RECLAMATION
Managing Water in the West

Upper Snake River Water Year 2015 Operations Outlook

March 11, 2015

Upper Snake Field Office

U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region

March 2015

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System Overview

The Upper Snake River system ended the 2014 water year with higher than projected carryover. Above average precipitation in August greatly improved the water supply outlook for the 2015 water year. As seen in Figure 1, the above average unregulated flow at Heise improved the October 1st system carryover compared to the 2013 water year. Typically the system needs at least 4 million acre-feet (MAF) of runoff to secure greater than 25% carryover at the end of the water year.

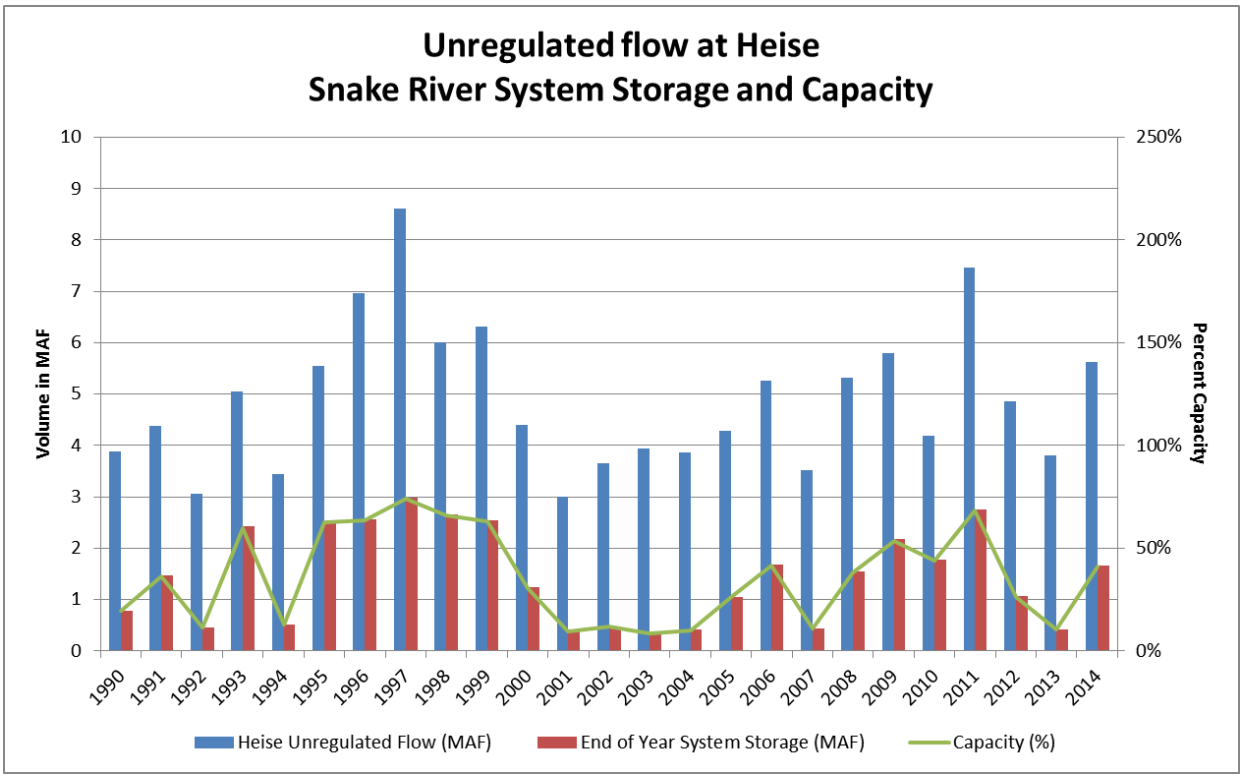

Figure 1: Unregulated flow at Heise, Snake River System Storage, and Percent of Capacity

The current percentages of median snowpack are 98% above Palisades and 85% above Rexburg. The current percentage of average water year-to-date precipitation is 90% above Palisades and 80% above Rexburg. Figure 2 shows a map of Idaho Snow Water Equivalent. The precipitation in the Basin above American Falls was 74% of average for January and was 69% of average for February. The above average snowpack observed heading into the month of January has not been accumulating at the median rate and is now behind median due to the lack of precipitation in January and February. March has been dry so far with only 40% of the month-to-date precipitation. The next few months temperature and precipitation will have a large impact on the total runoff we will see. Operations in the spring are driven by the weather. NOAA has recently issued the existence of El Nino which has a weak correlation to a warm and wet spring. We will continue to monitor the short term and long term weather forecasts.

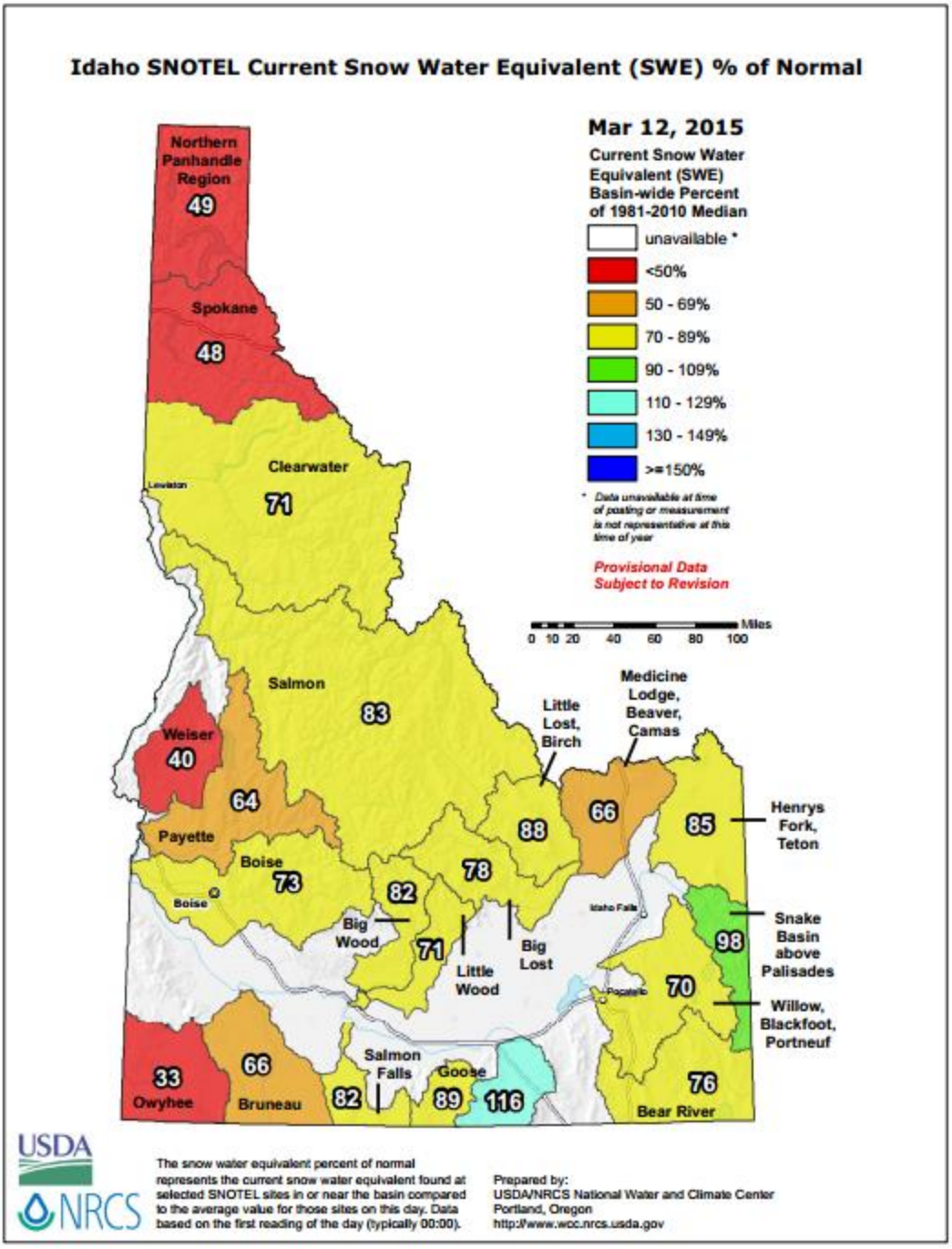

Figure 2: Idaho Snow Water Equivalent

Snake River above the Henrys Fork

The current operating forecast at Heise is for 95% runoff volume for March through July.

Jackson Lake

Jackson Lake is currently 76% full and is releasing 540 cfs the flow should remain steady until spring runoff occurs. Jackson Lake will remain relatively steady at the minimum flood control space, and then follow flood control requirements.

Figure 3 shows a potential scenario for Jackson Lake operations. In this potential scenario, flows remain steady at the 540 cfs until May 1st, and then flows increase as runoff occurs. After runoff season flows are reduced to bring the lake down to required flood control space on October 1st. This is just one of many potential scenarios, to give an idea of the operation we could see this year. Real-time operations will be greatly affected by the weather. Overall, the potential of refill is high for Jackson Lake; however, carryover will depend on summer irrigation demand.

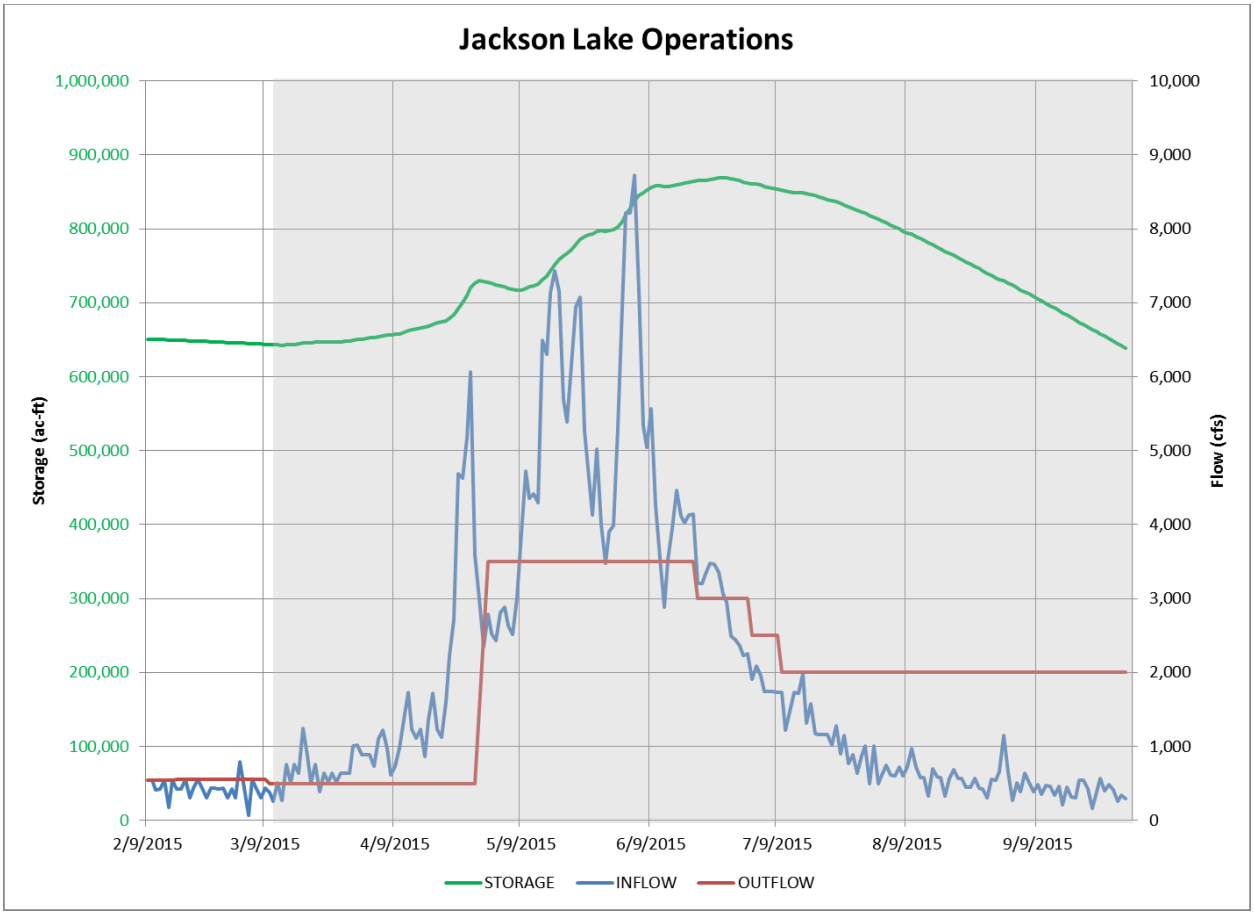

Figure 3: Potential operations scenario for Jackson Lake (grey color is projected operations)

Palisades

Palisades is currently 82% full and is releasing 2,180 cfs; this is passing most of the inflows to the reservoir in order to preserve space for upcoming flood control requirements. It is currently projected that the flow out of Palisades will remain at the 2,180 cfs until flood control requirements create a need for increased releases sometime in middle to late April. Much of the timing of the releases will be dependent upon the weather and when spring runoff starts.

Figure 4 shows a potential scenario for Palisades operation. In this scenario spring snowmelt starts early and increases are needed at palisades in the beginning of April. It can be seen in the figure that as runoff starts to increase Palisades releases are increased to preserve the required flood control space. After the runoff, outflows are set to meet downstream irrigation demand. This is just one of many potential scenarios, to give an idea of the operation we could see this year. Real-time operations will be greatly affected by the weather. Overall, the potential of refill is high for Palisades; however, carryover will depend on summer irrigation demand.

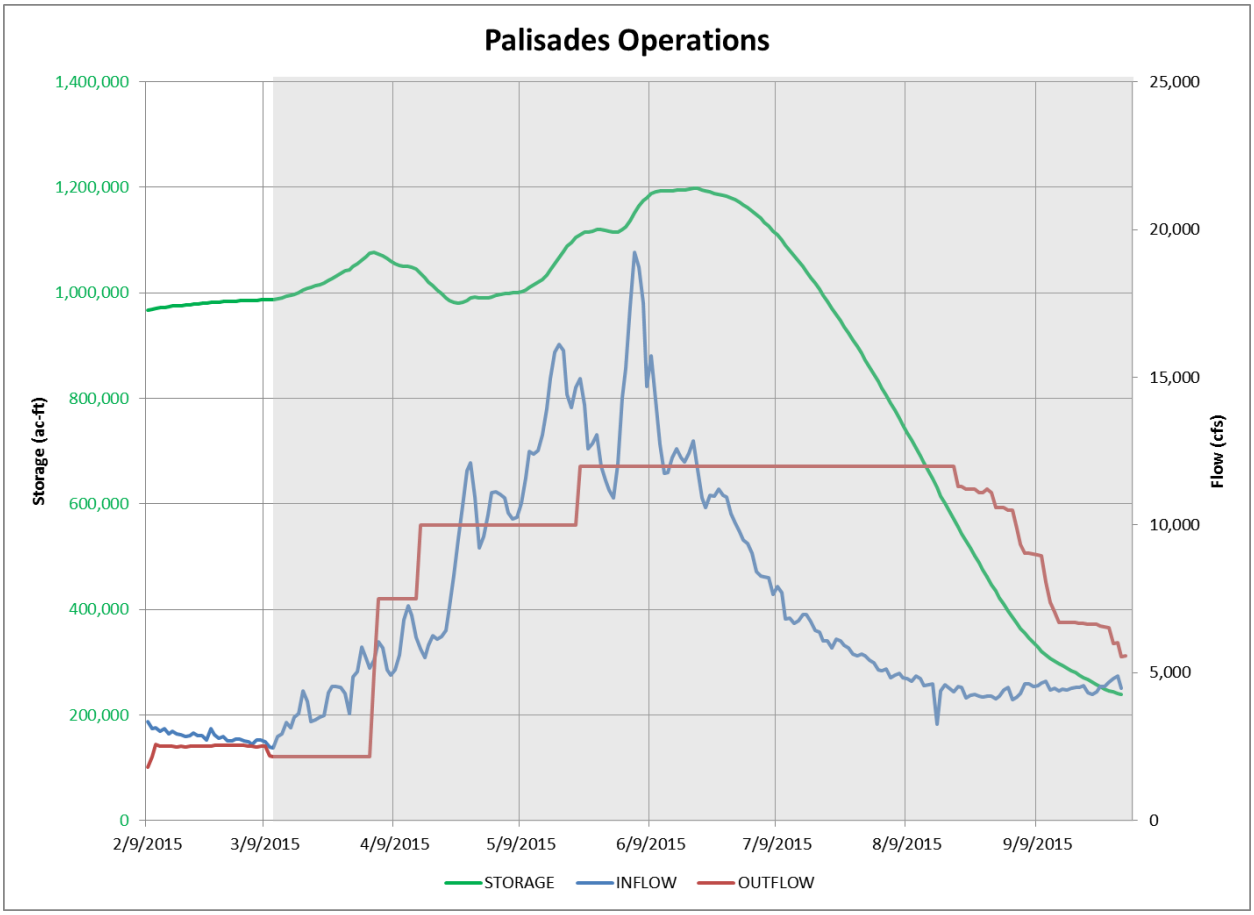

Figure 4: Potential operations scenario for Palisades (grey color is projected operations)

Henrys Fork

Island Park

Island Park is currently 88% full and is releasing 272 cfs. It is currently projected that the flow out of Island Park will remain at the 272 cfs until spring runoff or irrigation demand requires increases. Much of the timing of the releases will be dependent upon the weather and when spring runoff starts.

Snake River below Henrys Fork

American Falls

American Falls is currently 84% full and is releasing 1,128 cfs. The flow out of American Falls will be driven by downstream demands. Figure 5 shows a potential scenario for the summer flows out of American Falls. In a typical year, irrigation demand starts in late March and continues throughout the irrigation season. Flows will increase at American Falls starting March 16th then increase as demand increases. It is too early to tell when flow augmentation water and Idaho Power water will be released. Overall, the potential of refill is high for Palisades; however, carryover will depend on summer irrigation demand.

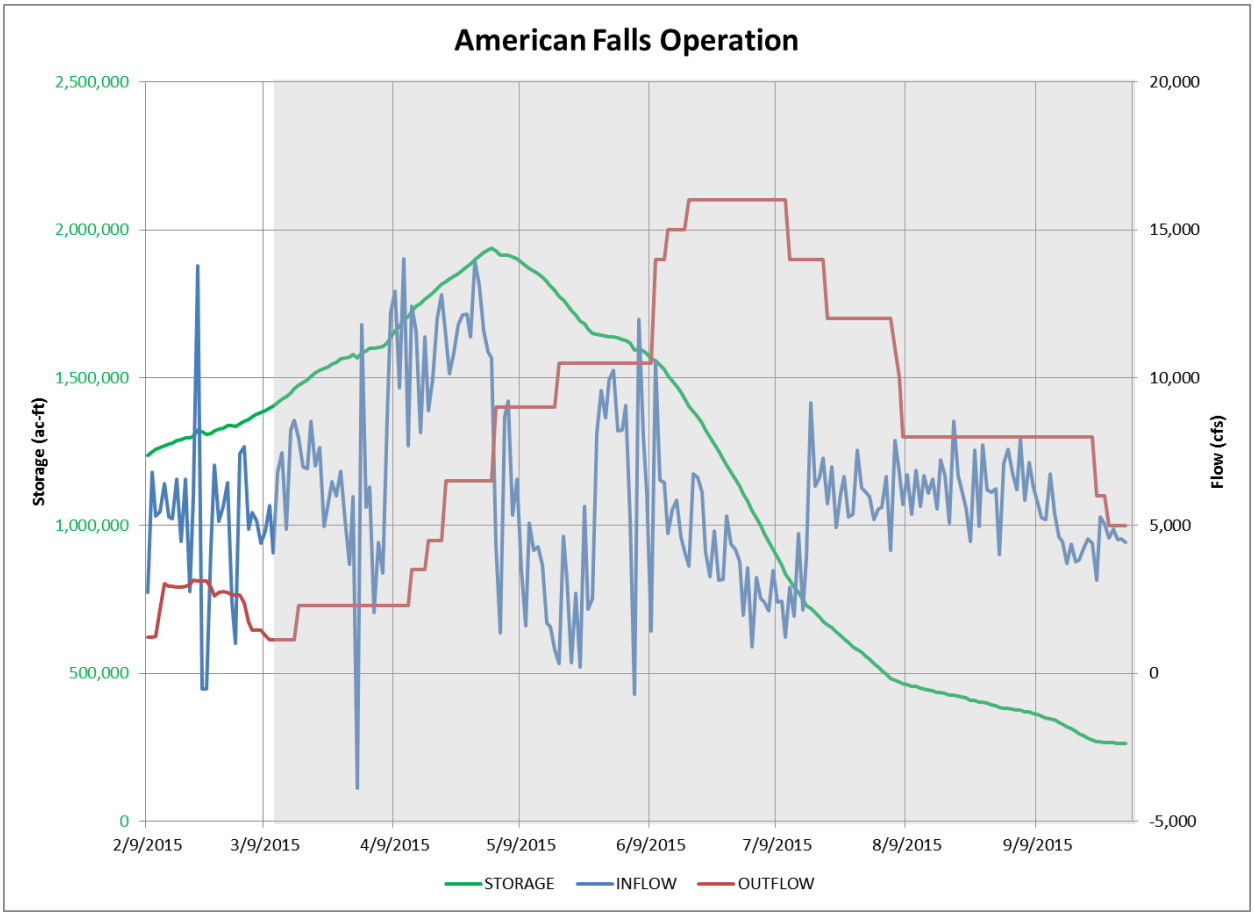

Figure 5: Potential operations scenario for American Falls (grey color is projected operations)

Minidoka

Minidoka is currently 34% full and is releasing 700 cfs. The flows out of Minidoka will increase to meet downstream irrigation demand. Currently the lake has started to fill and should be full around April 1st.

Milner

Milner is currently 63% full and is releasing 160 cfs. It is projected in the coming weeks that irrigation demand will use the 160 cfs and flow past Milner will go to 0 cfs. Based on the current snowpack it is likely Milner will stay at 0 cfs until flow augmentation is released during the irrigation season.