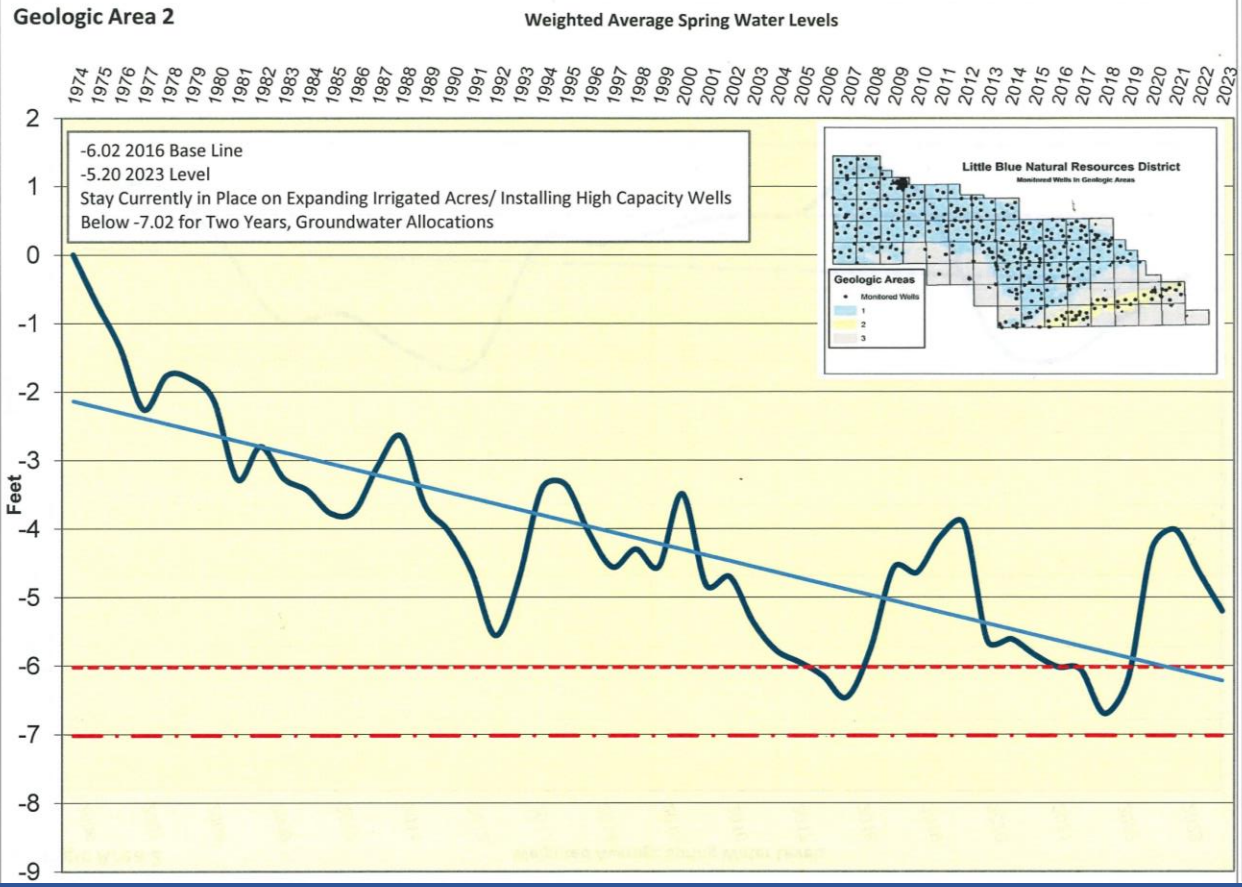
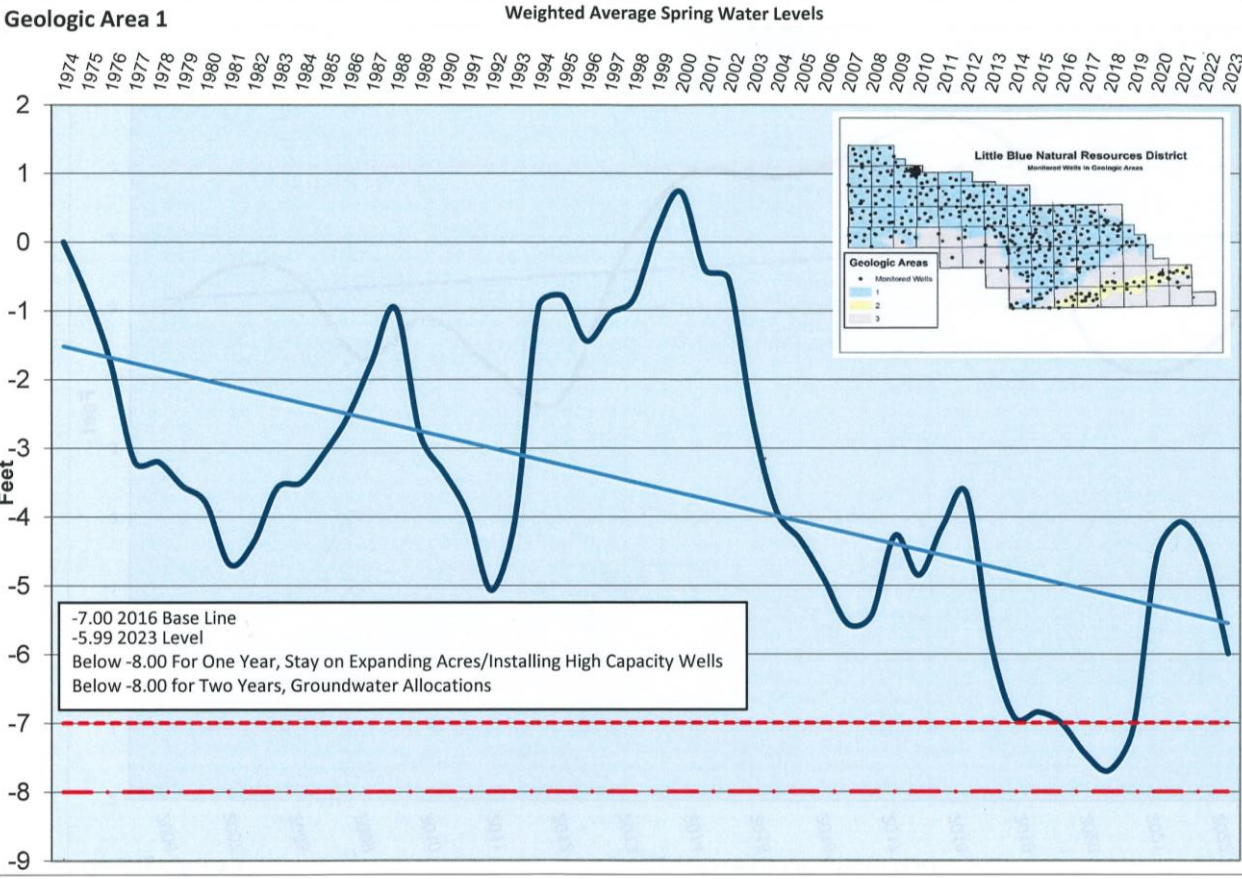


Little Blue Natural Resources District 2022 Integrated Management Plan Report

Updates for September 22, 2023

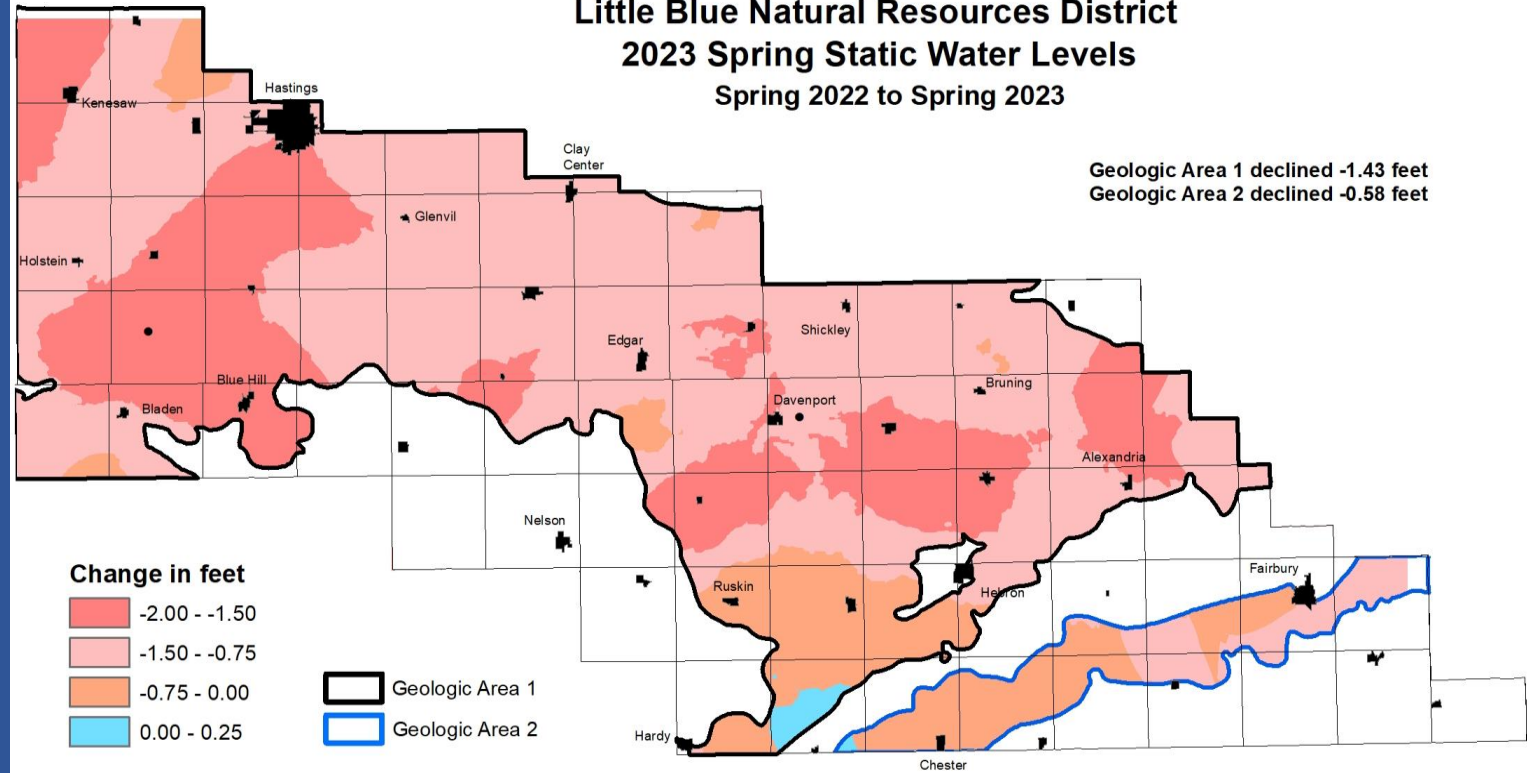




Geologic Area 1 was 2.01 feet above trigger for stay with spring 2023 measurements
 Geologic Area 2 was 1.82 feet above trigger for stay with spring 2023 measurements
 Geologic Area 1 dropped -2.03 in 2003 and -2.16 in 2013
 Geologic Area 2 dropped -1.33 in 2001 and -1.71 in 2013

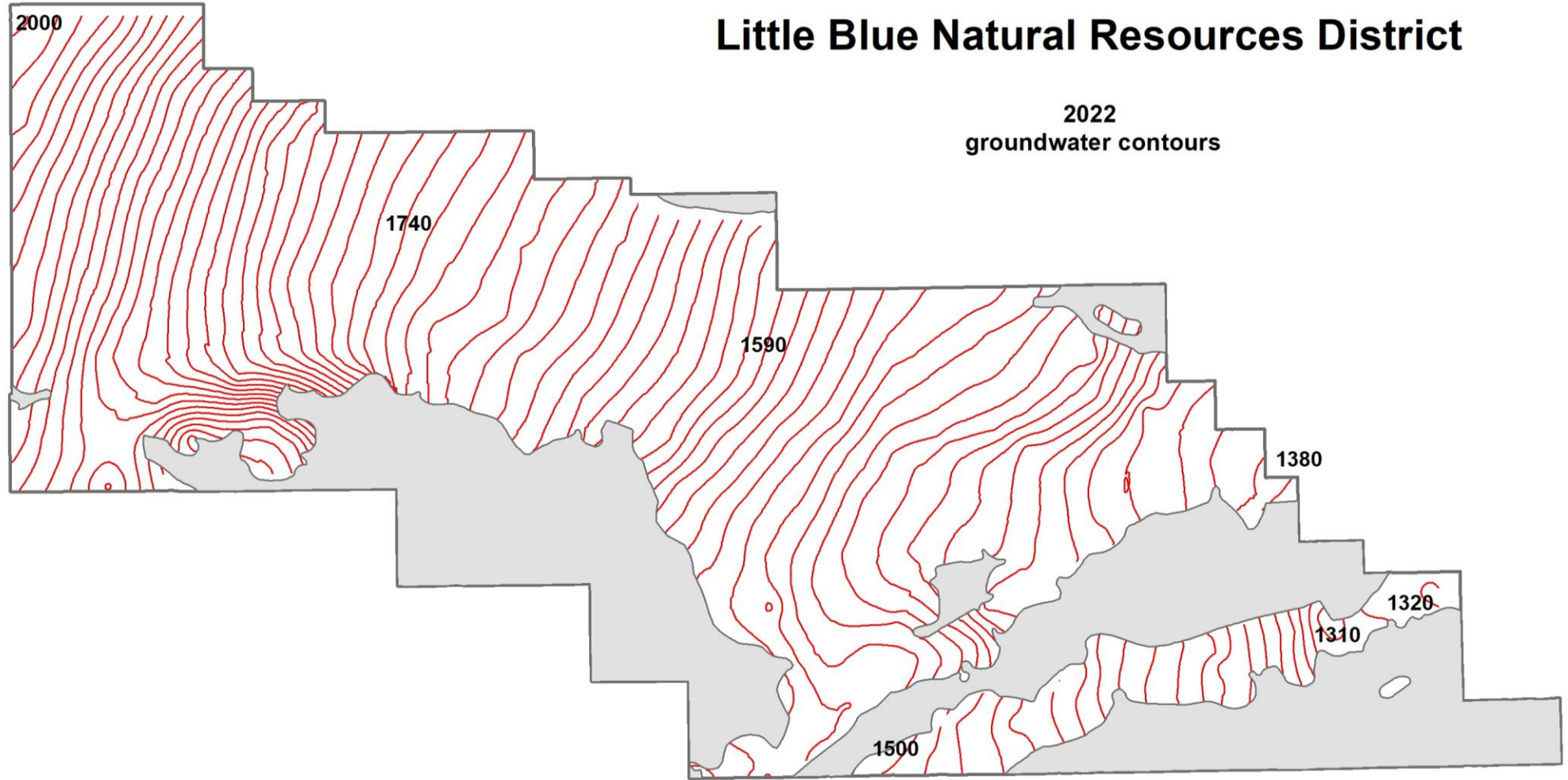
Little Blue Natural Resources District 2023 Spring Static Water Levels Spring 2022 to Spring 2023

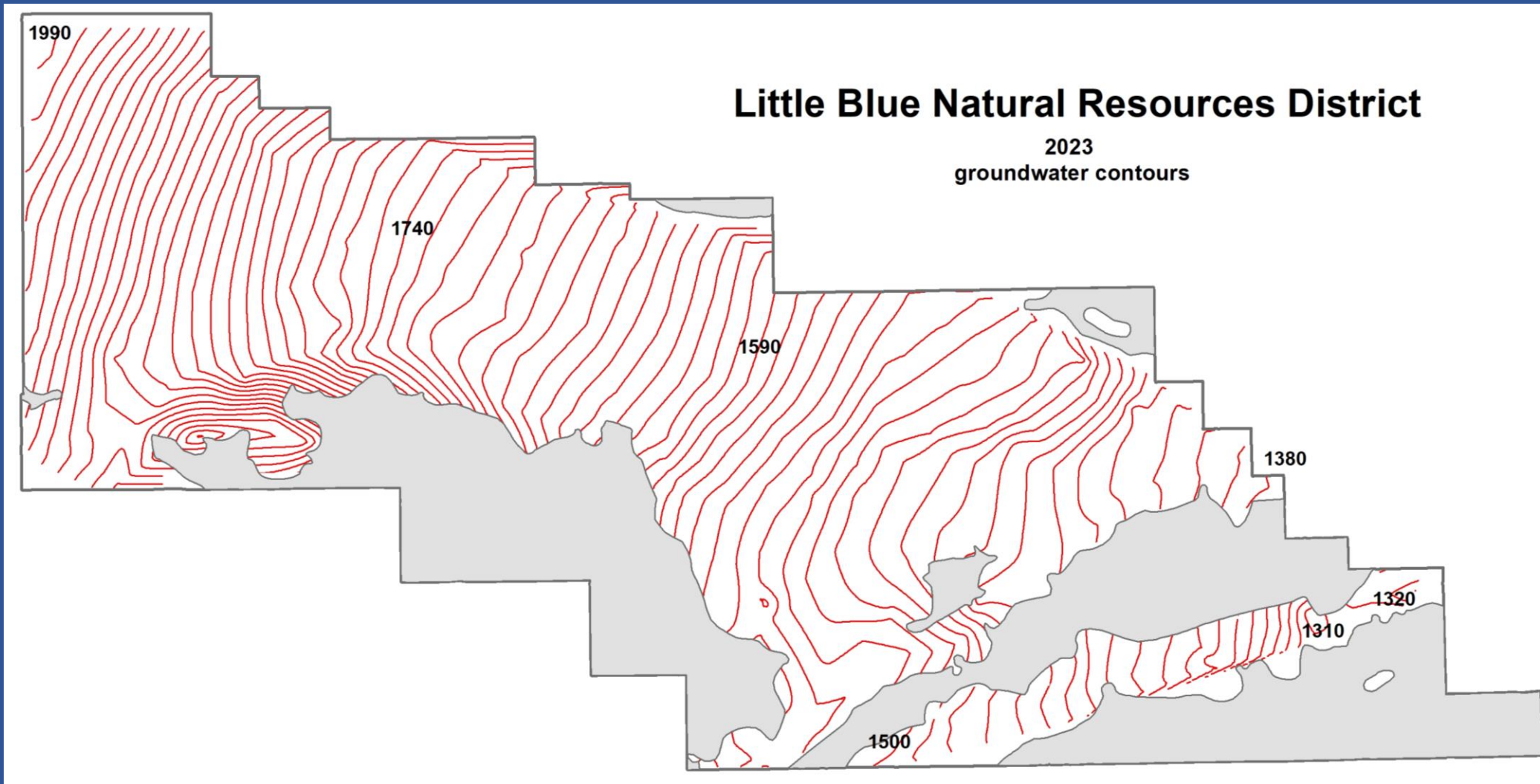
Geologic Area 1 declined -1.43 feet
Geologic Area 2 declined -0.58 feet



Little Blue Natural Resources District

2022
groundwater contours





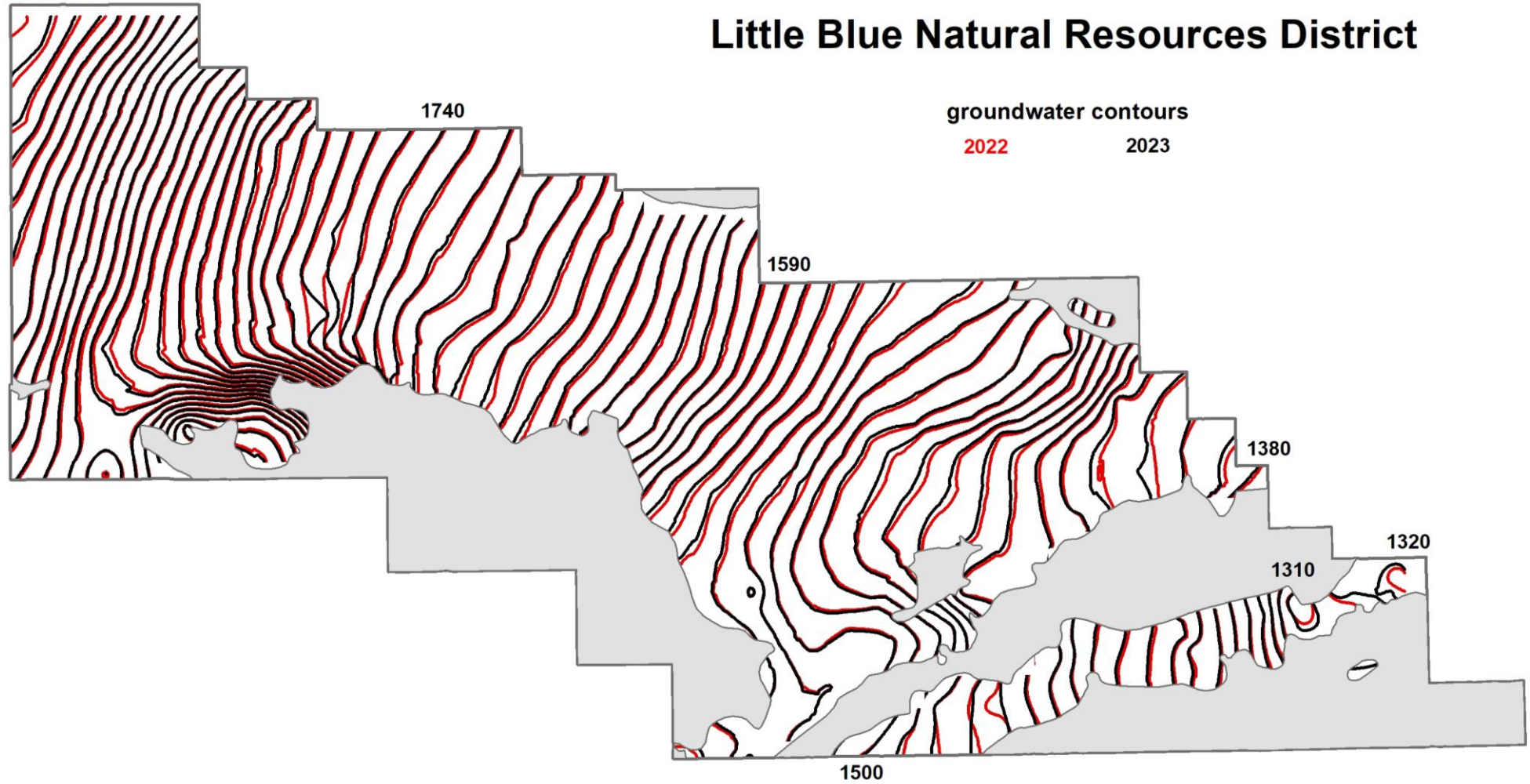
2000 1990

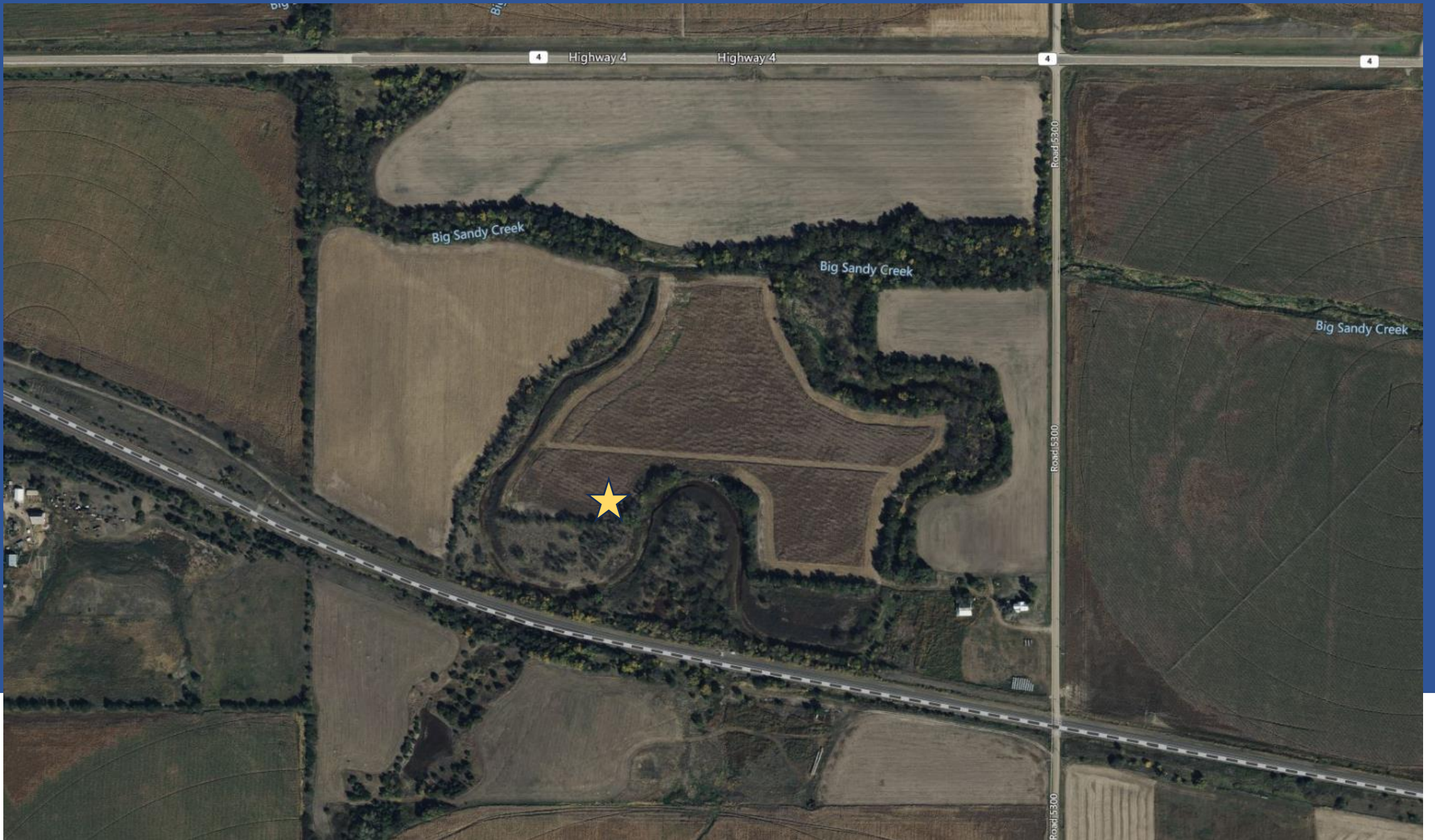
Little Blue Natural Resources District

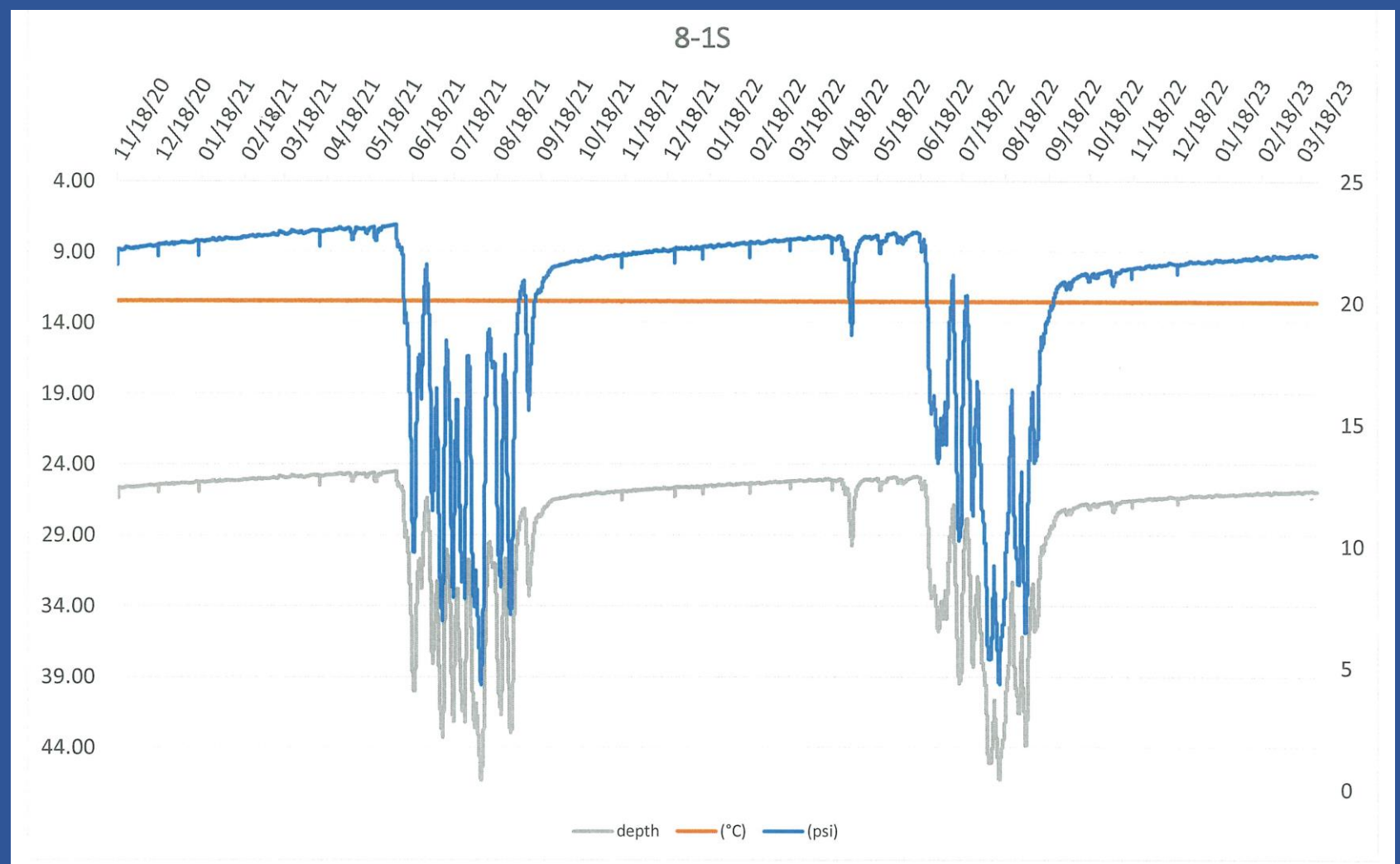
groundwater contours

2022

2023

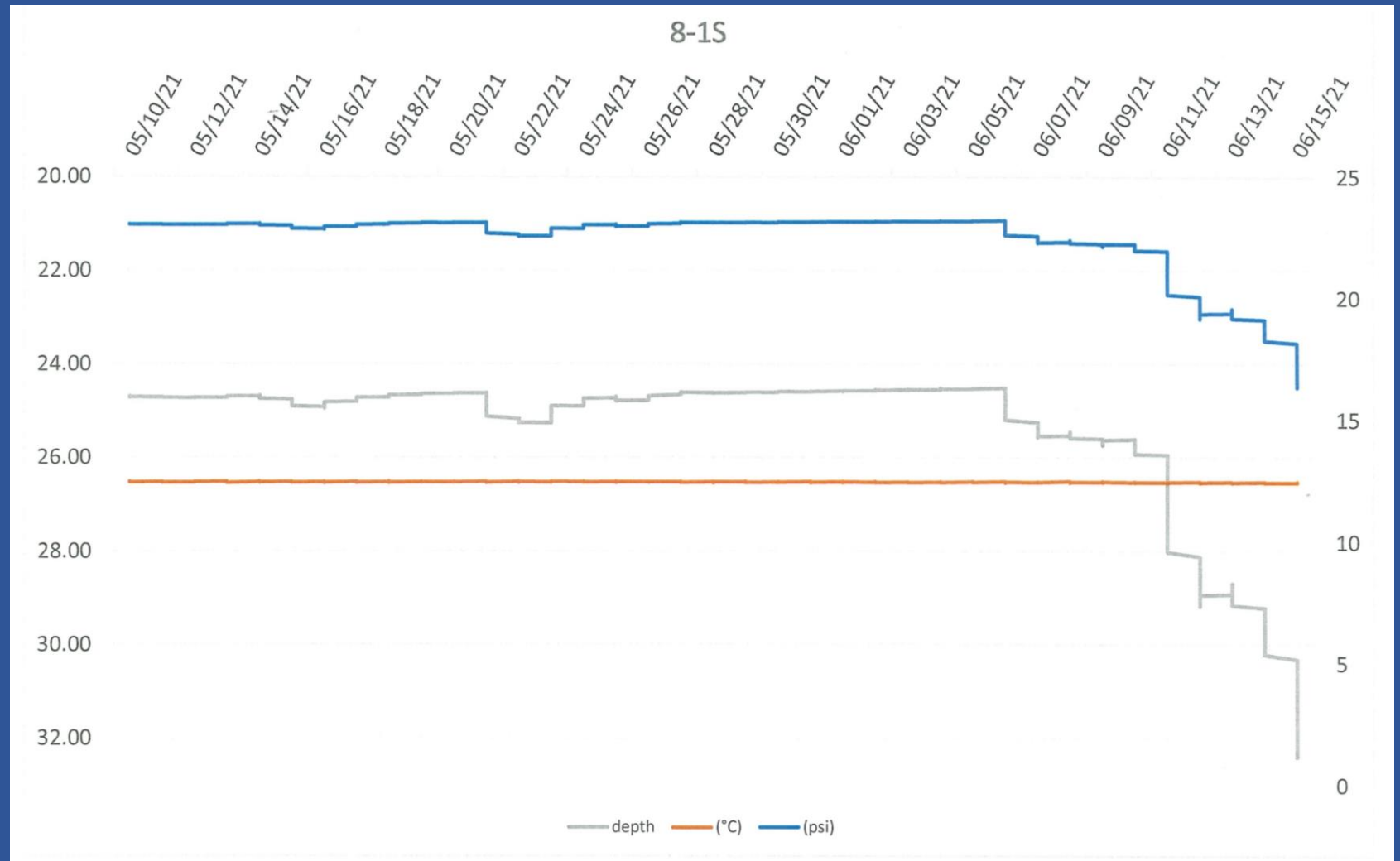






May 27, 2021 four rainfall stations in the watershed reported 1.86 to 2.23
 Three days later the stream gauge at Fairbury spiked





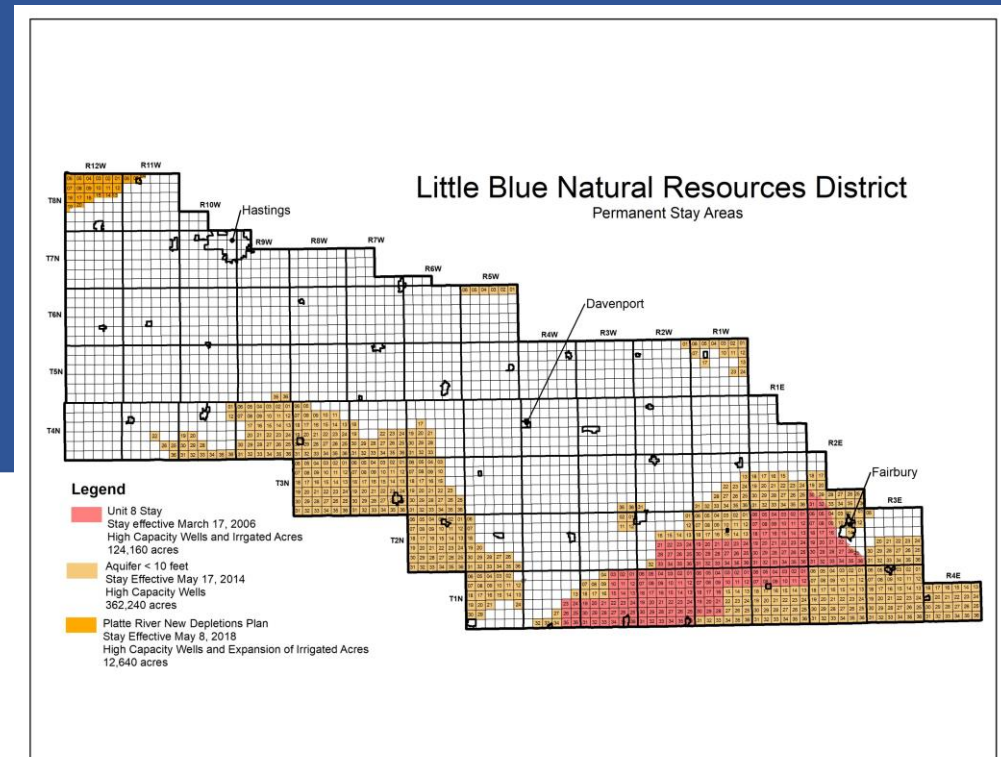
The rise for May 27 to June 6 was 0.05 of a foot

Certified Irrigated Acres

initial certification completed December 31, 2018

- 2019 – 636,180 acres
- 2020 – 653,780 acres 2.7% increase
- 2021 – 662,742 acres 1.3% increase
- 2022 – 668,248 acres 0.8% increase to September 2022
- 2023 – 671,404 acres 0.4% increase from September 2023

- Certified 26,545.24 acres in Unit 8
9,510.40 acres PRRIP area
1,527.14 acres Unit 3
no additions since creation



District's database has 6,483 active wells and 6,118 active flow meters

2019 - average irrigation use was 2.4 inches per acre

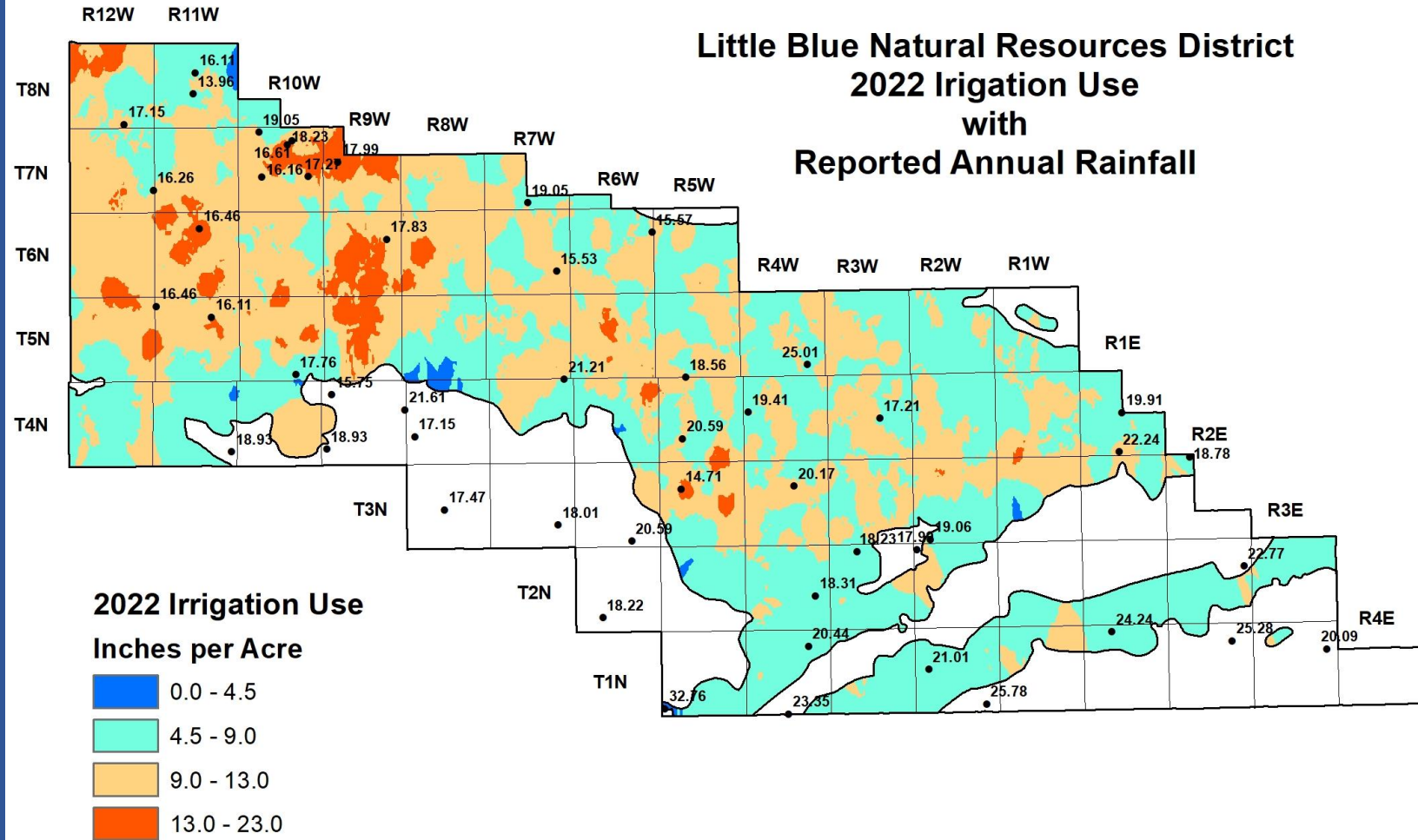
2020 - average irrigation use was 6.7 inches per acre

2021 - average irrigation use was 8.0 inches per acre

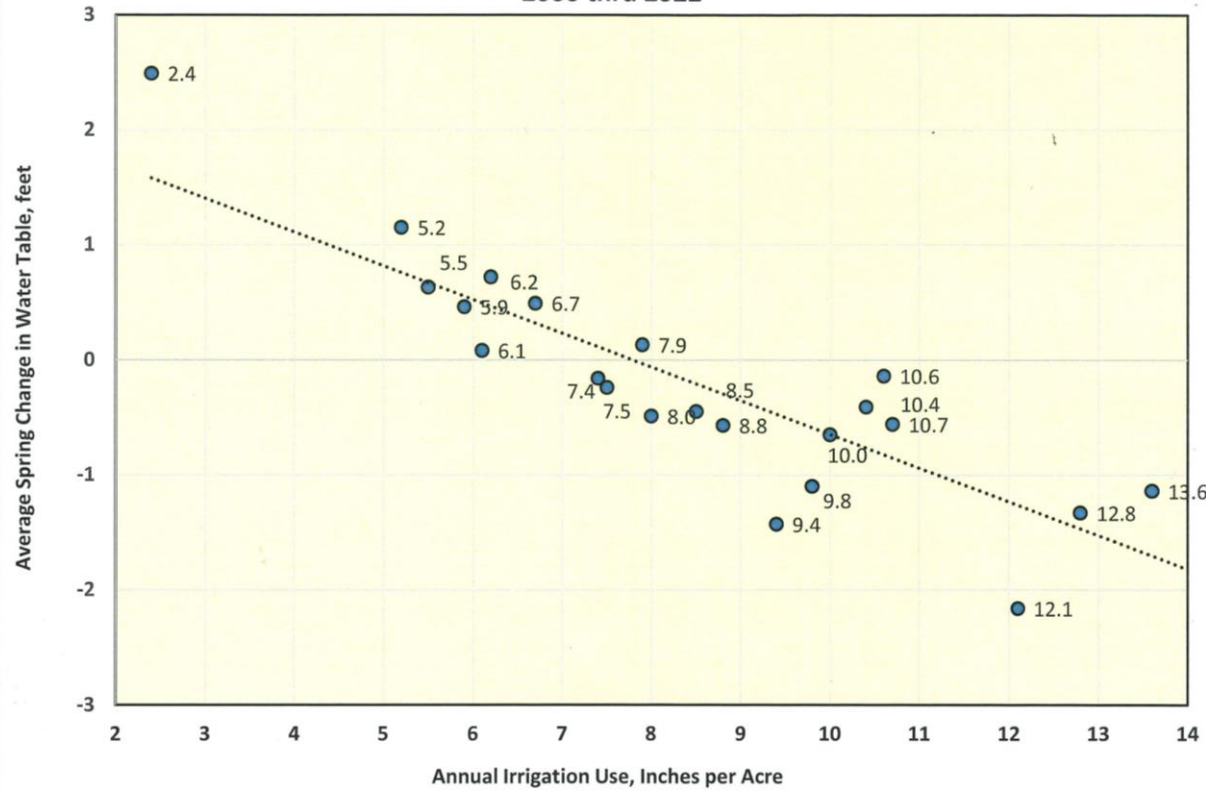
2022 - average irrigation use was 9.4 inches per acre



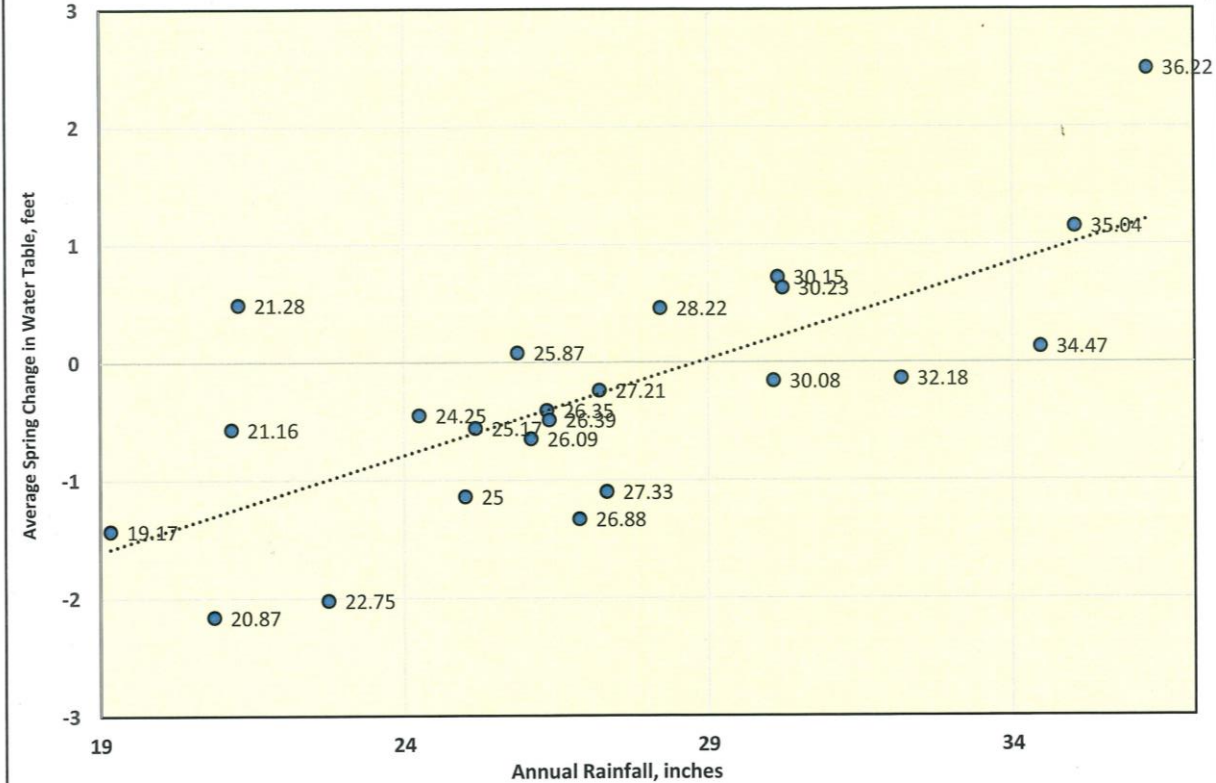
Little Blue Natural Resources District 2022 Irrigation Use with Reported Annual Rainfall



Annual Irrigation Withdrawal to Water Level Change.
2000 thru 2022



Annual Rainfall to Water Level Change
2000 thru 2022



9.4 inches irrigation in 2022 was a 1.43 decline in 2023
 19.7 inches rainfall in 2022 was a 1.43 decline in 2023



Average wildlife use was 9.7 inches per acre on 4,309 acres
Average golf course use was 22.6 inches per acre on 280 acres

Filling ponds and sprayers used 441,270,310 gallons

NAD Groundwater Extraction/Treatment used 1.920 billion gallons

Water use for the municipalities and villages for:

2019 3,077,984,693

2020 3,646,231,938

2021 3,370,681,247

2022 3,665,361,948

Acres of Gravity Irrigation

2019 – 36,900

2020 – 34,534

2021 – 31,965

2022 – 28,701

Well Permits August 2021 to August 2022

35 Irrigation Wells, 9 were replacements

1 Commercial

0 Livestock

1 Municipal

Irrigation Well Permitting Process

4 required a soil conservation plan

0 required pumping test

Variations

1. variations to District rules are considered by the Water Resources Committee on a case-by-case basis with recommendations made to full board
 2. variations are only considered if sent to the Committee by a board member or manager
- 0 variations were requested for 2023/2024

1. Groundwater Transfers Off Overlying Land

1. definition of overlying land for transfers is limited to a contiguous tract no larger than 160 acres
2. receiving tract can be no larger than where the transfer originates from
3. transfer can only be to adjacent tract of land

3 transfers were approved in 2022/2023 in Nuckolls, Thayer, and Fillmore counties

Transfers of Certified Acres

- District Rules allow for transfers of certified acres in Unit 8; however, none have been requested
- IMP details transfer in PRRIP; however, none have been requested



Questions or Comments?

