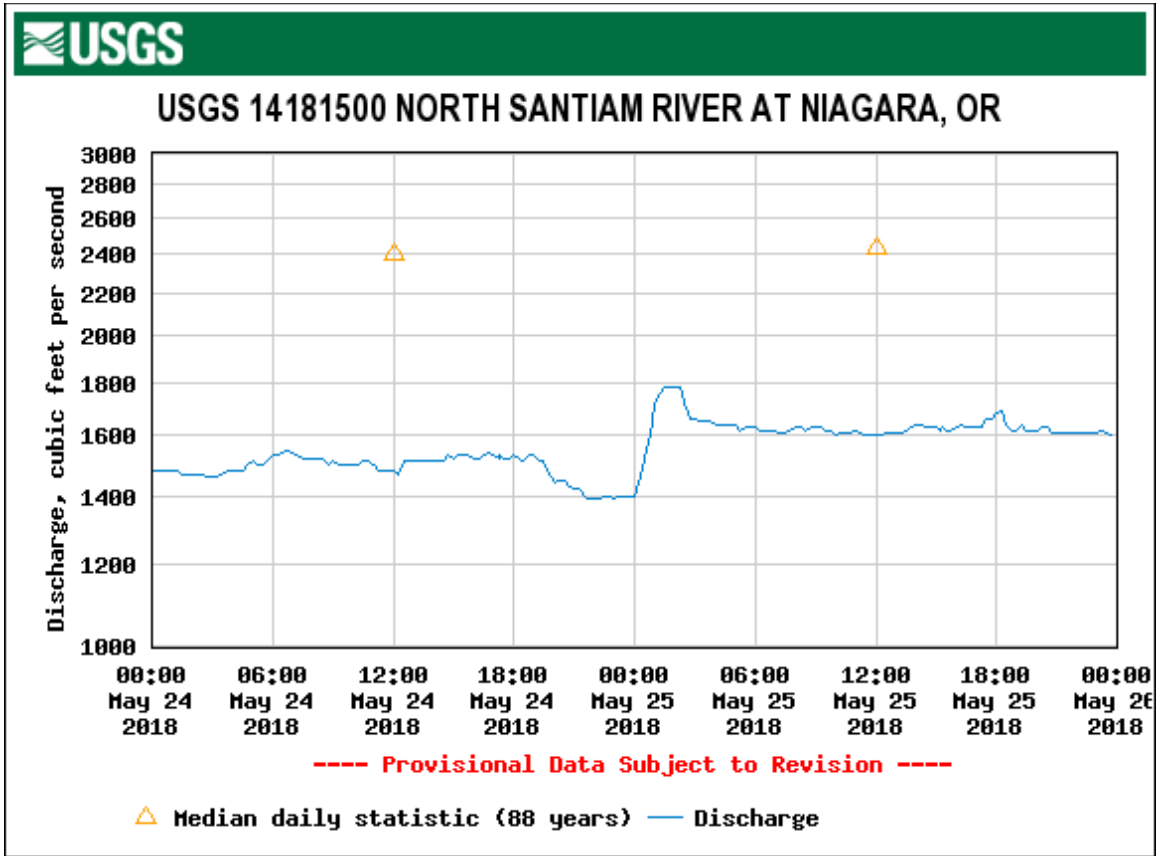


MEMORANDUM FOR THE RECORD

**TITLE** - 18BCL03 minimum flow  
**DATE** - 01 June 2018  
**PROJECT** - Big Cliff Dam  
**RESPONSE DATE** - 15 June 2018

**Description of the problem**

Flows below Big Cliff Dam in the North Santiam River decreased below minimum criteria (1,500 cfs) periodically May 24-25 around midnight for a few hours due to operator error. Flows were as low as 1,390 cfs.



**Dates of impacts/repairs**

May 24-25

**Expected impacts on fish**

The minimum flow criteria of 1,500 cfs is to provide adequate flows for spawning winter steelehad. The stage change between the BiOp minimum flow was minimal and brief. Impacts were likely minimal.

**Comments from agencies**

No comments

**Final results**

Flows below Big Cliff Dam were increased back above the BiOp minimum. The operator received guidance to better assure flow targets are met.

Please email or call with questions or concerns.

Thank you,

Chris Walker

NWP Operations Division Fishery Section

Fish Biologist

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