

MEMORANDUM FOR THE RECORD

COORDINATION TITLE - 20WVP06 Willamette mainstem flow target at Salem

DATE – 17 April 2020

PROJECT - Willamette Valley Projects

RESPONSE DATE – 25 April 2020

Description of the problem

As of 17 April 2020, the Willamette Valley River Basin has received less than 75% of normal precipitation for the water year and 50% normal precipitation since the start of refill on February 1. The current snow water equivalent is 96% of normal. Refill of the Willamette Valley Project (WVP) began on February 1. System-wide inflow in February was 110% of average but by the end of the month, all projects were below rule curve. System-wide inflow in March was 48% of average and storage continued to lag. From April 1-15 inflow was 93% of average due to rainfall early in the month. Currently, WVP system storage is 58% full and 26% below rule curve. It is expected that most reservoirs will not fill to or even near maximum conservation pools. Conditions are similar if not worse than 2015, therefore we are using lessons learned from 2015 for managing the system this year and so far is proving successful. Storing as much water as possible in April will allow projects to maintain minimum tributary flow thru the summer.

Type of change/outage required

Because of the current dry conditions and continued dry outlook, the minimum flow target for the mainstem Willamette River at Salem was decreased below criteria (17,800 cfs; detailed in the Biological Opinion) for the period of April 16 - 30 as proposed by the Corps and recommended to NMFS and ODFW to be conservative for meeting other fish needs later in the year (e.g. spawning flows in the North and South Santiam) and having flow greater than 4,000 cfs in the summer and fall at Albany. The minimum flow target for the mainstem Willamette River at Salem was changed from the 17,800 cfs minimum flow to instead target the natural flow that occurs from regulation of the WVPs and unregulated flows. During this period, regulation of the WVP consists of project releases that meet the minimum project outflow identified in the Biological Opinion with reductions at Foster and Big Cliff to flows of 1,100 cfs and 1,200 cfs respectively. As of 17 April 2020, flow at Salem in the Willamette River was 11,640 cfs.

Impact on facility operation

This will allow the WVPs to increase refill so that there is additional water to provide augmentation flows for the Willamette mainstem and tributaries during the summer and fall.

Dates of impacts/repairs

The temporary minimum flow target at Salem in the Willamette for April is effective April 16 through April 30. This operation will be re-evaluated in late April based on river temperature and fish movement to determine appropriate mainstem and tributary flows for the remainder of May.

Length of time for changes/impacts/repairs

Approximately 2 weeks.

Expected impacts on fish

There will be minimal impacts to fish with cool water temperatures in late April and fisheries benefits are expected later in the year with stored water available to augment summer low flows.