

Idaho Water Supply Conditions Summer 2013

Idaho State Legislature
Natural Resources Interim Committee
August 6, 2013

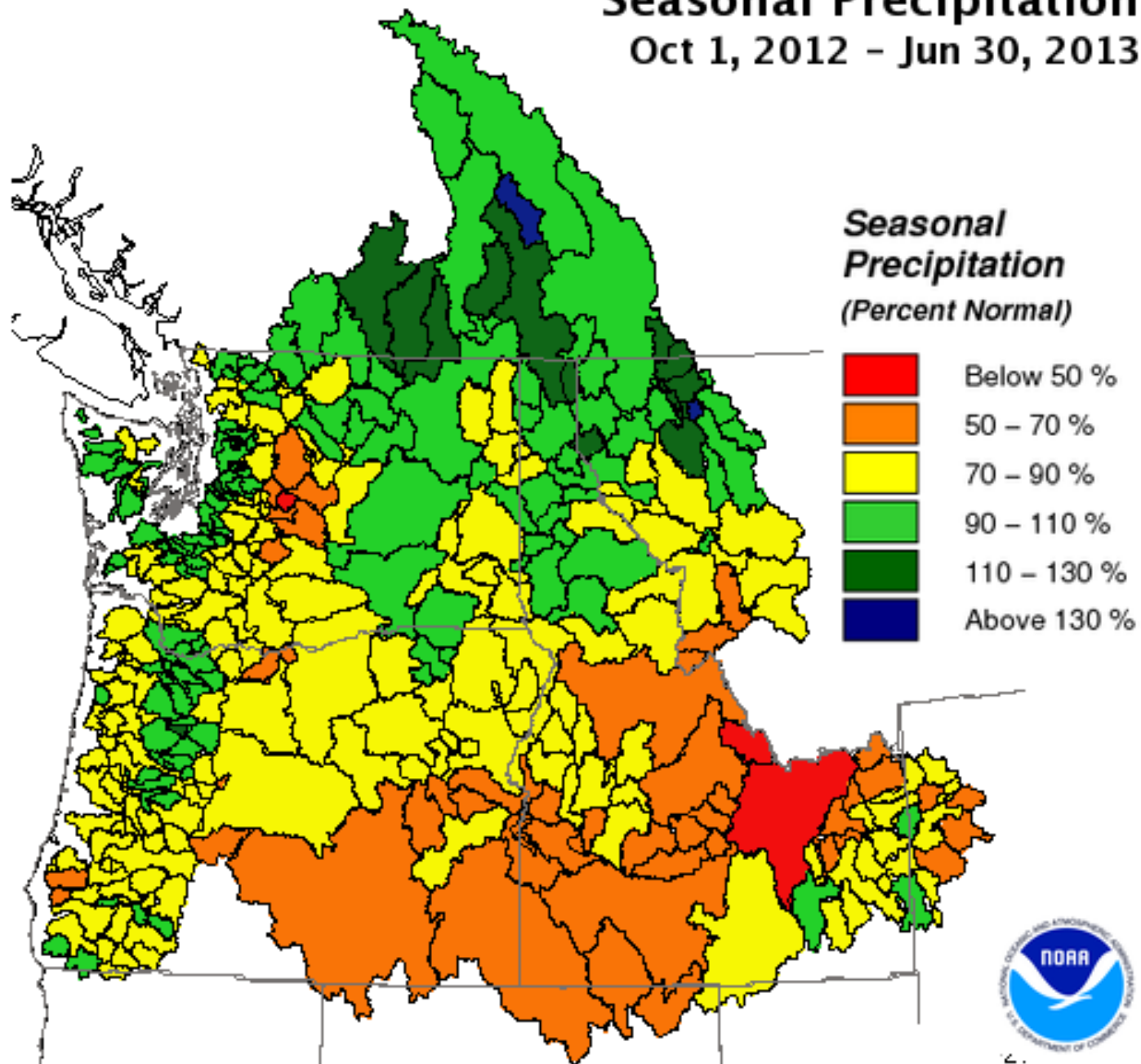


Topics of Discussion

- Precipitation/temperature data and forecasts
- Reservoir levels
- River and stream hydrographs
- Groundwater conditions
- Drought conditions and emergency declarations
- Summary of conditions

Seasonal Precipitation

Oct 1, 2012 - Jun 30, 2013



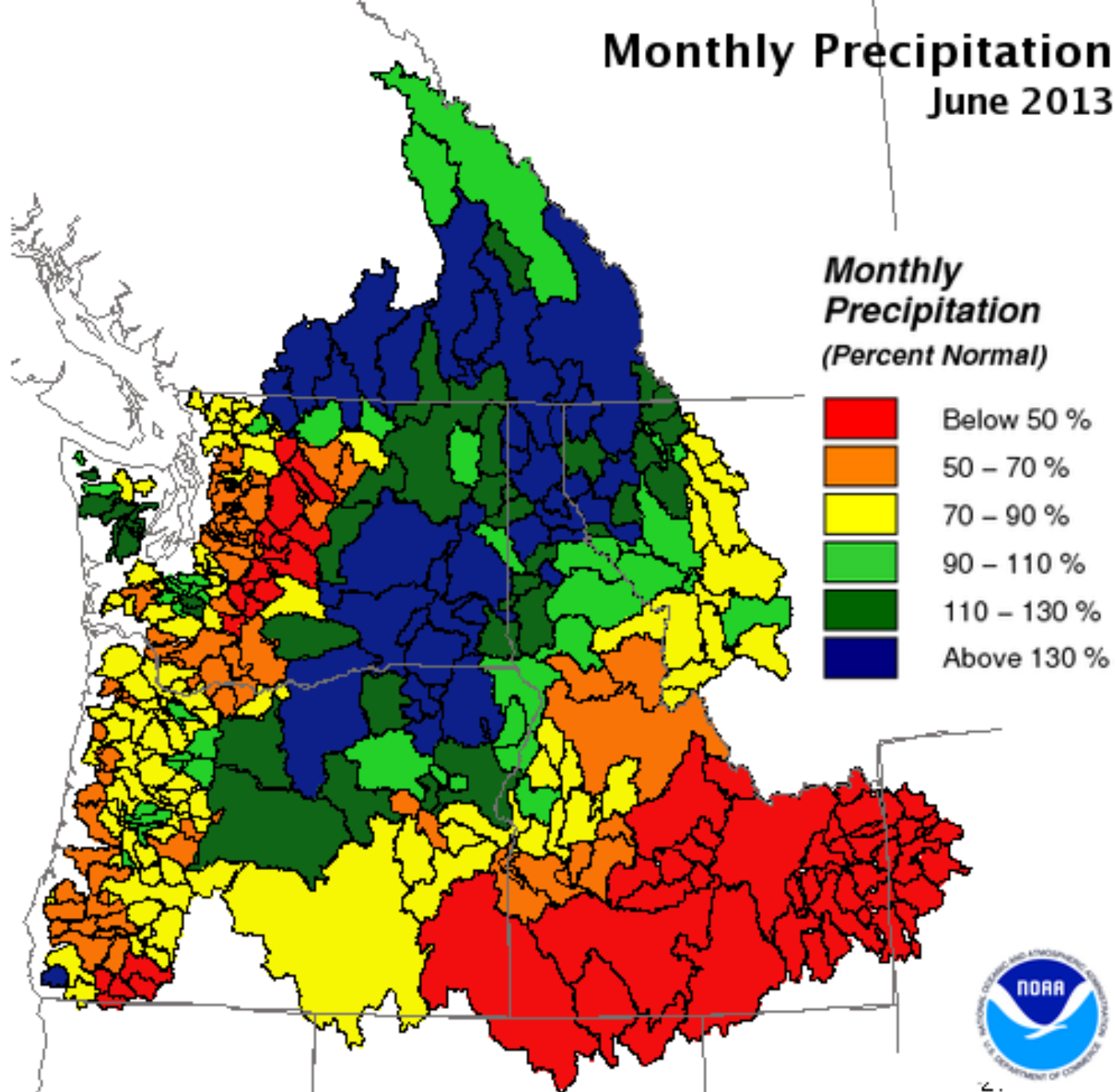
Creation Time: Monday, Jul 1, 2013

Northwest River Forecast Center



2.

Monthly Precipitation June 2013

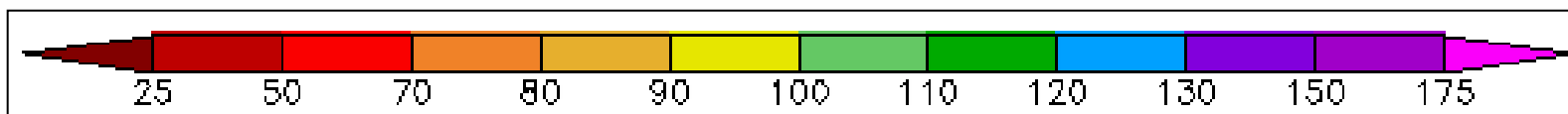
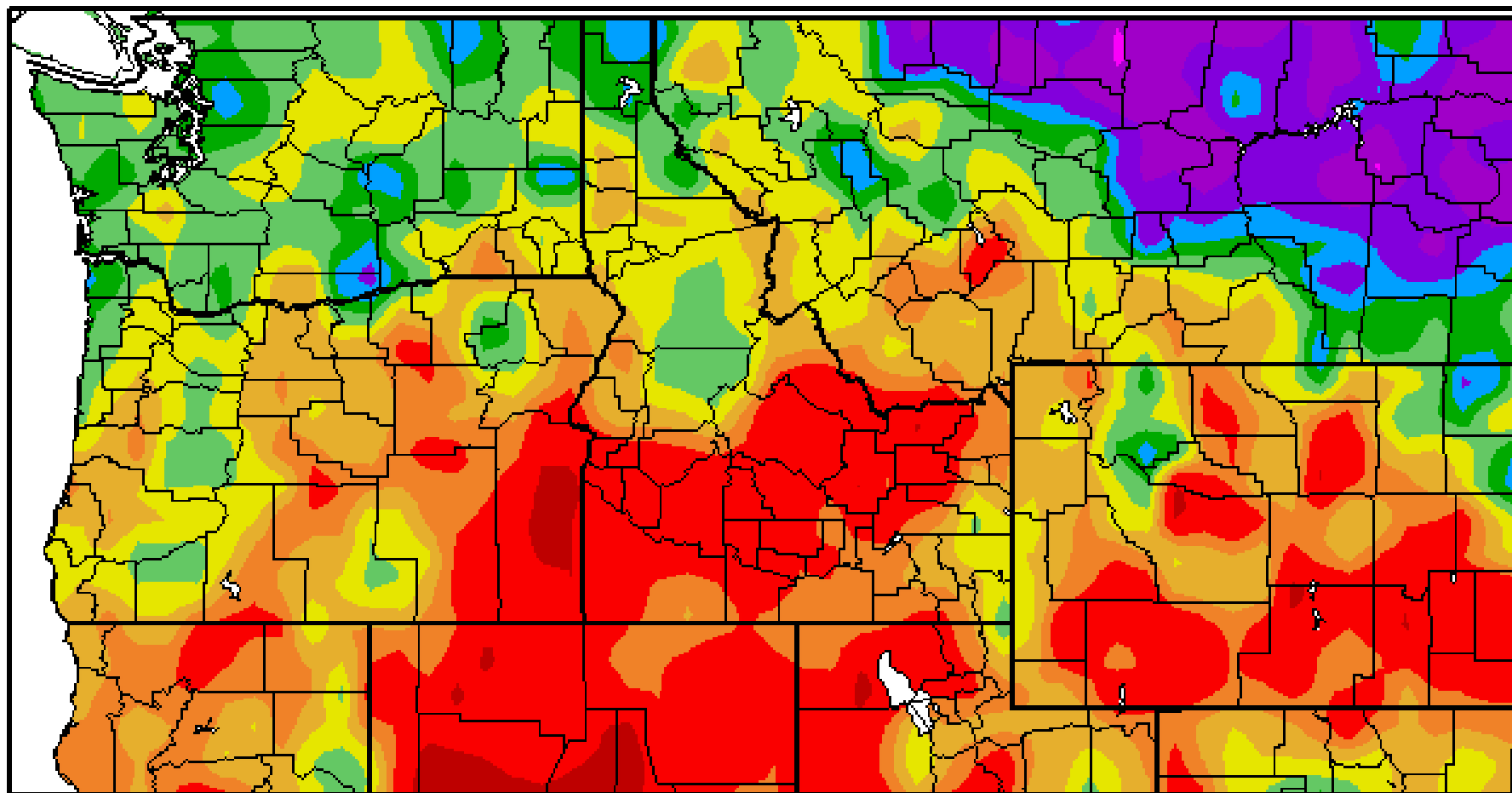


Creation Time: Wednesday, Jul 17, 2013

Northwest River Forecast Center

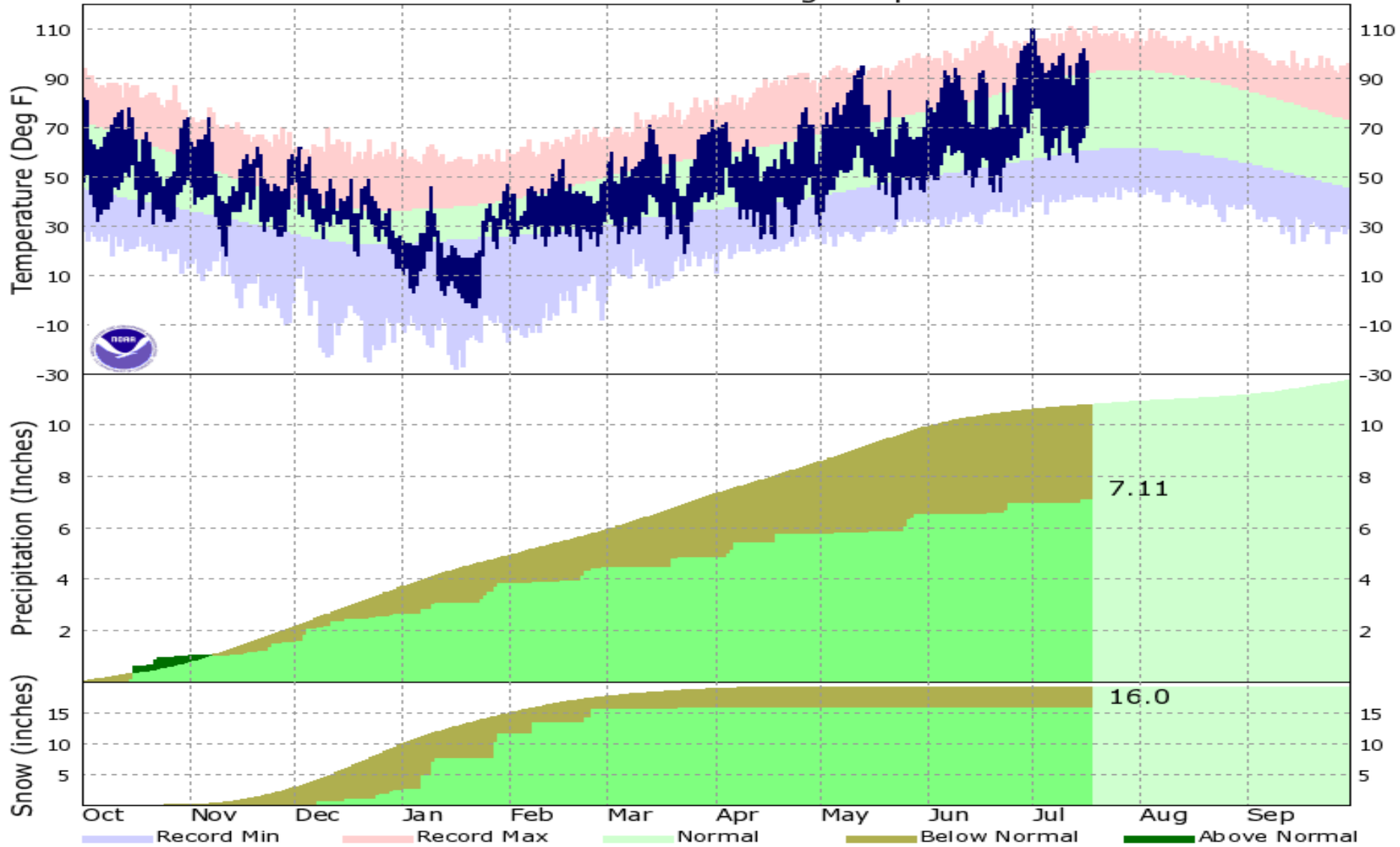
Percent of Normal Precipitation (%)

Oct 1, 2012 – Jul 17, 2013



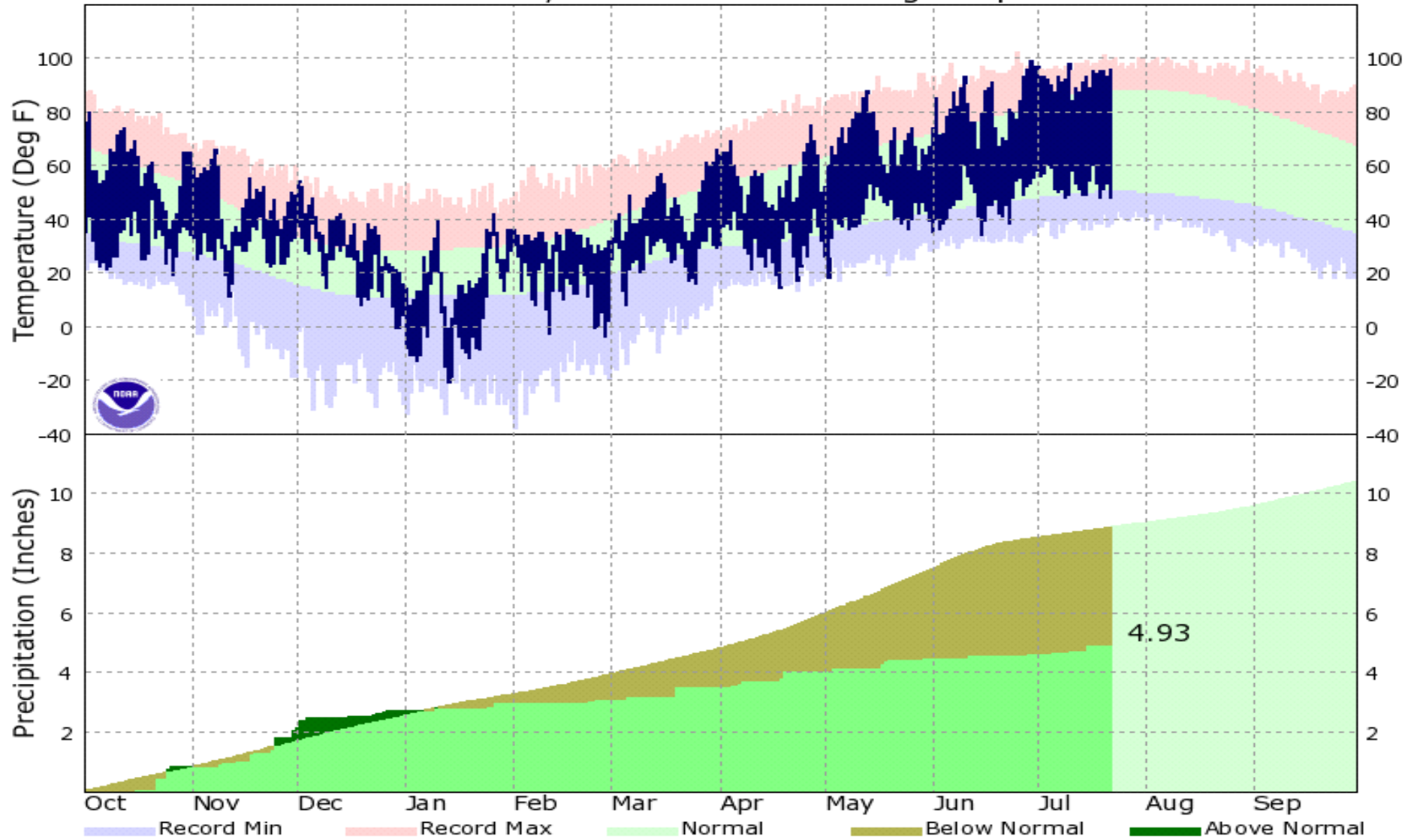
Temperature and Precipitation at Boise

KBOI - Oct 2012 Through Sep 2013



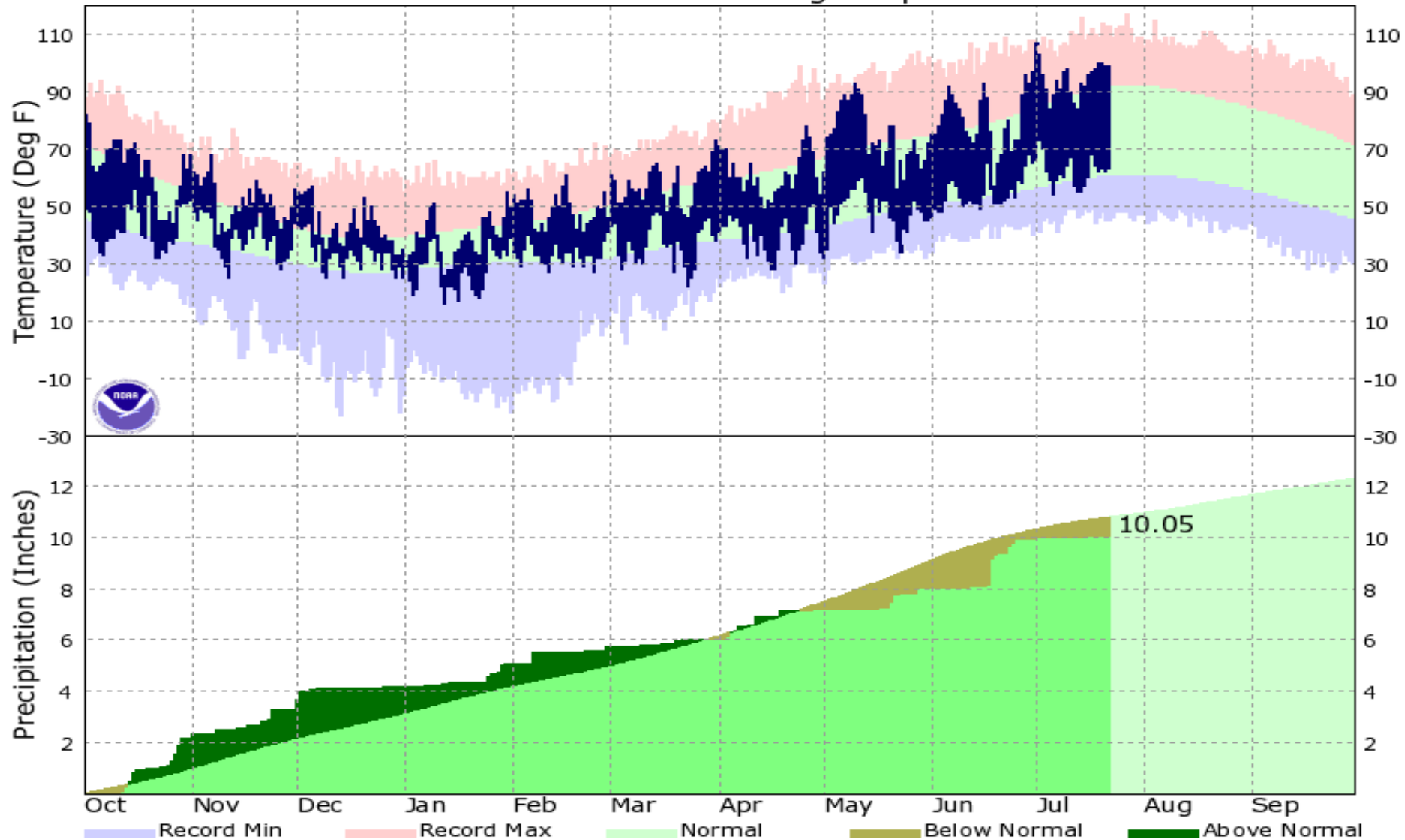
Temperature and Precipitation at Idaho Falls

IDAHO FALLS, ID - Oct 2012 Through Sep 2013

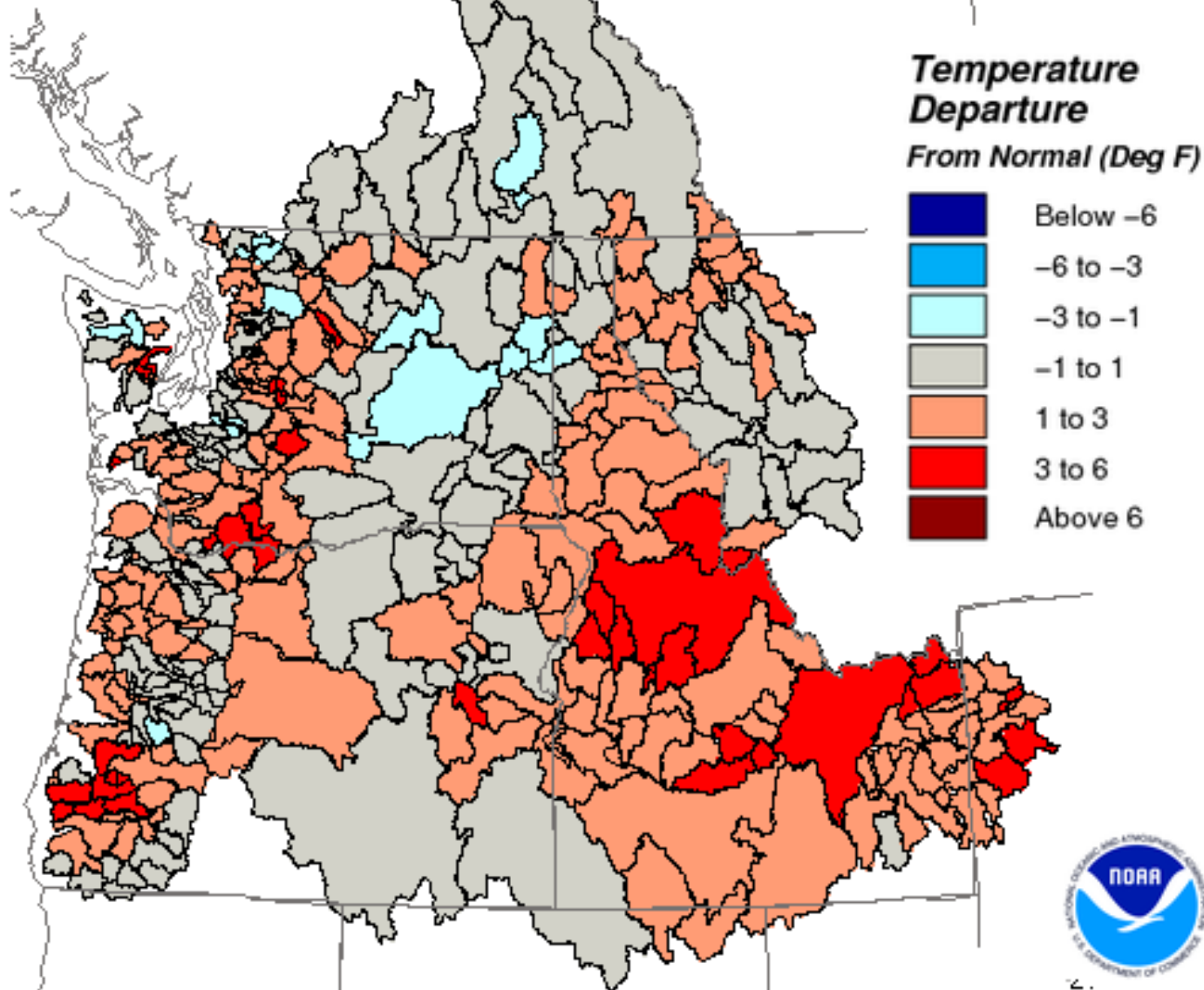


Temperature and Precipitation at Lewiston

KLWS - Oct 2012 Through Sep 2013

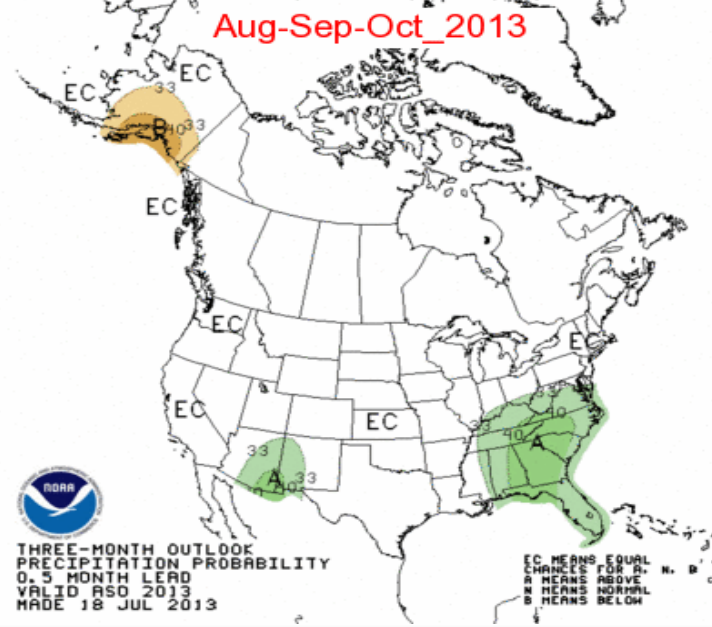
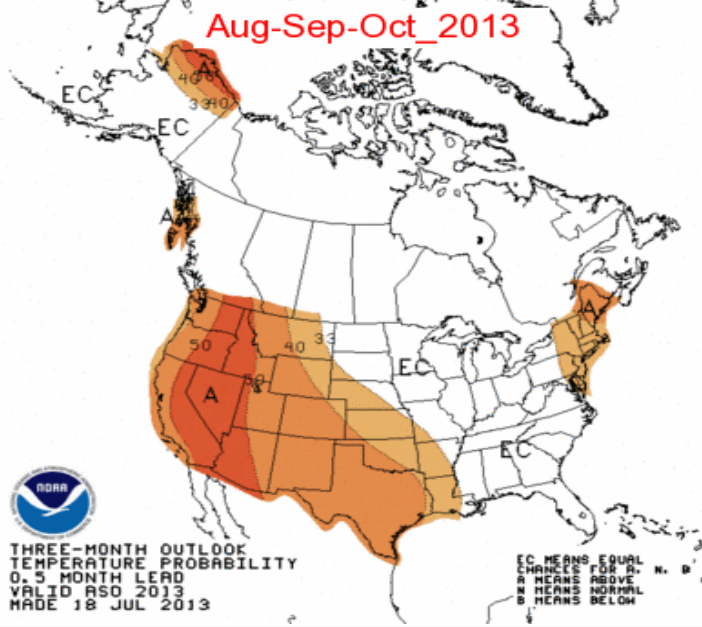
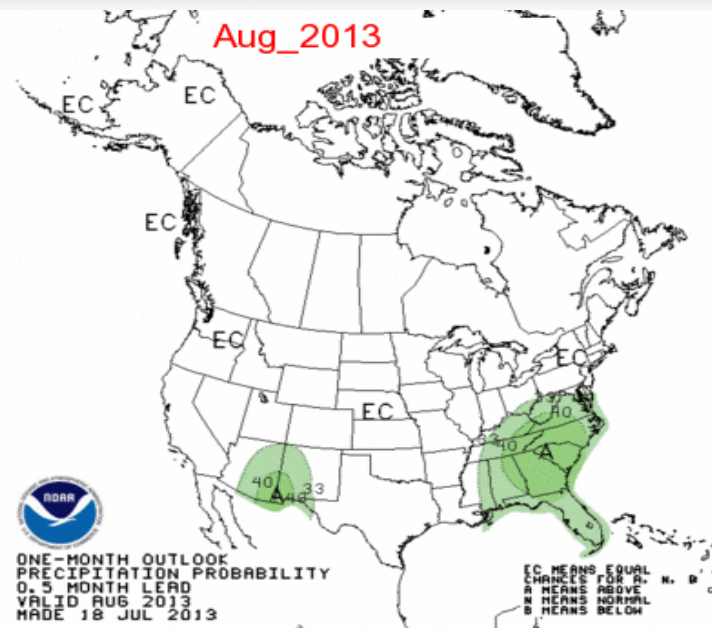
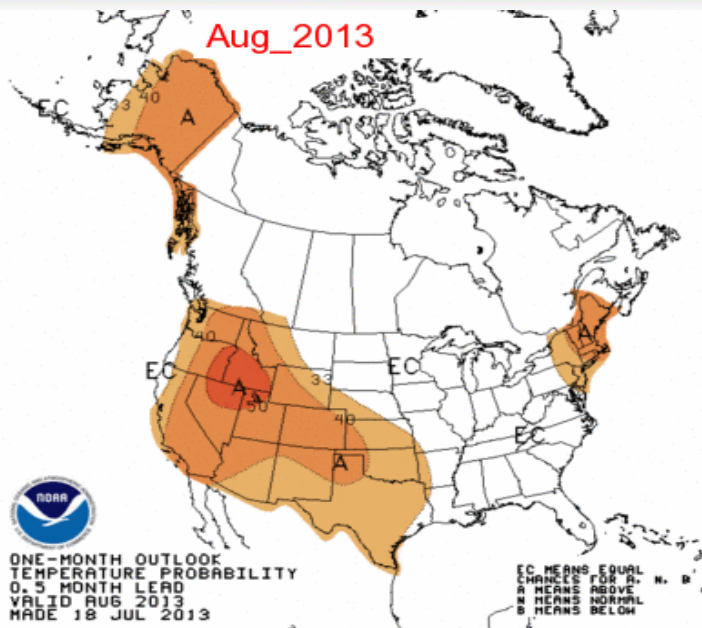


Temperature Departure June 2013



Creation Date: Wednesday, Jul 17, 2013

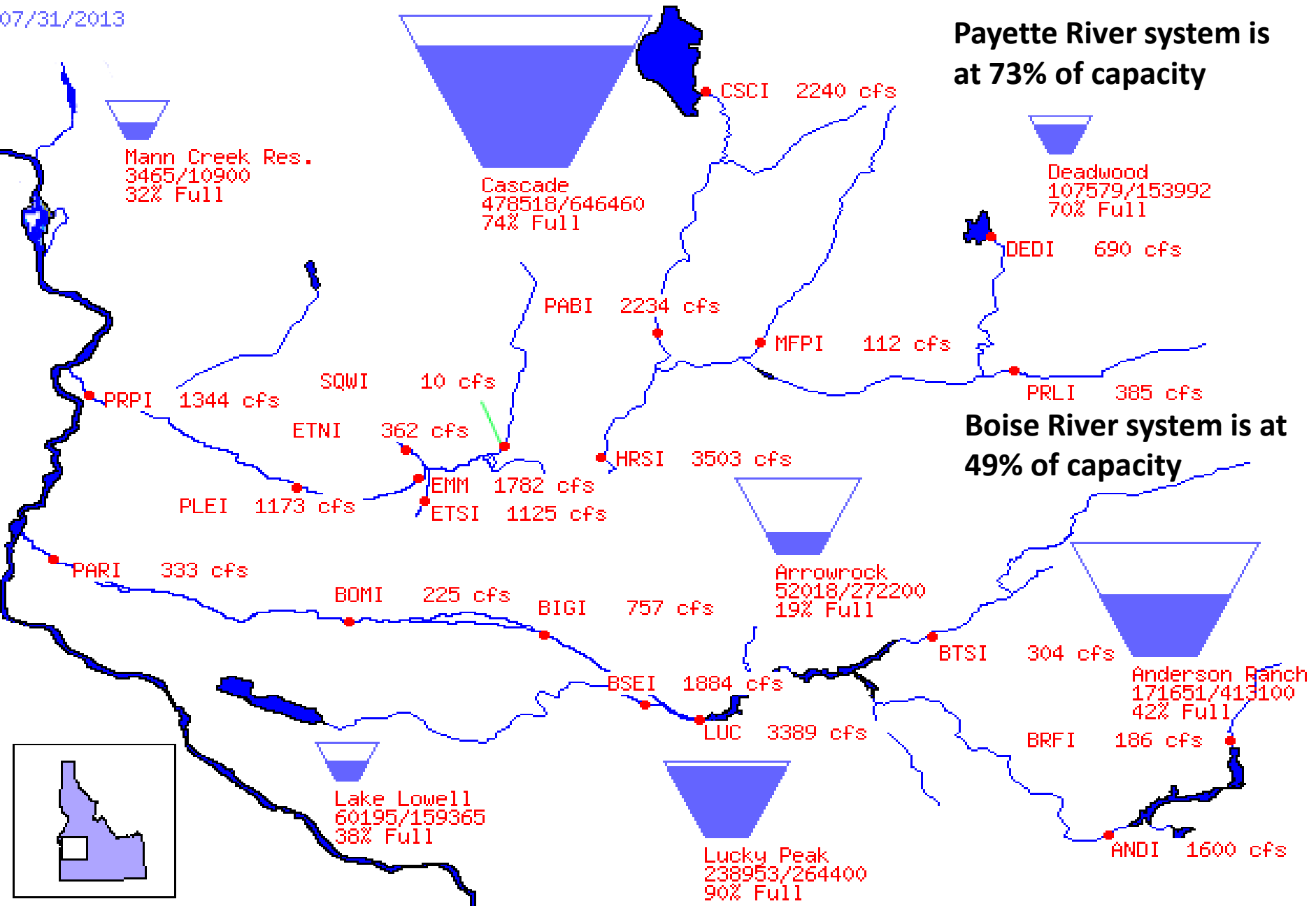
Northwest River Forecast Center



Bureau of Reclamation, Pacific Northwest Region

Major Storage Reservoirs in the Boise & Payette River Basins

07/31/2013

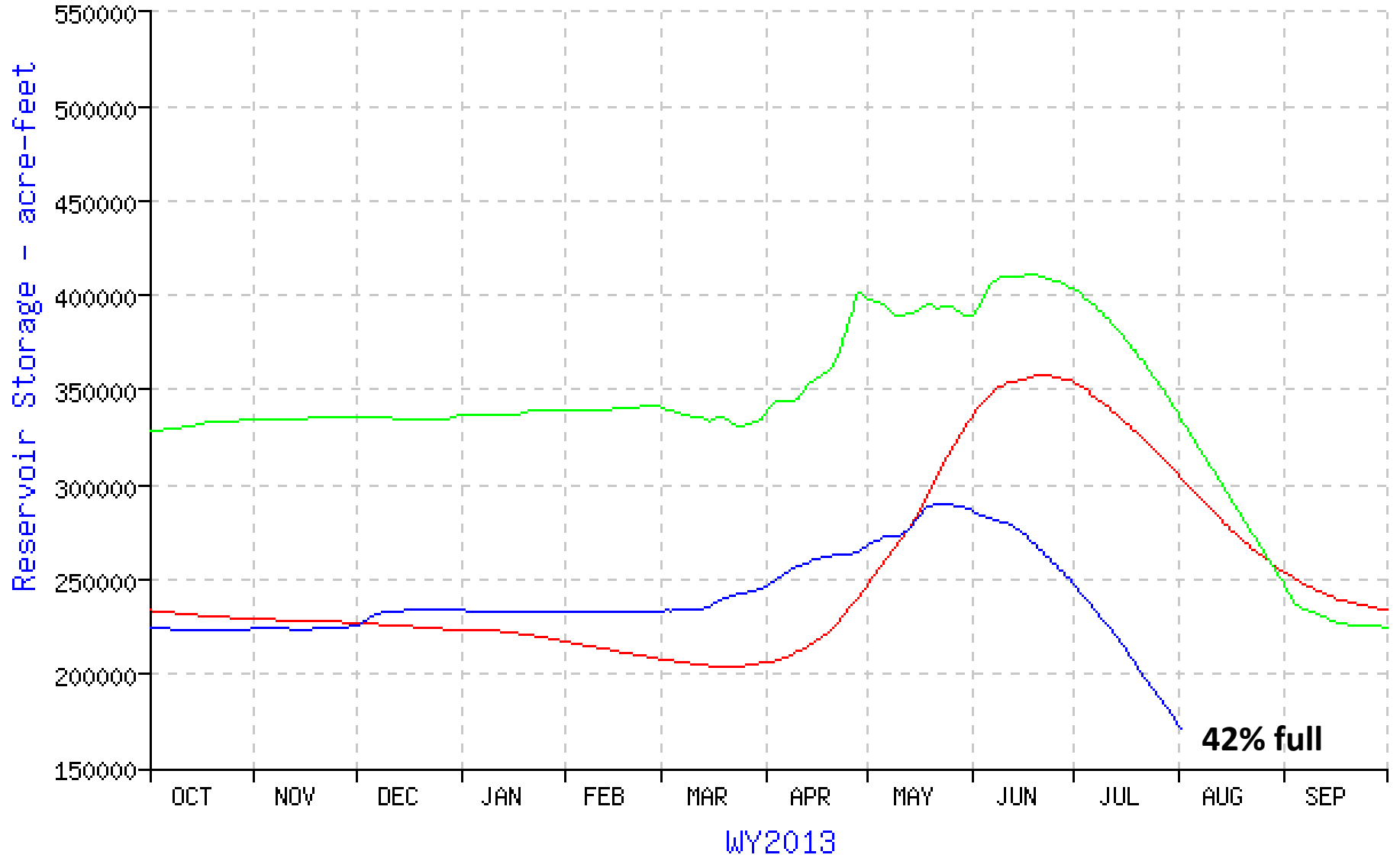


Payette River system is at 73% of capacity

Boise River system is at 49% of capacity

Anderson Ranch Reservoir

- Current Year
- Previous Year
- Average

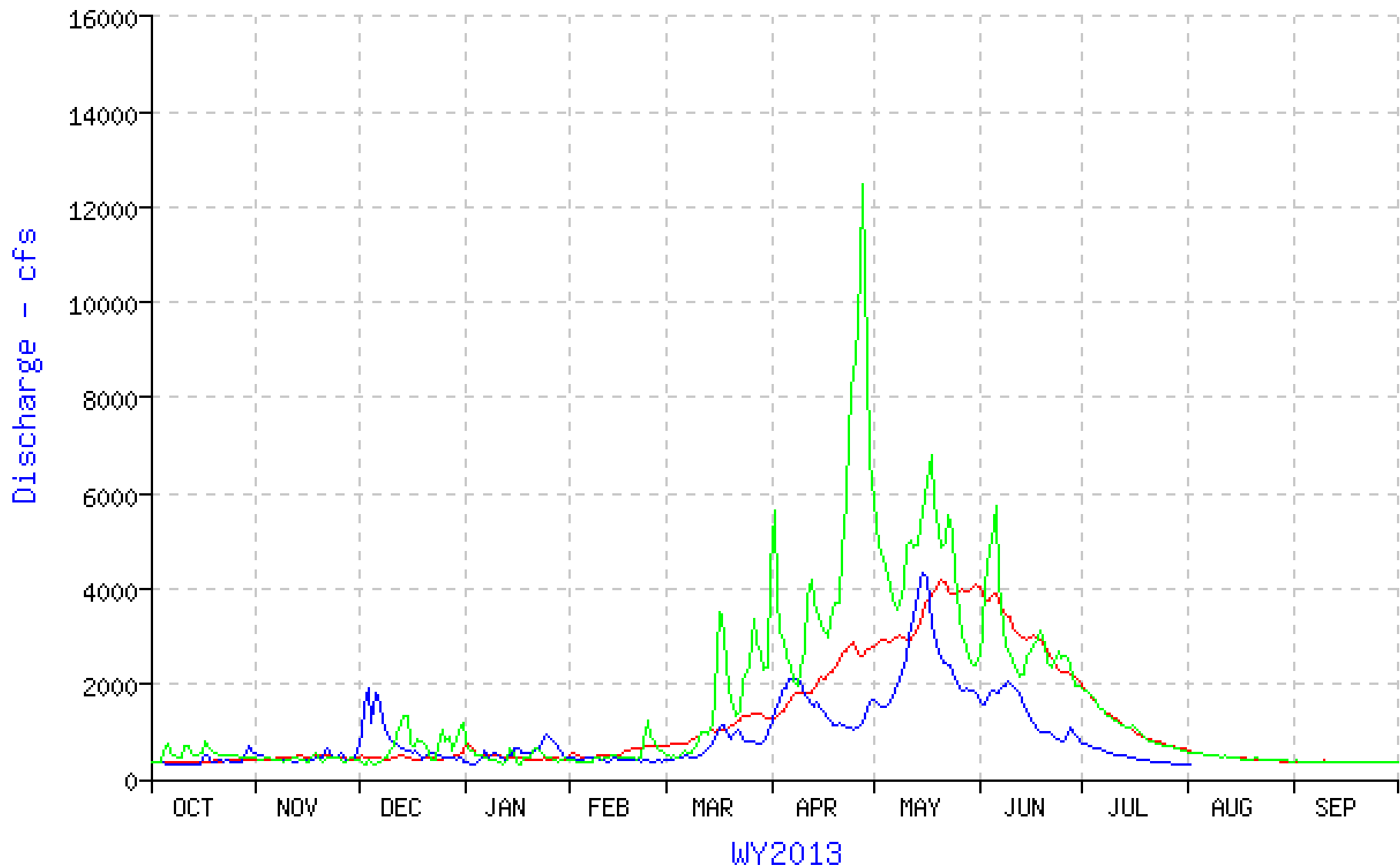


42% full

WY2013

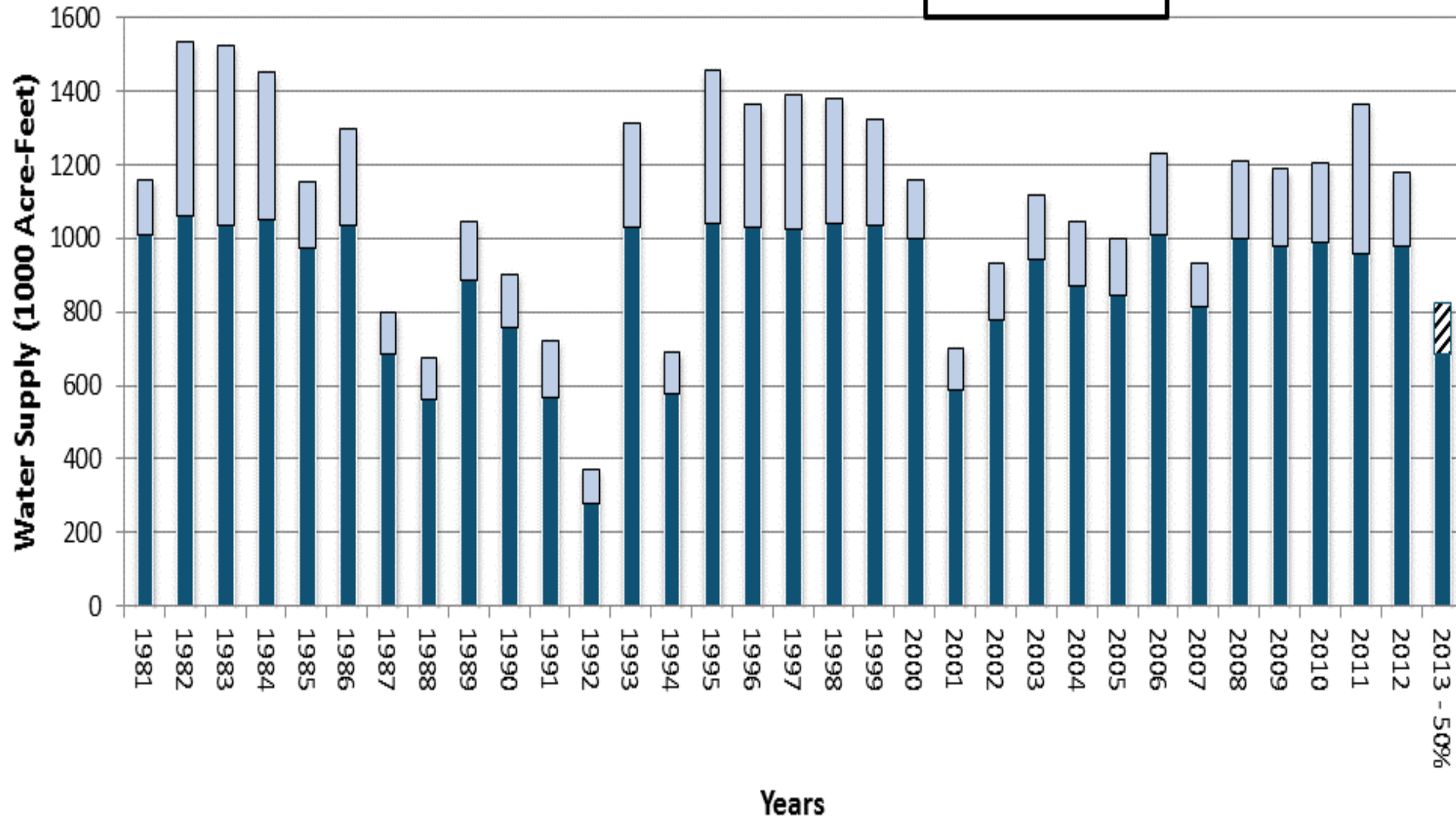
Boise River near Twin Springs

- Current Year
- Previous Year
- Average



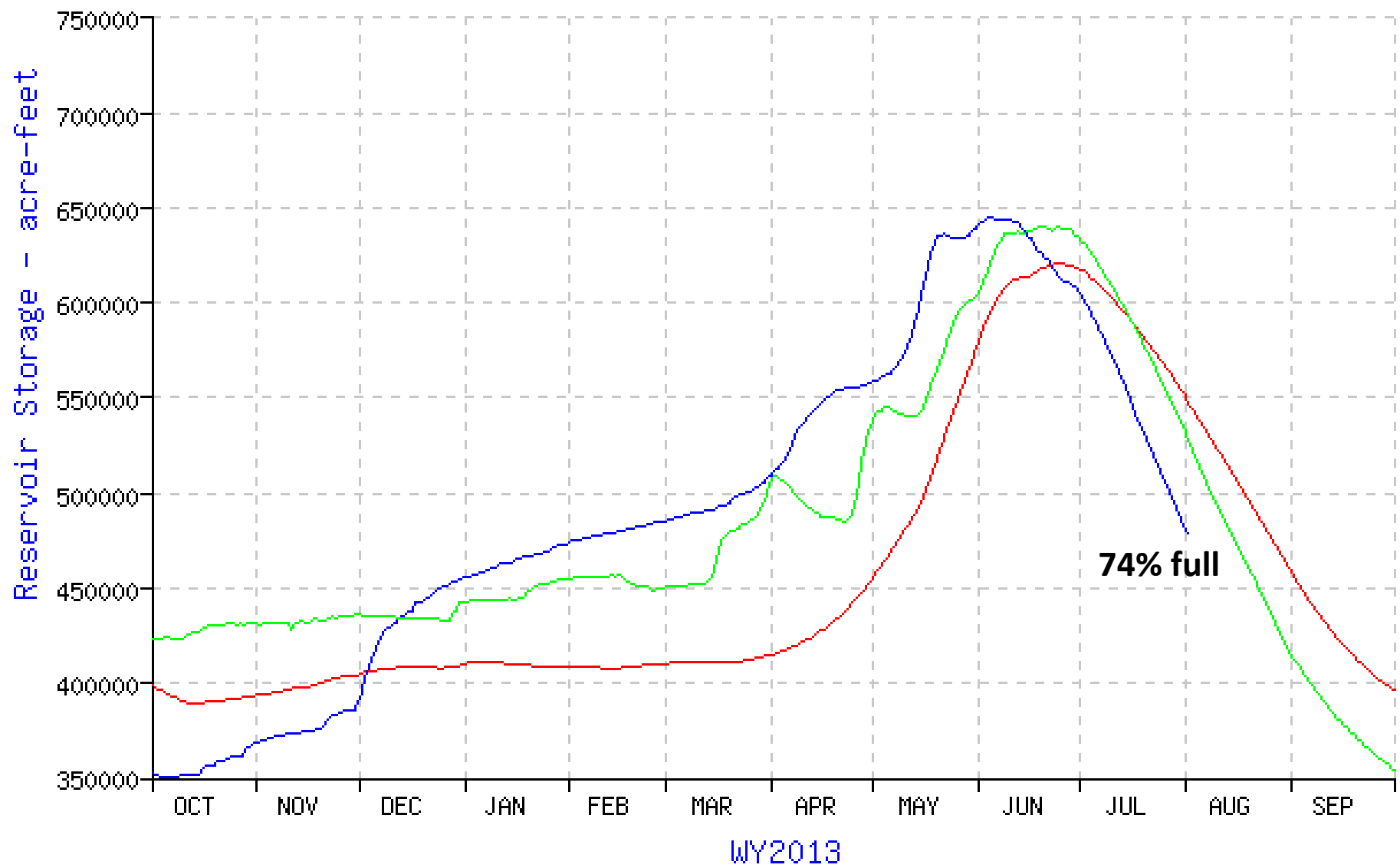


Jul 1 Historic and Forecasted Surface Water Supply Boise River Basin



Lake Cascade

- Current Year
- Previous Year
- Average



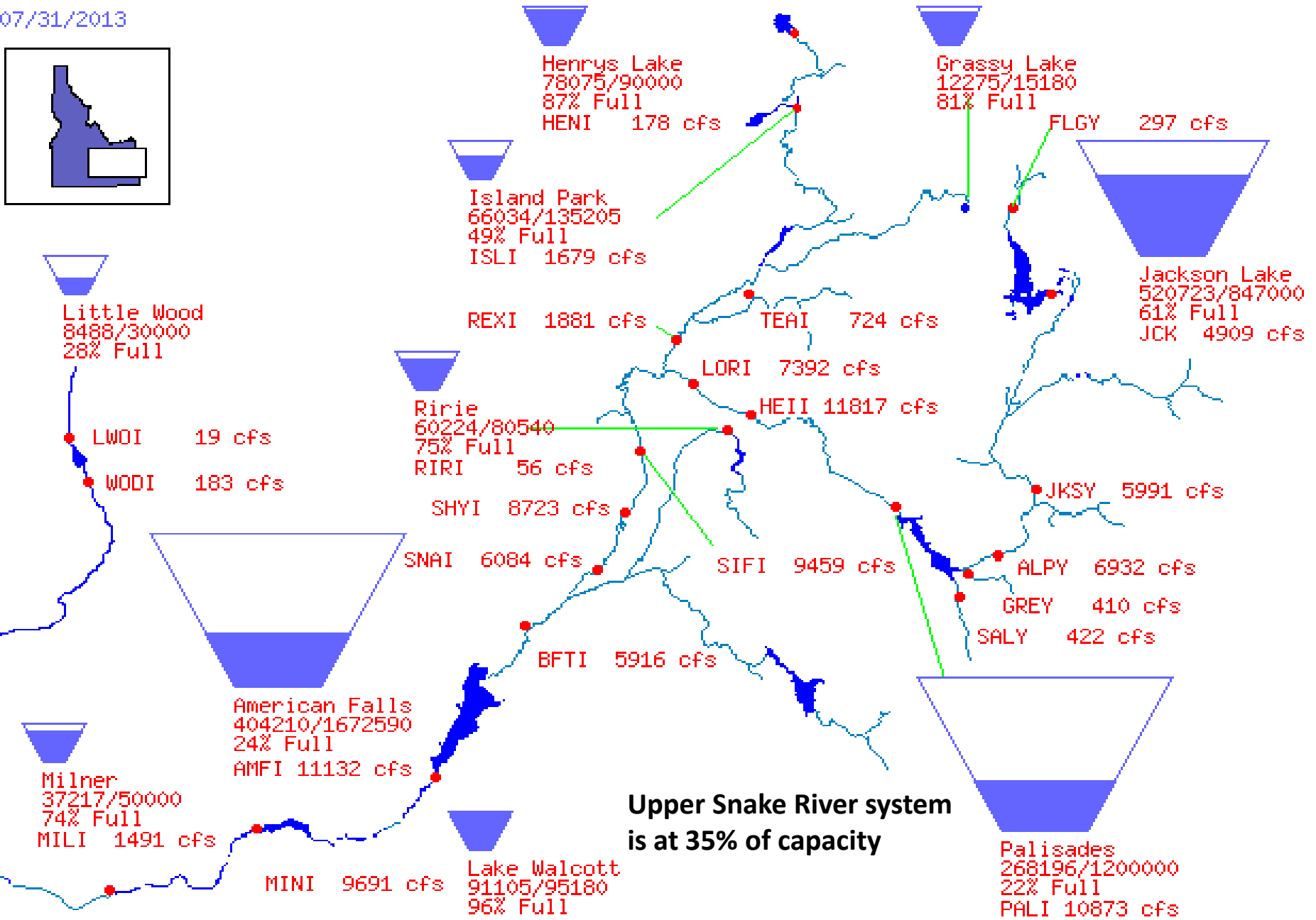
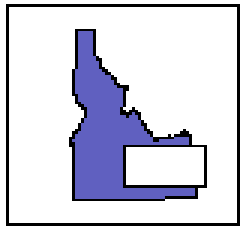
74% full

WY2013

Bureau of Reclamation, Pacific Northwest Region

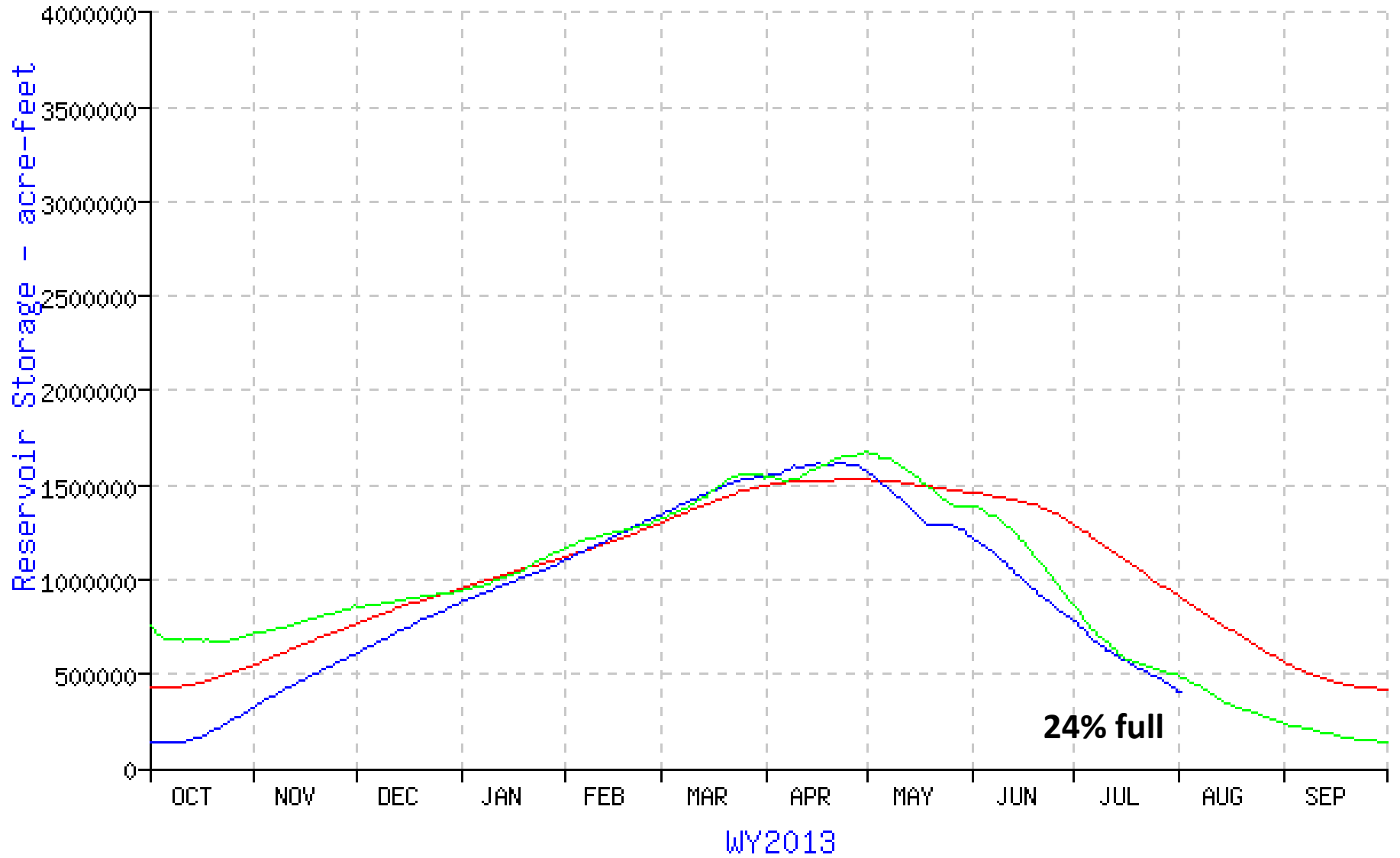
Major Storage Reservoirs in the Upper Snake River Basin

07/31/2013



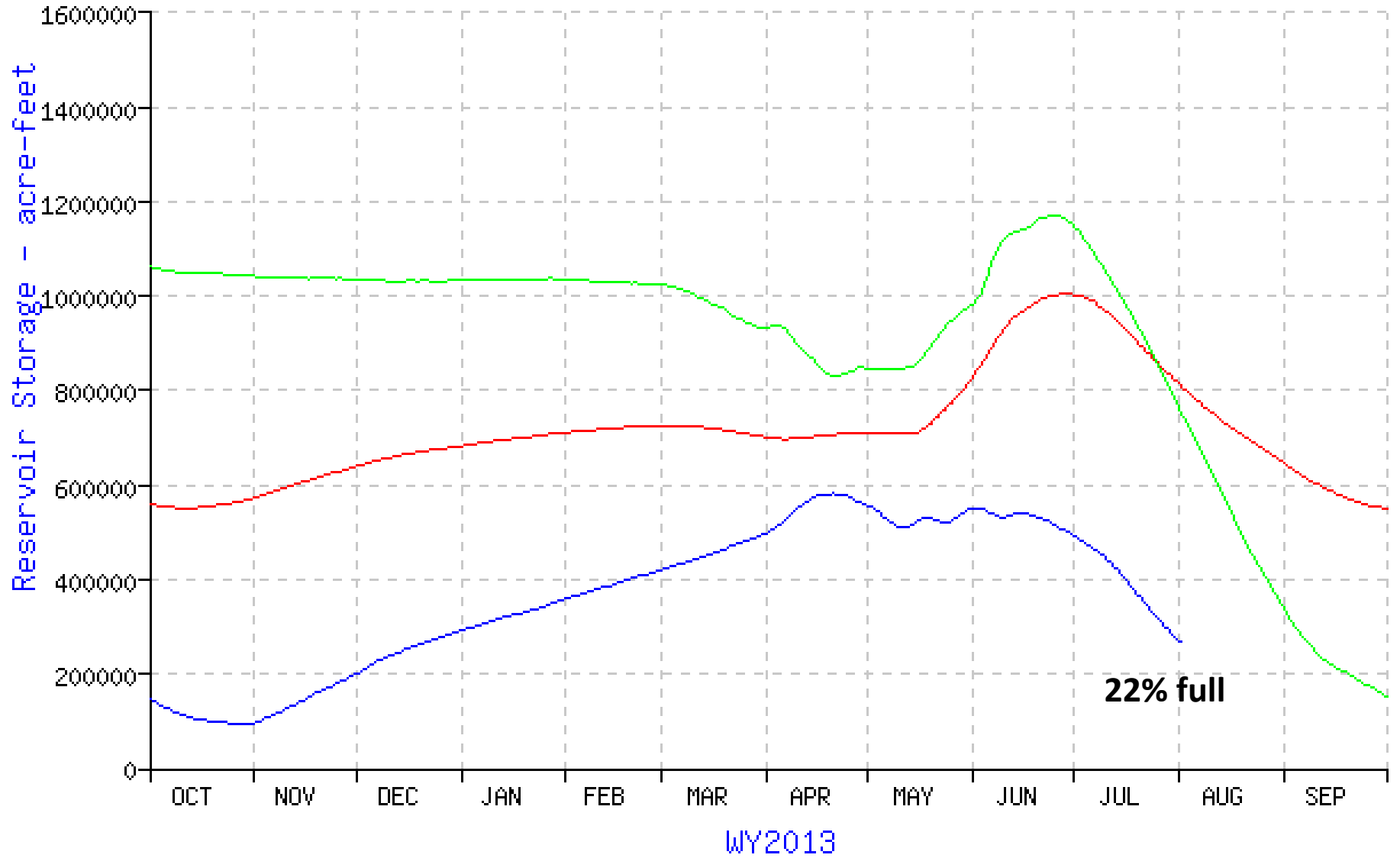
American Falls Reservoir

- Current Year
- Previous Year
- Average



Palisades Reservoir

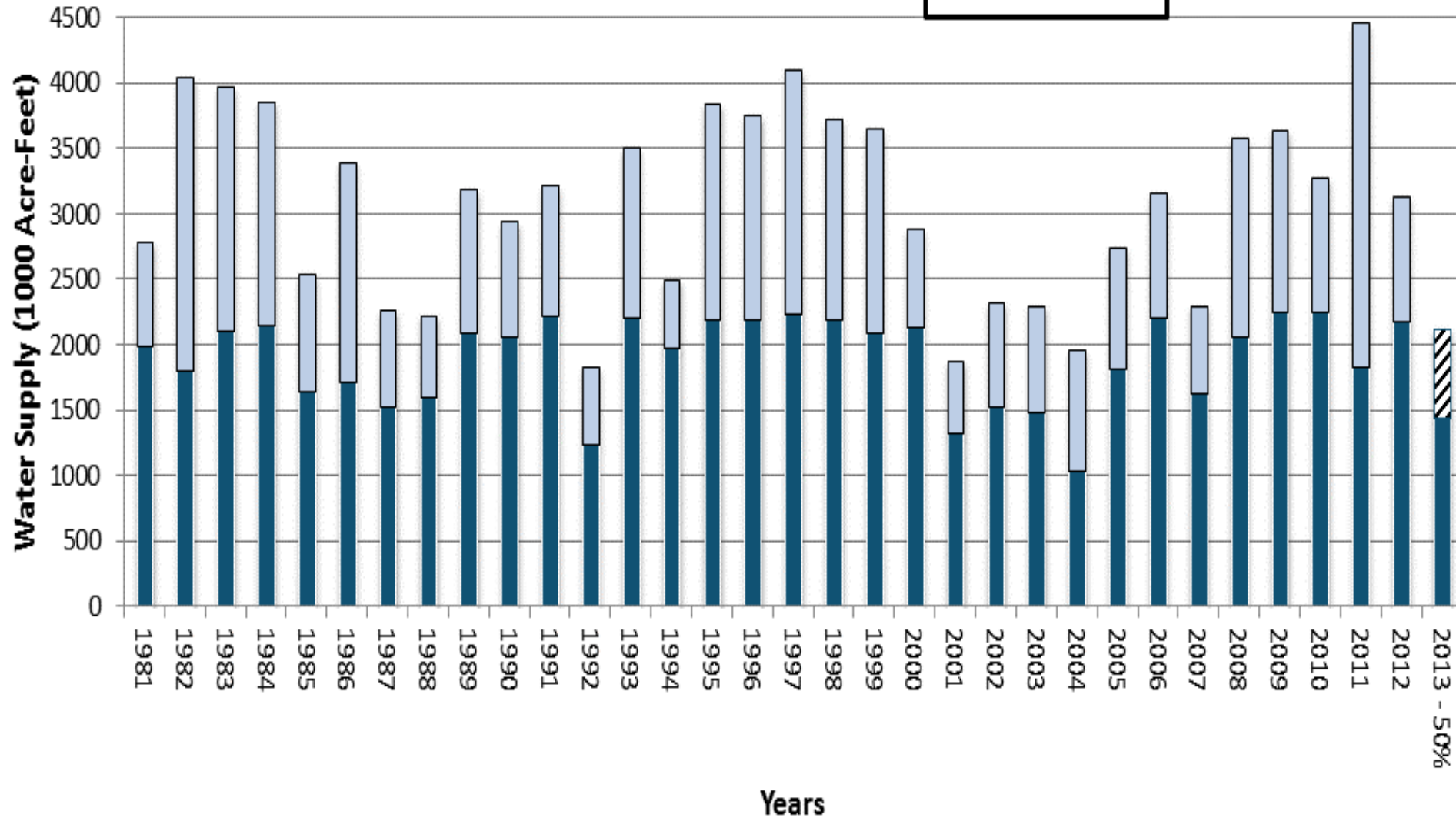
- Current Year
- Previous Year
- Average



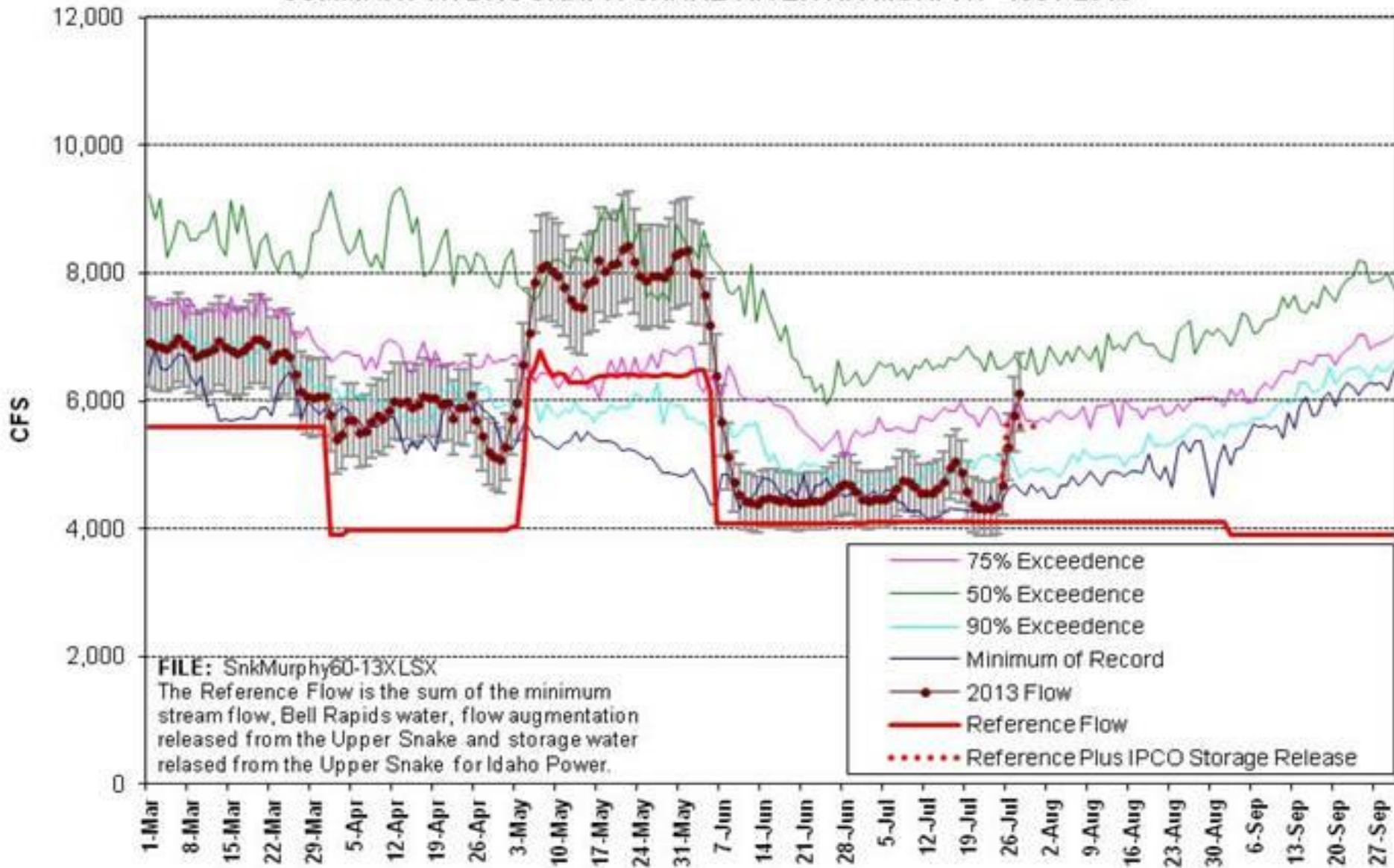
22% full

Jul 1 Historic and Forecasted Surface Water Supply Snake River Near Heise

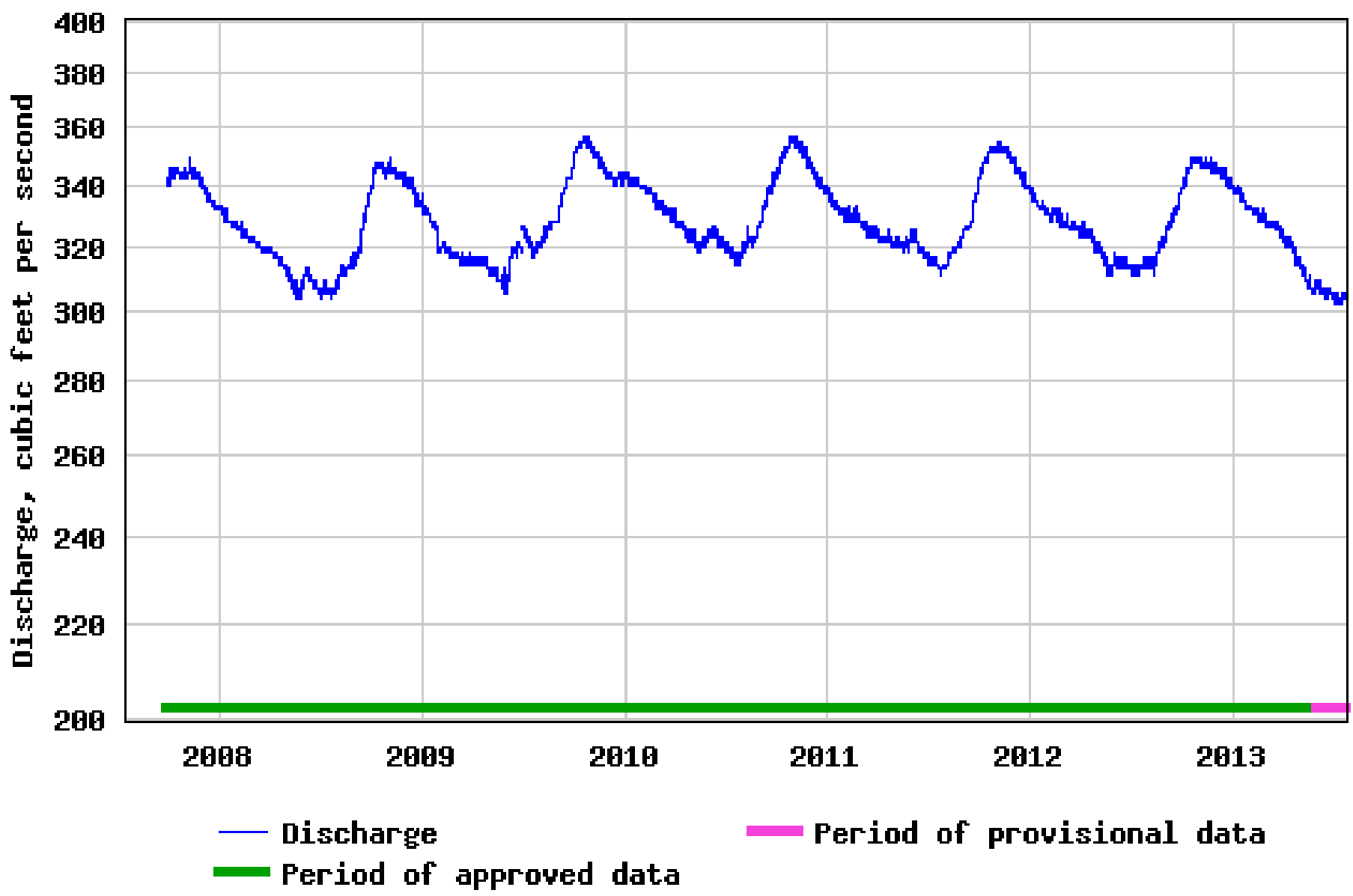
■ StreamFlow Jul-Sep
■ Reservoir 30-Jun



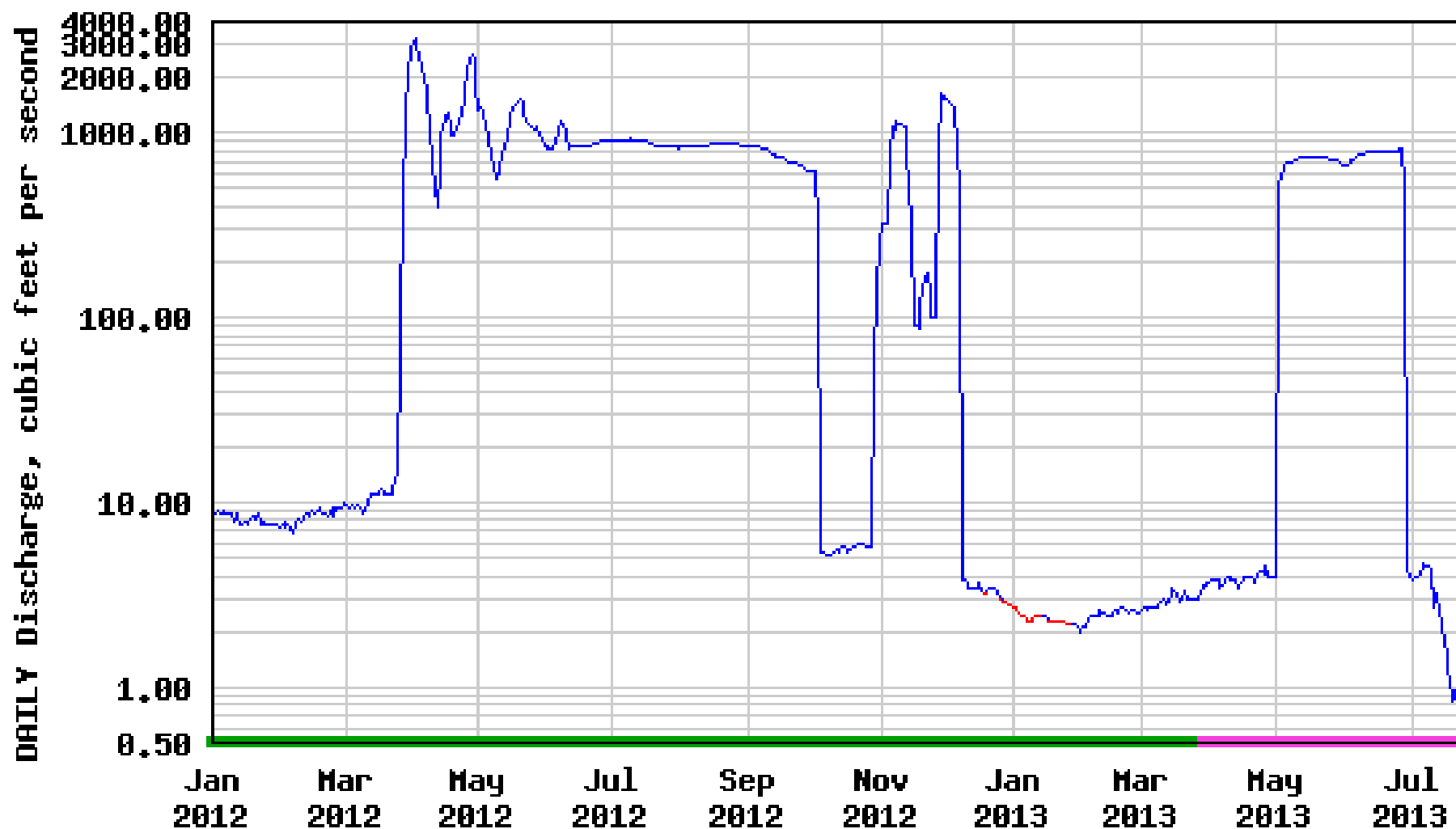
SUMMARY HYDROGRAPH SNAKE RIVER NR MURPHY 1981-2013



USGS 13095500 BOX CANYON SPRINGS NR WENDELL ID

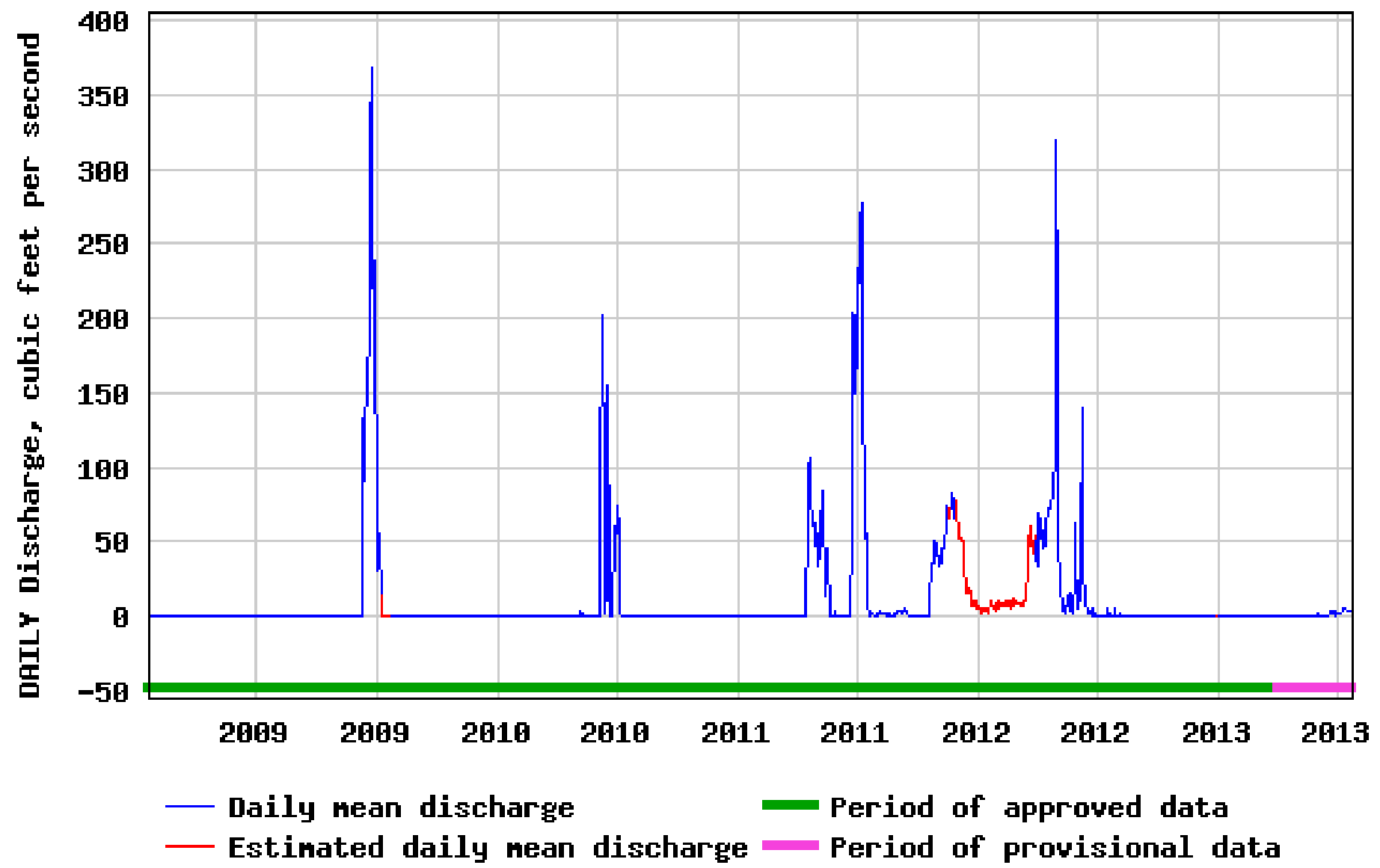


USGS 13142500 BIG WOOD RIVER BL MAGIC DAM NR RICHFIELD ID

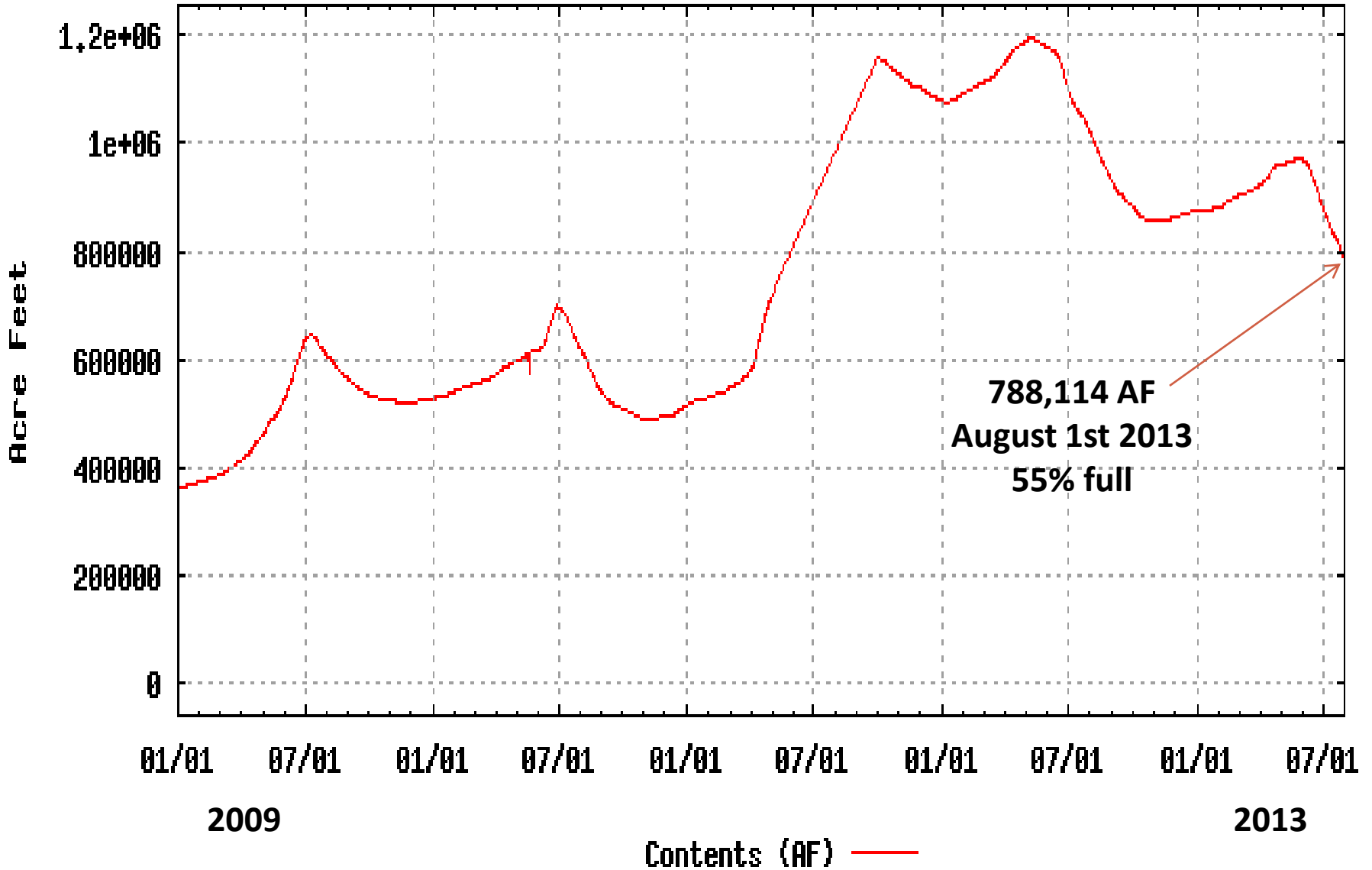


- Daily mean discharge
- Estimated daily mean discharge
- Period of approved data
- Period of provisional data

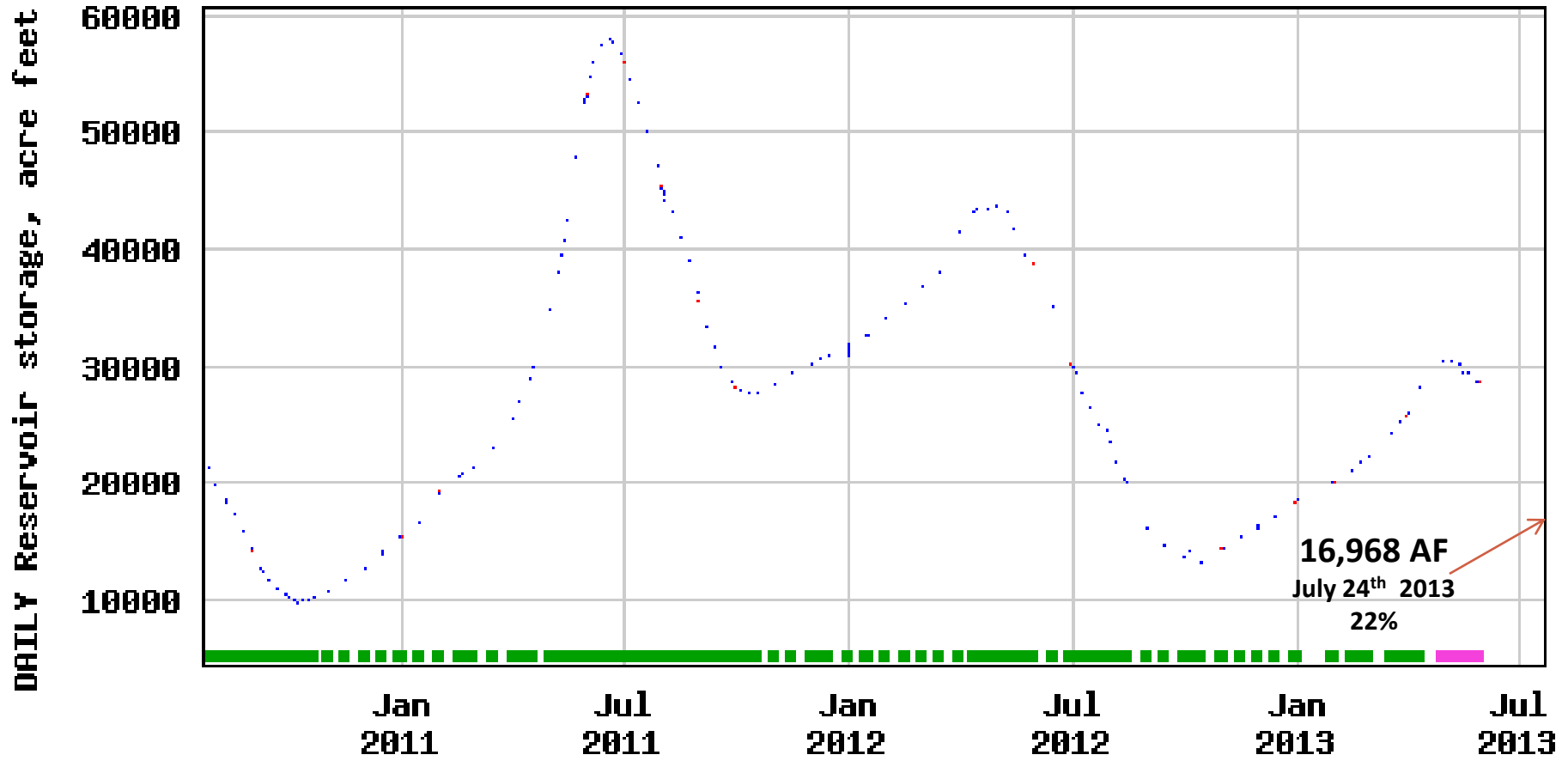
USGS 13132500 BIG LOST RIVER NR ARCO ID



Bear Lake Reservoir



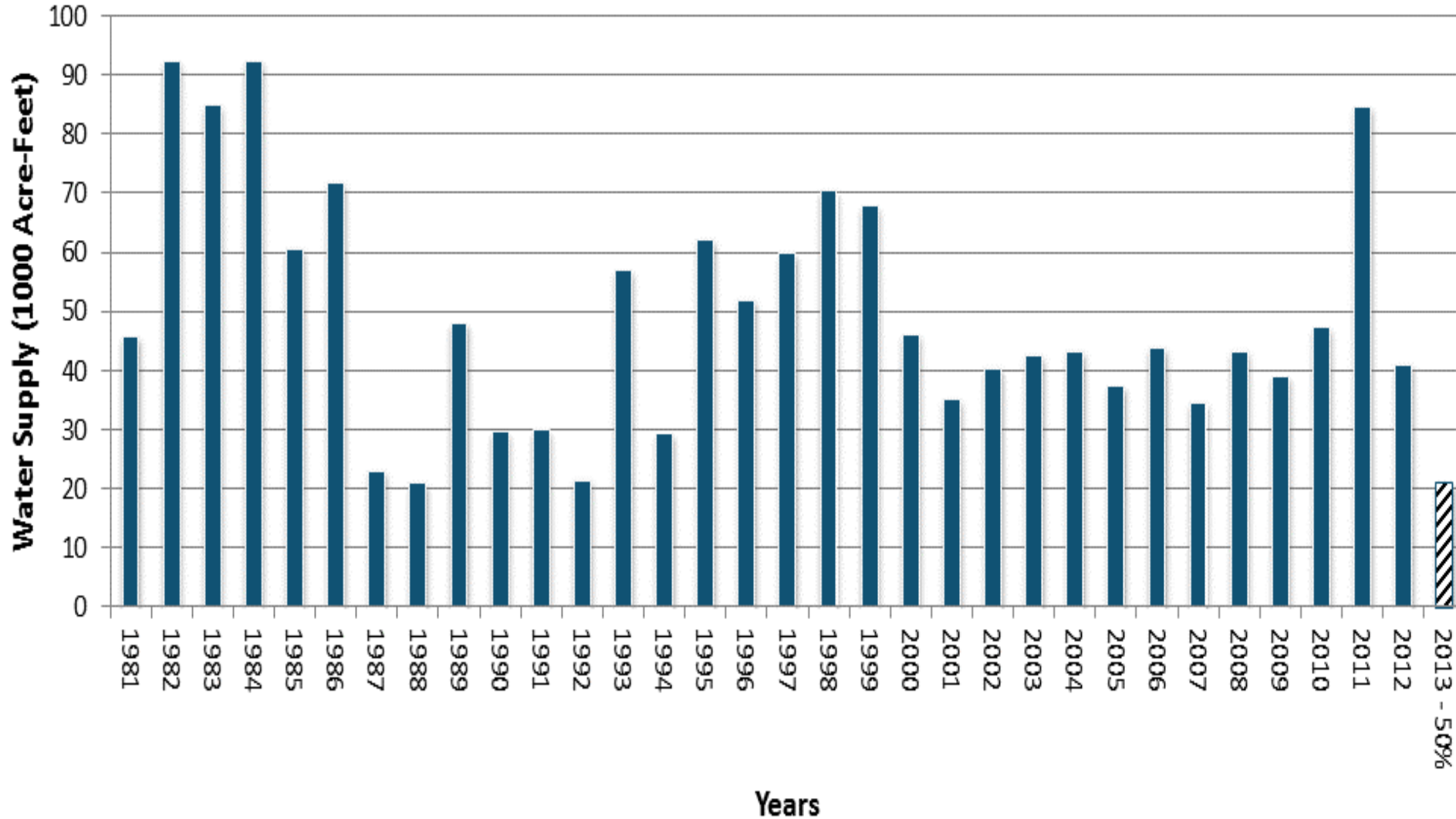
USGS 13083500 OAKLEY RESERVOIR NR OAKLEY ID



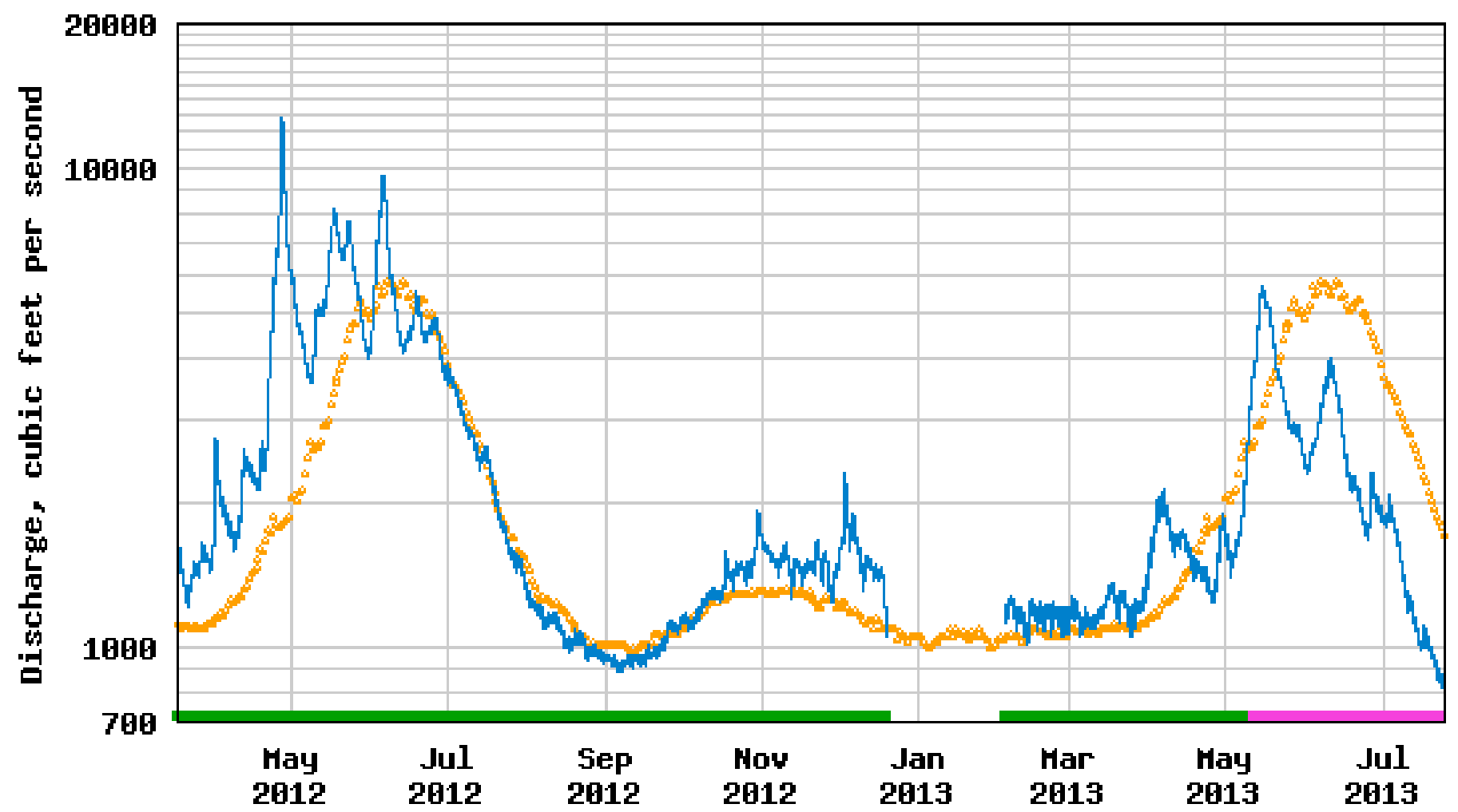
- Daily instantaneous reservoir storage
- Estimated daily instantaneous reservoir storage
- █ Period of approved data
- █ Period of provisional data

**Jul 1 Historic and Forecasted Surface Water Supply
Weiser River Basin**

■ Weiser R nr Weiser

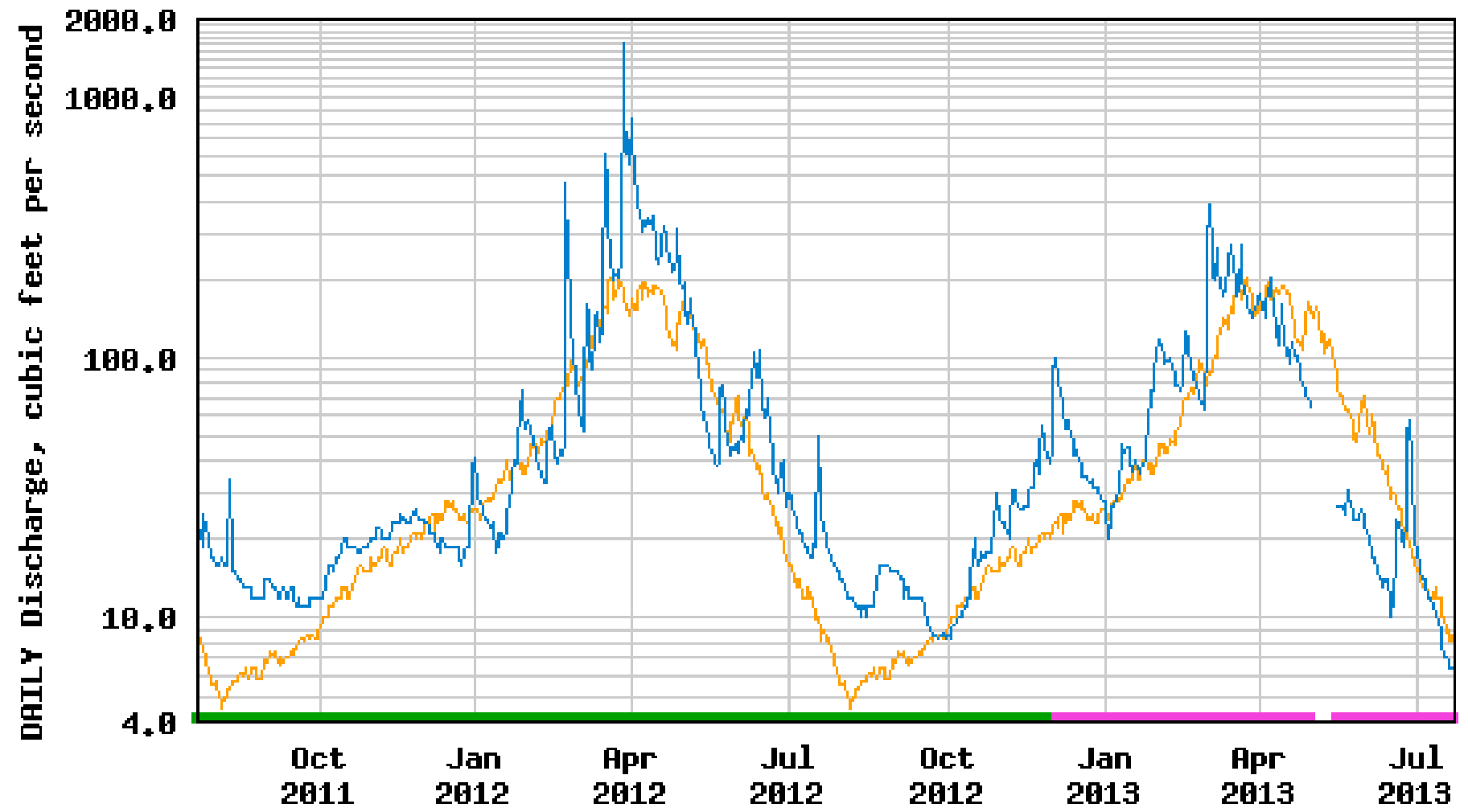


USGS 13302500 SALMON RIVER AT SALMON ID



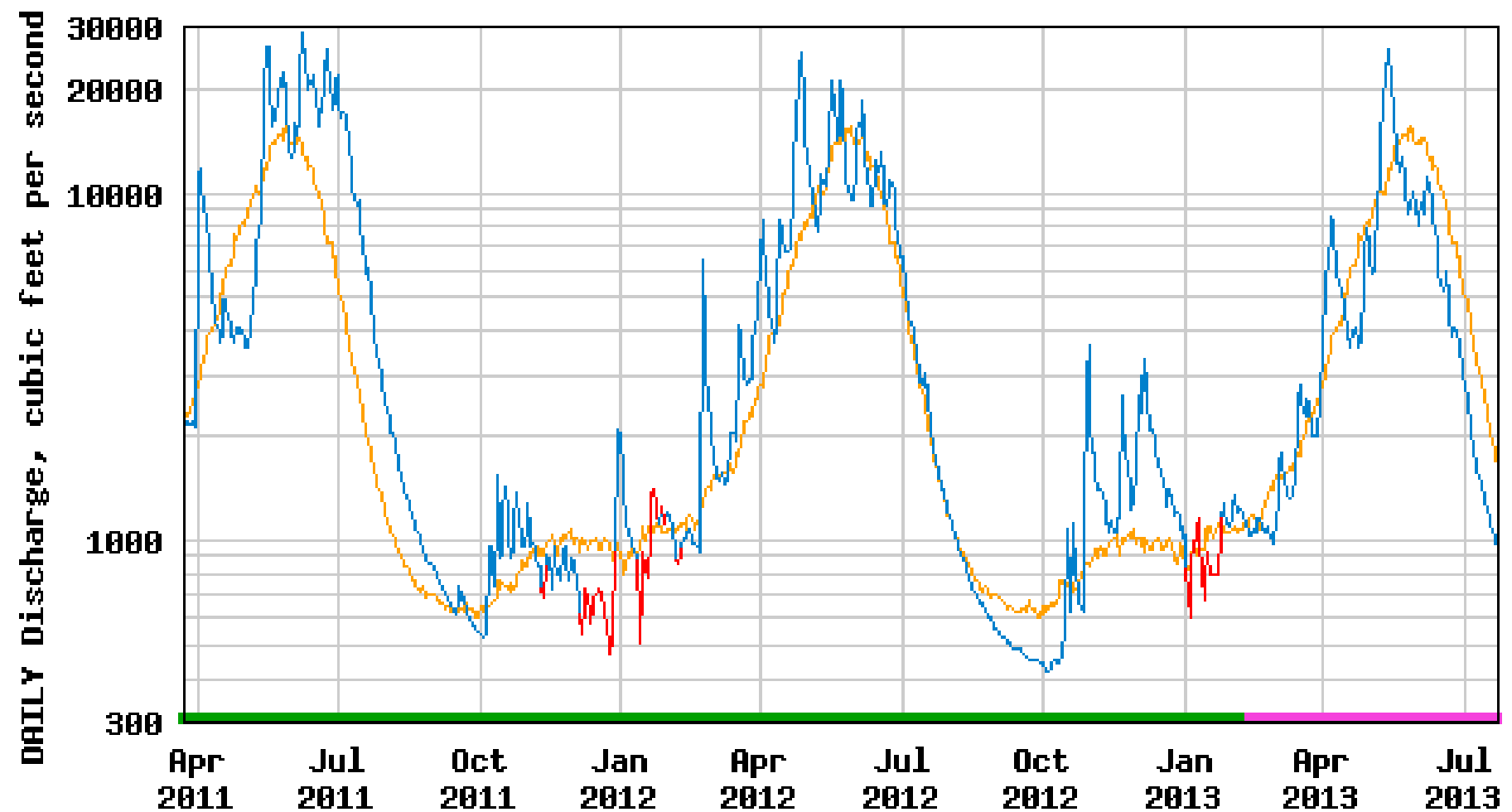
- Median daily statistic (97 years)
- Discharge
- Period of approved data
- Period of provisional data

USGS 13342450 LAPWAI CREEK NR LAPWAI ID



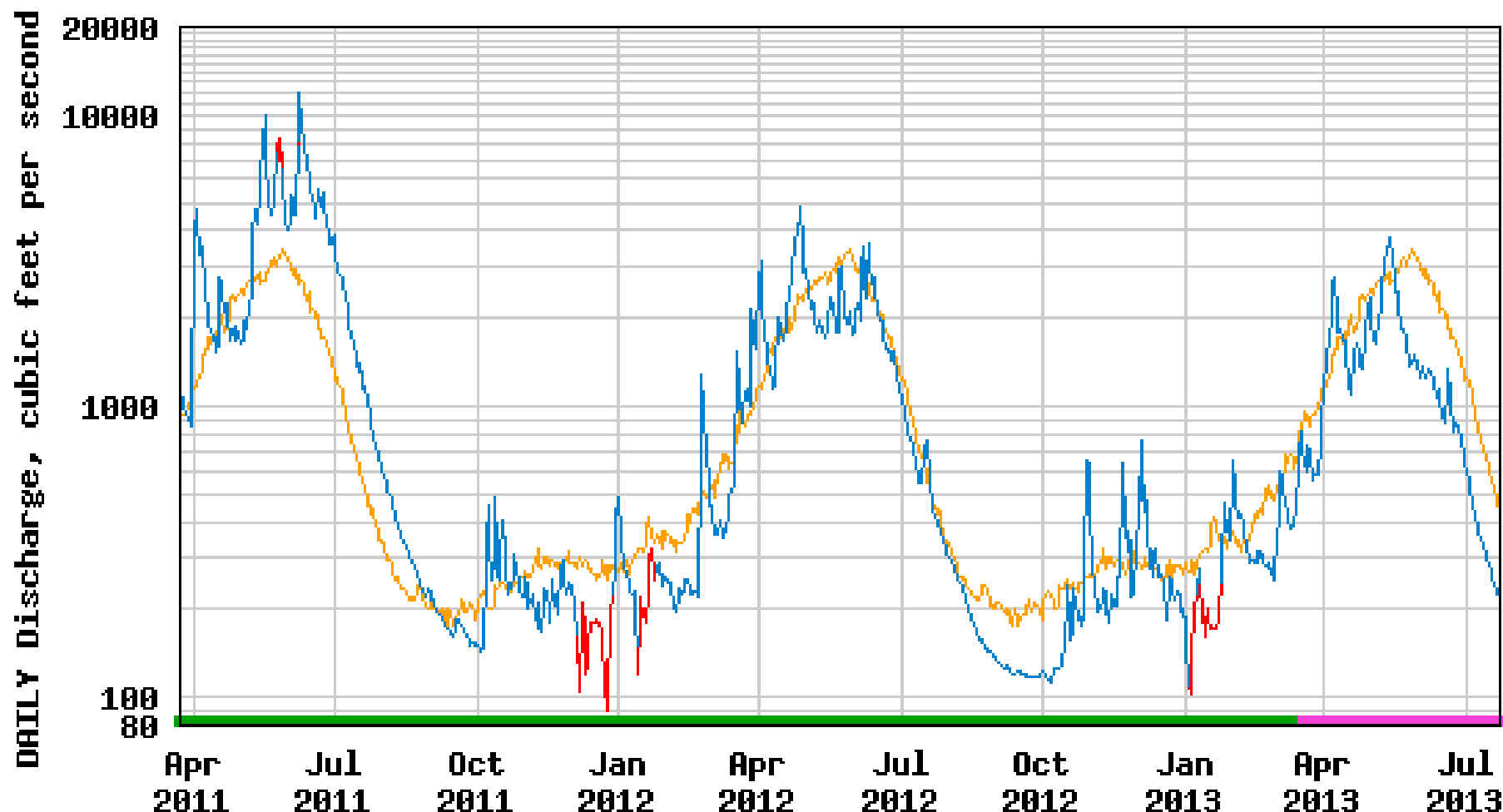
- Median daily statistic (34 years)
- Daily mean discharge
- Period of approved data
- Period of provisional data

USGS 13336500 SELWAY RIVER NR LOWELL ID



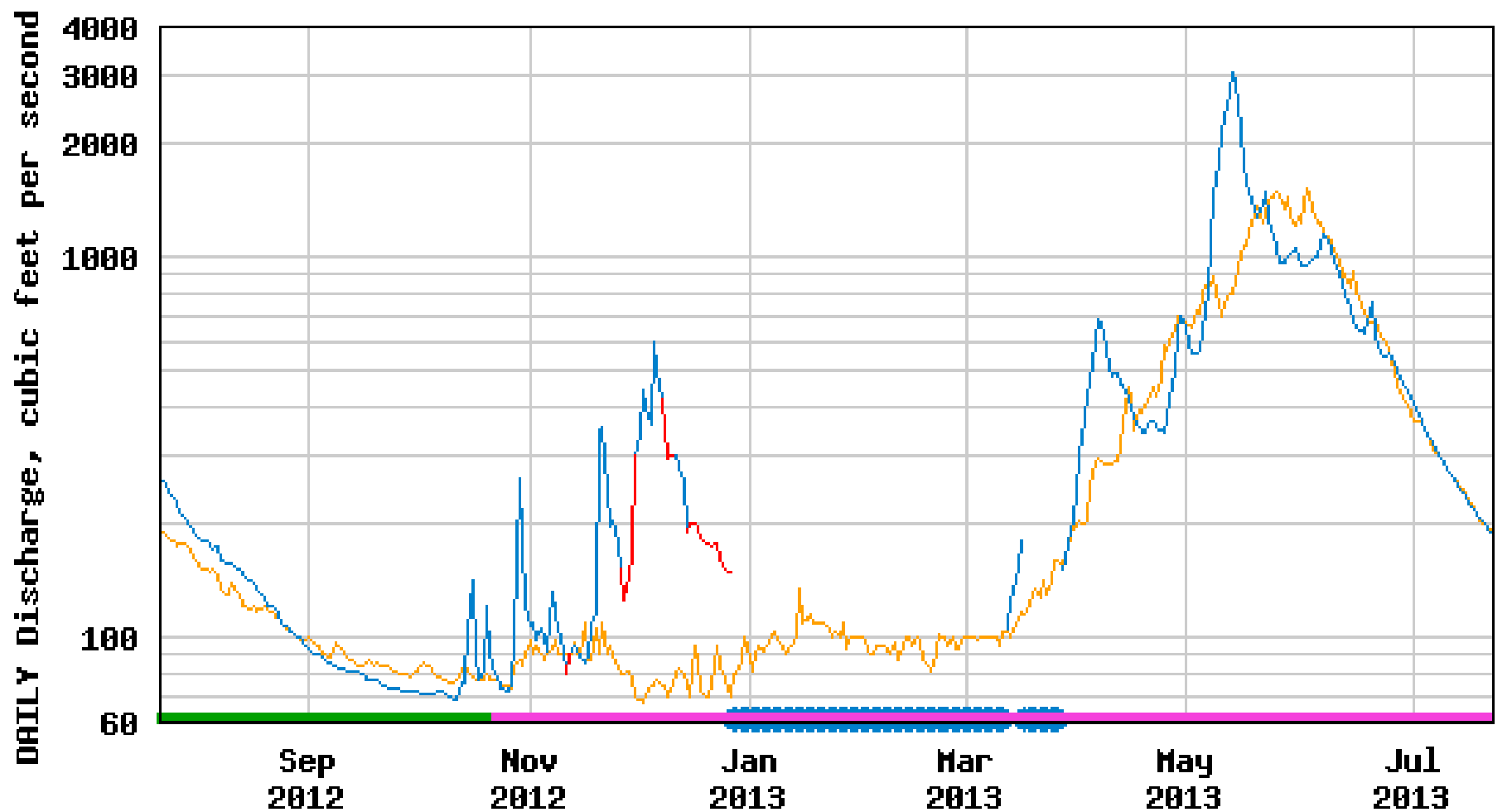
- Median daily statistic (83 years)
- Daily mean discharge
- Estimated daily mean discharge
- Period of approved data
- Period of provisional data

USGS 13338500 SF CLEARWATER RIVER AT STITES ID



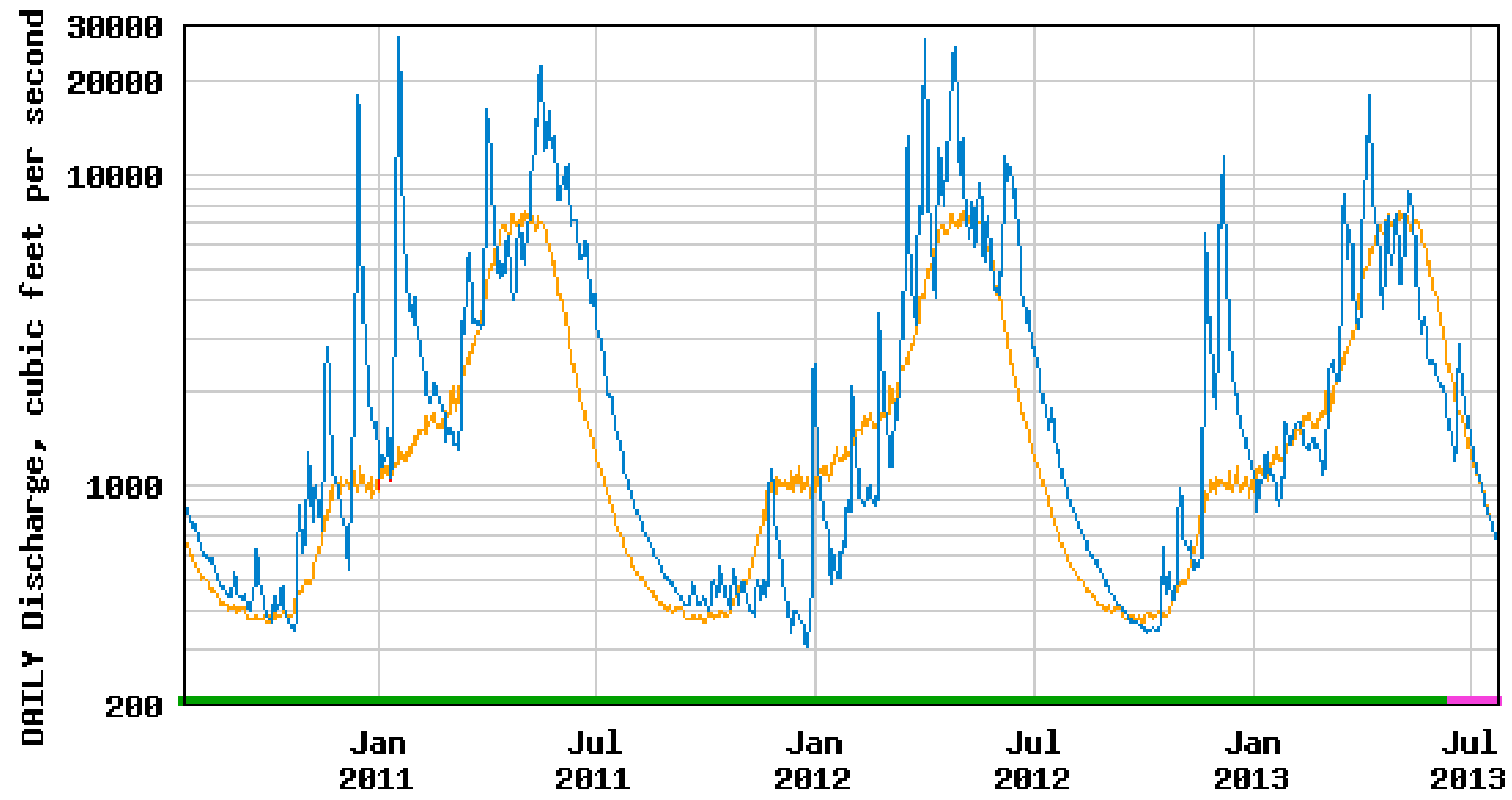
- Median daily statistic (48 years)
- Daily mean discharge
- Estimated daily mean discharge
- Period of approved data
- Period of provisional data

USGS 12413875 ST JOE RIVER AT RED IVES RANGER STATION ID



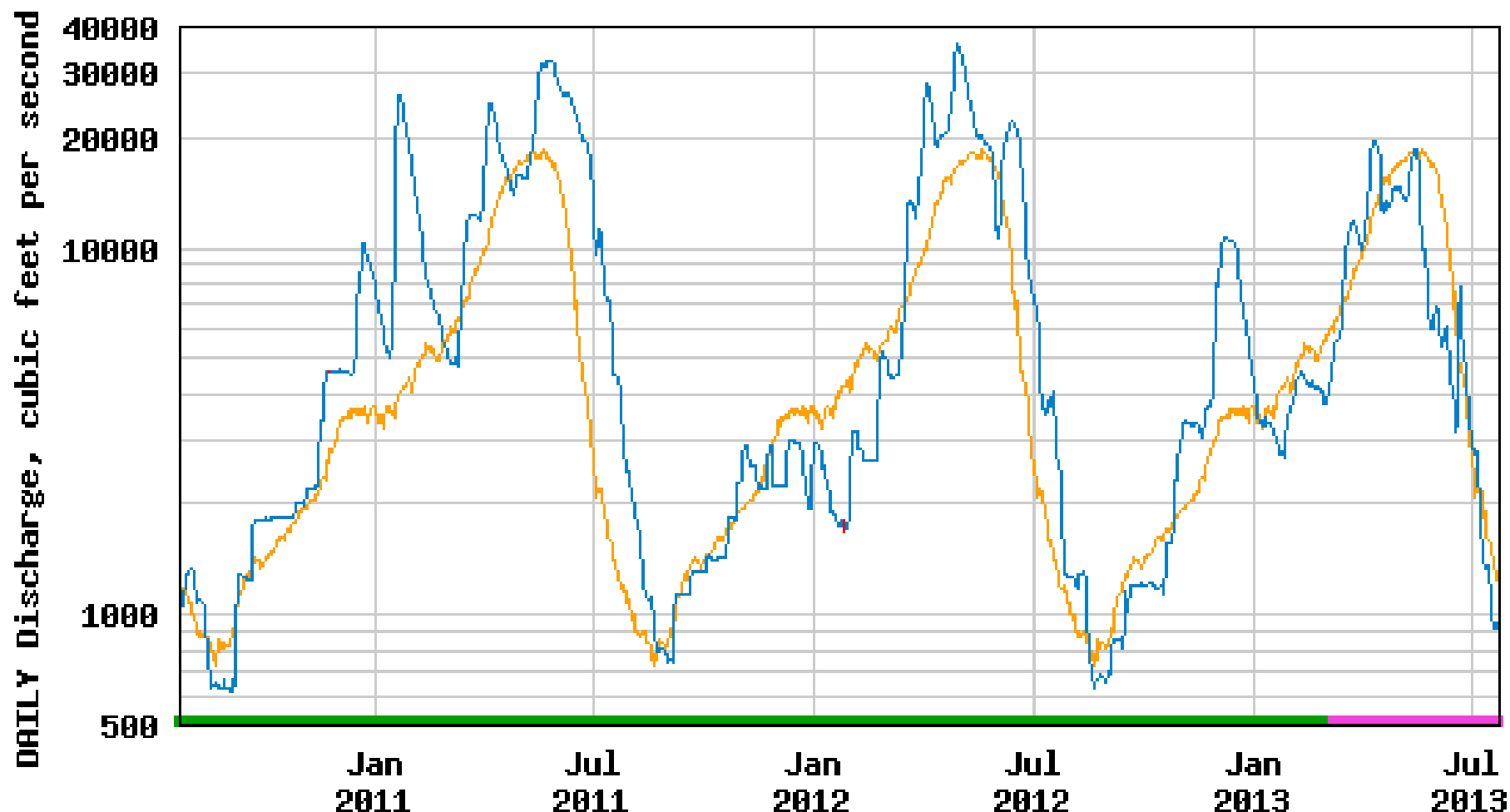
- Median daily statistic (14 years)
- Daily mean discharge
- Estimated daily mean discharge
- Period of approved data
- Flow at station affected by ice
- Period of provisional data

USGS 12413500 COEUR D ALENE RIVER NR CATALDO ID



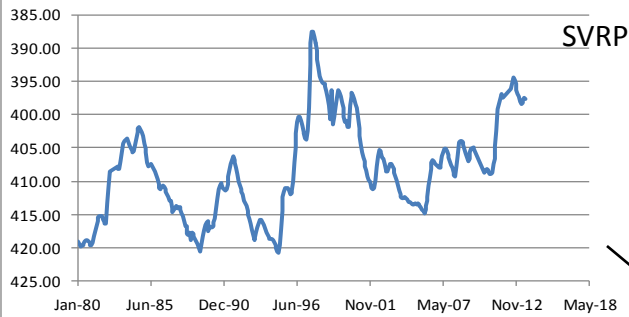
- Median daily statistic (79 years)
- Daily mean discharge
- Estimated daily mean discharge
- Period of approved data
- Period of provisional data

USGS 12419000 SPOKANE RIVER NR POST FALLS ID

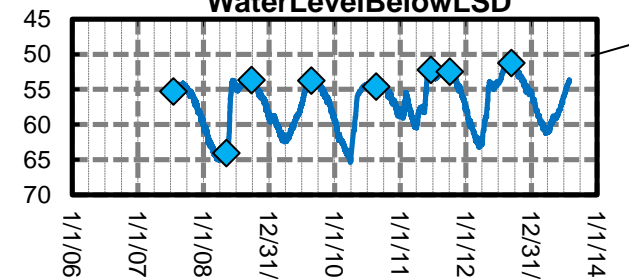


- Median daily statistic (99 years)
- Daily mean discharge
- Estimated daily mean discharge
- Period of approved data
- Period of provisional data

WaterLevelBelowLSD



WaterLevelBelowLSD



Well Hydrographs

Lewiston, ID

WaterLevelBelowLSD

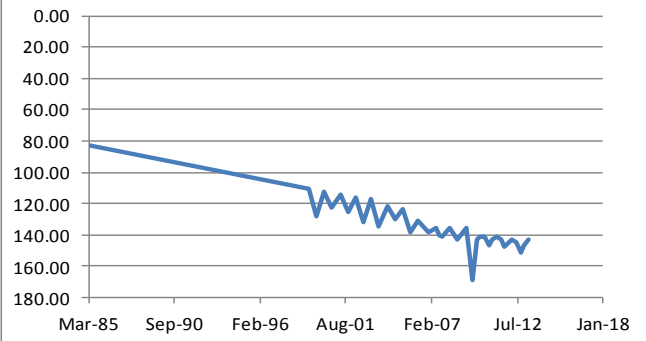


35N 05W 10BCA1

35N 05W 21CDB1

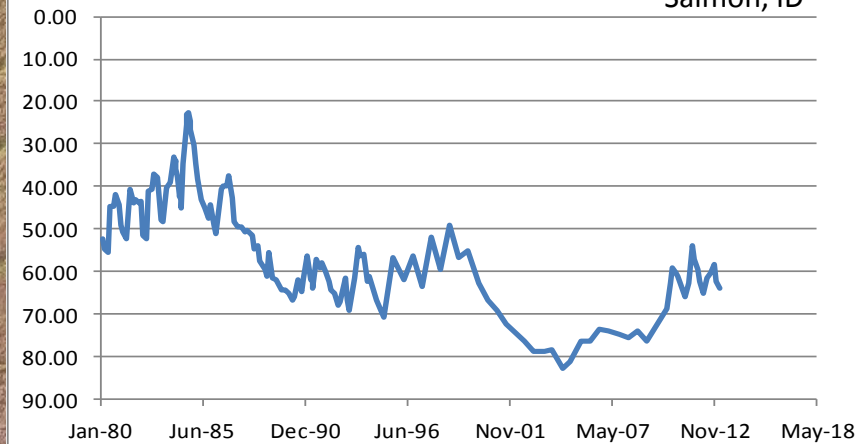
Lewiston, ID

WaterLevelBelowLSD

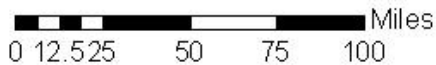


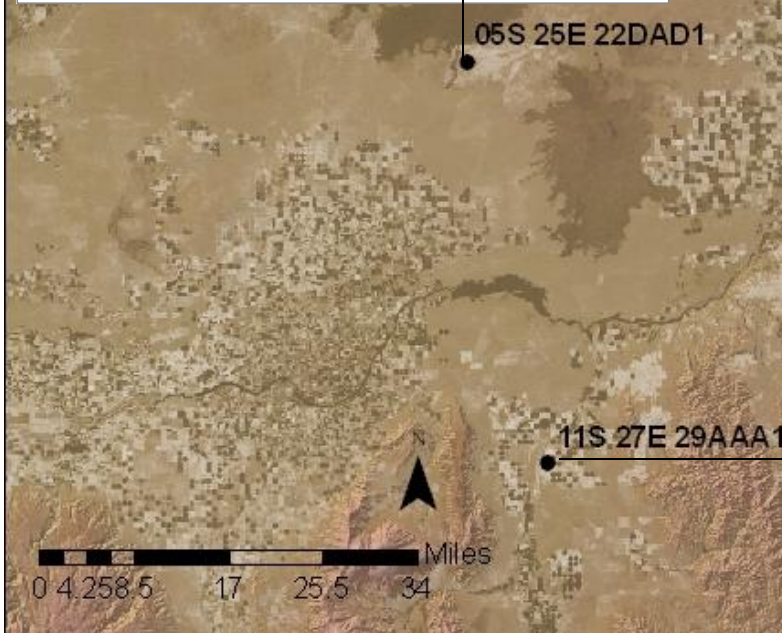
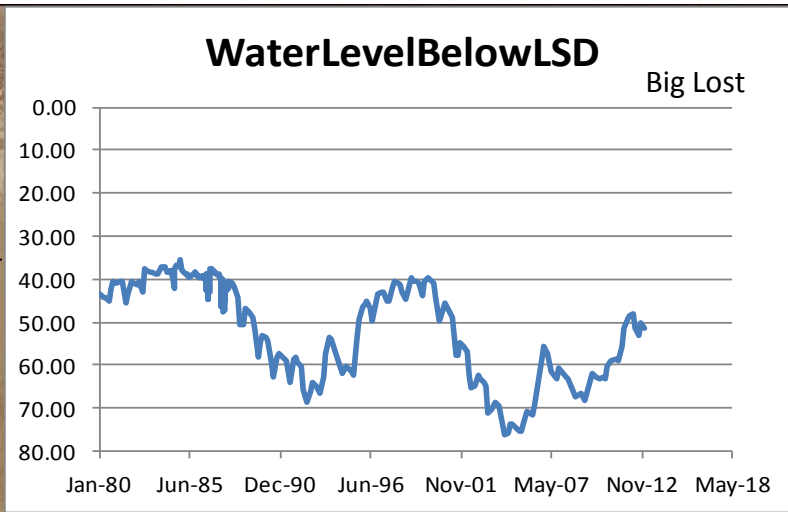
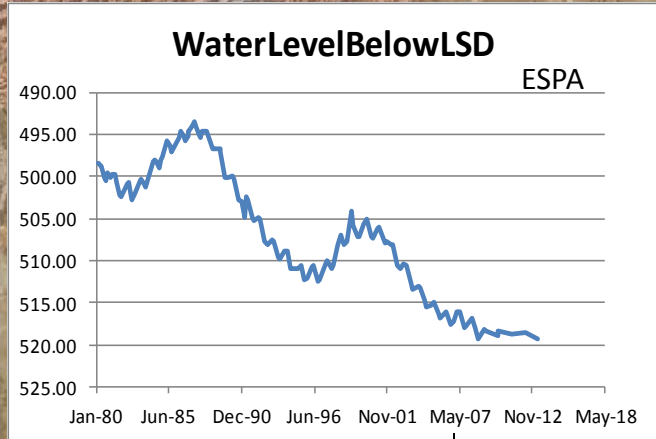
WaterLevelBelowLSD

Salmon, ID

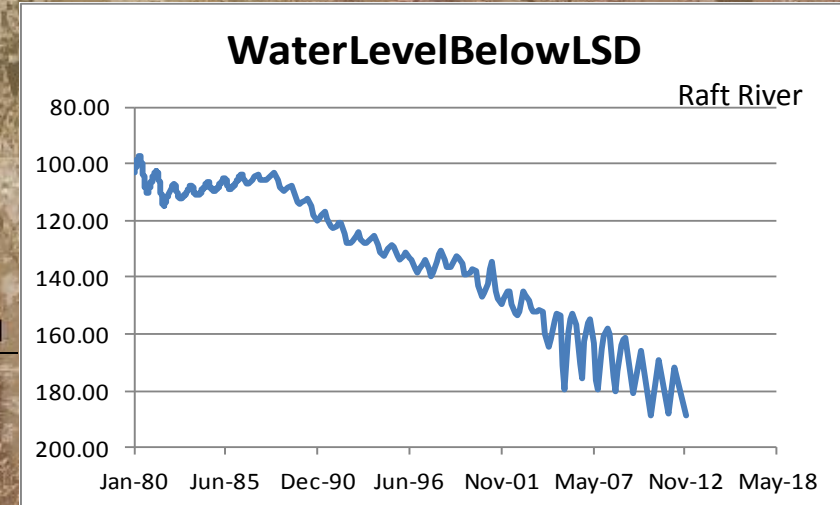


14N 22E 35BBD1



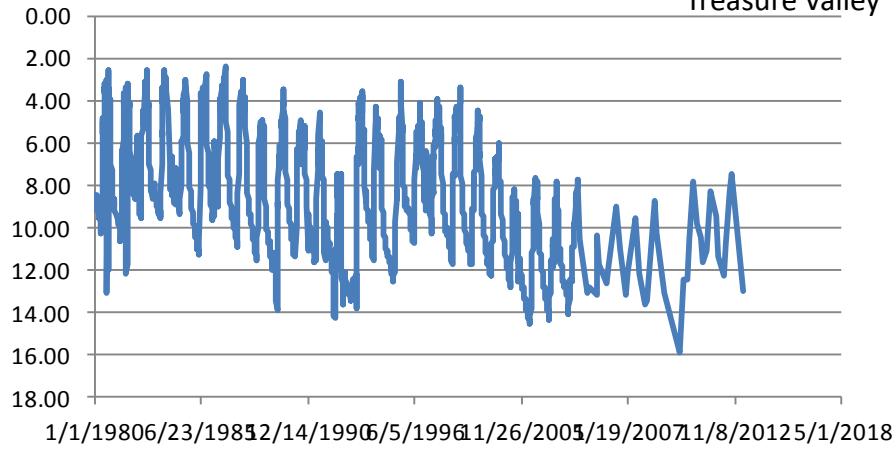


Well Hydrographs



WaterLevelBelowLSD

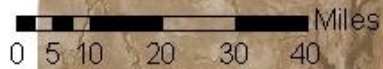
Treasure Valley



02S 04E 27DDD1

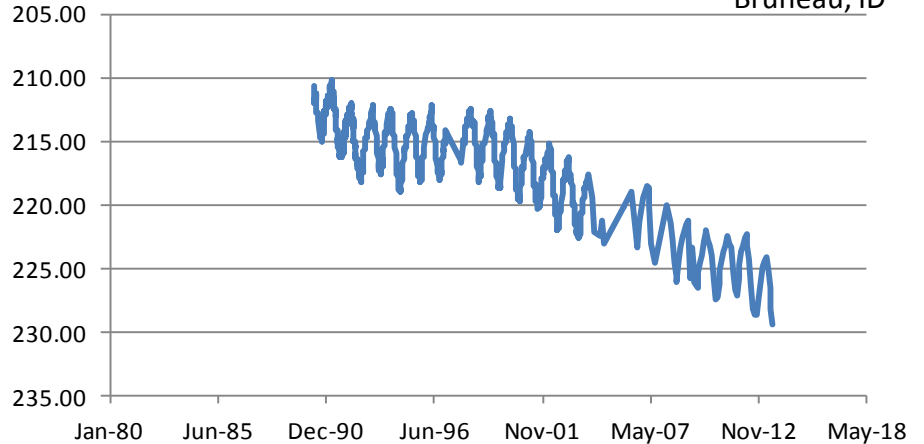
07S 06E 34BCA

Well Hydrographs



WaterLevelBelowLSD

Bruneau, ID



U.S. Drought Monitor

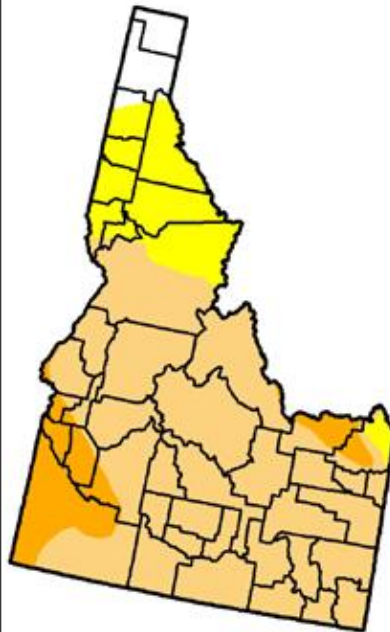
April 2, 2013
Valid 7 a.m. EST



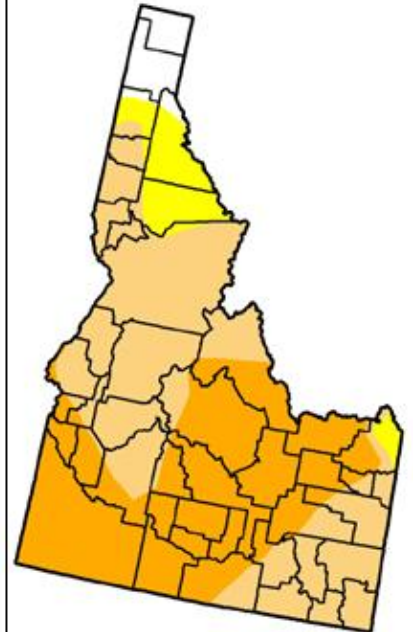
May 7, 2013
Valid 7 a.m. EST






June 11, 2013
Valid 7 a.m. EST





July 16, 2013
Valid 7 a.m. EST



Intensity:

-  D0 Abnormally Dry
-  D1 Drought - Moderate
-  D2 Drought - Severe

-  D3 Drought - Extreme
-  D4 Drought - Exceptional



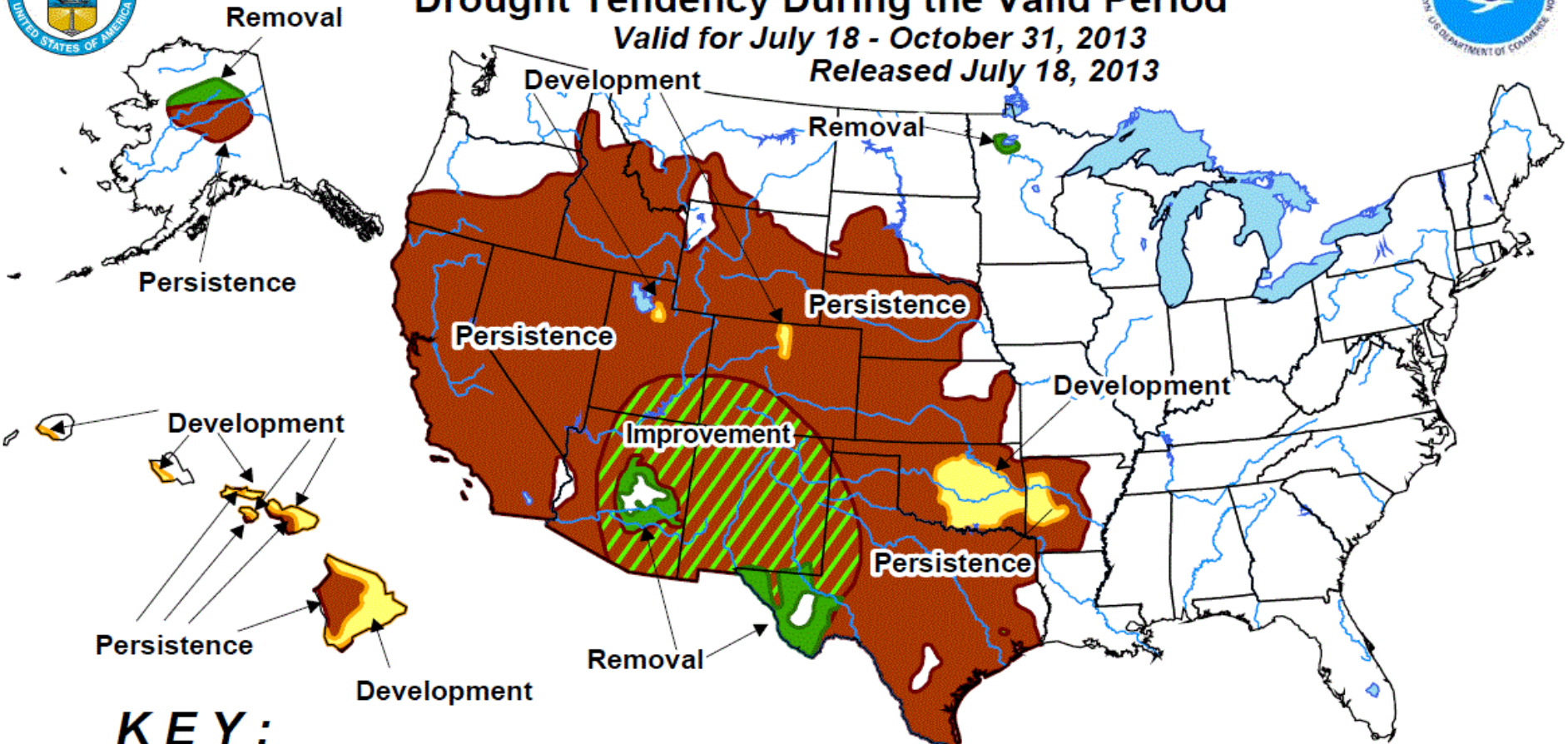


U.S. Seasonal Drought Outlook





Drought Tendency During the Valid Period

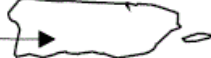
Valid for July 18 - October 31, 2013

Released July 18, 2013



KEY:

-  Drought persists or intensifies
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely

No Drought Posted/Predicted 

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor.

NOTE: The Green and Brown hatched areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period although drought will remain. The Green areas imply drought removal by the end of the period (D0 or none)

2013 Emergency Drought Declarations

	County / Area	Date Declared
1	Owyhee County	Submitted for signature
2	Lemhi County	July 25, 2013
3	Caribou County	July 25, 2013
4	Madison County	July 22, 2013
5	Power County	July 17, 2013
6	Bear Lake County	July 16, 2013
7	Bonneville County	July 12, 2013
8	Gem County	July 8, 2013
9	Bingham County	June 17, 2013
10	Jefferson County	June 4, 2013
11	Teton County	June 4, 2013
12	Custer County	May 28, 2013
13	Clark County	May 29, 2013
14	Blaine County	May 14, 2013
15	Butte County	May 14, 2013
16	Fremont County	May 14, 2013
17	Lincoln County	May 14, 2013

Trail Reservoir
north of Glens Ferry
August 1, 2013



Summary of Idaho Water Supply Conditions

- Precipitation and streamflow in northern Idaho are near average for the current water year.
- Below normal winter and spring precipitation resulted in reduced runoff and below average reservoir storage volumes in southern Idaho.
- Natural flow in most southern Idaho streams has been below average this summer.
- Above normal summer temperatures and dry conditions have increased the irrigation demand on groundwater and depleted reservoir supplies in southern Idaho.
- Moderate to severe drought conditions exist in most of southern Idaho. Emergency drought declarations have been issued for 17 counties. Some reservoirs have been drained.
- Current storage volumes and irrigation demand for the remainder of the season are projected to result in below normal reservoir carryover for the upcoming water year.

Questions?

Monitoring station
at Tucker Springs
Idaho State Fish Hatchery
Hagerman, ID



