

Ken Richins

From: Brent Gardner <brentgardner@alphaengineering.com>
Sent: Thursday, June 6, 2024 2:24 PM
To: Ken Richins; Glen Carnahan
Subject: RE: west well static water level trend.

Looks like we have maintained about the same static water level since 1976 until now which means the aquifer wasn't overdrawn over time. However, a lot of the water rights have not been used in their entirety including some of Hurricane city's wells.

Brent E. Gardner, PE

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From: Ken Richins <kenr@hurricane.utah.gov>
Sent: Thursday, June 6, 2024 2:20 PM
To: Brent Gardner <brentgardner@alphaengineering.com>; Glen Carnahan <glencarnahan@alphaengineering.com>
Subject: west well static water level trend.

Brent

In the hard files I found some data for the west well static level history.

From march, 12/ 1976 to May 6/ 1976, a west well test well was drilled for Hurricane city by Ballard well drilling. The well log states the static water level is 205' .

From June 6/ 1978, to august ,20/ 1978 Anzalone well service drilled the west well. The Anzalone well log did not include the static water level.

On May / 7 /2010 Grimshaw drilling abandoned the original west well, in the well abandonment report Grimshaw reported the static water level was 205'

The well abandonment report also stated the location of the new well is 75' south and 50' east of the abandoned well.

On 7/1/2010 a pump test for the replacement west well was conducted. The beginning static water level measurement was 211' the new well head is higher than the old abandoned well pump head.

Hope this makes sense.

Ken Richins

Water Superintendent



WATER DEPARTMENT

435-635-9442 ext.101

Ken Richins

From: Ken Richins
Sent: Thursday, June 6, 2024 5:50 AM
To: Ken Richins
Subject: FW: West Well Water Level Depth Data & Graphs
Attachments: West_Well_Water_Depth_2015to2019.pdf; West_Well_Water_Depth_2019to2022.pdf; Document1west well static water elevations.docx

Ken Richins

Water Superintendent



WATER DEPARTMENT

435-635-9442 ext.101

From: Jake Heward <jakeheward@alphaengineering.com>
Sent: Thursday, April 21, 2022 11:06 AM
To: Brent Gardner <brentgardner@alphaengineering.com>
Cc: Ken Richins <kenr@cityofhurricane.com>; Dallan Wadsworth <dallanw@cityofhurricane.com>; Glen E. Carnahan <glencarnahan@alphaengineering.com>
Subject: West Well Water Level Depth Data & Graphs

Brent,

I am out at the Hurricane Water Department offices and have coordinated with Ken to quickly put the attached graphs together in the first two PDFs. They show the water depth levels at the West Well from 2015 through 2022. This is simply the raw data and no filtering or processing has been done to it. The final attached Word document, Ken put together to show the depth of the water levels when pumping began each year and the level at years end. These will hopefully be helpful for your meeting later today with the WCWCD.

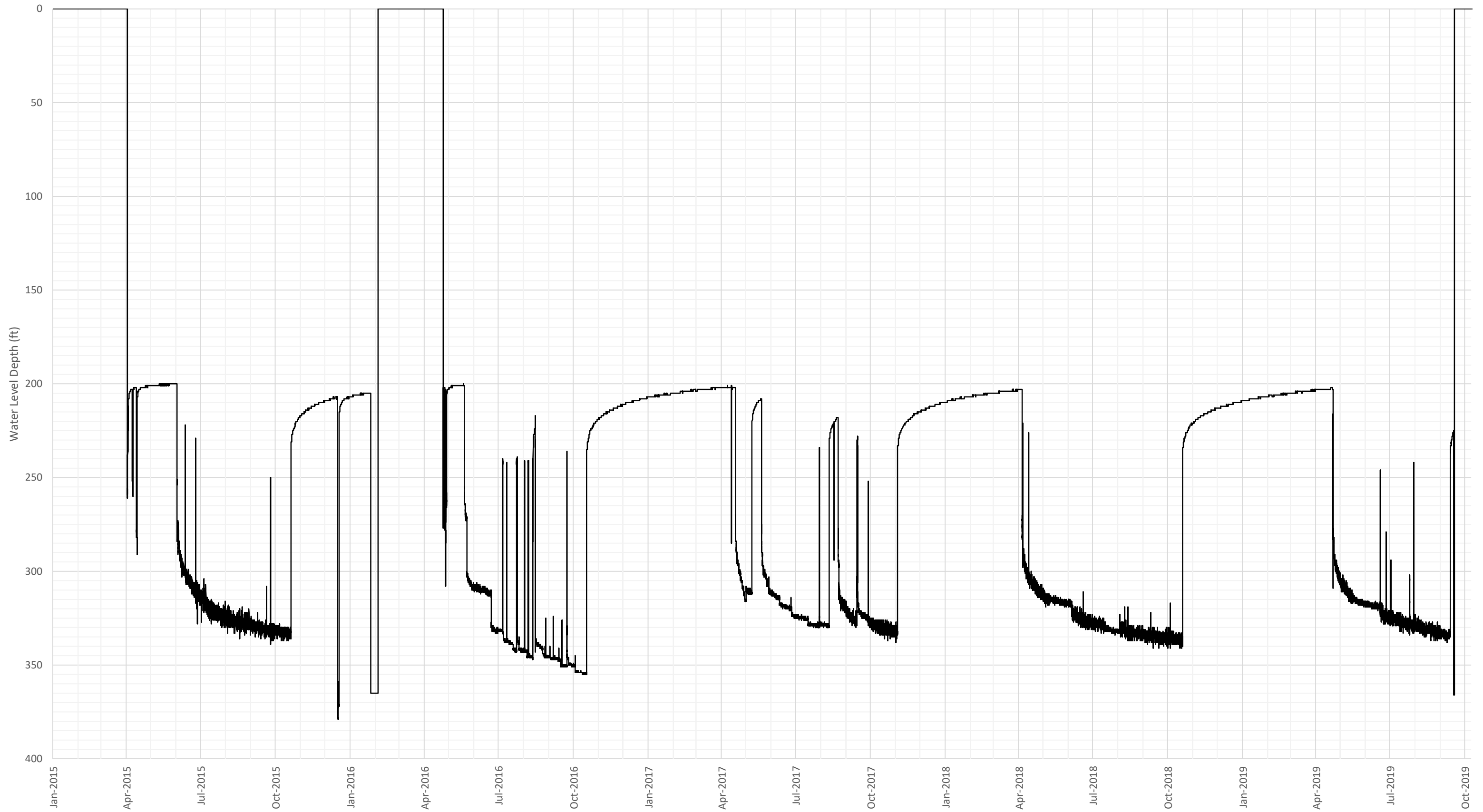
Jake Heward, PE

jakeheward@alphaengineering.com



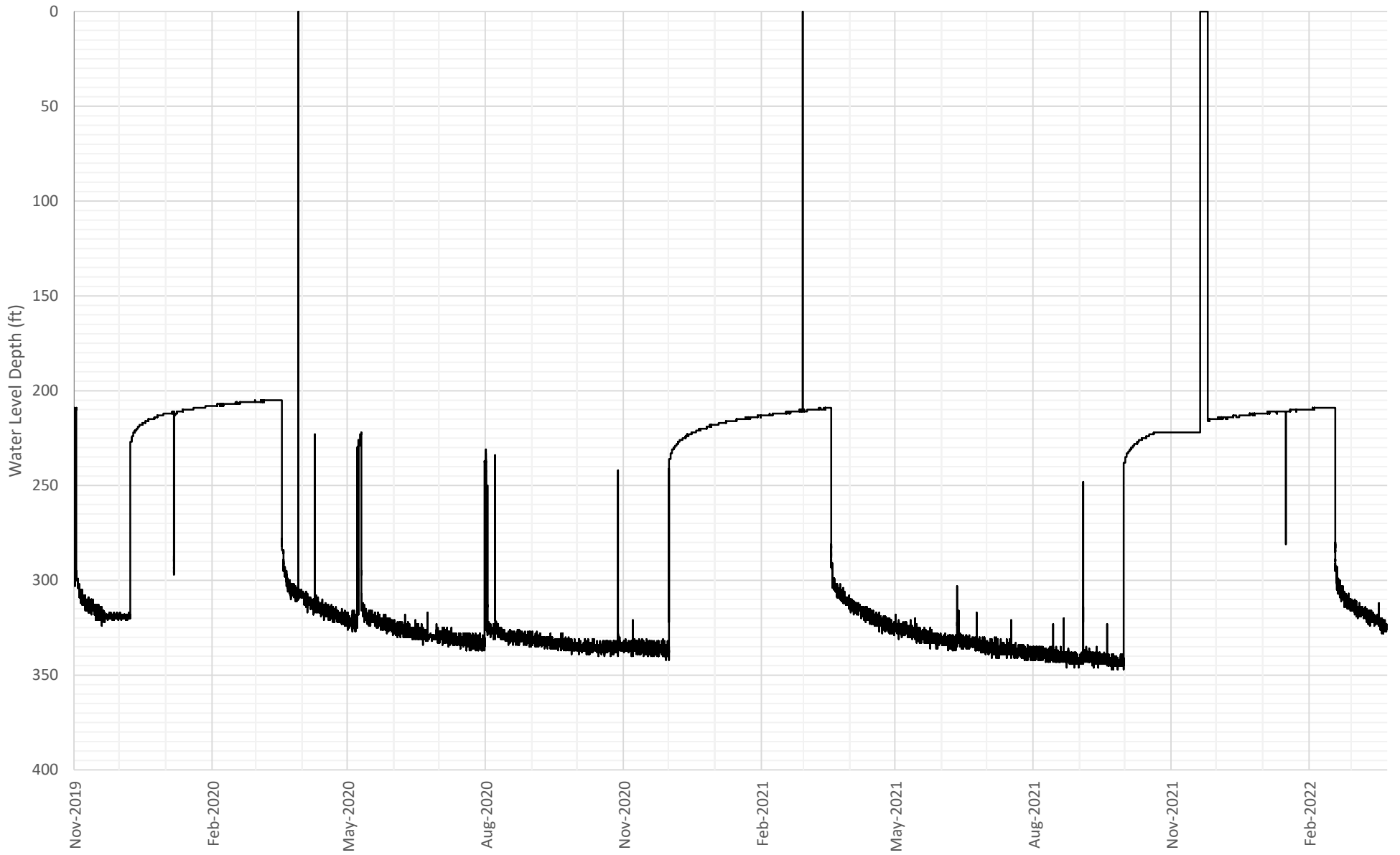
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West Well Water Level Depth 2015 - November 2019



West Well Water Level Depth November 2019 - 2022

On November 25, 2019 Transducer Recalibrated to 9 feet Lower Than Previous Years' Measurements



WEST WELL (MARCH – APRIL) PRE-START STATIC WATER LEVEL

Start	December 31st	
2015- 200' transducer- change	207'	
2016 – 205'	207'	
2017 – 202'	210'	
2018 – 203'	209'	
2019 – 202' transducer- change	320'	recently shut down
2020 – 211'	228'	recharging
2021 – 209'	214'	
2022 – 209'		

West well draw down

Well sounder measurement

*2022-2023.

- End of 22 - First NOV 2022 Recovered to 217'
- Beginning of 23- (4-12-23) 217ft.

*2023-2024.

- End of 23- (11-5-23) 255ft.
- Beginning of 24- ran through the winter for toquerville bypass project.