

Jeff Merrill

From: Jeff Merrill
Sent: Wednesday, May 06, 2015 11:46 AM
To: Elaine Stewart; Katy Weil
Subject: NOAA fisheries questions

Elaine and Katy,

As part of the water control structures upgrades and repairs, there is discussion around designing solutions that allow more rapid (and operationally easier/safer) dewatering of Smith and Bybee wetlands. An example would be replacing the existing tide gates with combo gates that allow them to act as both a lockable tide gate and raisable gate. However, that has brought up an issue regarding juvenile salmon that informed how the structure was originally built and operated.

When the Smith and Bybee structure was constructed there were NOAA fisheries requirements in place for implementing surface drainage through the WCS (versus drainage lower in the water column). This was to ensure that juvenile salmonoids, who travel near the surface of the water, wouldn't be entrapped behind the WCS. So the solution was a dewatering system that involved 2 bays of stacked boards that would be removed one at a time, maintaining a flow of surface water over the top board. This was in addition to a fishway that stepped down the water level providing fish passage out of the wetland. So there are a couple of questions for NOAA (and USACE, and ??):

1. Is surface drainage still a concern in the two main bays or is a dewatering regime that doesn't maintain surface flow acceptable?

As a subset of the first question:

2. Is non-surface drainage acceptable at certain times of the year, for limited durations or in conjunction with a surface flow?

After our discussion in the field it doesn't seem like we would want to lose the ability utilize surface drainage due to its slower and more precise nature – so some combination of boards or a sliding gate that lowers would likely still remain. However, it still seems like this is a question we want to ask just to focus our retrofit efforts and clarify our management options.

Do you think I've framed the question correctly? Katy you mentioned that John van Staveren from Pacific Habitat would be a good guy to explore the answer to these questions – to feel free to include him in this conversation.

Thanks,

Jeff Merrill
Associate Natural Resource Scientist
Natural Areas Program

Metro
600 NE Grand Ave
Portland OR 97232
ph: 503.797.1555

cell: 503.312.0007
fax: 503.797.1849
www.oregonmetro.gov

Metro | Making a great place