Stephen Maurano - NOAA Federal

From: Stephen Maurano - NOAA Federal
Sent: Thursday, May 2, 2019 1:58 PM

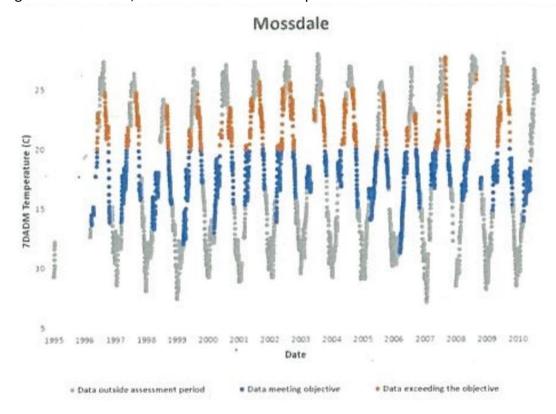
To: Cathy Marcinkevage - NOAA Federal

Subject: Re: American River Temperature Data Help

Sure, happy to help. Can you just put me in contact with Brian to get more details and a deadline to complete? I can't access that data you linked, but I'll ask Shawn to map the drive and then look at it.

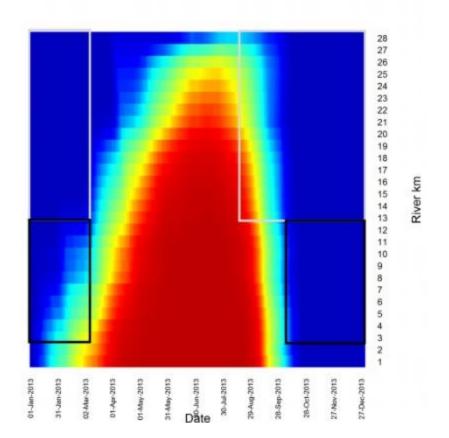
I have no problem contributing with Excel, GIS, R, etc -- like you said, it's a good way to dip into items. Since I don't have a lot of background, my hope is just that the more experienced folks make sure I didn't misrepresent anything :-)

Just food for thought: I was analyzing some continuous temperature data last year in the San Joaquin and the Delta from CDEC & CDFW (from SJRRP) comparing against salmon 7DADMs (e.g. for migration <18C, spawning <13C, rearing <16C, etc). The data in orange exceeds the threshold while blue is below the threshold (versus gray, which is outside the migration, spawning, or rearing periods). Heat maps are also a good visualization, like the Ben Martin examples at the bottom...



Daily temperature (C) along Tuolumne River 10 15 20 25 Temperature (C) River km 1-Jan-13 31-May-13 17-Dec-13

Embryonic mortality along Clear Creek 2013



On Thu, May 2, 2019 at 12:10 PM Cathy Marcinkevage - NOAA Federal <<u>cathy.marcinkevage@noaa.gov</u>> wrote:

Stephen --

Brian and Joe have identified a need for some help in data visualization and analysis to support work they have done for the effects analysis for the ROC LTO for the American River.

Ultimately, they are looking for a good way to show how well the 65 F and 68 F daily average temperature (DAT) targets are achieved...or not.

We have some figures from Reclamation that show historical data; that is attached, and the data behind it are on the server at

S:\Data_Tech_Info\Historical\AmericanRiverTemData

Brian was also considering a table, something like the incomplete example in this google sheet (though he's not tied to this), to help show the ability or not to meet that temperature.

 $\frac{https://docs.google.com/spreadsheets/d/1ktGgwgPLOTLhTvtYvCJom5n4EKhZdBzD3H-Z4icf2SM/edit?}{usp=sharing}$

Can I throw you on this to work with Brian to help address this? He did suggest starting with the most recent years first as the last 10 years is likely a better representation of what is to come than what happened from say 2000 to 2009.

And, so you know, I don't see "figure making" as a primary go-to item for you to do long-term. I think this is a good way to dip in and we definitely can use the help in contributing, and you've shown to have a good eye for displaying info, which is critically important in this arena! But don't be worried that you're getting pegged for that role forever!

Let me know what you think --

Thanks! Cathy

_.

Stephen Maurano

Natural Resource Management Specialist NOAA Fisheries West Coast Region U.S. Department of Commerce Office: (916) 930-3710

Stephen.Maurano@noaa.gov
www.westcoast.fisheries.noaa.gov

