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**From:** Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov>  
**Sent:** Monday, June 17, 2019 3:11 PM  
**To:** Steve Zeug  
**Cc:** Greenwood, Marin; Ellis, Gregg; Meyer, Cynthia; Callejo, Russell; Howard Brown; Garwin Yip  
**Subject:** Re: DPM results

Thanks, Steve. I appreciate the quick turnaround!

On Mon, Jun 17, 2019 at 3:08 PM Steve Zeug <[stevez@fishsciences.net](mailto:stevez@fishsciences.net)> wrote:

Hi Cathy-

Attached is the Delta effects section with the DPM revisions in Track Changes. I have also attached an updated version of the Excel workbook you sent. If you have any questions or comments, please let me know. Thanks.

Steve

**From:** Cathy Marcinkevage - NOAA Federal <[cathy.marcinkevage@noaa.gov](mailto:cathy.marcinkevage@noaa.gov)>  
**Sent:** Friday, June 14, 2019 1:34 PM  
**To:** Greenwood, Marin <[Marin.Greenwood@icf.com](mailto:Marin.Greenwood@icf.com)>; Steve Zeug <[stevez@fishsciences.net](mailto:stevez@fishsciences.net)>  
**Cc:** Ellis, Gregg <[Gregg.Ellis@icf.com](mailto:Gregg.Ellis@icf.com)>; Meyer, Cynthia <[cameyer@usbr.gov](mailto:cameyer@usbr.gov)>; Callejo, Russell <[rcallejo@usbr.gov](mailto:rcallejo@usbr.gov)>; Howard Brown <[howard.brown@noaa.gov](mailto:howard.brown@noaa.gov)>; Garwin Yip <[garwin.yip@noaa.gov](mailto:garwin.yip@noaa.gov)>  
**Subject:** Re: DPM results

Steve and Marin --

Thanks for being available for this.

I've attached:

1) The draft BiOp section on the Delta, which was provided to peer reviewers and Reclamation for PWA review. The DPM results are on pages 19-31.

2) The spreadsheet that Jeff Stuart used in generating the results on these pages.

Are you able to revise this spreadsheet to include the corrected data, and then markup the BiOp with track changes to reflect the corrected results? That would help -- any small tasks contribute a lot to us right now.

Feel free to contact me if you have any questions--

Thanks!

Cathy

On Fri, Jun 14, 2019 at 12:18 PM Greenwood, Marin <[Marin.Greenwood@icf.com](mailto:Marin.Greenwood@icf.com)> wrote:

Thanks, Cathy – based on my earlier review of the draft BiOp, the necessary changes seem like they should be limited to relatively few sections of the document. Please let us know how we can assist.

**MARIN GREENWOOD** | [marin.greenwood@icf.com](mailto:marin.greenwood@icf.com) | ICF | +1.530.400.8081 mobile

**From:** Cathy Marcinkevage - NOAA Federal [mailto:[cathy.marcinkevage@noaa.gov](mailto:cathy.marcinkevage@noaa.gov)]

**Sent:** Friday, June 14, 2019 11:54 AM

**To:** Steve Zeug <[stevez@fishsciences.net](mailto:stevez@fishsciences.net)>; Greenwood, Marin <[Marin.Greenwood@icf.com](mailto:Marin.Greenwood@icf.com)>

**Cc:** Ellis, Gregg <[Gregg.Ellis@icf.com](mailto:Gregg.Ellis@icf.com)>; Meyer, Cynthia <[cameyer@usbr.gov](mailto:cameyer@usbr.gov)>; Callejo, Russell

<[rcallejo@usbr.gov](mailto:rcallejo@usbr.gov)>; Howard Brown <[howard.brown@noaa.gov](mailto:howard.brown@noaa.gov)>; Garwin Yip <[garwin.yip@noaa.gov](mailto:garwin.yip@noaa.gov)>

**Subject:** Re: DPM results

Steve and Marin --

Thanks for letting us know about this error. As you probably know, we have largely completed our analysis of the previous results, and given the timeline for this consultation, a late hit of changes in results is challenging to fold into our work.

I've done some recon but am checking with our team to see if there is a way that you could help us in working this change into our revisions. I'd like to think that ICF/Cramer could be available to assist so that we can expedite our inclusion of the correct information and not have it put additional burden on our already-taxed team.

I'll be in touch.

Thanks -

Cathy

On Fri, Jun 14, 2019 at 11:46 AM Steve Zeug <[stevez@fishsciences.net](mailto:stevez@fishsciences.net)> wrote:

The revised DPM plots and summaries have been uploaded to the Google Drive site. Let me know if you have any questions.

Steve

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**From:** Steve Zeug  
**Sent:** Friday, June 14, 2019 9:27 AM  
**To:** Cathy Marcinkevage - NOAA Federal <[cathy.marcinkevage@noaa.gov](mailto:cathy.marcinkevage@noaa.gov)>  
**Cc:** Greenwood, Marin <[Marin.Greenwood@icf.com](mailto:Marin.Greenwood@icf.com)>  
**Subject:** DPM results

Hi Cathy-

Marin identified an error in the water year classification in the DPM results. The data are all correct but shifted by one year. This occurred because there are actually 81 water years in the hydro data set. I'll upload new summaries to the Google site as soon as they are ready.

Steve

**Steven Zeug, Ph.D., Senior Scientist**

[stevez@fishsciences.net](mailto:stevez@fishsciences.net)

Office (530) 240-6237

Cell (530) 906-2958

