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**To:** [Radke, Bill](#)  
**Subject:** San Bernardino NWR Periodic Hydrologic Monitoring Update 01/ 29/2020  
**Date:** Wednesday, January 29, 2020 11:53:55 AM  
**Attachments:** [SBNWR Pond Well Update 20-24Jan20.docx](#)

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**During the week of January 24, 2020:**

*\*Monitoring wells checked and data recorded, pressure logs pulled and sent to water resources, pond inlet flows recorded in survey123 and sent to water resources, pond levels recorded in survey123. Water resource developed survey123 not utilized, still issues\**

The protocol for collecting all the needed data is being assessed and modified. Refuge will no longer turn water to ponds on and off for data collection (this process adds stress to the fish and can not continue; pond levels and water inflow from the warm deep aquifer effect water temperature, dissolved oxygen levels, shore margin availability for young, etc)

- 21 Jan 20 – Bucket flow test for Hay Hollow well, Bunting well, Twin well, Mitigation well
- 21 Jan 20 -- Secondary pressure gage received, ordered from water resources, ~\$500.00. Plumbing needs to be updated inorder for it to work.
- 23 Jan 20 – Hay Hollow water on, pressure monitoring maintained
- 23 Jan 20 -- San Bernardino site visit with Juliette Fernandez and Julie McIntyre
- 23 Jan 20 – Refuge staff identified two potential artesian wells that would be potential static pressure locations since neither is currently used for water management on the refuge
- 24 Jan 20 – Pond water quality measurements (Temp, dissolved oxygen, and pH) taken in association with pond levels and ambient temperature. Water quality measurements not taken for dry ponds or Robertson Ciénega since no fish have been purposely stocked in this pond.

***Biology weekly report attached***

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