From: Sent:	Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov> Wednesday, March 6, 2019 9:24 AM</cathy.marcinkevage@noaa.gov>
То:	Evan Sawyer - NOAA Affiliate; Maria Rea; garwin.yip@noaa.gov; howard.brown@noaa.gov; barbara.byrne@noaa.gov; sarah.gallagher@noaa.gov; Derek_Hilts@fws.gov
Subject: Attachments:	Fwd: ROC_AR_Releasable (CCR and Shasta/Keswick Temperature Relationships) Untitled attachment 00187.html; Shasta_CCR_Relationship_ROC_DOC1.pdf; Keswick_CCR_Relationship_ROC_DOC2.pdf; Untitled attachment 00190.html; Data_ROC_DOC1.xls; Untitled attachment 00193.html; Data_ROC_DOC2.xls; Untitled attachment 00196.html
A11	
	provided by the SWFSC related to the "Shasta seasonal storage management and sterday. Some of you may have seen this through other channels, but I wanted to be save on the server.
Cathy	
Cathy Marcinkevage California Central Valley NOAA Fisheries West Co U.S. Department of Comr Office: (916) 930-5648 Cell: (562) 537-8734 cathy.marcinkevage@noa	nast Region merce
Begin forwarded message): :
Date: March 5, 20 To: Cathy Marcin	er - NOAA Federal < <u>eric.danner@noaa.gov</u> > 019 at 3:11:54 PM PST ukevage - NOAA Federal < <u>Cathy.Marcinkevage@noaa.gov</u> > OC_AR_Releasable (CCR and Shasta/Keswick Temperature
Cathy,	
	ached documents from Miles Daniels relevant to the "Shasta seasonal storage allocations logic" call this morning.
Eric	
	ed messageiels - NOAA Affiliate < miles.daniels@noaa.gov >

be

Date: Tue, Mar 5, 2019 at 3:02 PM

Subject: ROC AR Releasable (CCR and Shasta/Keswick Temperature Relationships)

To: Eric Danner - NOAA Federal < eric.danner@noaa.gov>

Hi Eric,

Attached are two documents which describe some of the relationships between Shasta storage, Keswick releases, and temperature at CCR.

The file ending in 'ROC_DOC1', is an attempt to re-create the 'rule of thumb' figure on page A-45 of appendix A of the BA. Using the methods outlined in the attached document, I was unable to generate the same plot USBR produced. However, I was not able to find any documentation describing how USBR generated this plot so it may be a difference in methods.

The file ending in 'ROC_DOC2' is analysis looking at the statistical relationship between Keswick release temperature and volume and temperature at the CCR gauge.

Data required to generate plots in both documents are attached as well.

Please let me know if there are any questions, Miles

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Miles Daniels, Ph.D. Assistant Project Scientist University of California, Santa Cruz Phone: 831-420-3946

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Eric Danner, Ph.D.
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