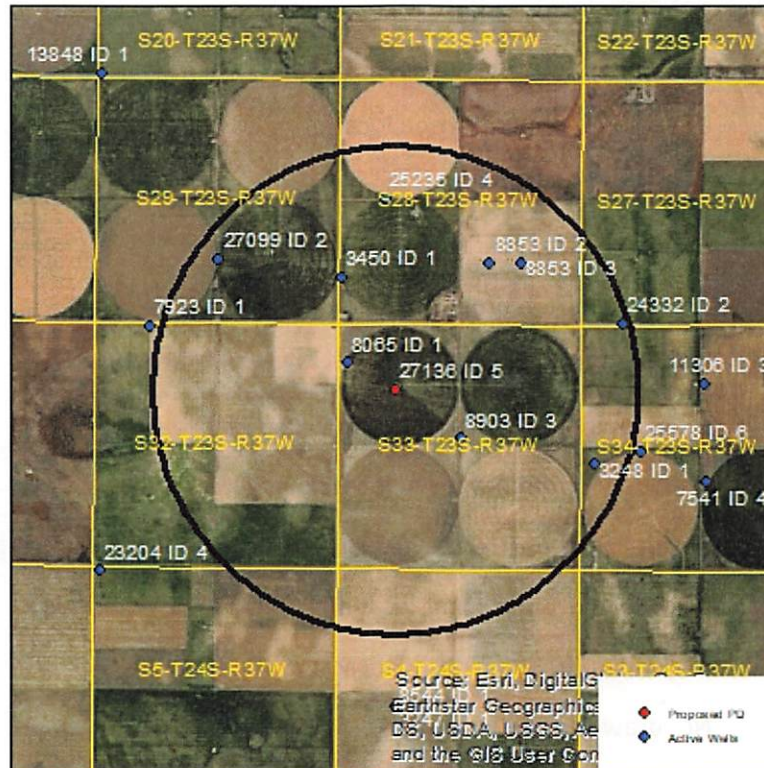


Evaluation of proposed new water right no. 50570

Proposed: Create a new water right no. 50570 and stack it onto the existing well authorized under water right no. 27136. Water right no. 50570 would provide an additional rate of 30 gpm. It will be limited to provide no additional quantity. Authorized rate at the well location will increase from 205 gpm to 235 gpm. Authorized quantity will remain at 181 AF. This well does not meet the spacing requirements under GMD3 rules to water right nos. 8065 and 8903. Adding the additional authority as proposed will require a waiver of rules by the GMD3 Board of Directors.



Wells within 1 mile: 8065, 8903, 27099, 3450, 25235, 8853 ID 2, 8853 ID 3, 3248, and 24332.

The saturated thickness at the proposed well location is estimated to be 33 ft, based upon the GMD3 model. For saturated thickness less than 50 ft, the drawdown allowance is 1.0 ft.

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

$S = 0.2628$, $T = 6503.9 \text{ ft}^2/\text{day}$, $tp_{\text{current}} = 140 \text{ days}$ (based upon average use and authorized rate),
 $Q_{\text{current}} = 205 \text{ gpm}$ (has been pumping a higher rate, but only authorized 205 gpm), $tp_{\text{proposed}} = 122 \text{ days}$,
 $Q_{\text{proposed}} = 235 \text{ gpm}$

Theis drawdowns were calculated as follows:

8065: Drawdown from current location = 1.64 ft
 Drawdown from proposed location = 1.70 ft
 Net drawdown = **0.1 ft**

8903: Drawdown from current location = 1.31 ft
Drawdown from proposed location = 1.34 ft
Net drawdown = **0.0 ft**

27099: Drawdown from current location = 0.73 ft
Drawdown from proposed location = 0.73 ft
Net drawdown = **0.0 ft**

3450: Drawdown from current location = 1.02 ft
Drawdown from proposed location = 1.03 ft
Net drawdown = **0.0 ft**

25235: Drawdown from current location = 0.79 ft
Drawdown from proposed location = 0.80 ft
Net drawdown = **0.0 ft**

8853 ID 2: Drawdown from current location = 0.88 ft
Drawdown from proposed location = 0.89 ft
Net drawdown = **0.0 ft**

8853 ID 3: Drawdown from current location = 0.82 ft
Drawdown from proposed location = 0.82 ft
Net drawdown = **0.0 ft**

3248: Drawdown from current location = 0.74 ft
Drawdown from proposed location = 0.74 ft
Net drawdown = **0.0 ft**

24332: Drawdown from current location = 0.69 ft
Drawdown from proposed location = 0.69 ft
Net drawdown = **0.0 ft**

Net drawdown does not exceed the drawdown allowance of 1.0 ft for any well within 1 mile of the proposed location. Therefore, critical well analysis is not necessary.

Conclusion:

The proposed new authority is located within an area with a depleted water table and does not meet spacing to neighboring wells. However, analysis shows effects of running the well at an additional 30 gpm to be negligible. GMD3 staff recommends waiver of rules and approval of the application.