#### Evaluation of proposed move for Water Right No. 24571

Proposed: Move water right no. 24571 a distance of 2,558 ft to the northeast.



Wells within 1 mile: FI 20, 3545, 5952, 41116 & 43528, 3220, 17785, 10805, 3583, FI 24, 3917 & 12807, 3916, 988, 6481, and 8 domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 171 ft, based upon the driller's log and an observation well in section 31-23-32. For saturated thickness between 150 ft and 200 ft, the drawdown allowance is 3.5 ft.

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

S = 0.2335, T = 9938.4 ft<sup>2</sup>/day,

 $tp_{current} = 120 \text{ days (assumed)}, Q_{current} = 183 \text{ gpm (based on average use and assumed time pumped)}, \\ tp_{proposed} = 25.2 \text{ days, } Q_{proposed} = 1220 \text{ gpm}$ 

Theis drawdowns were calculated as follows:

FI 20:

Drawdown from current location = 0.39 ft

Drawdown from proposed location = 0.66 ft

Net drawdown = 0.3 ft

3545:	Drawdown from current location = 0.37 ft
<u> ጎካ</u> ፈካ՝	Drawnown from current location = 0.37 ft

Drawdown from proposed location = 0.75 ft

Net drawdown = **0.4 ft** 

5952: Drawdown from current location = 0.52 ft

Drawdown from proposed location = 0.78 ft

Net drawdown = **0.3** ft

41116 & 43528: Drawdown from current location = 1.05 ft

Drawdown from proposed location = 1.01 ft

Net drawdown = **0.0** ft

3220: Drawdown from current location = 0.93 ft

Drawdown from proposed location = 1.60 ft

Net drawdown = 0.7 ft

17785: Drawdown from current location = 0.60 ft

Drawdown from proposed location = 1.24 ft

Net drawdown = 0.6 ft

10805: Drawdown from current location = 0.45 ft

Drawdown from proposed location = 1.32 ft

Net drawdown = 0.9 ft

3583: Drawdown from current location = 0.36 ft

Drawdown from proposed location = 0.64 ft

Net drawdown = 0.3 ft

FI 24: Drawdown from current location = 0.40 ft

Drawdown from proposed location = 0.65 ft

Net drawdown = **0.3** ft

3917 & 12807: Drawdown from current location = 0.59 ft

Drawdown from proposed location = 0.58 ft

Net drawdown = **0.0** ft

3916:	Drawdown from current location = 0.90 ft
3310.	Diamagnii iloili callelle location - 0.50 le

Drawdown from proposed location = 0.71 ft

Net drawdown = -0.2 ft

988: Drawdown from current location = 0.66 ft

Drawdown from proposed location = 0.59 ft

Net drawdown = -0.1 ft

6481: Drawdown from current location = 0.55 ft

Drawdown from proposed location = 0.63 ft

Net drawdown = 0.1 ft

Domestic 1: Drawdown from current location = 0.41 ft

Drawdown from proposed location = 0.84 ft

Net drawdown = 0.4 ft

Domestic 2: Drawdown from current location = 0.73 ft

Drawdown from proposed location = 1.89 ft

Net drawdown = 1.2 ft

Domestic 3: Drawdown from current location = 0.59 ft

Drawdown from proposed location = 0.81 ft

Net drawdown = 0.2 ft

Domestic 4: Drawdown from current location = 0.57 ft

Drawdown from proposed location = 2.30 ft

Net drawdown = 1.7 ft

Domestic 5: Drawdown from current location = 0.54 ft

Drawdown from proposed location = 1.82 ft

Net drawdown = 1.3 ft

Domestic 6: Drawdown from current location = 0.39 ft

Drawdown from proposed location = 0.63 ft

Net drawdown = 0.2 ft

Domestic 7: Drawdown from current location = 0.62 ft

Drawdown from proposed location = 0.58 ft

Net drawdown = 0.0 ft

Domestic 8: Drawdown from current location = 0.60 ft

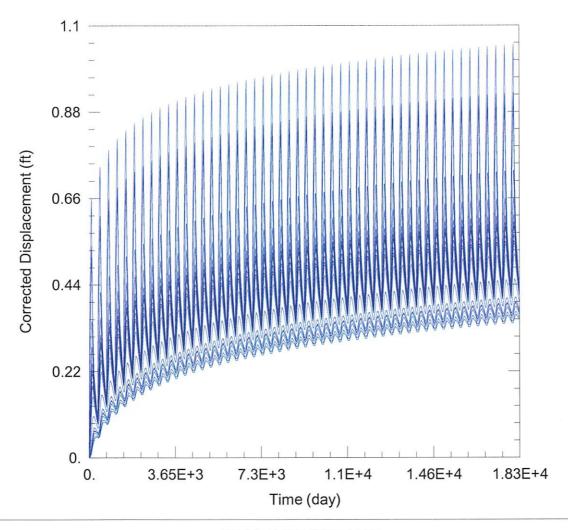
Drawdown from proposed location = 0.58 ft

Net drawdown = 0.0 ft

Net drawdown does not exceed the drawdown allowance of 3.5 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 is unlikely to cause impairment. GMD3 staff recommends approval of this proposal.



## WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021\_Moves\24571\24571 Current.aqt

Date: 09/15/21 Time: 16:39:45

## PROJECT INFORMATION

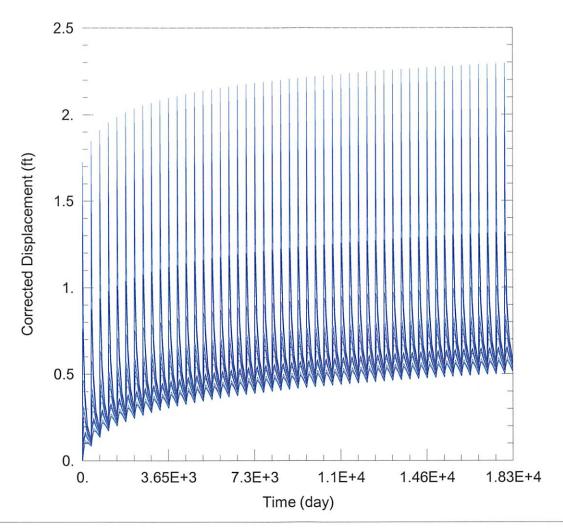
Company: GMD 3 Project: 24571

Location: Finney County

# WELL DATA

Pumping Wells				
Well Name	X (ft)	Y (ft)		
24571	-24220	411584		

Obser	vation Wells	
Well Name	X (ft)	Y (ft)
0	-24220	411584
□ FI 20	-26578	416531
<b>3545</b>	-21790	417124
· 5952	-26638	414128
<ul><li>41116 &amp; 43528</li></ul>	-25026	412302
<b>3220</b>	-23125	412399
<b>17785</b>	-21655	412718
<b>10805</b>	-21739	415132
<b>3583</b>	-19089	415178
□ Fl 24	-19061	413284
<b>3917 &amp; 12807</b>	-26728	410170
<b>3916</b>	-25517	410962
□ 988	-25490	409542
· 6481	-21628	409765



# WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021\_Moves\24571\24571 Proposed.aqt

Date: 09/15/21 Time: 16:39:37

## PROJECT INFORMATION

Company: GMD 3 Project: 24571

Location: Finney County

## **WELL DATA**

Pumping Wells				
Well Name	X (ft)	Y (ft)		
24571	-23267	413957		

Observation Wells				
Well Name	X (ft)	Y (ft)		
	-23267	413957		
□ FI 20	-26578	416531		
<b>3545</b>	-21790	417124		
· 5952	-26638	414128		
<ul> <li>41116 &amp; 43528</li> </ul>	-25026	412302		
□ 3220	-23125	412399		
<b>17785</b>	-21655	412718		
<b>10805</b>	-21739	415132		
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□ Fl 24	-19061	413284		
<ul> <li>3917 &amp; 12807</li> </ul>	-26728	410170		
<b>3916</b>	-25517	410962		
<b>988</b>	-25490	409542		
□ 6481	-21628	409765		