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**From:** Barbara Byrne - NOAA Federal <barbara.byrne@noaa.gov>  
**Sent:** Monday, May 20, 2019 6:27 PM  
**To:** Maria Rea; Howard.Brown; Garwin Yip - NOAA Federal; Cathy Marcinkevage  
**Subject:** Heads up on Reclamation's interpretation of "Delta measures" assignment  
**Attachments:** 2019.05.20\_Delta measures\_DRAFT\_BB\_NMFS working draft.docx; ROC Salmon and Steelhead Salvage 20190519 DRAFT\_from Reclamation.docx

Heads up that Reclamation didn't interpret Paul's direction for Delta measures as requiring an approach that limits loss under the PA to historic observed loss under the 2009 BiOp -- Reclamation interpreted it more generally as direction to reduce PA Delta loss effects, especially in April and May. In a conversation with Dave Mooney and Josh Israel this afternoon (a technical discussion for me to understand their approach and for preliminary discussion of what info would be helpful in support of Thursday's meeting); **Dave pretty clearly indicated Reclamation wasn't supportive of operating to avoid exceeding historic observed loss rates.**

Current draft approaches are attached; quick comparison provided below:

Reclamation proposes to manage operations to avoid exceeding some specified loss thresholds for WR and steelhead (-5,000 cfs OMR in general, with additional export restrictions if loss reaches 50% or 75% of the thresholds), but those thresholds are higher than average observed historical loss rates that are the basis of the NMFS proposal. Note that the NMFS proposal assumes -5,000 cfs OMR in general, but doesn't currently require additional export restrictions at 50% or 75% of the threshold.

**Winter run annual loss threshold:** Reclamation proposes 2% of JPE (same threshold as proposed in original PA). NMFS proposes 0.36% of JPE, based on average observed loss WY 2010-2018.

**Steelhead annual loss threshold:** Reclamation proposes 2000 for December - March and 2000 for April-June (more protective\* than the 3000 annual salvage threshold proposed in original PA). NMFS proposes 663 for December-March and 647 for April-June based on average observed loss WY 2010-2018.

\*because total *loss* of 4,000 is less than the total loss associated with a *salvage* threshold of 3,000.

Barb

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