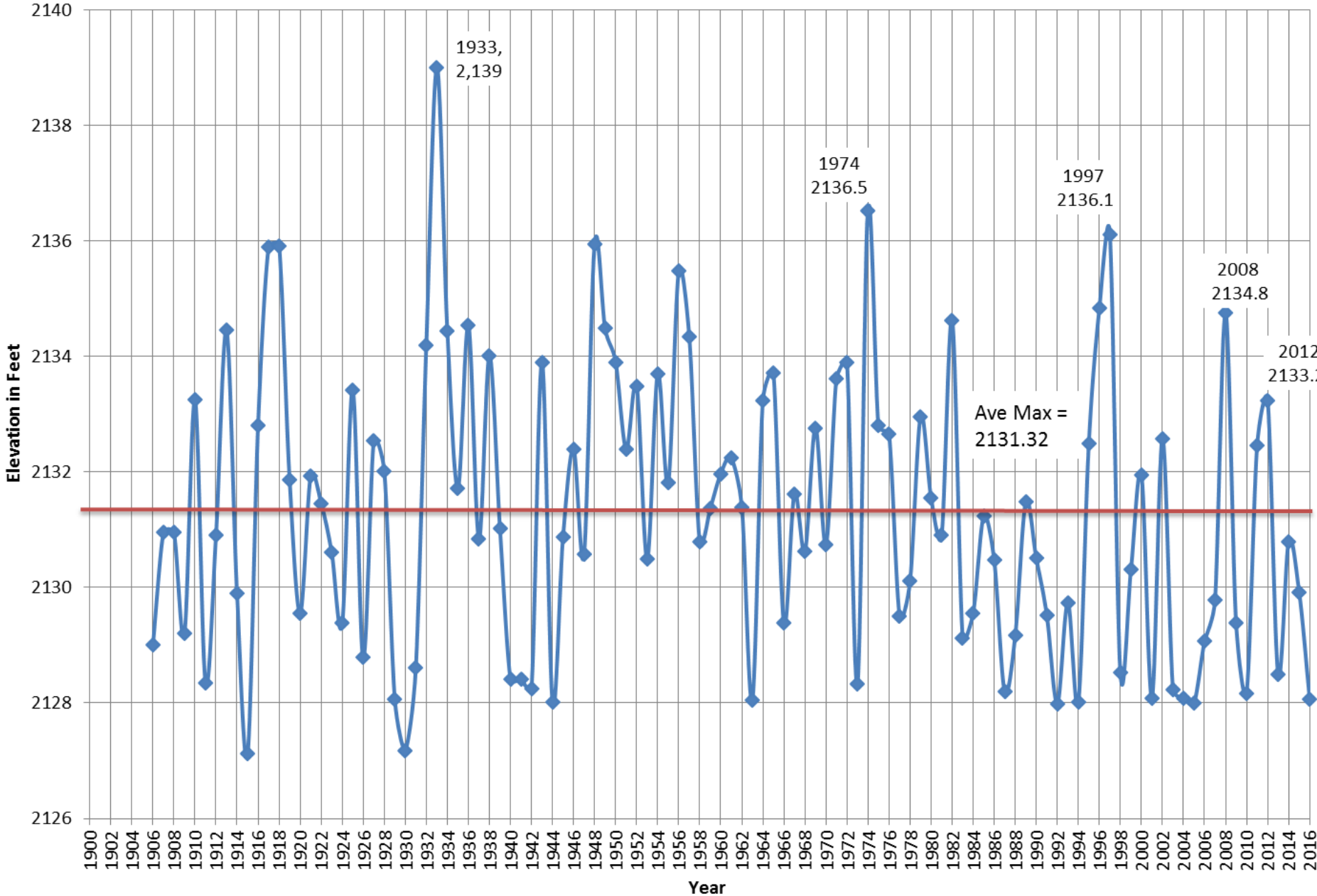
Avista passes whatever water flows out of Coeur d'Alene Lake for a large part of the year.

In terms of hydro generation, on the Spokane River, we take what we can get. The total generation on the Spokane River is only about 1/5 of the total hydro generation in Avista's portfolio. And we have very little flexibility to "shape" the hydro generation on the Spokane River.

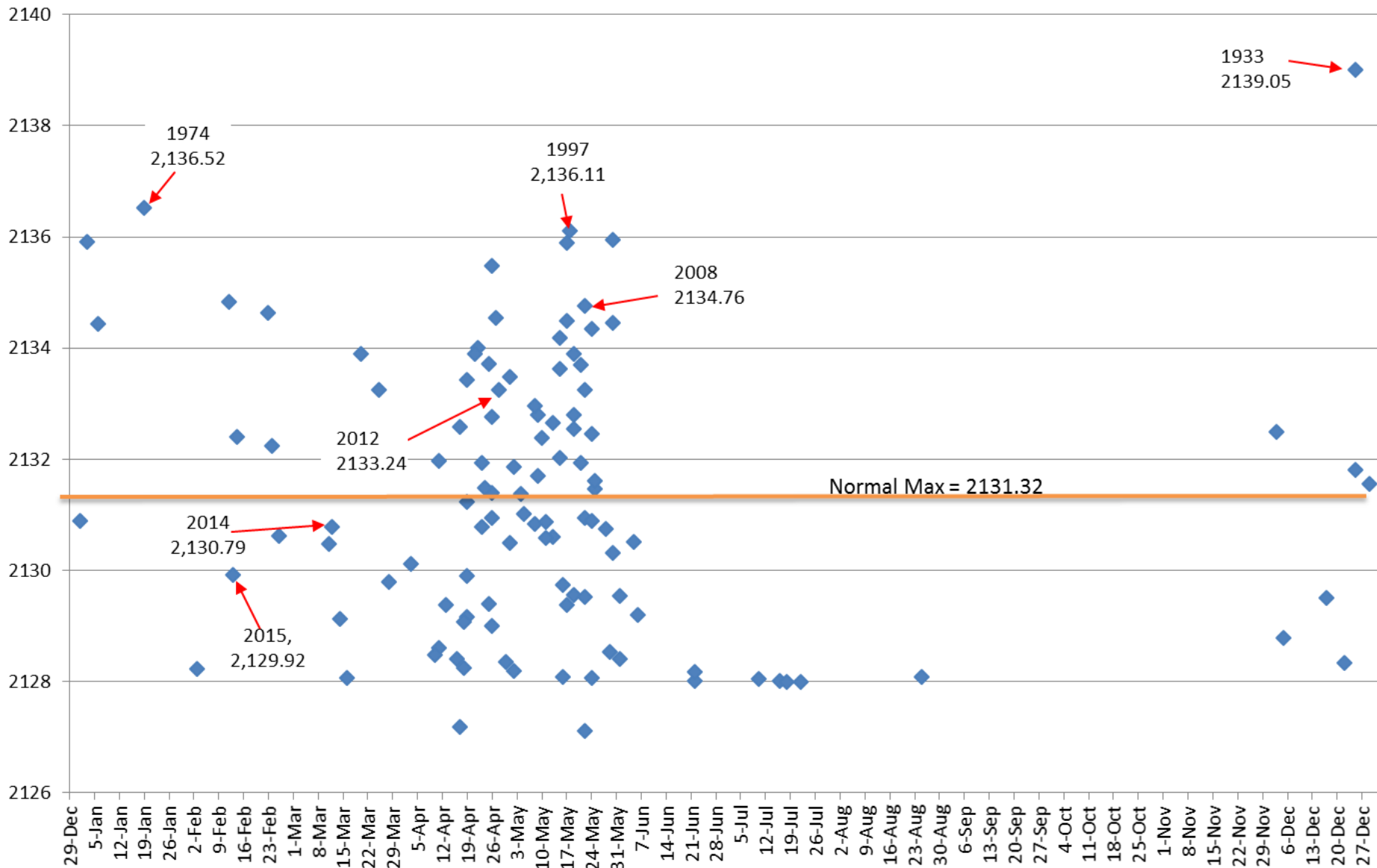
Spokane Average Annual Temperatures By Year



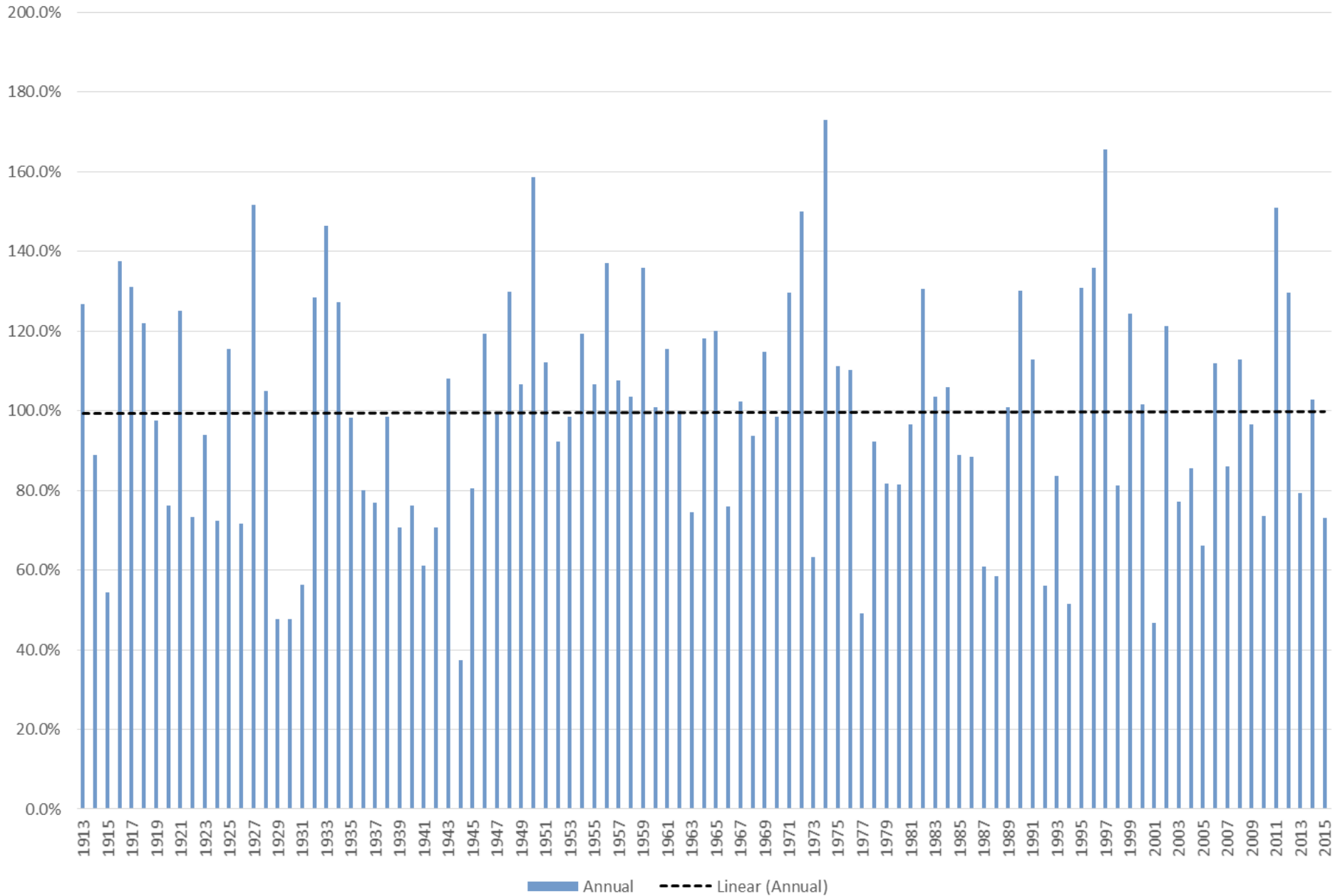
Lake Coeur d'Alene Maximum Elevation by Year



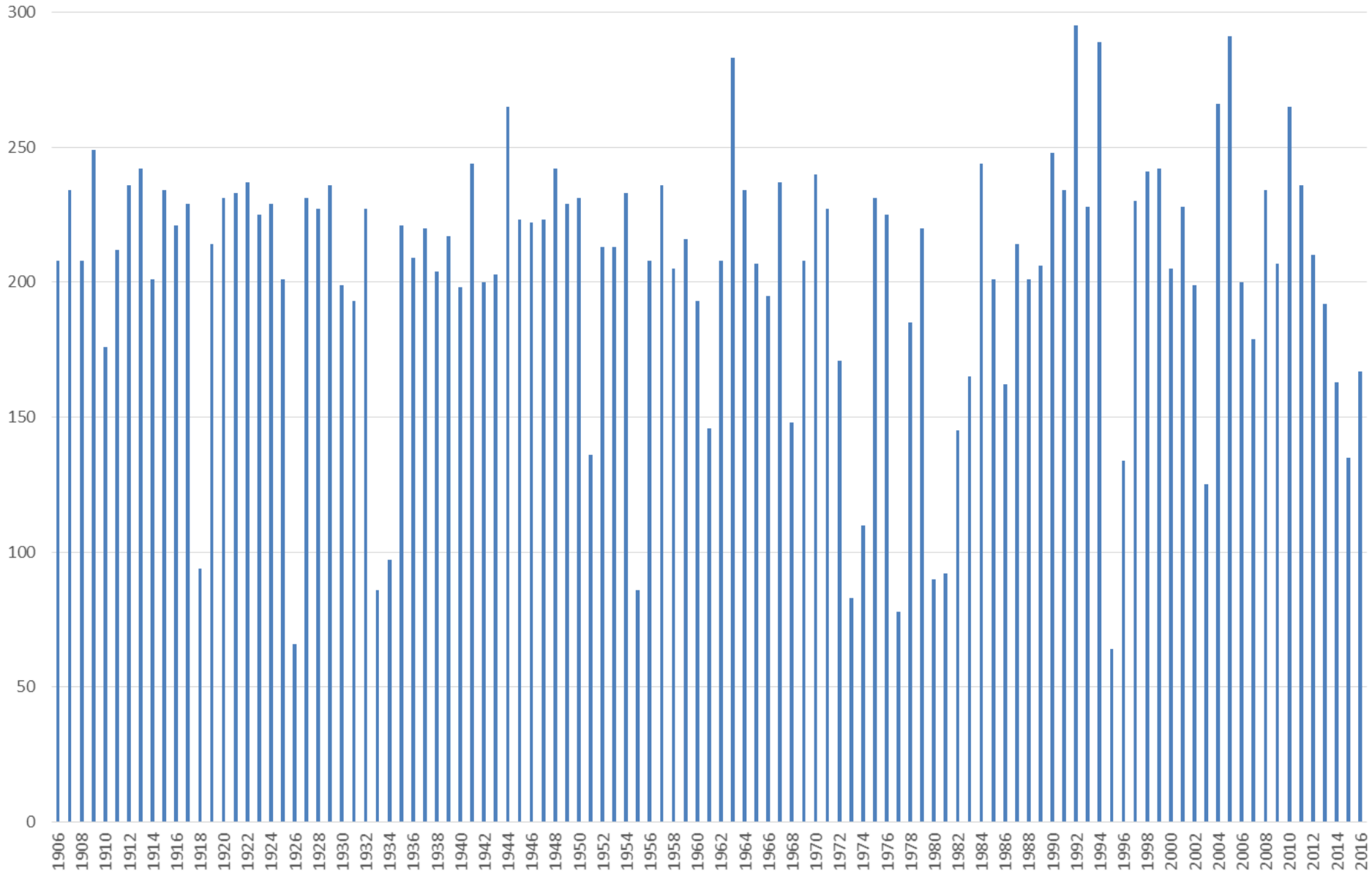
Dates for Annual Maximum's Coeur d'Alene Lake Elevations

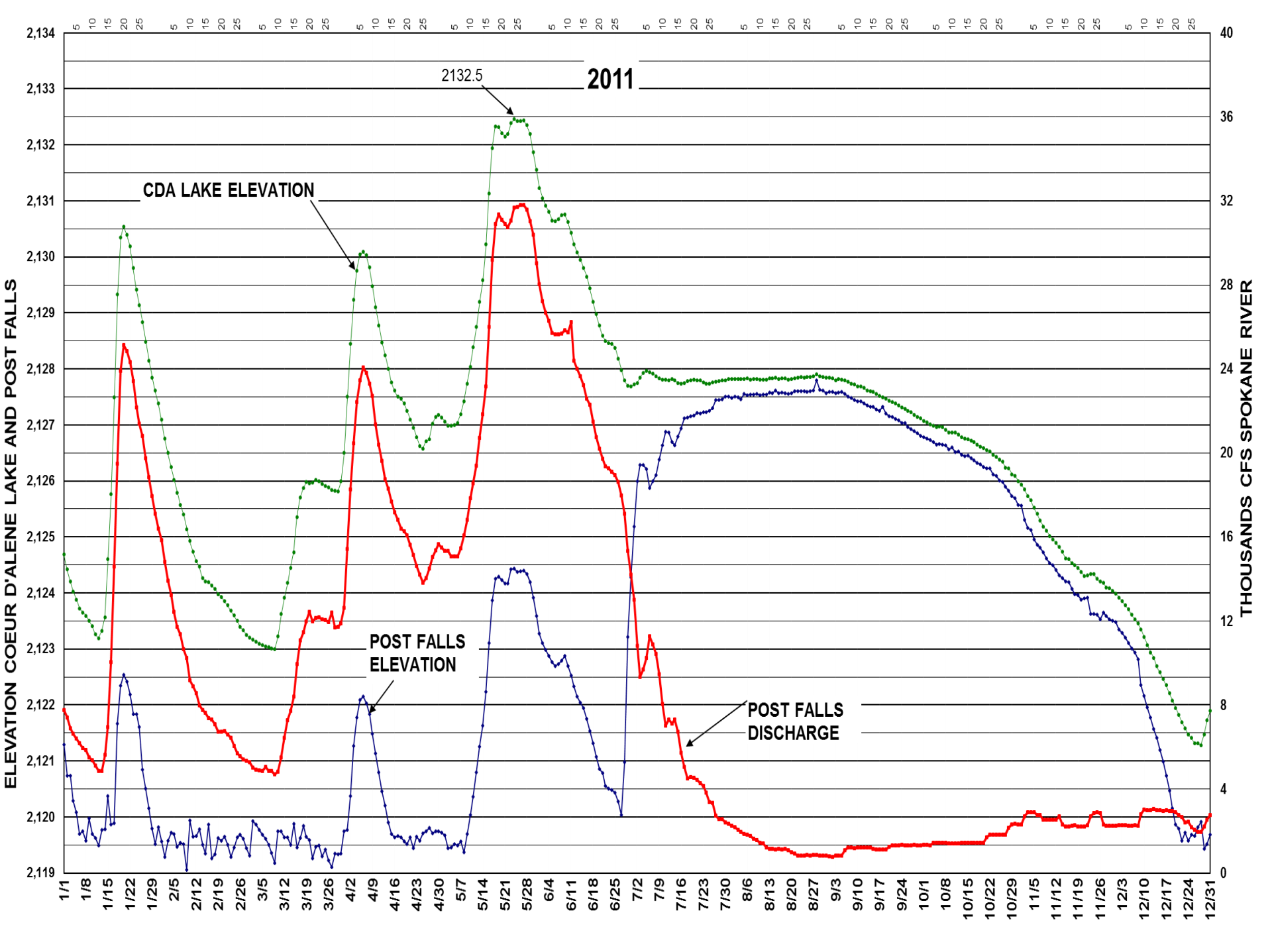


Spokane River At Post Falls (McGuire Gage) Annual % Of Median Flows

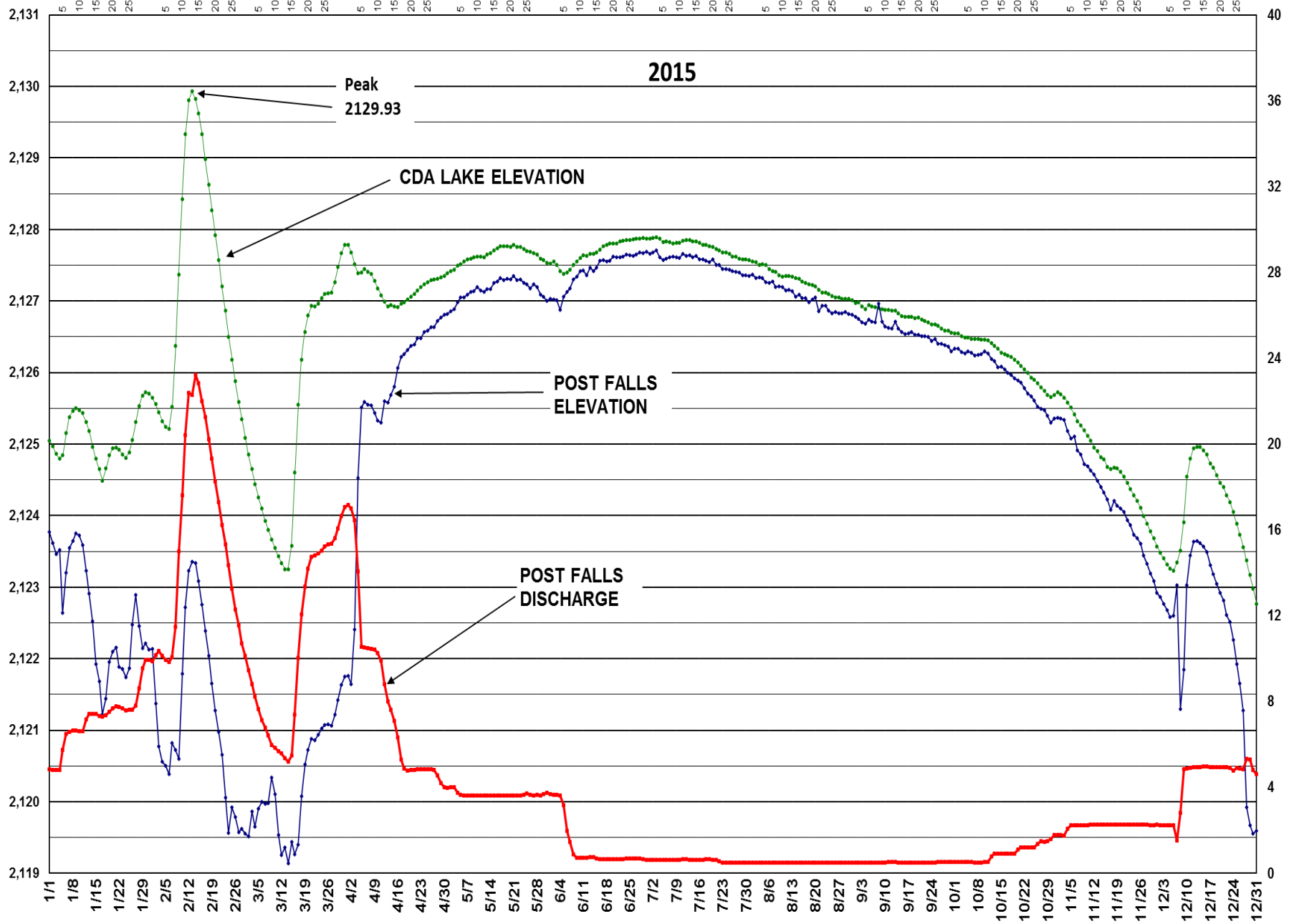


Date of Maximum Coeur d'Alane Lake Elevation In Days after October 1st Season Begin Date





ELEVATION COEUR D'ALENE LAKE AND POST FALLS



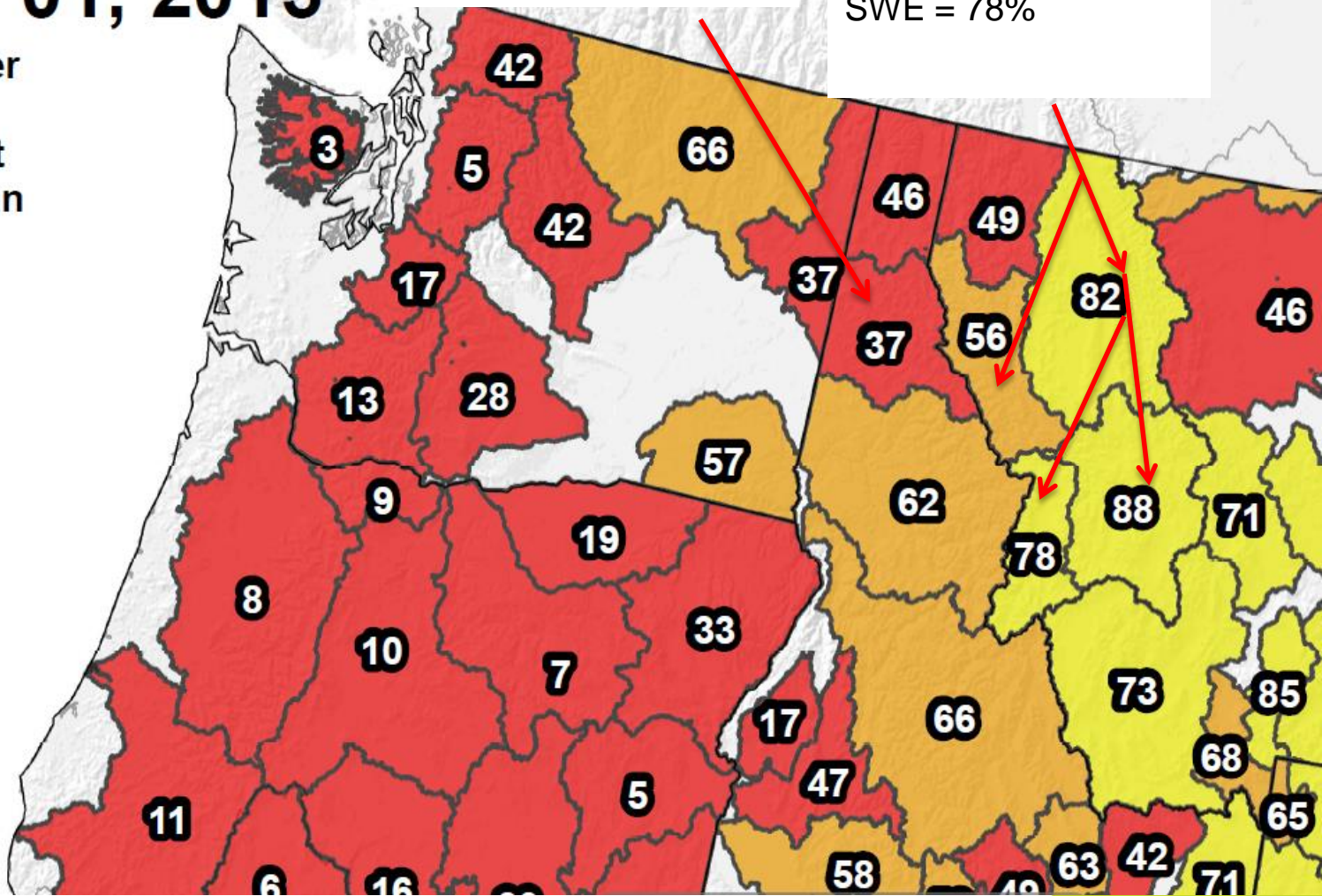
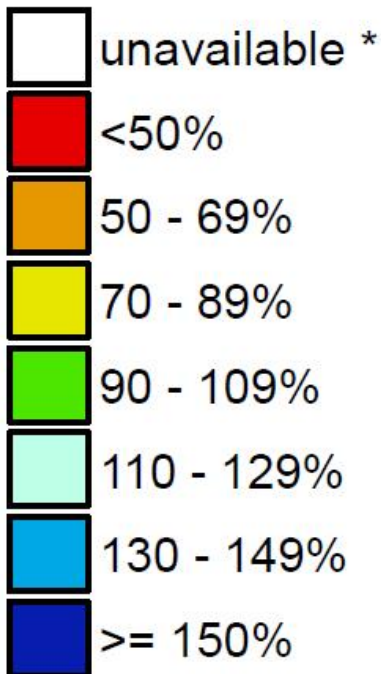
Westwide SNOTEL Current Snow Water Equivalent

Apr 01, 2015

Spokane River Basin
SWE = 37%

Clark Fork at Noxon
SWE = 78%

Current Snow Water Equivalent (SWE)
Basin-wide Percent
of 1981-2010 Median

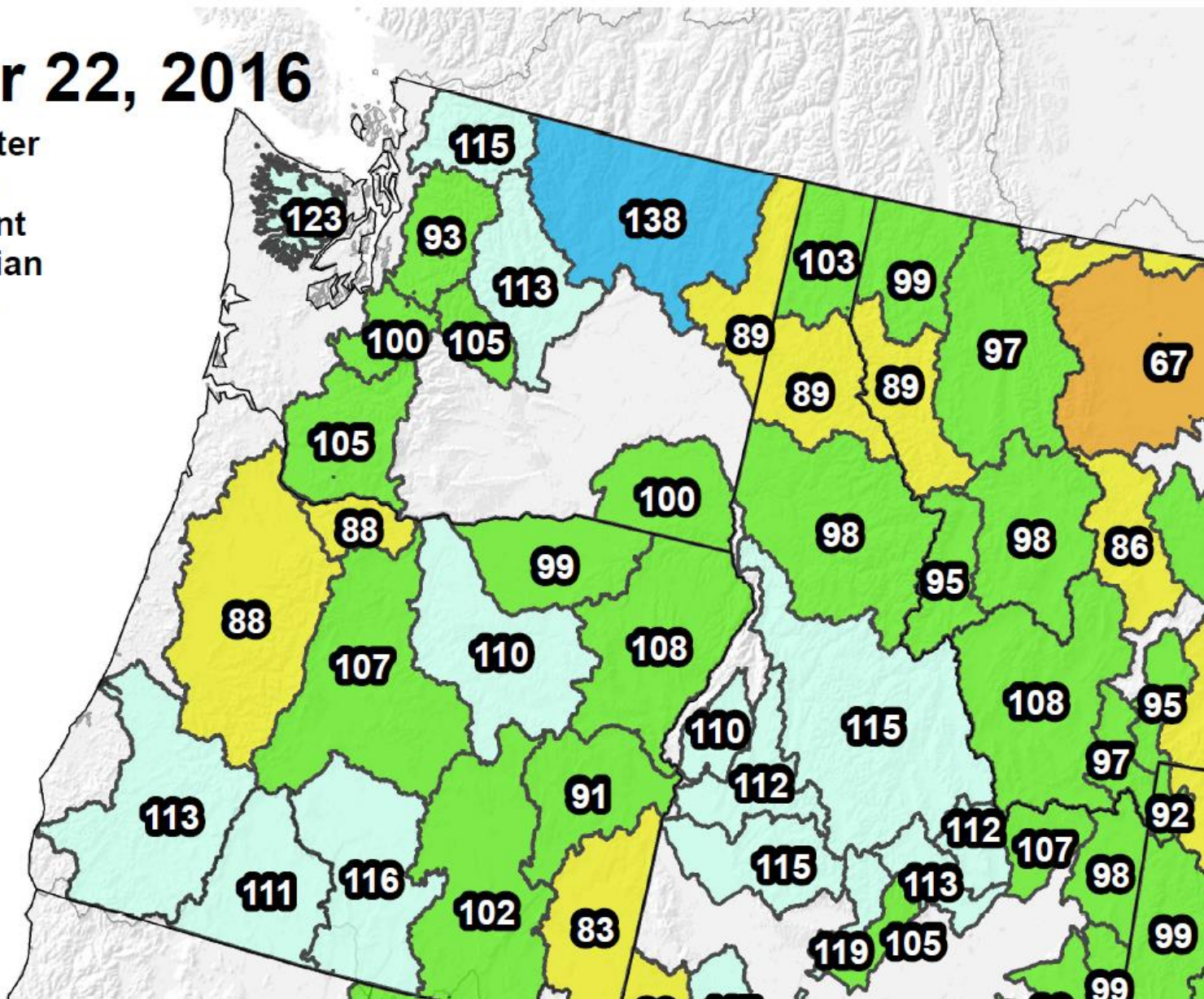
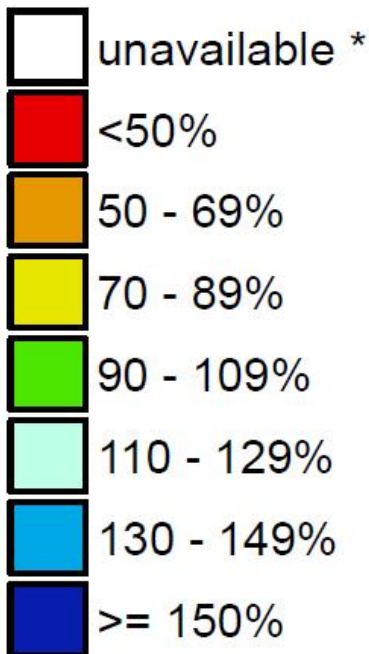


* Data unavailable at time of posting

Westwide SNOTEL Current Snow Water Equivalent

Mar 22, 2016

Current Snow Water Equivalent (SWE)
Basin-wide Percent
of 1981-2010 Median



* Data unavailable at time of posting or measurement is not representative at this time of year

POST FALLS

LAST SPILLGATE CLOSURES, 1997-2015

1997:	June 27	(1997 April - July CDA Lake inflow as a percent of median: 201)
1998:	June 8	(1998 April - July CDA Lake inflow as a percent of median: 86%)
1999:	July 2	(1999 April - July CDA Lake inflow as a percent of median: 134%)
2000:	June 22	(2000 April - July CDA Lake inflow as a percent of median: 126%)
2001:	June 5	(2001 April - July CDA Lake inflow as a percent of median: 60%)
2002:	July 3	(2002 April - July CDA Lake inflow as a percent of median: 169%)
2003:	June 6	(2003 April - July CDA Lake inflow as a percent of median: 68%)
2004:	June 14	(2004 April - July CDA Lake inflow as a percent of median: 85%)
2005:	May 27	(2005 April - July CDA Lake inflow as a percent of median: 62%)
2006:	June 22	(2006 April - July CDA Lake inflow as a percent of median: 115%)
2007:	May 29	(2007 April - July CDA Lake inflow as a percent of median: 72%)
2008:	July 8	(2008 April - July CDA Lake inflow as a percent of median: 170%)
2009:	June 23	(2009 April - July CDA Lake inflow as a percent of median: 120%)
2010:	July 6	(2010 April - July CDA Lake inflow as a percent of median: 90%)
2011:	July 18	(2011 April - July CDA Lake inflow as a percent of median: 190%)
2012:	July 14	(2012 April - July CDA Lake inflow as a percent of median: 170%)
2013:	June 7	(2013 April - July CDA Lake inflow as a percent of median: 93%)
2014:	June 24	(2014 April - July CDA Lake inflow as a percent of median: 119%)
2015:	April 5	(2015 April - July CDA Lake inflow as a percent of median: 35%)

Median date for the opening of the boat launch during the past 15 years (since the passage of the two Kootenai County and City of Post Falls swimmer/boater ordinances) has been June 22.

The boat launch is typically closed in November, usually right after the Veterans' Day weekend.

Contacts and Information

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Give us a call !!!