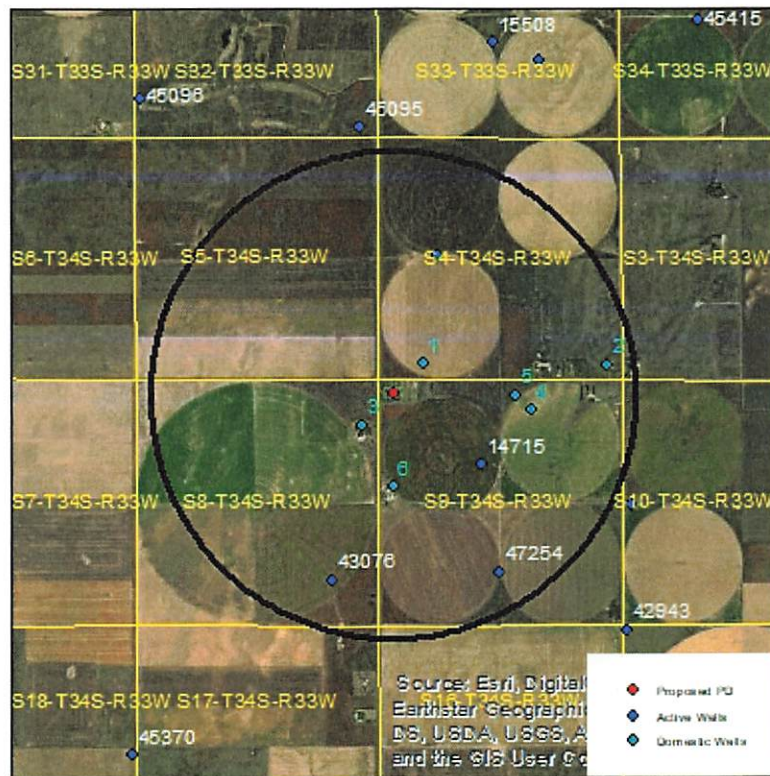


## Evaluation of proposed move for Water Right No. 50771

Proposed: Create a new appropriation for water right no. 50771 at the location indicated by the red dot on the map below. This water right is allowable under the 15 acre-ft exemption rule. It will be authorized 15 AF at a rate of 250 gpm, for the purpose of irrigating the cemetery.



Wells within 1 mile: 13731, 43076, 14715, 47254, and 6 domestic wells, numbered on the map above.

The saturated thickness at the proposed well location is estimated to be 345 ft, based upon the GMD3 model. For saturated thickness greater than 200 ft, the drawdown allowance is 4.0 ft.

**50 year Theis Analysis:** The following values were used to run the analysis:

$$S = 0.1516, T = 3592 \text{ ft}^2/\text{day}, t_{p\text{proposed}} = 14 \text{ days}, Q_{p\text{proposed}} = 250 \text{ gpm}$$

Theis drawdowns were calculated as follows:

13731:	Net drawdown = <b>0.2 ft</b>
43076:	Net drawdown = <b>0.2 ft</b>
14715:	Net drawdown = <b>0.2 ft</b>
47254:	Net drawdown = <b>0.2 ft</b>
Domestic 1:	Net drawdown = <b>0.6 ft</b>
Domestic 2:	Net drawdown = <b>0.2 ft</b>
Domestic 3:	Net drawdown = <b>0.6 ft</b>

Domestic 4: Net drawdown = 0.2 ft

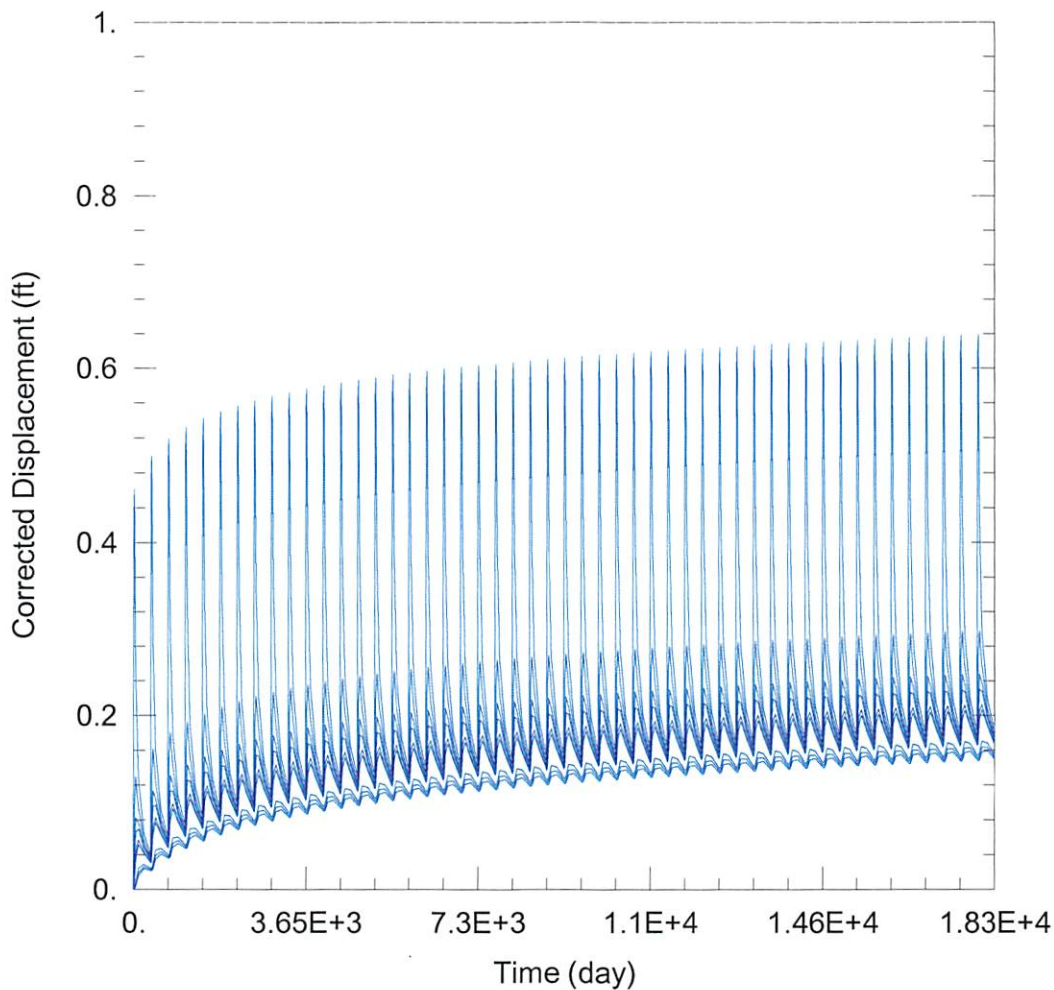
Domestic 5: Net drawdown = 0.2 ft

Domestic 6: Net drawdown = 0.3 ft

Net drawdown does not exceed the drawdown allowance of 4.0 ft for any well within 1 mile of the proposed location. Therefore, critical well analysis is not necessary.

**Conclusion:**

The proposed move is likely to create minimal effects on neighboring wells and appears unlikely to cause impairment. Any concerned neighbors should contact GMD3 at (620) 275-7147 or the Division of Water Resources at (620) 276-2901.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2022\_moves\50771\50771.aqt

Date: 06/09/22

Time: 16:55:11

PROJECT INFORMATION

Company: GMD 3

Project: 50771

Location: Seward County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
Proposed	-35554	86136

Observation Wells

Well Name	X (ft)	Y (ft)
□	-35554	86136
□ 13731	-34598	89167
□ 43076	-36881	82125
□ 14715	-33612	84615
□ 47254	-33236	82295
□ Domestic 1	-34892	86793
□ Domestic 2	-30891	86780
□ Domestic 3	-36213	85473
□ Domestic 4	-32551	85795
□ Domestic 5	-32885	86128
□ Domestic 6	-35547	84143

SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis