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Subject: San Bernardino NWR Periodic Hydrologic Monitoring Update 02/10 /2020
Date: Monday, February 10, 2020 11:24:21 AM
Attachments: [SBNWR_Pond_Well_Update_03Feb-07Feb20.docx](#)

During the week of February 7, 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. Protocol still in development

- 03 Feb 20 - staff meeting: discussed water issues and Steve Reagan's site visit: staff in agreement to pursue the option of fixing up dry ponds and attempting to return to normal practices of keeping all ponds full, with overflow into the riparian areas (this option allows refuge potential to "show damage done"). Twin2 needs cleaned with heavy equipment. Mesquite needs burned first.
- 04 Feb 20 – Bucket flow test for Hay Hollow well, Bunting well, Twin well, Mitigation well
- 04 Feb 20 – Twin transducer removed from outside the well and submerged in the well (0940 – 0955)
- 04 Feb 20 – Volume calculations of Hay Hollow crossing at MM19 and volume loss of Hay Hollow Wash between upstream and middle gabions
- 06 Feb 20 – Hay Hollow well transducer removed from outside well (1004) to be submerged next week
- 07 Feb 20 - During well and pond monitoring, four ponds are not producing outflow into Black Draw: North, Ben New, Magoffin, and Cobble
- 05-07 Feb - Twin2 pond had vegetation cleaned out by refuge staff utilizing heavy equipment; ready for management to assess prior to initiating filling.
- 03-05 Feb - Fire crew notified of Mesquite pond needing burned; plan writing initiated
 - Hay hollow has been on since 01/23/20
 - pond level ok
 - Bunting has been on since 01/17/20
 - pond level low and no outflow on
 - Twin has been on since 01/17/20
 - pond level ok with outflow

Weekly Biology Report Attached

Important observations this week include four ponds not out-flowing into Black Draw, specifically North, Ben New, Magoffin, and Cobble. Also, new data for Mitigation well appears

to show some significant differences in mean pressure for weekdays. Saturday and Sunday are significantly lower than Thursday. While the trend remains similar to past analyses, the magnitude and difference has changed.