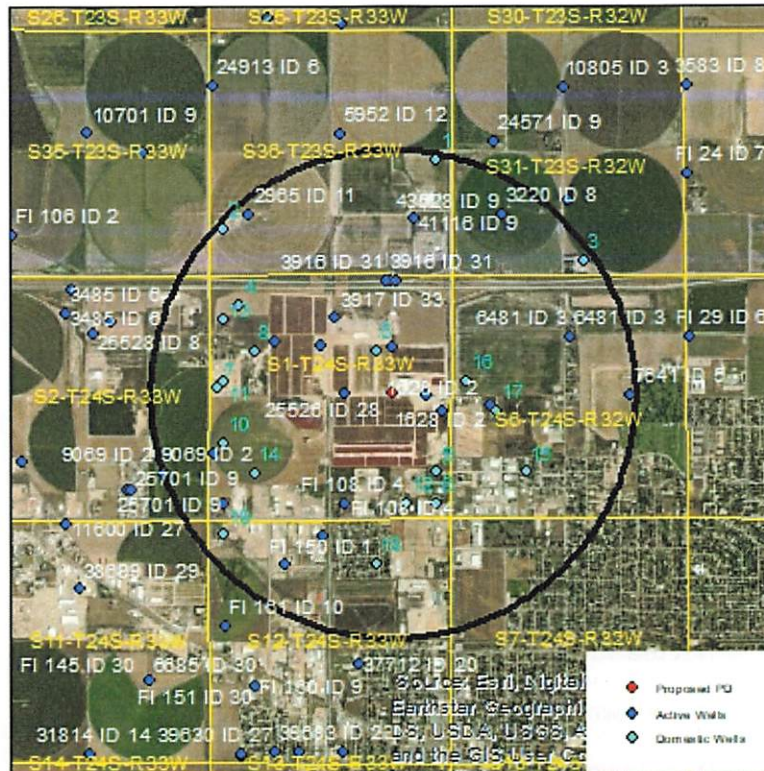


## Evaluation of proposed move for Water Right Nos. 988 and 3916

Proposed: Move water right no. 988 to the well currently authorized under water right nos. 3917 and 12807, 1016 ft to the south. Move water right no. 3916 to the well currently authorized under water right nos. 3917 and 12807, 2436 to the south of its geocenter. This change does not meet spacing requirements under GMD3 rules. A waiver of spacing rules will be required if the move is to be approved.



Wells within 1 mile: 2965, 41116 & 43528, 3220, 18087, 3917 & 12807 ID19, 3917 & 12807 ID22, 3917 & 12807 ID32, 3917 & 12807 ID33, FI 109, FI 108, 1628, 6481, 7641, FI 150, 21468, and nineteen domestic wells, numbered on the above map.

The saturated thickness at the proposed well location is estimated to be 140 ft, based upon the GMD3 model. For saturated thickness between 125 ft and 150 ft, the drawdown allowance is 3.0 ft.

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

$S = 0.112$ ,  $T = 12,891 \text{ ft}^2/\text{day}$ ,

988:  $tp_{\text{current}} = 24 \text{ days}$ ,  $Q_{\text{current}} = 196 \text{ gpm}$

Proposed:  $tp = 106 \text{ days}$ ,  $Q = 1788 \text{ gpm}$

Theis drawdowns were calculated as follows:

2965:	Drawdown from current location = 0.14 ft Drawdown from proposed location = 3.81 ft Net drawdown = <b>3.7 ft</b>
41116 & 43528:	Drawdown from current location = 0.37 ft Drawdown from proposed location = 4.61 ft Net drawdown = <b>4.2 ft</b>
3220:	Drawdown from current location = 0.18 ft Drawdown from proposed location = 4.08 ft Net drawdown = <b>3.9 ft</b>
18087:	Drawdown from current location = 0.09 ft Drawdown from proposed location = 4.38 ft Net drawdown = <b>4.3 ft</b>
3917 & 12807 ID19:	Drawdown from current location = 0.17 ft Drawdown from proposed location = 5.57 ft Net drawdown = <b>5.4 ft</b>
3917 & 12807 ID22:	Drawdown from current location = 0.16 ft Drawdown from proposed location = 9.10 ft Net drawdown = <b>8.9 ft</b>
3917 & 12807 ID32:	Drawdown from current location = 0.19 ft Drawdown from proposed location = 11.08 ft Net drawdown = <b>10.9 ft</b>
3917 & 12807 ID33:	Drawdown from current location = 0.36 ft Drawdown from proposed location = 6.76 ft Net drawdown = <b>6.4 ft</b>
FI 109:	Drawdown from current location = 0.08 ft Drawdown from proposed location = 4.18 ft Net drawdown = <b>4.1 ft</b>

FI 108:	Drawdown from current location = 0.10 ft Drawdown from proposed location = 5.88 ft Net drawdown = <b>5.8 ft</b>
1628:	Drawdown from current location = 0.14 ft Drawdown from proposed location = 6.60 ft Net drawdown = <b>6.5 ft</b>
6481:	Drawdown from current location = 0.12 ft Drawdown from proposed location = 4.42 ft Net drawdown = <b>4.3 ft</b>
7641:	Drawdown from current location = 0.09 ft Drawdown from proposed location = 3.72 ft Net drawdown = <b>3.6 ft</b>
FI 150:	Drawdown from current location = 0.08 ft Drawdown from proposed location = 4.19 ft Net drawdown = <b>4.1 ft</b>
21468:	Drawdown from current location = 0.09 ft Drawdown from proposed location = 4.92 ft Net drawdown = <b>4.8 ft</b>
Domestic 1:	Drawdown from current location = 0.18 ft Drawdown from proposed location = 3.72 ft Net drawdown = <b>3.5 ft</b>
Domestic 2:	Drawdown from current location = 0.13 ft Drawdown from proposed location = 3.73 ft Net drawdown = <b>3.6 ft</b>
Domestic 3:	Drawdown from current location = 0.11 ft Drawdown from proposed location = 3.77 ft Net drawdown = <b>3.7 ft</b>

Domestic 4:	Drawdown from current location = 0.15 ft Drawdown from proposed location = 4.56 ft Net drawdown = <b>4.4 ft</b>
Domestic 5:	Drawdown from current location = 0.34 ft Drawdown from proposed location = 9.70 ft Net drawdown = <b>9.4 ft</b>
Domestic 6:	Drawdown from current location = 0.10 ft Drawdown from proposed location = 5.94 ft Net drawdown = <b>5.8 ft</b>
Domestic 7:	Drawdown from current location = 0.11 ft Drawdown from proposed location = 4.60 ft Net drawdown = <b>4.5 ft</b>
Domestic 8:	Drawdown from current location = 0.15 ft Drawdown from proposed location = 5.15 ft Net drawdown = <b>5.0 ft</b>
Domestic 9:	Drawdown from current location = 0.11 ft Drawdown from proposed location = 6.97 ft Net drawdown = <b>6.9 ft</b>
Domestic 10:	Drawdown from current location = 0.10 ft Drawdown from proposed location = 4.59 ft Net drawdown = <b>4.5 ft</b>
Domestic 11:	Drawdown from current location = 0.11 ft Drawdown from proposed location = 4.70 ft Net drawdown = <b>4.6 ft</b>
Domestic 12:	Drawdown from current location = 0.10 ft Drawdown from proposed location = 6.20 ft Net drawdown = <b>6.1 ft</b>

Domestic 13: Drawdown from current location = 0.13 ft  
Drawdown from proposed location = 4.45 ft  
Net drawdown = **4.3 ft**

Domestic 14: Drawdown from current location = 0.10 ft  
Drawdown from proposed location = 4.88 ft  
Net drawdown = **4.8 ft**

Domestic 15: Drawdown from current location = 0.10 ft  
Drawdown from proposed location = 4.96 ft  
Net drawdown = **4.9 ft**

Domestic 16: Drawdown from current location = 0.18 ft  
Drawdown from proposed location = 7.67 ft  
Net drawdown = **7.5 ft**

Domestic 17: Drawdown from current location = 0.13 ft  
Drawdown from proposed location = 6.35 ft  
Net drawdown = **6.2 ft**

Domestic 18: Drawdown from current location = 0.08 ft  
Drawdown from proposed location = 4.68 ft  
Net drawdown = **4.6 ft**

Domestic 19: Drawdown from current location = 0.08 ft  
Drawdown from proposed location = 3.94 ft  
Net drawdown = **3.9 ft**

Net drawdown exceeds the drawdown allowance of 3.0 ft for all wells within 1 mile of the proposed location. Critical well analysis is necessary on those wells.

**Critical Well Evaluation:**

**2965:**

Water Column = 139 ft

DP = 3.7 ft (Net drawdown from the proposal indicated above)

DE = 31.8 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 60.1 ft (S = 0.179, T = 28,682 gpd/ft, Q = 700 gpm, tp = 73 days, efficiency = 70%)

DT = 95.6 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 139 \text{ ft} = 55.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $139 \text{ ft} - 60 \text{ ft} = 79 \text{ ft}$

Total drawdown of 95.6 ft is greater than the EDC and PDC, so this well is **critical**.

**41116 & 43528:**

Water Column = 139 ft

DP = 4.2 ft (Net drawdown from the proposal indicated above)

DE = 31.8 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 0 ft (No recent water use)

DT = 36.0 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 139 \text{ ft} = 55.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $139 \text{ ft} - 60 \text{ ft} = 79 \text{ ft}$

Total drawdown of 36.0 ft is less than the EDC and PDC, so this well is **not critical**.

**3220:**

Water Column = 135 ft

DP = 3.9 ft (Net drawdown from the proposal indicated above)

DE = 57.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 18.4 ft (S = 0.2333, T = 74,339 gpd/ft, Q = 550 gpm, tp = 40 days, efficiency = 70%)

DT = 79.4 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 135 \text{ ft} = 54 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $135 \text{ ft} - 60 \text{ ft} = 75 \text{ ft}$

Total drawdown of 75.5 ft is greater than the EDC and PDC, so this well is **critical**.

**18087:**

Water Column = 140 ft

DP = 4.3 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 0 ft (No recent water use)

DT = 57.4 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 60 \text{ ft} = 80 \text{ ft}$

Total drawdown of 57.4 ft is greater than the EDC, so this well is **critical**.

**3917 & 12807 ID19:**

Water Column = 140 ft

DP = 5.4 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 2.7 ft ( $S = 0.112$ ,  $T = 96,428 \text{ gpd/ft}$ ,  $Q = 100 \text{ gpm}$ ,  $tp = 47 \text{ days}$ ,  $\text{efficiency} = 70\%$ )

DT = 61.2 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 60 \text{ ft} = 80 \text{ ft}$

Total drawdown of 61.2 ft is greater than the EDC, so this well is **critical**.

**3917 & 12807 ID22:**

Water Column = 140 ft

DP = 8.9 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 0 ft (No recent water use)

DT = 62.0

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 60 \text{ ft} = 80 \text{ ft}$

Total drawdown of 62.0 ft is greater than the EDC, so this well is **critical**.

**3917 & 12807 ID32:**

Water Column = 140 ft

DP = 10.9 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 2.7 ft ( $S = 0.112$ ,  $T = 96,428$  gpd/ft,  $Q = 100$  gpm,  $tp = 49$  days)

DT = 66.7 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140$  ft = 56 ft

Physical Drawdown Constraint (PDC) =  $140$  ft –  $60$  ft =  $80$  ft

Total drawdown of 66.7 ft is greater than the EDC, so this well is **critical**.

**3917 & 12807 ID33:**

Water Column = 140 ft

DP = 6.4 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 2.7 ft ( $S = 0.112$ ,  $T = 96,428$  gpd/ft,  $Q = 100$  gpm,  $tp = 27$  days)

DT = 62.2 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140$  ft = 56 ft

Physical Drawdown Constraint (PDC) =  $140$  ft –  $60$  ft =  $80$  ft

Total drawdown of 62.2 ft is greater than the EDC, so this well is **critical**.

**FI 109:**

Water Column = 140 ft

DP = 4.1 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 13.3 ft ( $S = 0.112$ ,  $T = 96,428$ ,  $Q = 495$  gpm,  $tp = 29.5$  days)

DT = 70.5 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140$  ft = 56 ft

Physical Drawdown Constraint (PDC) =  $140$  ft –  $60$  ft =  $80$  ft

Total drawdown of 70.5 ft is greater than the EDC, so this well is **critical**.

**FI 108:**

Water Column = 140 ft

DP = 5.8 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 0 ft (No recent water use)

DT = 58.9 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 60 \text{ ft} - 80 \text{ ft}$

Total drawdown of 58.9 ft is greater than the EDC, so this well is **critical**.

**1628:**

Water Column = 169 ft

DP = 6.5 ft (Net drawdown from the proposal indicated above)

DE = 44.0 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 0 ft (No recent water use)

DT = 50.5 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 169 \text{ ft} = 67.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $169 \text{ ft} - 60 \text{ ft} = 109 \text{ ft}$

Total drawdown of 50.5 ft is less than the EDC and PDC, so this well is **not critical**.

**6481:**

Water Column = 169 ft

DP = 4.3 ft (Net drawdown from the proposal indicated above)

DE = 44.0 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 0 ft (No recent water use)

DT = 48.3 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 169 \text{ ft} = 67.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $169 \text{ ft} - 60 \text{ ft} = 109 \text{ ft}$

Total drawdown of 48.3 ft is less than the EDC and PDC, so this well is **not critical**.

**7641:**

Water Column = 169 ft

DP = 3.6 ft (Net drawdown from the proposal indicated above)

DE = 44.0 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 161.9 ft ( $S = 0.07947$ ,  $T = 1224$  gpd/ft,  $Q = 100$  gpm,  $tp = 39$  days)

DT = 209.5 ft

Total drawdown of 209.5 ft is greater than the remaining saturated thickness, so this well is **critical**.

**FI 150:**

Water Column = 138 ft

DP = 4.1 ft (Net drawdown from the proposal indicated above)

DE = 53.6 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 0 ft (No recent water use)

DT = 57.7 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 138 \text{ ft} = 55.2 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $138 \text{ ft} - 60 \text{ ft} = 78 \text{ ft}$

Total drawdown of 57.7 ft is greater than the EDC, so this well is **critical**.

**21468:**

Water Column = 138 ft

DP = 4.8 ft (Net drawdown from the proposal indicated above)

DE = 53.6 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DD = 0 ft (No recent water use)

DT = 58.4 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 138 \text{ ft} = 55.2 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $138 \text{ ft} - 60 \text{ ft} = 78 \text{ ft}$

Total drawdown of 58.4 ft is greater than the EDC, so this well is **critical**.

**Domestic 1:**

Water Column = 139 ft

DP = 3.5 ft (Net drawdown from the proposal indicated above)

DE = 31.8 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 35.3 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 139 \text{ ft} = 55.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $139 \text{ ft} - 20 \text{ ft} = 119 \text{ ft}$

Total drawdown of 35.3 ft is less than the EDC and PDC, so this well is **not critical**.

**Domestic 2:**

Water Column = 139 ft

DP = 3.6 ft (Net drawdown from the proposal indicated above)

DE = 31.8 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 35.4 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 139 \text{ ft} = 55.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $139 \text{ ft} - 20 \text{ ft} = 119 \text{ ft}$

Total drawdown of 35.4 ft is less than the EDC and PDC, so this well is **not critical**.

**Domestic 3:**

Water Column = 135 ft

DP = 3.7 ft (Net drawdown from the proposal indicated above)

DE = 57.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 60.8 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 135 \text{ ft} = 54.0 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $135 \text{ ft} - 20 \text{ ft} = 115 \text{ ft}$

Total drawdown of 60.8 ft is greater than the EDC, so this well is **critical**.

**Domestic 4:**

Water Column = 140 ft

DP = 4.4 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 57.5 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 57.5 ft is greater than the EDC, so this well is **critical**.

**Domestic 5:**

Water Column = 140 ft

DP = 9.4 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 62.5 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 62.5 ft is greater than the EDC, so this well is **critical**.

**Domestic 6:**

Water Column = 140 ft

DP = 5.8 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 58.9 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 58.9 ft is greater than the EDC, so this well is **critical**.

**Domestic 7:**

Water Column = 140 ft

DP = 4.5 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 57.6 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 57.6 ft is greater than the EDC, so this well is **critical**.

**Domestic 8:**

Water Column = 140 ft

DP = 5.0 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 58.1 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 58.1 ft is greater than the EDC, so this well is **critical**.

**Domestic 9:**

Water Column = 140 ft

DP = 6.9 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 60.0 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 60.0 ft is greater than the EDC, so this well is **critical**.

**Domestic 10:**

Water Column = 140 ft

DP = 4.5 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 57.6 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 57.6 ft is greater than the EDC, so this well is **critical**.

**Domestic 11:**

Water Column = 140 ft

DP = 4.6 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 57.7 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 57.7 ft is greater than the EDC, so this well is **critical**.

**Domestic 12:**

Water Column = 140 ft

DP = 6.1 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 59.2 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 59.2 ft is greater than the EDC, so this well is **critical**.

**Domestic 13:**

Water Column = 140 ft

DP = 4.3 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 57.4 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 57.4 ft is greater than the EDC, so this well is **critical**.

**Domestic 14:**

Water Column = 140 ft

DP = 4.8 ft (Net drawdown from the proposal indicated above)

DE = 53.1 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 57.9 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 140 \text{ ft} = 56 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $140 \text{ ft} - 20 \text{ ft} = 120 \text{ ft}$

Total drawdown of 57.9 ft is greater than the EDC, so this well is **critical**.

**Domestic 15:**

Water Column = 169 ft

DP = 4.9 ft (Net drawdown from the proposal indicated above)

DE = 44.0 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 48.9 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 169 \text{ ft} = 67.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $169 \text{ ft} - 20 \text{ ft} = 149 \text{ ft}$

Total drawdown of 48.9 ft is less than the EDC and PDC, so this well is **not critical**.

**Domestic 16:**

Water Column = 169 ft

DP = 7.5 ft (Net drawdown from the proposal indicated above)

DE = 44.0 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 51.5 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 169 \text{ ft} = 67.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $169 \text{ ft} - 20 \text{ ft} = 149 \text{ ft}$

Total drawdown of 51.5 ft is less than the EDC and PDC, so this well is **not critical**.

**Domestic 17:**

Water Column = 169 ft

DP = 6.2 ft (Net drawdown from the proposal indicated above)

DE = 44.0 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 50.2 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 169 \text{ ft} = 67.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $169 \text{ ft} - 20 \text{ ft} = 149 \text{ ft}$

Total drawdown of 50.2 ft is less than the EDC and PDC, so this well is **not critical**.

**Domestic 18:**

Water Column = 138 ft

DP = 4.6 ft (Net drawdown from the proposal indicated above)

DE = 53.6 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 58.2 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 138 \text{ ft} = 55.2 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $138 \text{ ft} - 20 \text{ ft} = 118 \text{ ft}$

Total drawdown of 58.2 ft is greater than the EDC, so this well is **critical**.

**Domestic 19:**

Water Column = 138 ft

DP = 3.9 ft (Net drawdown from the proposal indicated above)

DE = 53.6 ft (Water level decline from 2022 through 2047 based upon GMD3 model)

DT = 57.5 ft

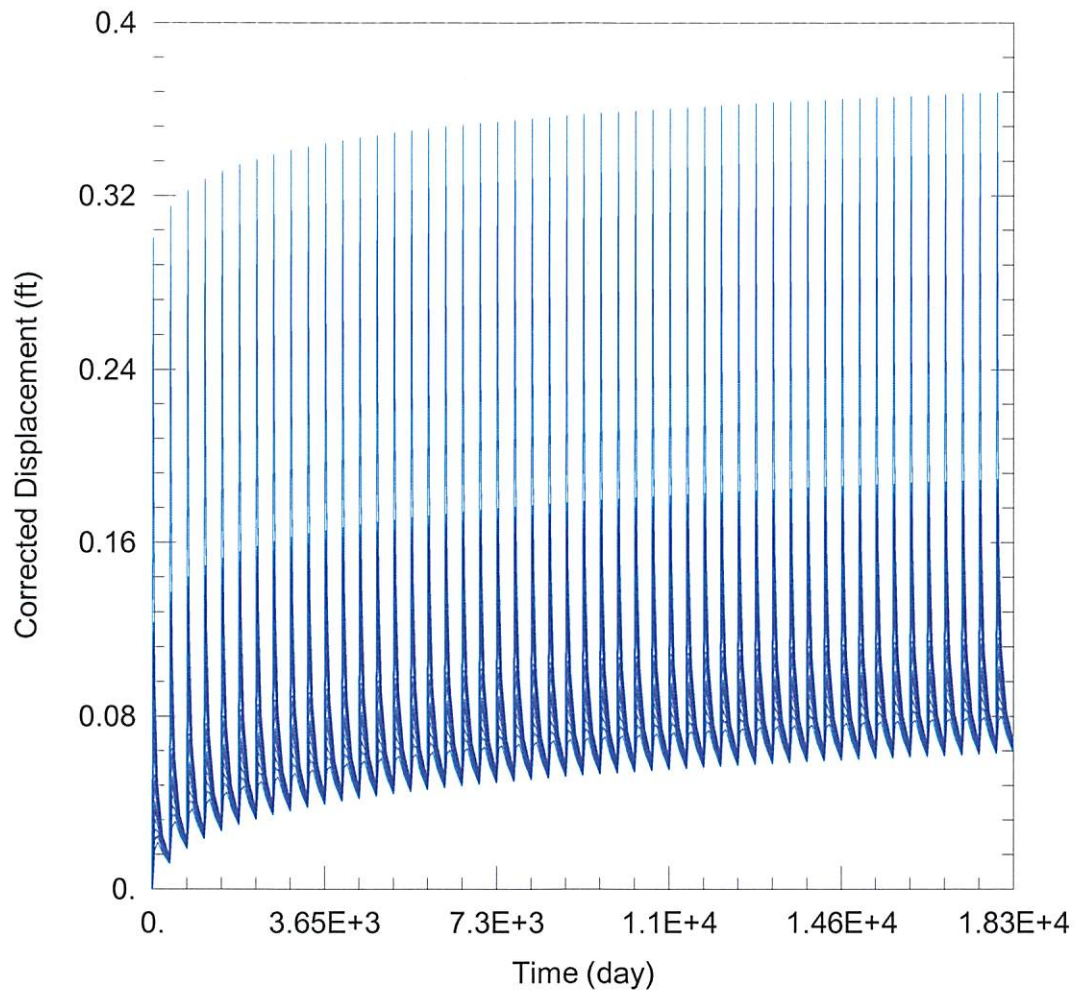
Economic Drawdown Constraint (EDC) =  $0.4 * 138 \text{ ft} = 55.2 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $138 \text{ ft} - 20 \text{ ft} = 118 \text{ ft}$

Total drawdown of 57.5 ft is greater than the EDC, so this well is **critical**.

**Conclusion:**

The proposed change is in an area that the GMD3 model projects as a poor water area. This projection is reinforced by most local wells operating at low pumping rates and quantities, with several wells not operating at all. The proposal is to relocate water rights with little to no recent use and combine them at a single well location for a total authorized rate and quantity of 1788 gpm and 838.7 AF. If the proposed well were to be authorized at this rate and quantity, noticeable effects would be created at neighboring critical well locations. However, the proposed well location has been reported as plugged on recent water use reports. If the well is plugged, then there will be no effects on neighboring wells, because the well location will be inoperable. It is unclear if this proposal can be legally completed. 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\988\_3916\988 & 3916 Current.aqt

Date: 05/26/22

Time: 15:55:59

### PROJECT INFORMATION

Company: GMD 3

Project: 988 & 3916

Location: Finney County

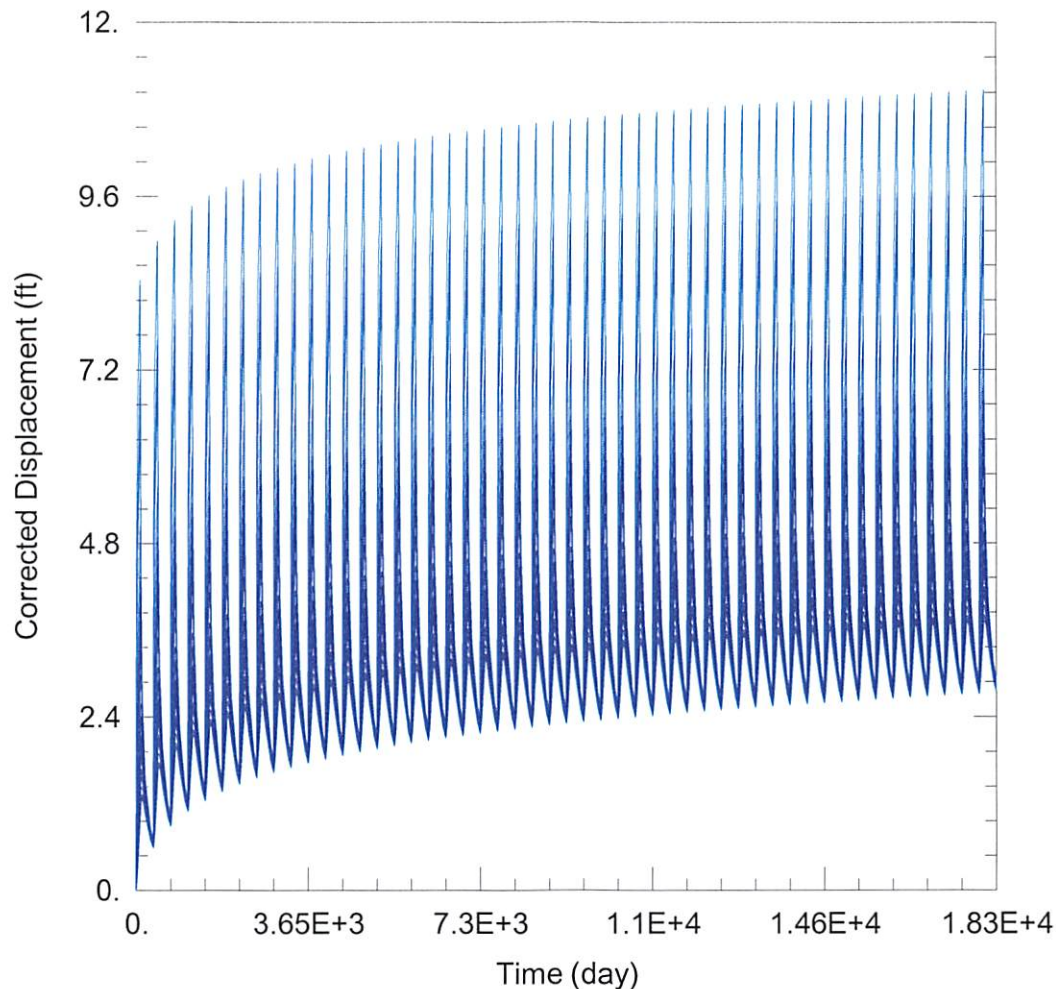
### WELL DATA

#### Pumping Wells

Well Name	X (ft)	Y (ft)
988	-25517	410962

#### Observation Wells

Well Name	X (ft)	Y (ft)
□	-25517	410962
□ 2965	-28628	412411
□ 41116 & 43528	-25026	412302
□ 3220	-23125	412399
□ 18087	-29383	407230
□ 3917 & 12807 ID19	-28054	409679
□ 3917 & 12807 ID22	-24396	408154
□ 3917 & 12807 ID32	-24770	408496
□ 3917 & 12807 ID33	-26728	410170
□ FI 109	-29182	406145
□ FI 108	-26531	406160
□ 1628	-23359	408280
□ 6481	-21628	409765
□ 7641	-20333	408500



### WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2022\_moves\988\_3916\988 & 3916 Proposed.aqt

Date: 05/26/22

Time: 15:55:51

### PROJECT INFORMATION

Company: GMD 3

Project: 988 & 3916

Location: Finney County

### WELL DATA

#### Pumping Wells

Well Name	X (ft)	Y (ft)
Proposed	-25491	408526

#### Observation Wells

Well Name	X (ft)	Y (ft)
□	-25491	408526
□ 2965	-28628	412411
□ 41116 & 43528	-25026	412302
□ 3220	-23125	412399
□ 18087	-29383	407230
□ 3917 & 12807 ID19	-28054	409679
□ 3917 & 12807 ID22	-24396	408154
□ 3917 & 12807 ID32	-24770	408496
□ 3917 & 12807 ID33	-26728	410170
□ FI 109	-29182	406145
□ FI 108	-26531	406160
□ 1628	-23359	408280
□ 6481	-21628	409765
□ 7641	-20333	408500