

RECLAMATION

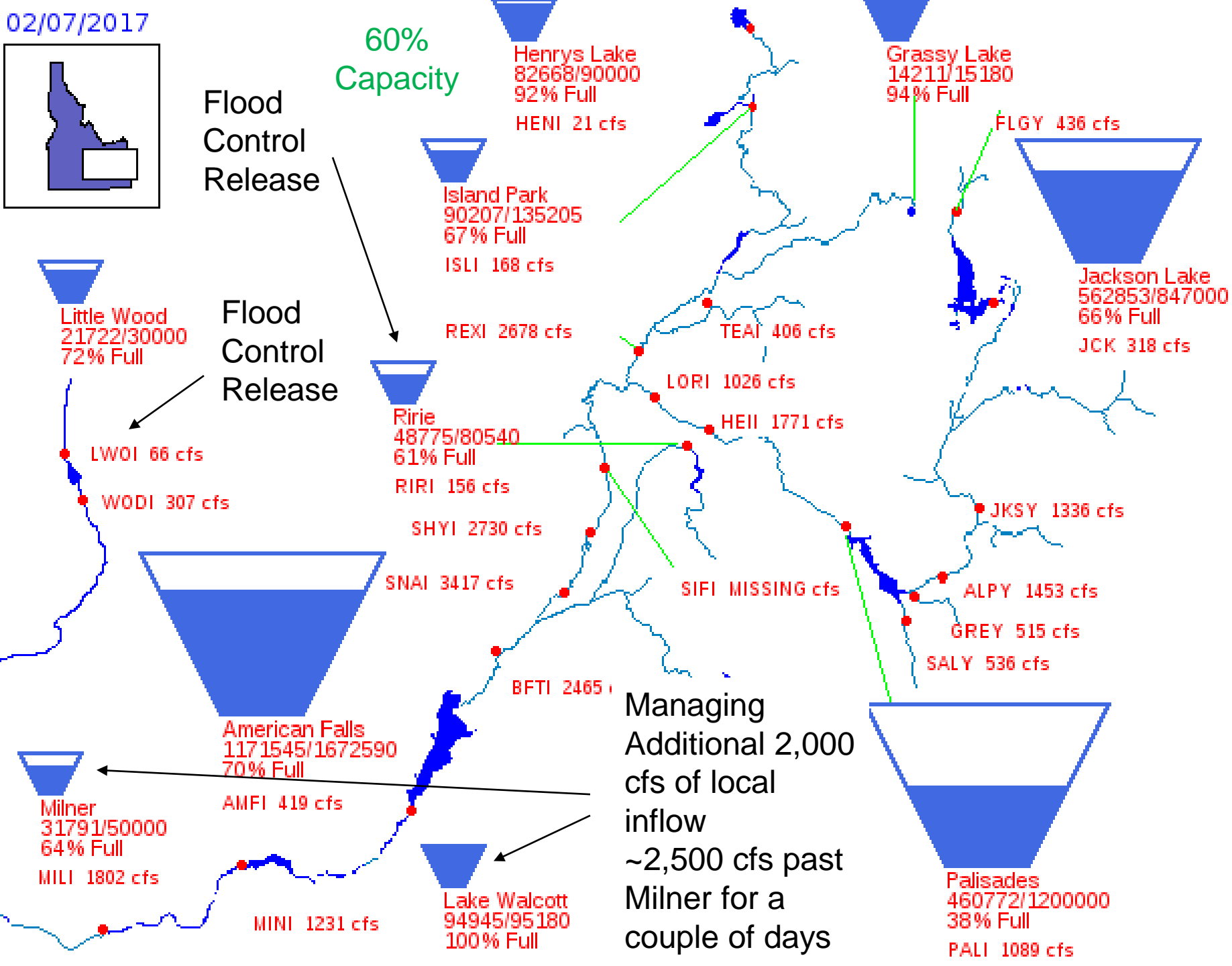
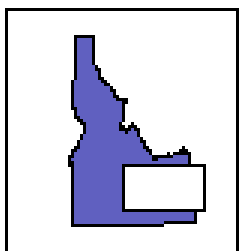
Managing Water in the West

Water Supply Committee February 8, 2017



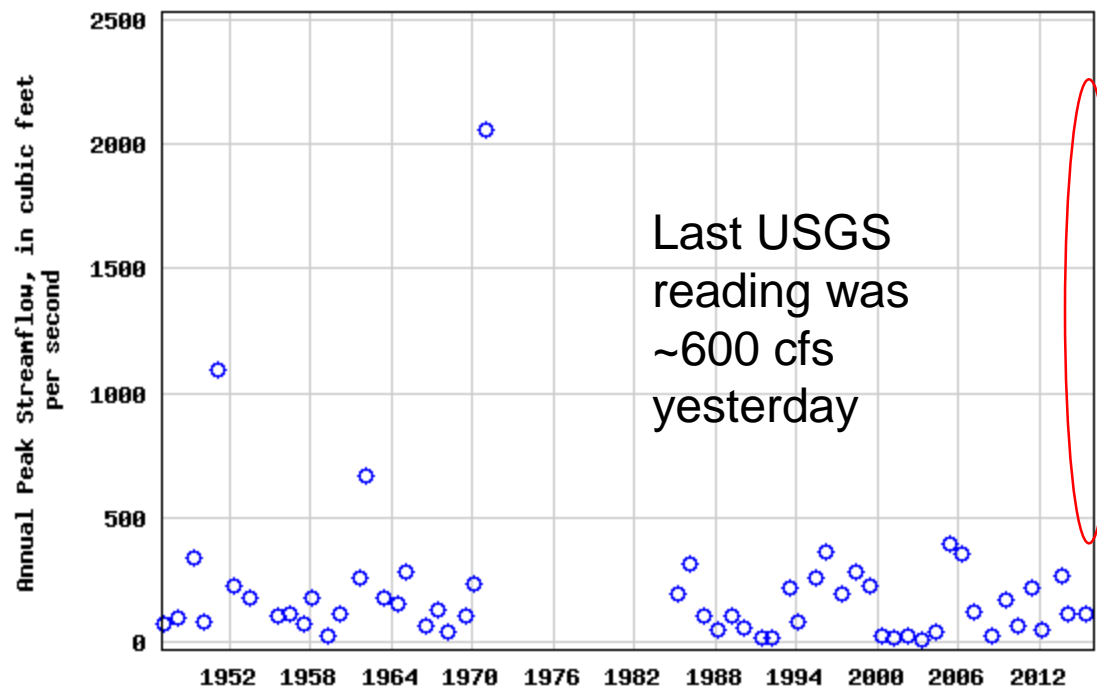
U.S. Department of the Interior
Bureau of Reclamation

02/07/2017

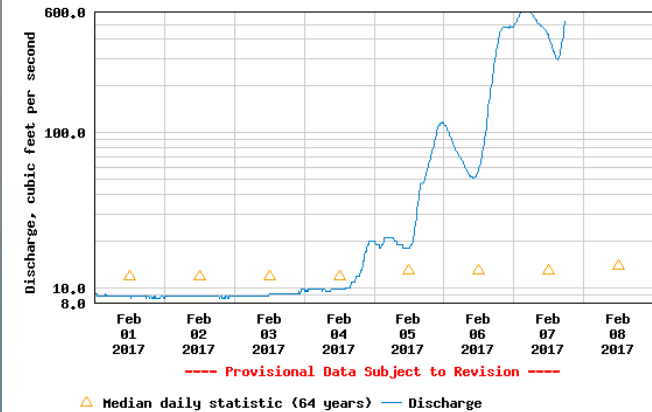




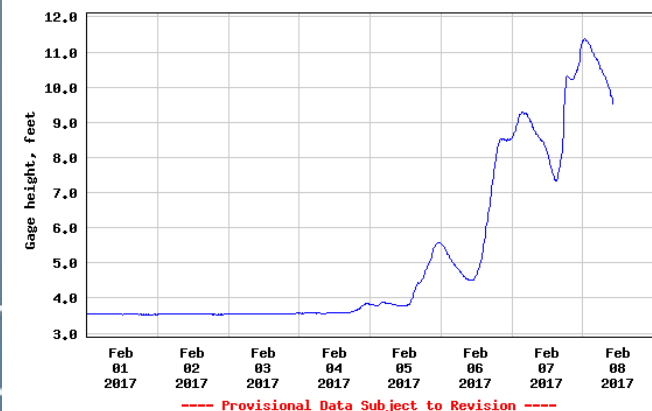
USGS 13078000 RAFT RIVER AB ONE MILE CREEK NR MALTA ID



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2017 February Runoff Forecasts

as of 2/1/17

- Heise = 130% Average*#
- Ririe = 149% Average*+
- Little Wood = 120% Average*#
- Island Park = 85% Average+##

*Coordinated USBR and USACE Forecast

#Feb-Jul Forecast Period

+Feb-Jun Forecast Period

%Average based on 1981-2010 period

Assumes normal subsequent conditions

RECLAMATION

2006

2017

SNAKE BASIN ABOVE PALISADES							
Base Camp	7030	17.3	11.1	15.2	Apr 07	156	114
Blind Bull Sum	8650	22.4	14.7	24.3	Apr 25	152	92
Cottonwood Creek	7670	23.0	13.6	21.3	Apr 02	169	108
East Rim Divide	7930	8.6	6.9	10.2	Apr 10	125	84
Granite Creek	6770	17.3	11.2	15.0	Mar 30	154	115
Grassy Lake	7265	29.6	21.4	31.6	Apr 03	138	94
Gros Ventre Summit	8750	9.3	8.6	13.2	Apr 19	108	70
Gunsight Pass	9820	8.9	8.6 _c	13.9 _c	Apr 09	103	64
Lewis Lake Divide	7850	32.7	20.9	30.7	Apr 26	156	107
Loomis Park	8240	14.8	9.9	14.4	Mar 30	149	103
Phillips Bench	8200	25.2	16.4	26.0	Apr 15	154	97
Salt River Summit	7760	12.7	8.3	13.0	Apr 04	153	98
Snake River Station	6920	17.0	11.7	15.9	Mar 28	145	107
Spring Creek Divide	9000	25.7	15.3	24.3	May 01	168	106
Thumb Divide	7980	14.2	9.7	15.1	Mar 28	146	94
Togwotee Pass	9580	19.3	15.5	25.4	May 11	125	76
Two Ocean Plateau	9240	28.7	18.5	29.9	May 04	155	96
Willow Creek	8380	27.4	18.1	28.4	Apr 07	151	96
Basin Index (%)						147	96

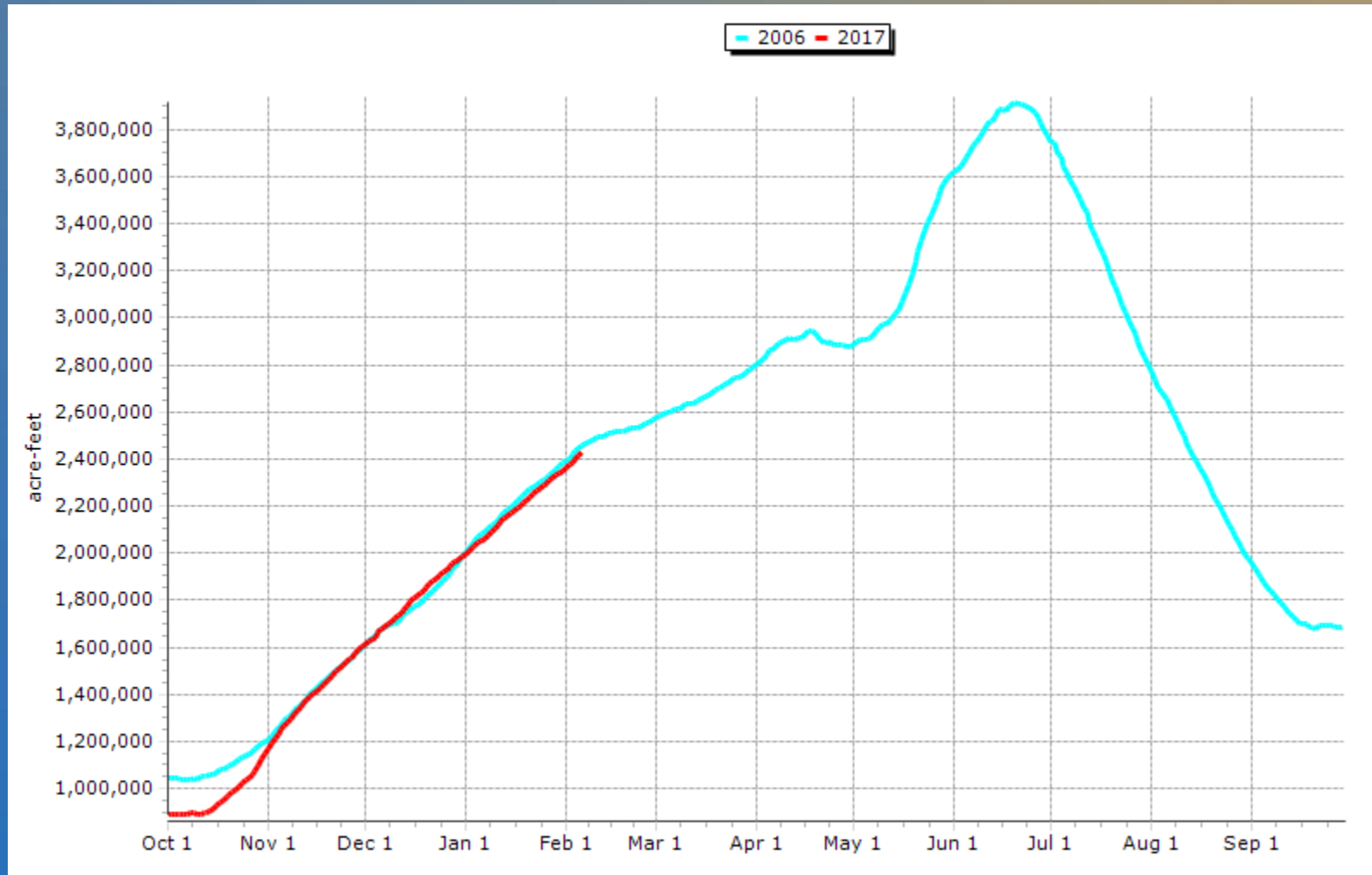
SNAKE BASIN ABOVE PALISADES							
Base Camp	7030	18.8	11.1	15.2	Apr 07	169	124
Blind Bull Sum	8650	26.6	14.7	24.3	Apr 25	181	109
Cottonwood Creek	7670	18.0	13.6	21.3	Apr 02	132	85
East Rim Divide	7930	12.9	6.9	10.2	Apr 10	187	126
Granite Creek	6770	19.7	11.2	15.0	Mar 30	176	131
Grassy Lake	7265	26.7	21.4	31.6	Apr 03	125	84
Gros Ventre Summit	8750	11.9	8.6	13.2	Apr 19	138	90
Gunsight Pass	9820	12.7	8.6 _c	13.9 _c	Apr 09	148	91
Lewis Lake Divide	7850	24.3	20.9	30.7	Apr 26	116	79
Loomis Park	8240	18.2	9.9	14.4	Mar 30	184	126
Phillips Bench	8200	22.6	16.4	26.0	Apr 15	138	87
Salt River Summit	7760	14.3	8.3	13.0	Apr 04	172	110
Snake River Station	6920	16.1	11.7	15.9	Mar 28	138	101
Spring Creek Divide	9000	23.6	15.3	24.3	May 01	154	97
Thumb Divide	7980	14.0	9.7	15.1	Mar 28	144	93
Togwotee Pass	9580	21.2	15.5	25.4	May 11	137	83
Two Ocean Plateau	9240	29.1	18.5	29.9	May 04	157	97
Willow Creek	8380	22.0	18.1	28.4	Apr 07	122	77
Basin Index (%)						147	96

% of
today's
median

% of
peak

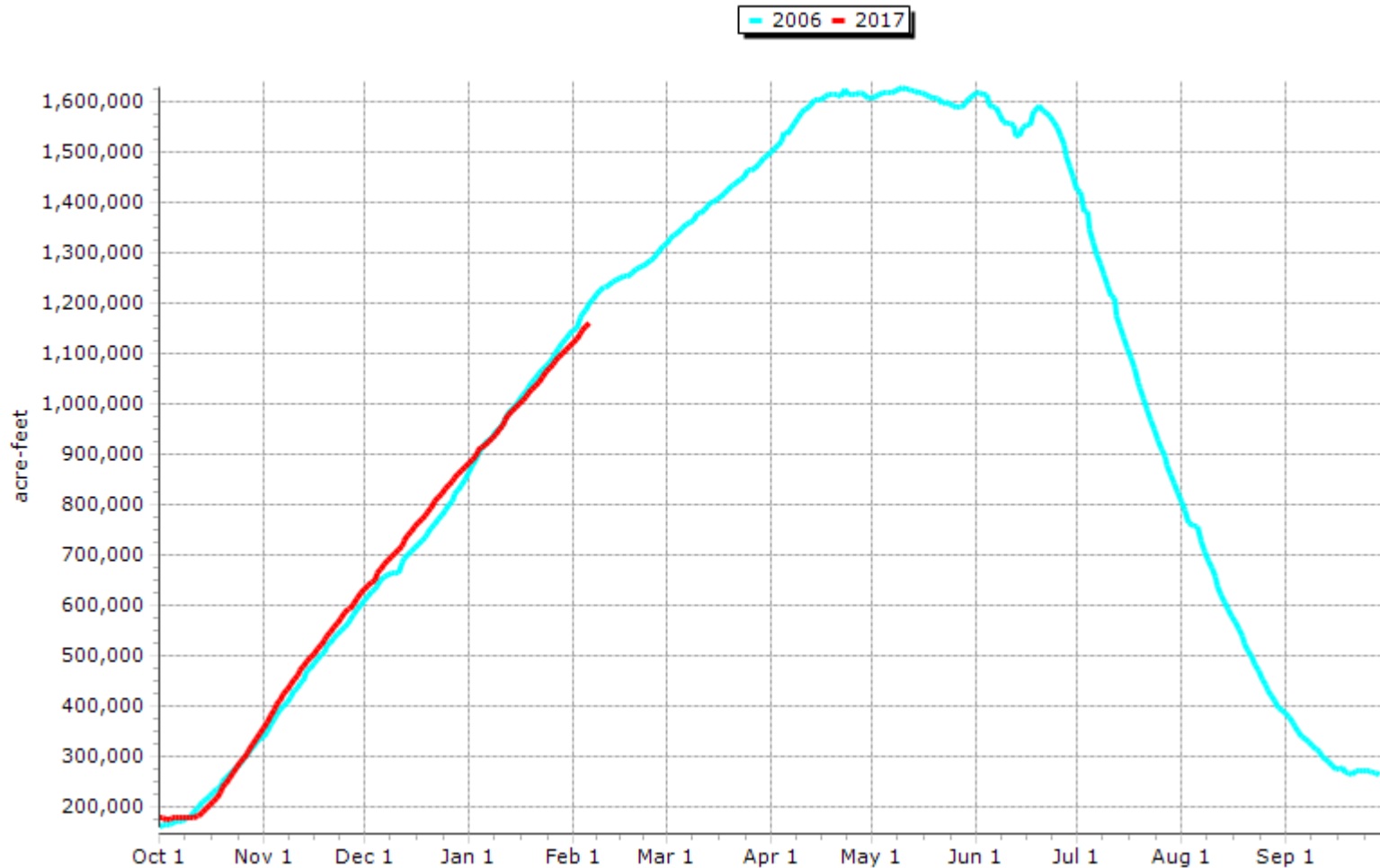
RECLAMATION

System Storage



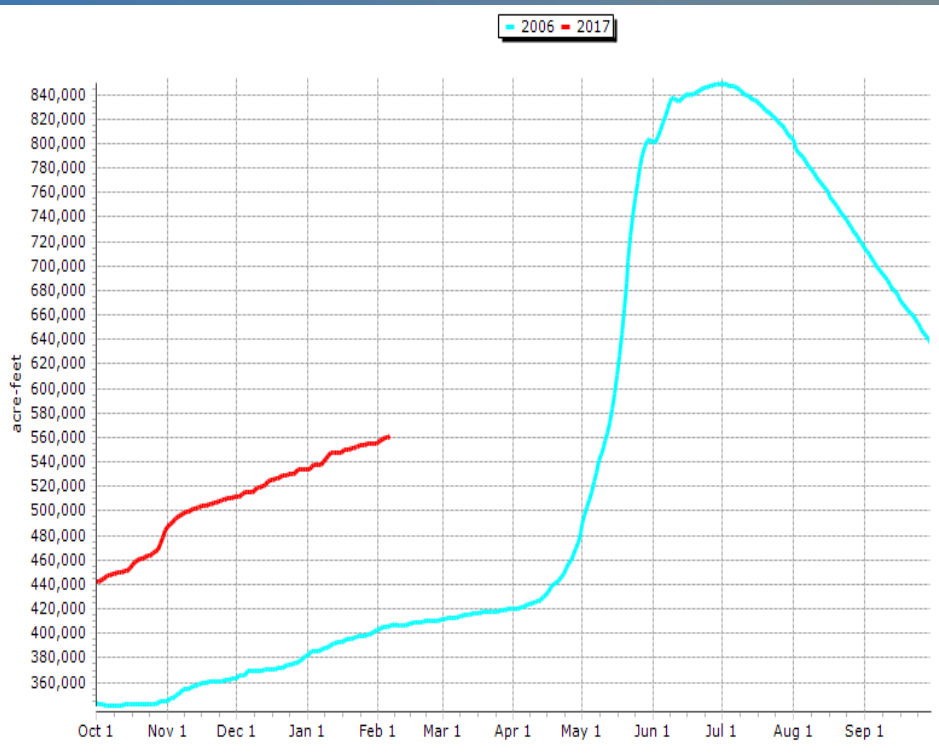
RECLAMATION

AMF Storage

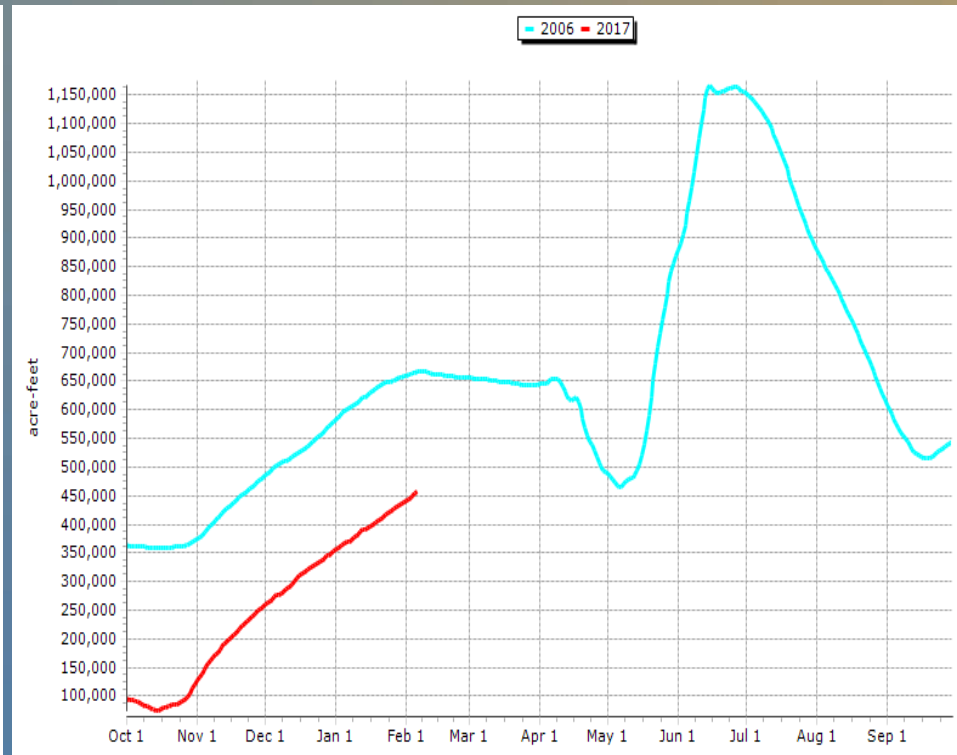


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JCK Storage



PAL Storage



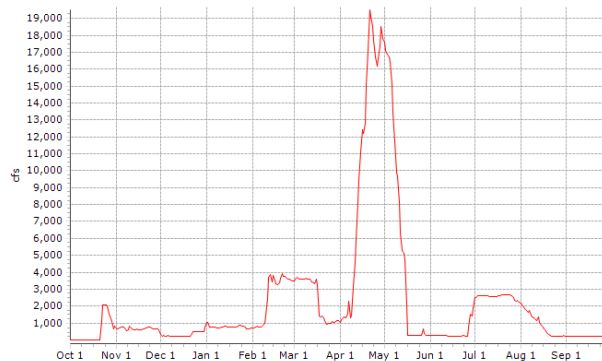
RECLAMATION

2006 WD1 Watermaster Report

The early season snow accumulation during November and December was very good, resulting in a 108% April-July projected runoff for the Snake River near Heise on January 1st. January followed with another month of excellent snow accumulation, raising the projected Heise runoff to 117%. Projections continued above average through April 1st. The April 1st forecast projected water runoff near Heise to be 111%. Unfortunately, little additional snow fell during the months of April and May. Although some additional precipitation occurred, the lowest elevation SNOTEL sites lost snow with warm early spring conditions. By June 1st, the April – July projected forecast dropped to only 91%. The actual runoff for the April-July time period near Heise was measured as 92% of the 30-year long-term average.

2006 and 2017
have same
Feb. – Jul.
HEI Forecast
4700 kaf
(130% of
1981-2010
ave.)

2006 Actual
HEI Feb-Jul
Runoff
109%

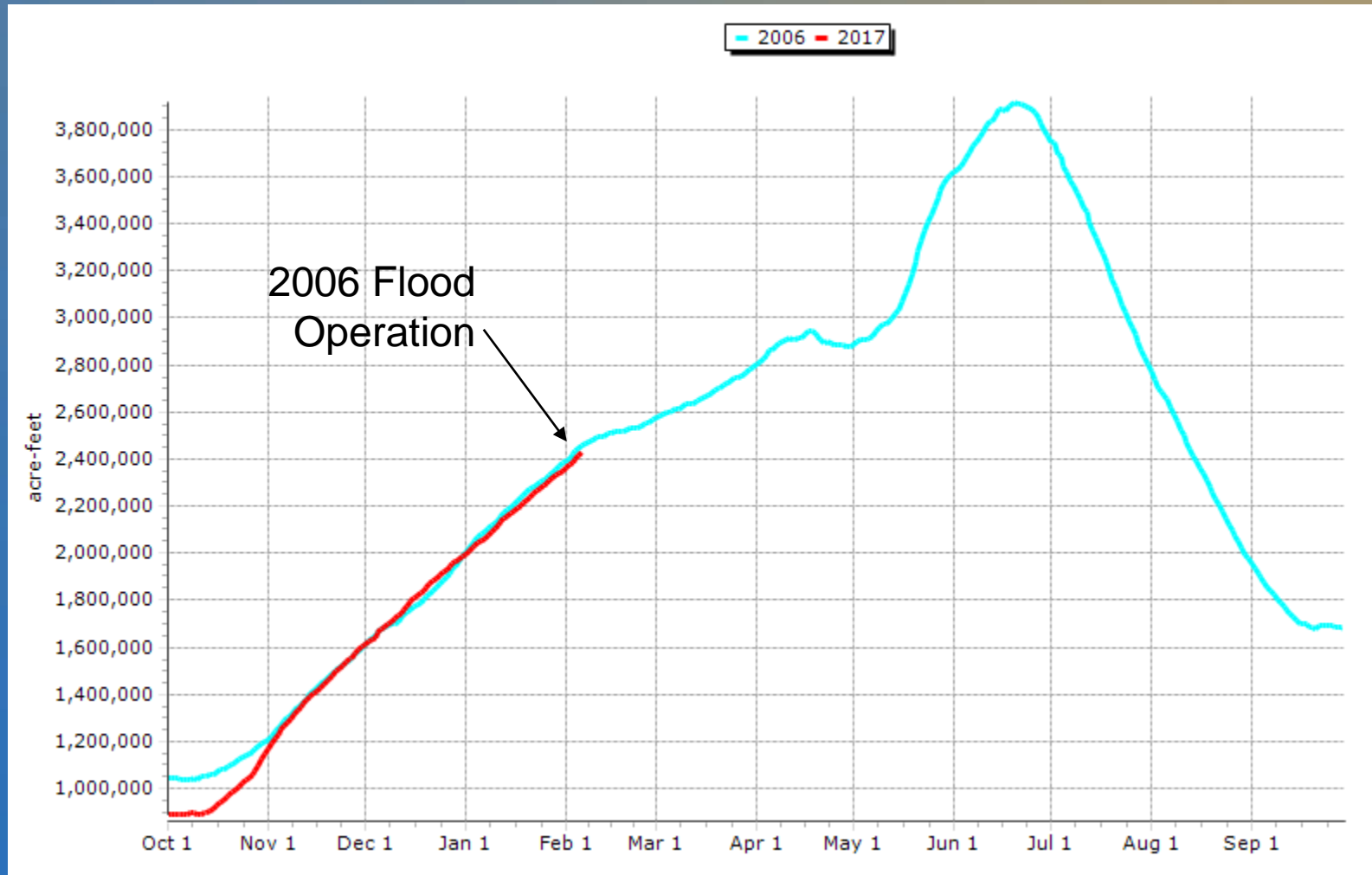


Flow Past Milner 2006

1.2 MAF past Milner
2/1 to 5/16

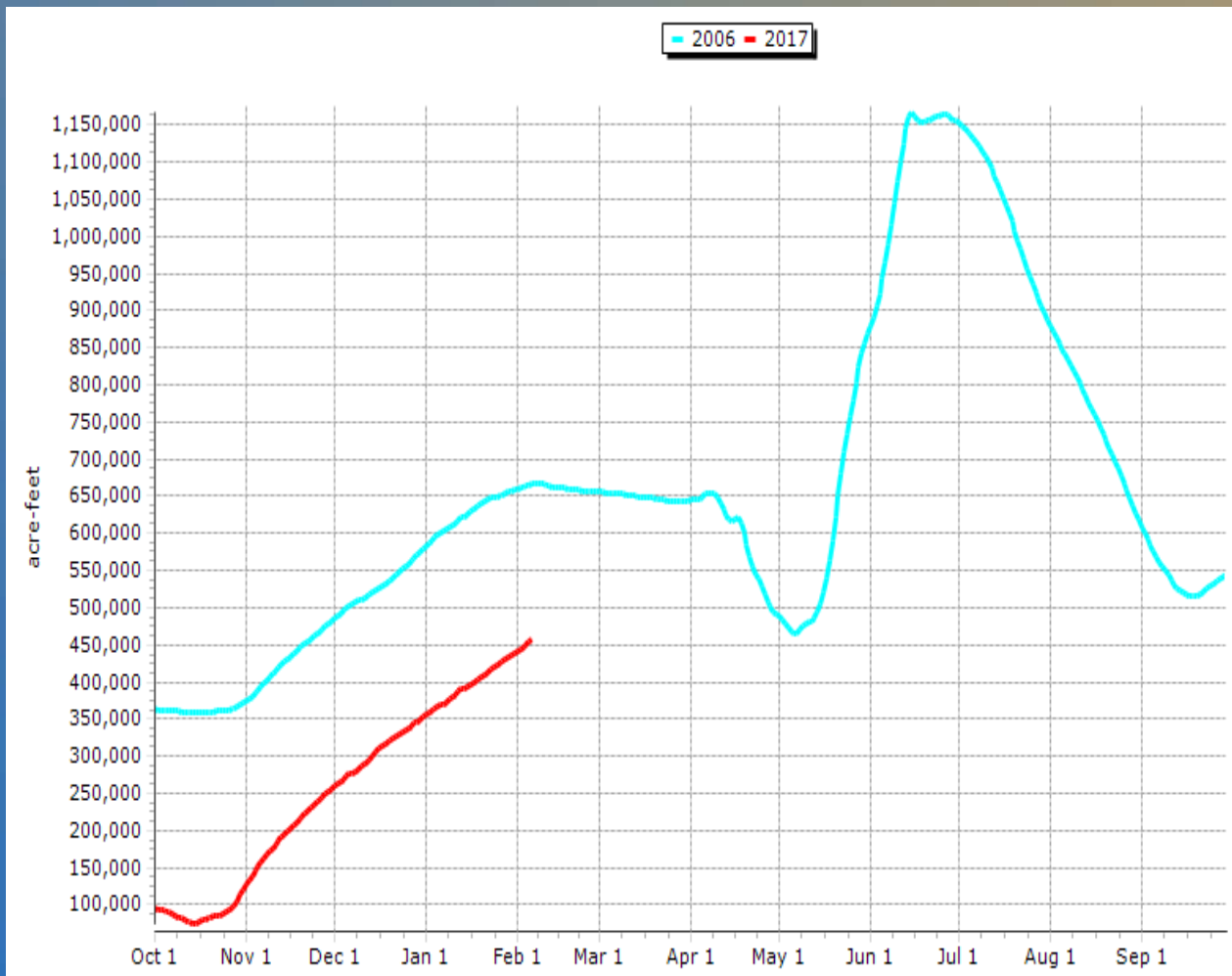
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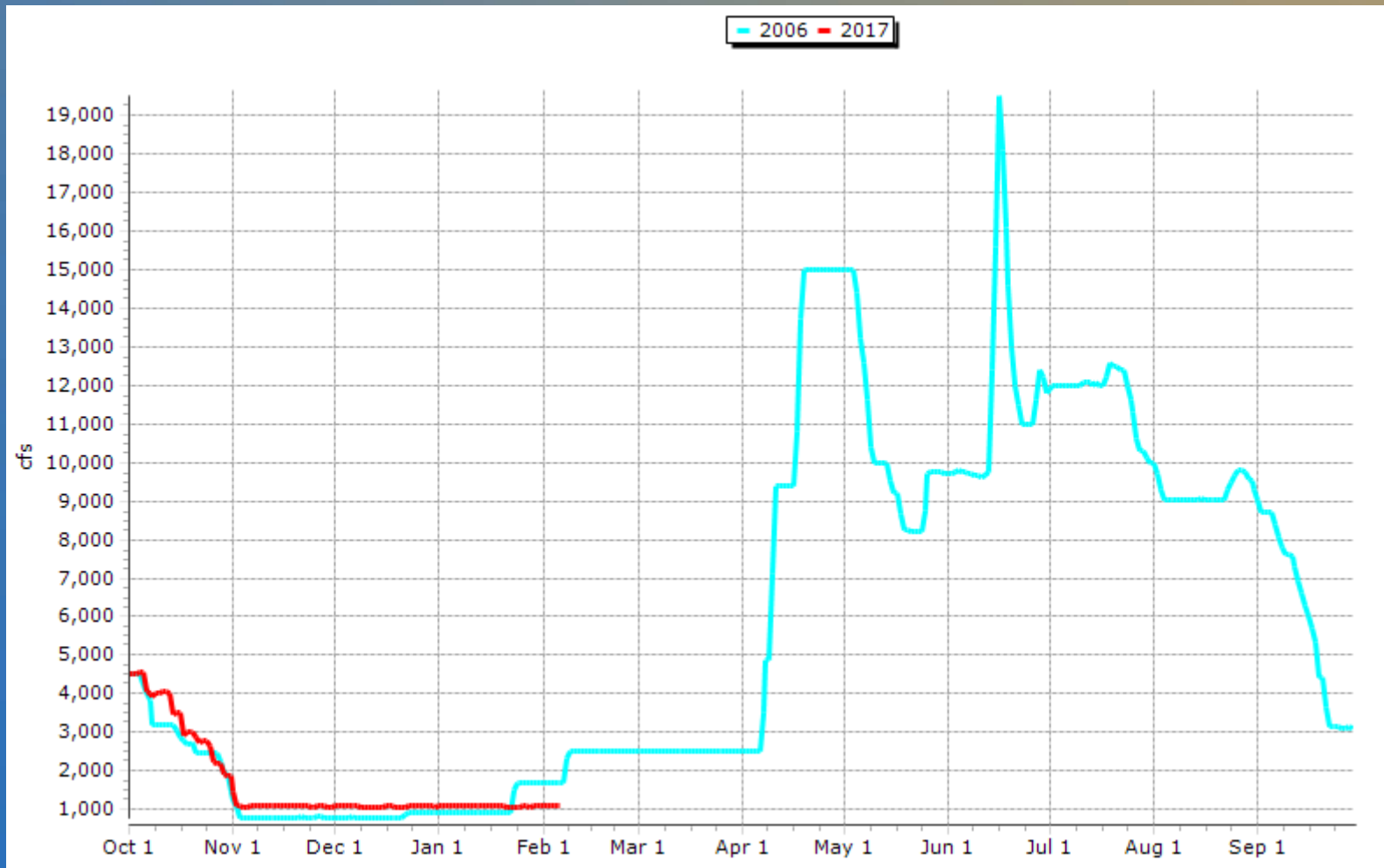
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PAL AF



RECLAMATION

Palisades Releases



RECLAMATION

AMF Releases



RECLAMATION

2006 WD1 Watermaster Report

There were more than 900,000 acre-feet of water which went past Milner from mid-April until May 16th when the spill past Milner Dam ceased. With water calls before the Idaho Department of Water Resources, District Courts and the Idaho Supreme Court, it would have been much better to recharge the water spilled past Milner, where feasible, than to have that much water leave the Water District 1 watershed.

The extreme drought of 2001-2005 had increased the awareness and importance of recharge to the Eastern Snake River Plain Aquifer. As a result of this evolving awareness, water was diverted by some canals from mid-April to mid-May 2006 under the Idaho Water Resource Boards 1980 priority water right, recharging the Snake River Plain Aquifer with water that otherwise would have spilled past Milner.

RECLAMATION

2006

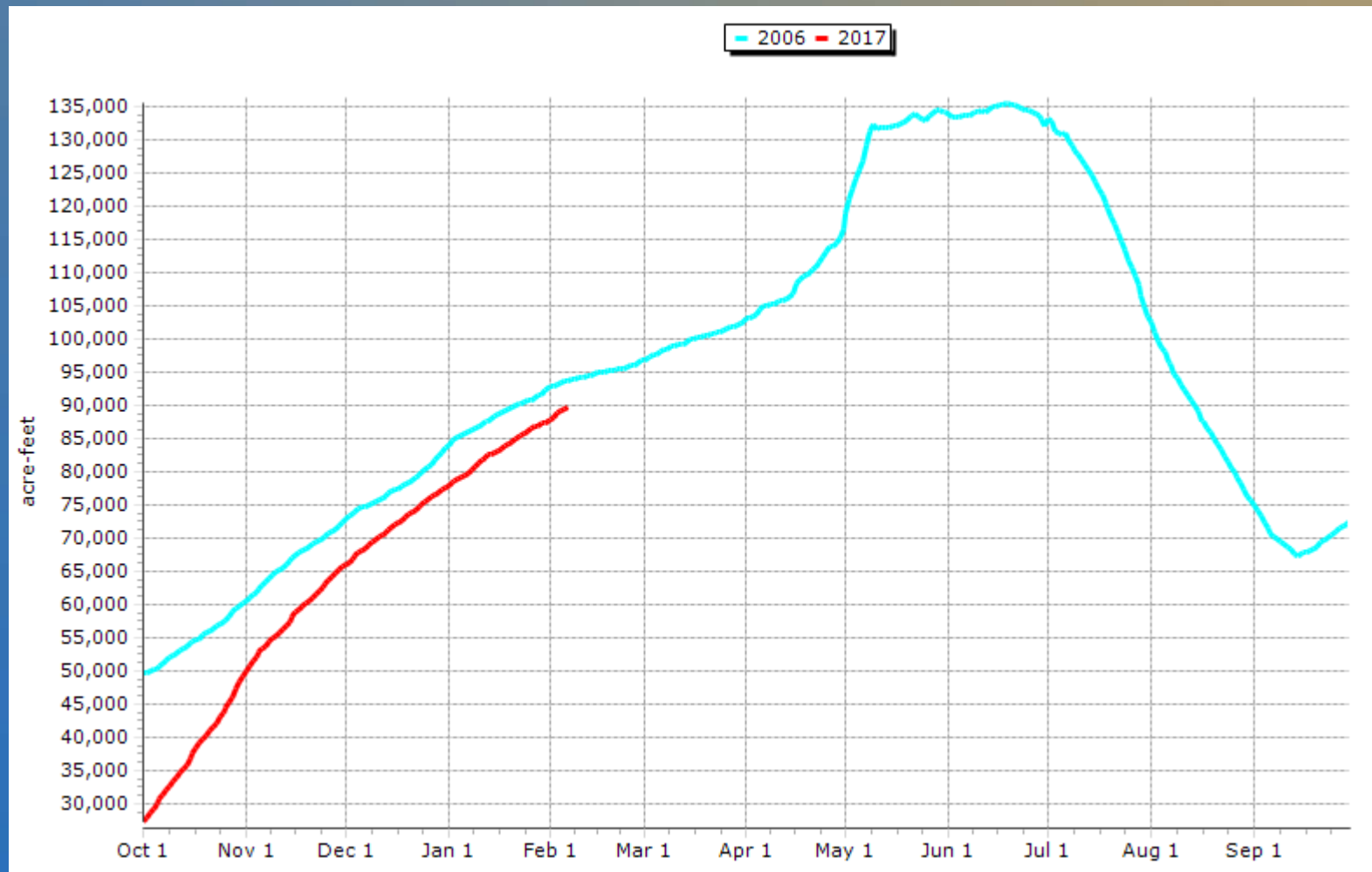
2017

HENRYS FORK, TETON BASINS							
Black Bear	8170	39.0	24.3	37.4	Apr 30	160	104
Grand Targhee	9260	-M	24.4 _R	46.4 _R	May 08	*	*
Grassy Lake	7265	29.6	21.4	31.6	Apr 03	138	94
Island Park	6290	15.7	10.3	14.5	Mar 28	152	108
Lewis Lake Divide	7850	32.7	20.9	30.7	Apr 26	156	107
Phillips Bench	8200	25.2	16.4	26.0	Apr 15	154	97
Pine Creek Pass	6720	15.6	9.8	13.9	Mar 22	159	112
White Elephant	7710	27.6	16.8	26.2	Apr 12	164	105
Basin Index (%)						155	103

HENRYS FORK, TETON BASINS							
Black Bear	8170	26.6	24.3	37.4	Apr 30	109	71
Grand Targhee	9260	29.5	24.4 _R	46.4 _R	May 08	121	64
Grassy Lake	7265	26.7	21.4	31.6	Apr 03	125	84
Island Park	6290	10.4	10.3	14.5	Mar 28	101	72
Lewis Lake Divide	7850	24.3	20.9	30.7	Apr 26	116	79
Phillips Bench	8200	22.6	16.4	26.0	Apr 15	138	87
Pine Creek Pass	6720	13.5	9.8	13.9	Mar 22	138	97
White Elephant	7710	15.3	16.8	26.2	Apr 12	91	58
Basin Index (%)						117	75

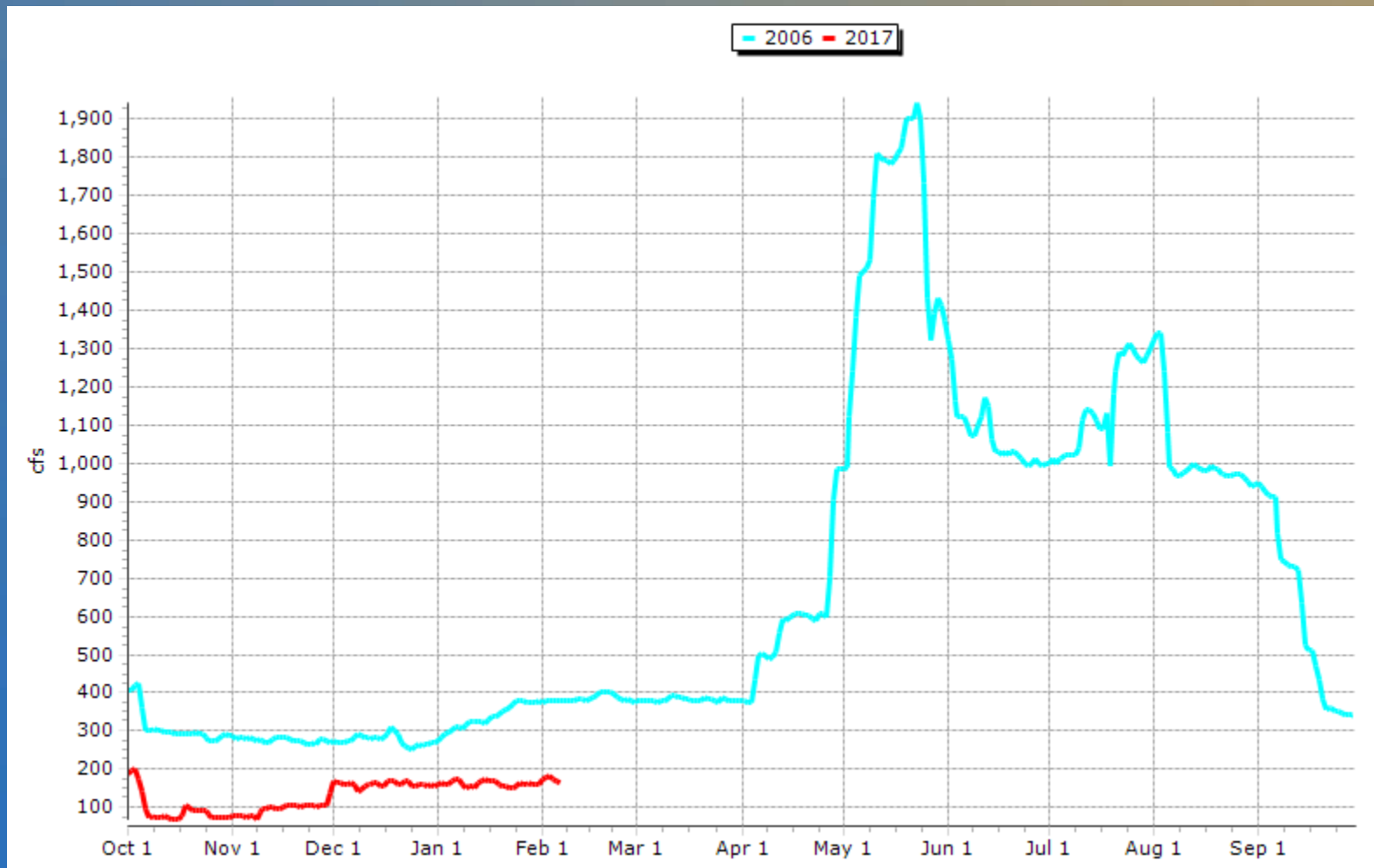
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ISL Storage



RECLAMATION

ISL Releases



RECLAMATION

2005

HENRYS FORK, TETON BASINS							
Black Bear	8170	24.3	24.3	37.4	Apr 30	100	65
Grand Targhee	9260	~M	24.4 _R	46.4 _R	May 08	*	*
Grassy Lake	7265	15.9	21.4	31.6	Apr 03	74	50
Island Park	6290	10.2	10.3	14.5	Mar 28	99	70
Lewis Lake Divide	7850	15.2	20.9	30.7	Apr 26	73	50
Phillips Bench	8200	15.8	16.4	26.0	Apr 15	96	61
Pine Creek Pass	6720	7.6	9.8	13.9	Mar 22	78	55
White Elephant	7710	18.4	16.8	26.2	Apr 12	110	70
Basin Index (%)						90	60

2016

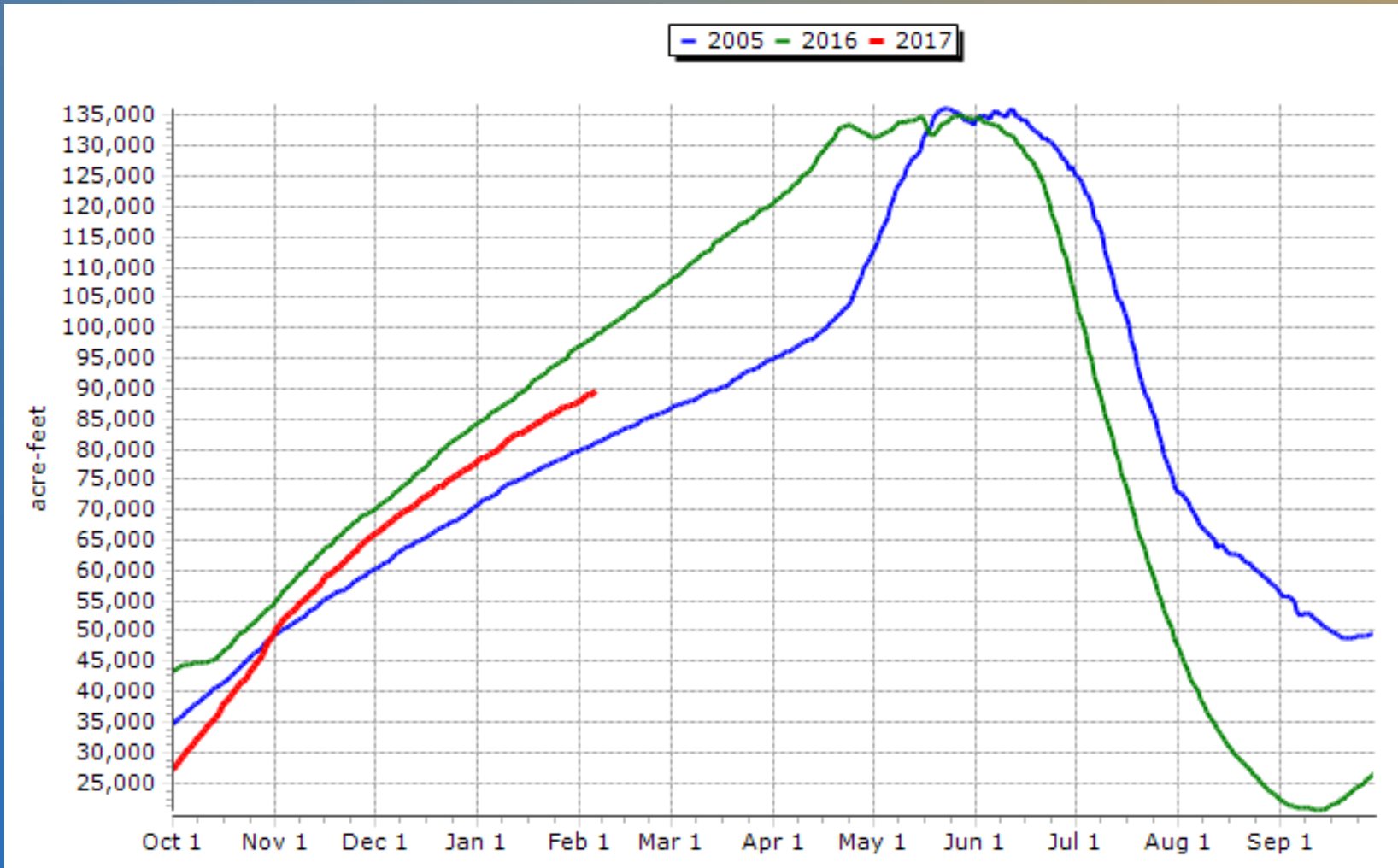
HENRYS FORK, TETON BASINS							
Black Bear	8170	21.6	24.3	37.4	Apr 30	89	58
Grand Targhee	9260	28.2	24.4 _R	46.4 _R	May 08	116	61
Grassy Lake	7265	21.5	21.4	31.6	Apr 03	100	68
Island Park	6290	10.9	10.3	14.5	Mar 28	106	75
Lewis Lake Divide	7850	20.4	20.9	30.7	Apr 26	98	66
Phillips Bench	8200	14.8	16.4	26.0	Apr 15	90	57
Pine Creek Pass	6720	11.1	9.8	13.9	Mar 22	113	80
White Elephant	7710	16.7	16.8	26.2	Apr 12	99	64
Basin Index (%)						101	64

2017

HENRYS FORK, TETON BASINS							
Black Bear	8170	26.6	24.3	37.4	Apr 30	109	71
Grand Targhee	9260	29.5	24.4 _R	46.4 _R	May 08	121	64
Grassy Lake	7265	26.7	21.4	31.6	Apr 03	125	84
Island Park	6290	10.4	10.3	14.5	Mar 28	101	72
Lewis Lake Divide	7850	24.3	20.9	30.7	Apr 26	116	79
Phillips Bench	8200	22.6	16.4	26.0	Apr 15	138	87
Pine Creek Pass	6720	13.5	9.8	13.9	Mar 22	138	97
White Elephant	7710	15.3	16.8	26.2	Apr 12	91	58
Basin Index (%)						117	75

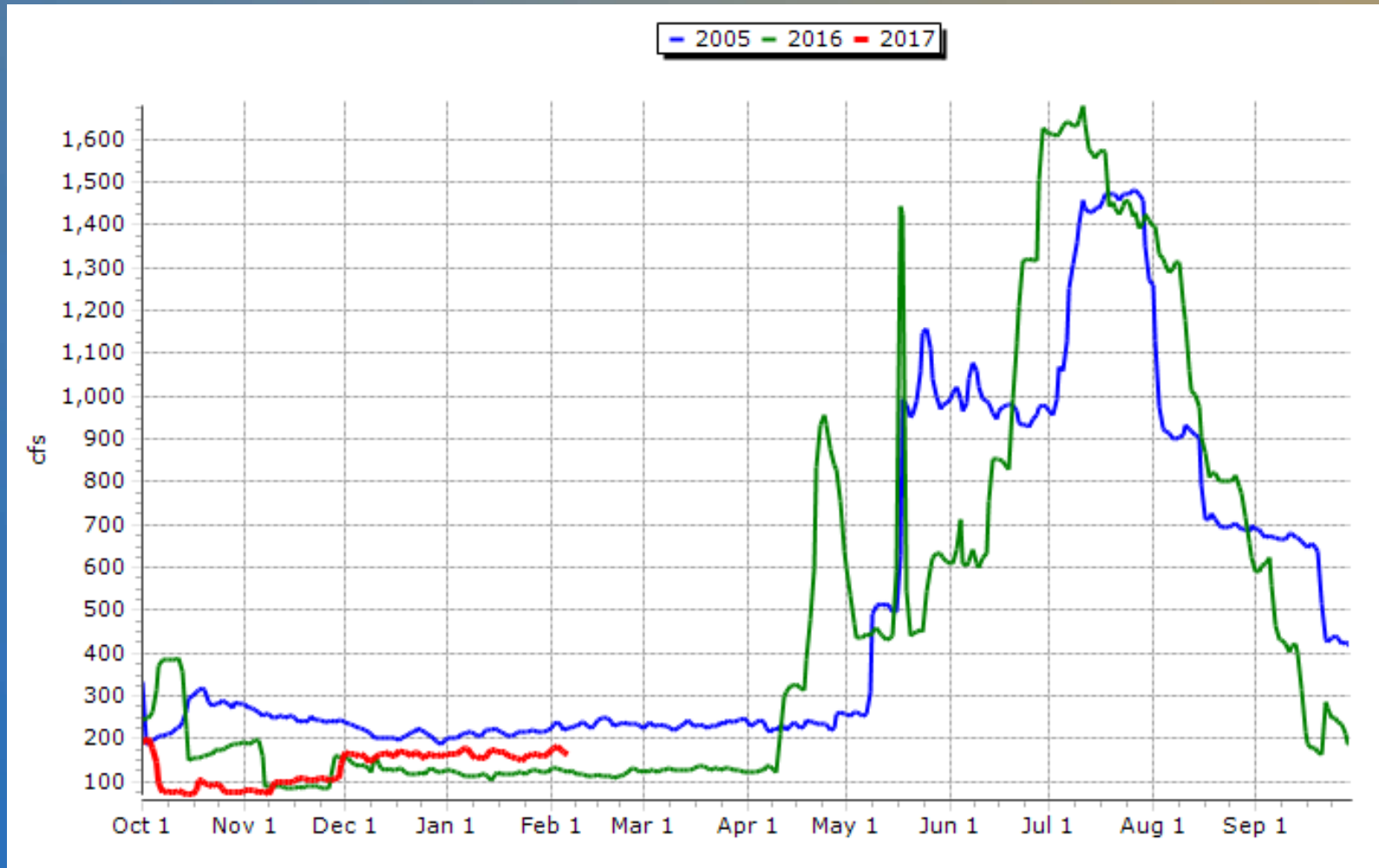
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ISL Storage



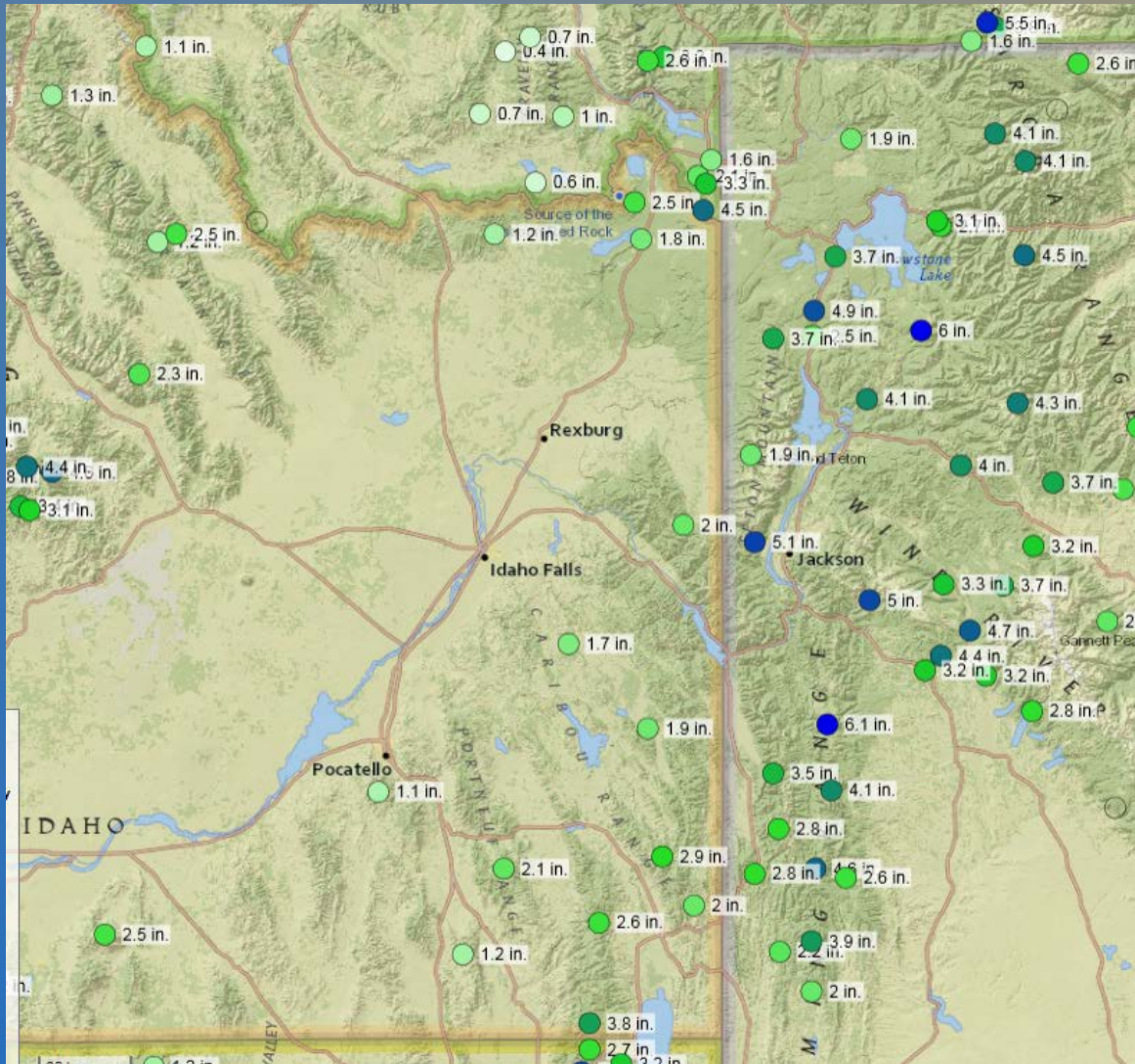
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ISL Releases



RECLAMATION

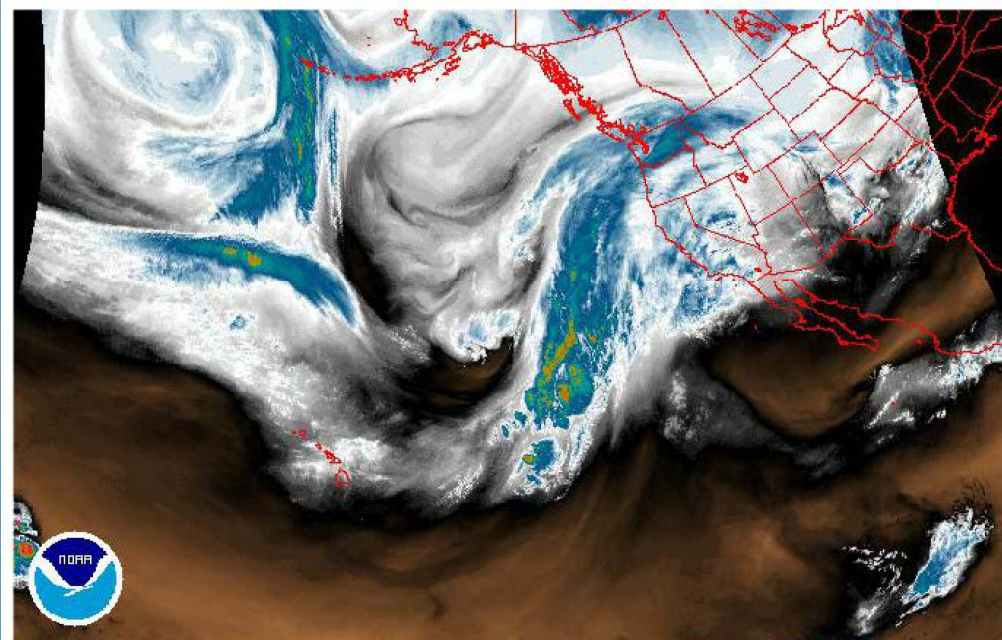
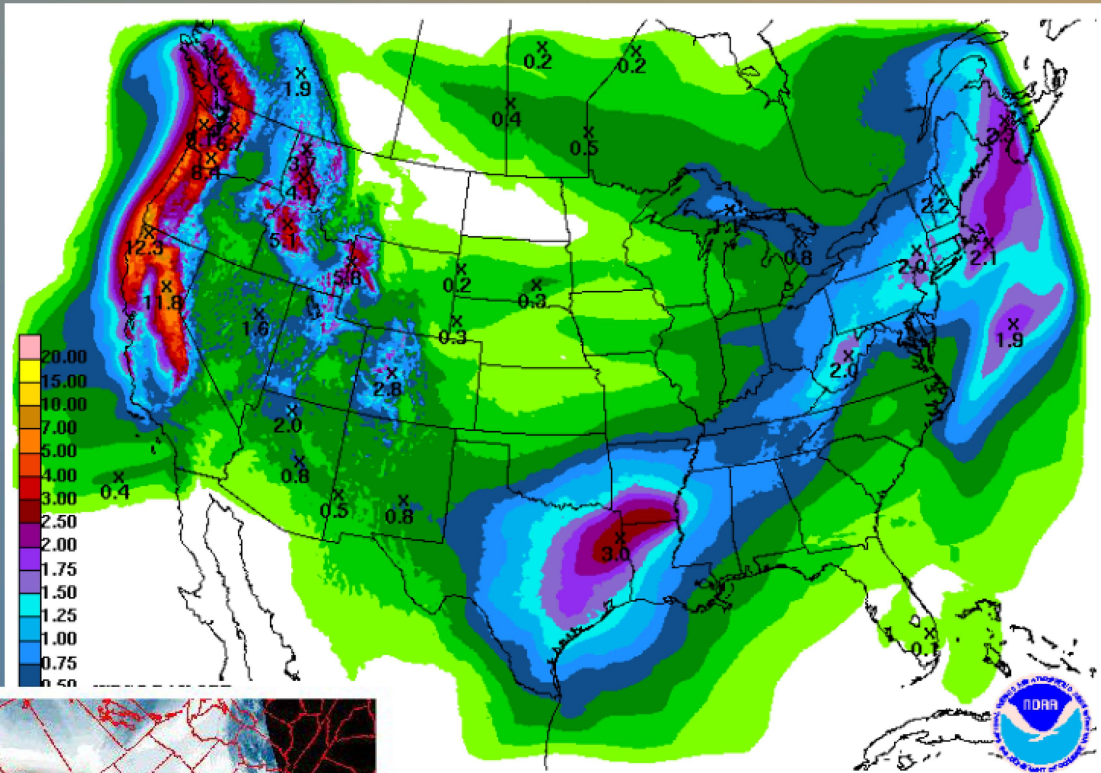
February SWE to Date



Above Palisades:
120% of average
month of February
SWE in 8 days

2006 saw 93% of
average February
SWE above
Palisades

RECLAMATION



Oroville Dam California

NOT A RECLAMATION DAM

<http://www.sacbee.com/news/state/california/water-and-drought/article131348349.html>

