

From: [Wylie, Allan](#)
To: ["Koreny, John S."](#)
Cc: [Shaw, Kristine](#); [Raymondi, Rick](#)
Subject: RE: Magic Springs Data in ESPAM Version 2
Date: Friday, October 21, 2011 9:47:41 AM

John

Kristi is correct for cell 1044012 (see IPCo Flow Data Thousand Springs.xlsx), we also prorate cell 1043012 for Magic Springs (see Hagerman_NFH_ESPAMCalibrationTarget_nolings.xlsx tab scaling_calcs). As indicated in my e-mail dated 11 Oct 2011, the ESHMC chose this method at least partly because Magic Sp is divided between 2 cells, and we have data for the Thousand Springs Power Plant in cell 104412 and the National Fish Hatchery in cell 1043012. As Kristi notes none of the IDWR monitoring for Magic Springs is used in ESPAM2, our data starts after October 2008.

Kristi examined file E110712A001, it does not have a transient target for springs in cell 1041013. That file is dated 10 Sep 2011 and is in the incorrect meeting folder. This is my mistake and I have moved the file back to the September meeting directory. Calibrations run E110712A002 contains a transient target for Jones (I called it ThreeSp) based on our first memo attempting to develop a calibration target for cell 1041013. This target was based on the self monitoring data submitted to the Department. E110712A003 contains the target we developed using the Xeroxed data sheets you submitted and our updated memo to the ESHMC regarding the ThreeSp target due out shortly.

Regarding the elevation of the springs, if you open either E110712A002 *_spreadsheets.zip* or E110712A003 *_spreadsheets.zip* you will find a directory called 'modflow'. Within the 'modflow' directory you will find a file called 'lowsnk.drn'. Looking at the 3rd line of this file, the first number is model layer, the 2nd number is model row, the 3rd is model column, the 4th is elevation, and the 5th is conductance. Jones is in cell 1041013 (row 41, column 13) and Magic Sp is in cells 1044012 (row 44, column 12), and 1043012 (row 43, column 12).

Allan

From: Koreny, John S. [mailto:John.Koreny@hdrinc.com]
Sent: Thursday, October 20, 2011 2:32 PM
To: Wylie, Allan
Cc: Shaw, Kristine; Raymondi, Rick
Subject: Magic Springs Data in ESPAM Version 2
Importance: High

Allan-

We checked the spreadsheets E110712A001.xlsx and the spreadsheets referenced in your email from 10/20 on 10:24 (below) about my request for the data used in the model for Magic Springs, Thousand Springs and the National Fish Hatchery that are being used in ESPAM Version 2.

I asked Kristi Shaw with our office to download and examine the files you are referencing. She downloaded the spreadsheet attached and the large spreadsheet E110712A001.xlsx from the web site you referenced. Her conclusion is that Magic Springs is not included as a calibration target in Version 2. Her email with her findings is below.

Could you please review her email and provide some more specific instructions on where we can find the flow data and the calibration data being used for Magic Springs, the National Fish Hatchery and IPCO's

Thousand Springs and information on the assumptions used to divide the flow data into calibration targets. Could you please be specific as to which spreadsheets and tabs have the data and specifically how the flow data was assigned to calibration targets for individual cells. Also, please could you indicate what drain elevation and conductance is being assigned to the spring drain in each model cell.

I would like to review this before the ESHMC meeting next Thursday- so if I could get a response this week, I would appreciate it.

This information is being requested by Jones/SEAPAC so it should likely go on the hearing web link post.

John

John Koreny

HDR

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From: Shaw, Kristine

Sent: Thursday, October 20, 2011 1:03 PM

To: Koreny, John S.

Subject: RE: ESPAM Version 2

John,

According to the attached file, which I obtained from the ESHMC/ESPA Monitoring Data/Springs webpage as posted 10/17, Magic Springs are not included as an ESPAM V2 calibration target. The ABCsp & and Bridal Veil Springs (identified in the Magic Springs complex) were identified in Grp A but not selected as a ESPAM V2 Target. The only individual springs included in calibration for ESPAM V2 in the 1000 Springs reach include the: Thousand Springs Power Plant Complex and National Fish Hatchery (See Grp B Target tab in attached spreadsheet). Tucker Spring/Big Bend Ditch Complex was identified but not selected for inclusion as an ESPAM V2 Target. It appears that the Thousand Springs observations were calculated based on (KSpring minus Sand Springs) x 1.08 as included in a file entitled IPCO Flow Data Thousand Springs.xlsx. 1.08 was a ratio calculated to prorate flow for the entire cell as compared to flow at 1000Springs.

For the 1000 spr to Malad reach, the Jones Hatchery is specified as a Group B ESPAM V2 calibration target.

The 20+M file calibration file that I posted on your T drive (E110712A001.xlsm, tab "spgs") shows the calibration data (and flows) for the National Fish Hatchery and Thousand Springs, but appears to be lacking the comparison of modeled vs actual flows for the Jones Hatchery. If Allen could point us to where this information is for the Jones Hatchery as used in the latest calibrated ESPAM V2 model it would be appreciated.

Kristi

From: Koreny, John S.

Sent: Thursday, October 20, 2011 12:45 PM

To: Shaw, Kristine

Subject: FW: ESPAM Version 2

Kristi-

Could you look into this and see if you can find the data. If yes- could you pull it out and see if the flow data matches his calibration data and figure out how he is lumping data between springs for model versus actual flow data. Does it make sense the way he is doing it.

If not- could you please send me a follow-up email with a clarifying question.

John

John Koreny

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From: Wylie, Allan [mailto:Allan.Wylie@idwr.idaho.gov]

Sent: Thursday, October 20, 2011 10:24 AM

To: Koreny, John S.

Cc: Raymondi, Rick

Subject: RE: ESPAM Version 2

Yes, and those data are still on the ESHMC web page under 'ESPA Monitoring Data' and then 'Springs'

Allan

From: Koreny, John S. [mailto:John.Koreny@hdrinc.com]

Sent: Wednesday, October 19, 2011 1:10 PM

To: Wylie, Allan

Subject: Fwd: ESPAM Version 2

Importance: High

Allan

Did you get this?

Thanks

John

Sent from my HTC on the Now Network from Sprint!

----- Forwarded message -----

From: "Koreny, John S." <John.Koreny@hdrinc.com>

Date: Mon, Oct 17, 2011 10:59 am

Subject: ESPAM Version 2

To: "Wylie, Allan" <Allan.Wylie@idwr.idaho.gov>

Cc: "Shaw, Kristine" <Kristi.Shaw@hdrinc.com>

Got it. Thanks.

I would like to check the flow data and the calibration targets out. Could you please send the following:

1. The flow data used for developing the calibration targets for Magic, National Fish Hatchery and IPCO

- Thousand Springs (and the 2 unused springs).
2. The actual calibration target for these two cells referenced below.

If this is already on the web- could you please point me in the right direction.

Thanks much!

John

John Koreny

HDR

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From: Wylie, Allan [mailto:Allan.Wylie@idwr.idaho.gov]

Sent: Tuesday, October 11, 2011 9:22 AM

To: Koreny, John S.

Subject: RE: ESPAM Version 2

John

Magic springs is in two model cells, cell 43,12 contains part of Magic and all of the National Fish Hatchery, and cell 44,12 contains IPCO's Thousand Springs Power plant, 2 unused/partially used springs, and the remainder of Magic. See presentation 'Thousand_Springs_Drains.pdf' on ESHMC meeting 21-22 Sep 2010 and the resulting discussion in the meeting notes.

Allan

From: Koreny, John S. [mailto:John.Koreny@hdrinc.com]

Sent: Tuesday, October 11, 2011 9:20 AM

To: Wylie, Allan

Subject: Re: ESPAM Version 2

Allan

Thank you. Is magic springs an individual spring calibration target?

John

Sent from my HTC on the Now Network from Sprint!

----- Reply message -----

From: "Wylie, Allan" <Allan.Wylie@idwr.idaho.gov>

Date: Tue, Oct 11, 2011 8:15 am

Subject: ESPAM Version 2

To: "Koreny, John S." <John.Koreny@hdrinc.com>

Cc: "Shaw, Kristine" <Kristi.Shaw@hdrinc.com>

John

As you know, ESPAM2 is not yet calibrated, the ESHMC has asked me to add transient data for the springs in cell containing the springs supplying Jones Farm and Spring Cr. The most recent set of calibration files presented to the ESHMC are here

'http://www.idwr.idaho.gov/Browse/WaterInfo/ESPAM/meetings/2011_ESHMC/Aug_9_2011/'. The file titled 'E110712A_001_spreadsheets.zip' contains MODFLOW and gis files. The file titled

'E110712A_001_BudFiles.zip' contains the MKMOD input files. The file titled 'E110712A_001_everything.zip'

contains all the PEST files as well as the MKMOD, MODFLOW and gis files.

Allan

From: Koreny, John S. [mailto:John.Koreny@hdrinc.com]
Sent: Friday, October 07, 2011 5:36 PM
To: Wylie, Allan
Cc: Shaw, Kristine
Subject: ESPAM Version 2

Hi Allan-

Sorry for my many emails today.

Could you point me in the right direction to find the ESAPM 2 model files. I am looking for the model data and model files.

I think the model data is here:

http://www.idwr.idaho.gov/Browse/WaterInfo/ESPAM/model_files/Version_2.0_Development/Current_Data/

I can't find the model files.

Thanks-

John

PS Could you reply back to all?

John Koreny

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