

From: [Radke, Bill](#)
To: [Walker, Cassandra M](#)
Cc: [Harden, Tasha](#); [Harden, Victor S](#)
Subject: Re: [EXTERNAL] Fwd: Inventory and Measure San Bernardino Wildlife Refuge
Date: Thursday, November 7, 2019 10:57:03 AM

Cassandra. Thank you for working with Aaron from ADWR. Here's what I can tell from your maps:

The pink dots are unknown to me, except for the Robertson Cienega well which is one the state periodically measures. Maybe coordinates are off for these other pink dots, but they just don't match with what I am aware of.

The white dots are all our monitoring wells, and we can provide them data and we will continue to monitor those wells. ADWR can monitor them also if they want to.

The red dots seem to me to be either wrong, perhaps bad coordinates, legally previously abandoned, or are otherwise unknown to me.

The black triangles are not all valid. Perhaps the coordinates are off and they actually overlap with some of our white dot wells. Also, some of these black triangles are valid, but are springs and seeps rather than wells.

The state-provided coordinates/maps show "55-" well registers numbers that we can check on. Those mostly unorganized well files are in the paired gray file cabinets (in the left cabinet) on the south side of Brendas office next to the safe.

In my office, rolled up as a large ratty map kind of next to my printer, is a map that depicts well locations and might have the associated well register numbers. God luck hunting.

The Leslie Canyon we'll map looks accurate to me and depicts monitoring wells that I am aware of. The downstream wells are dry and really never had water to measure (one is nearly under and a bit downstream from the bridge on the east bank. The other is further downstream and on the West Bank. The other ones are those that we monitor. ADWR has a transducer in the one along our east boundary that has an antenna on the well. The one on private land is a monitoring well we drilled, but no longer access.

Finally, while we can give permission to coordinate access and monitoring of refuge wells on refuge lands, Adam must get permission from landowners of the private land wells he is interested in (Slaughter Ranch Snail Spring well for example). Be sure he is aware of that.

Again, thank you for researching and coordinating this monitoring. You have my support of this work, Bill

William R. Radke; Project Leader
U.S. Fish and Wildlife Service
Buenos Aires, Leslie Canyon, & San Bernardino NWRs
Cell: 520 508-7180

On Nov 7, 2019, at 10:11 AM, Walker, Cassandra <cassandra_walker@fws.gov> wrote:

Hey Bill,

I wanted to give you a status update on the state's efforts to monitor our wells. I was contacted by a guy named Aaron to come monitor the wells. We agreed to go out on Friday. He sent me info on the wells that they are wanting to monitor (below in email chain). I have two topo maps (one for each refuge) with well locations on them and also some well documentation from when the wells were drilled. I georeferenced the topo map for San B so I could try to get a better idea of what wells they want to monitor. After doing this, I added the wells that I monitor, the coordinates of other wells that used to be on the refuge, and coordinates from the well documentation that I could find. I created a map (below, and attached) and as you can see there is a lot of discrepancies in where wells are located. I'm fairly certain that one of the wells is Spring Snail well, but the rest I'm not really sure. Do you happen to know of any other secret well locations that might explain the locations that they have.

For Leslie Canyon, I do not have a map because I do not have imagery associated with a reference system to use to georeference their topo map. However, from the coordinates it looks like 99Bar and BarBoot are on the list.

After talking with Tasha, I'm going to explain to them that I don't know where all of these wells are and see what they want to do. Hopefully, they will be fine with just monitoring the wells I already check. I'm happy to help them search for these other wells, but I don't think it will do much good. Do you have any further guidance on how you want me to handle this?

<StateLocations for SanB_wells.jpg>

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

From: **Aaron Stolley** <adstolley@azwater.gov>

Date: Wed, Nov 6, 2019 at 6:44 PM

Subject: [EXTERNAL] Fwd: Inventory and Measure San Bernardino Wildlife Refuge

To: cassandra_walker@fws.gov <cassandra_walker@fws.gov>

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

From: **Teri Davis** <tdavis@azwater.gov>

Date: Tue, Nov 5, 2019 at 1:02 PM

Subject: Inventory and Measure San Bernardino Wildlife Refuge

To: Aaron Stolley <adstolley@azwater.gov>

CC: Scott Stuk <sstuk@azwater.gov>, James Dieckhoff

<jdieckhoff@azwater.gov>, Paul A. Ivanich <paivanich@azwater.gov>

Hi Aaron,

If you have time, please inventory and measure the following wells; image records and snip map are attached:

San Bernardino Wildlife Refuge

55-552204

55-552202

55-552203

55-212321

55-212326

55-212327

55-552201

Leslie Canyon NWR

55-589794 Already in GWSI - 313523109293101, D-21-28 21ADC just update and get WL

Also, check to see if we can add back in. Master scan attached
312003109154601- BK00

This is in response to the water being used to build the border wall and production wells declining WLs. THANKS!

<image.png>

<image.png>

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Teri D. Davis R.G., Manager

Field Services Section, Hydrology Division

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Aaron Stolley

Basic Data Unit Team Lead

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Cassondra Walker, PhD
US Fish and Wildlife Service
Refuge Biologist
San Bernardino and Leslie Canyon NWR

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