From: Stewart, David R
To: Burck, Peter; Reagan, Steve; Brooks, James; Harris, Grant; Kundargi, Darrell; Sterrett, Steven; Bailey, Bill; Fernandez, Juliette; Walker, Cassondra M; Hardee, Tasha; Lasseter, MacMillan, Ariel L; McLain, Sarah; Bannerman, Kimberly M; Wolaver, Brad D
Subject: Re: San Bernardino NWR Water Team - 7/9 Meeting Notes Available - Next Meeting Draft Agenda
Date: Thursday, July 16, 2020 1:21:28 PM
Attachments: Glenn_Hydrograph_Update.docx

Hi Everyone,

I wanted to provide the latest statistical analysis and associated report. In short, this report continues to build on the cross-covariance and dynamic regression models used to show how the Glenn Ranch Well and Mitigation Well time series correlate. However, I also developed a Bayesian state autoregressive model to account for both process error (natural variation) and observation error (measurement error) to describe the time sequence of average pressure readings at Mitigation Well. I then used this model to project what the weekly average pressure readings will look like the next 5 weeks.

I was planning to include data from Slaughter House Ranch. However, I do not have data for the month of May. Once I receive that data and the next month or so data (i.e., August), then I will include it in any future reports.

Randy

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Google Scholar: https://scholar.google.com/citations?user=j8qEAAAAAJ&hl=en

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From: Burck, Peter <peter_burck@fws.gov>
Sent: Friday, July 10, 2020 10:27 AM
To: Reagan, Steve <steve_reagan@fws.gov>; Brooks, James <james_brooks@fws.gov>; Harris, Grant <Grant_Harris@fws.gov>; Kundargi, Darrell <darrell_kundargi@fws.gov>; Stewart, David R <david_stewart@fws.gov>; Sesnie, Steven <steven_sesnie@fws.gov>; Radke, Bill <bill_radke@fws.gov>; Fernandez, Juliette <juliette_fernandez@fws.gov>; Walker, Cassondra M <cassondra_walker@fws.gov>; Harden, Tasha <Tasha_Harden@fws.gov>; Burck, Peter <peter_burck@fws.gov>; macmillar <macmillar@fww.umn.edu>; MacMillan, Ariel L <ariel_macmillan@fws.gov>; McLain, Sarah <mclainsa@fww.umn.edu>; Bannerman, Kimberly M <kimberly.bannerman@sol.doi.gov>; Wolaver, Brad D <brad_wolaver@fws.gov>
Subject: San Bernardino NWR Water Team - 7/9 Meeting Notes Available - Next Meeting Draft Agenda

Hi Everyone,

July 9 Meeting Notes

Thanks for your participation on yesterday's call. I've uploaded draft meeting notes on Teams. Please let me know if you have any edits.

For those who have access to Teams, here is the link:

https://teams.microsoft.com/l/file/6828F88B-D6F5-45C1-92F5-F0D2F0F89BD6?tenantId=069b5ba-4b18-4d7b-9341-f32f600a5494&fileType=docx&objectUrl=https%3A%2F%2Fdoimspp.sharepoint.com%2Fsites%2FSanBernardinoNWR%2FTeam%2FShared%20Documents%2FGeneral%2FMeeting%20Notes%2F20200709%20SBRN%20Water%20Team%20Meeting%20Notes.docx&baseUrl=https%3A%2F%2Fdoimspp.sharepoint.com%2Fsites%2FSanBernardinoNWR%2FTeam&serviceName=teams&threadId=19:ac6f9157956b4f3eba755358 1c6a8a82@thread.skype&groupId=23d3a6fa-796c-4274-a342-bb812e77af31

For those without access to Teams, I'll send them to you in a separate message. Please contact me if you don't receive them today.

July 23 Meeting Draft Agenda

Please contact me if you have changes you'd like to make to the agenda. I'll send out a separate invitation.

San Bernardino NWR Water Team Meeting
July 23, 2020
Agenda

1) Review and adjust agenda
Refuge Updates (Bill, Tasha and Cassondra)
2) **Refuge Water Data Collection / Pump Installation / Well Replacement**
3) **Filling Ponds and Effects on Fish Management**
4) **Artificial Propagation**
Analyses and Reporting (Kim, Ariel, Sarah, Darrell, Randy, Peter)
5) **Water Rights** Analysis
6) **Statistical Analysis** of Glenn Well Pumping and Mitigation Well water pressures
7) **Findings** to Border Patrol regarding Glenn Well pumping rate and timing
8) Pond **Water Budget** Analysis (to quantify pond water needs)
9) **Summary Report** Status
Other Items
10) Other Topics
11) **Action Items**
12) Schedule **Next Meeting**

If you have questions, please let me know. Thanks.

Peter

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