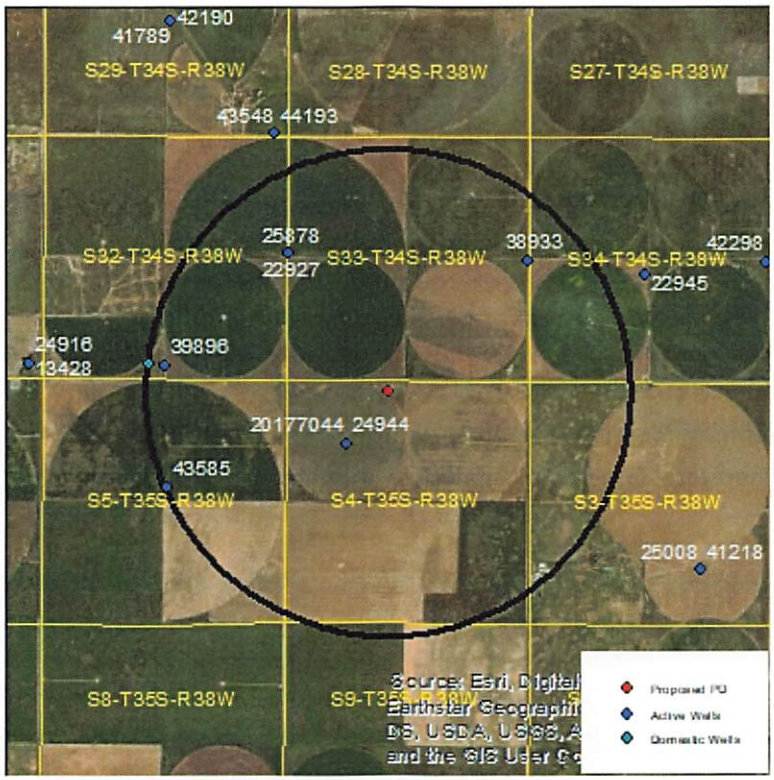
Evaluation of proposed move for Water Right No. 24944

Proposed: Move water right no. 24944 a distance of 1,429 ft to the northeast.



Wells within 1 mile: 39896, 22927 & 25878, 38933, 43585, and a domestic well in section 32-34-38.

The saturated thickness at the proposed well location is estimated to be 193 ft, based upon the GMD3 model. 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 = 0.256, T = 17,687 ft^2/day, $tp_{current}$ = 120 days (assumed), $Q_{current}$ = 255 gpm (based on average use and assumed time pumped), $tp_{proposed}$ = 73 days, $Q_{proposed}$ = 805 gpm

Theis drawdowns were calculated as follows:

39896: Drawdown from current location = 0.42 ft

Drawdown from proposed location = 0.75 ft

Net drawdown = **0.3 ft**

22927 & 25878: Drawdown from current location = 0.42 ft

Drawdown from proposed location = 0.90 ft

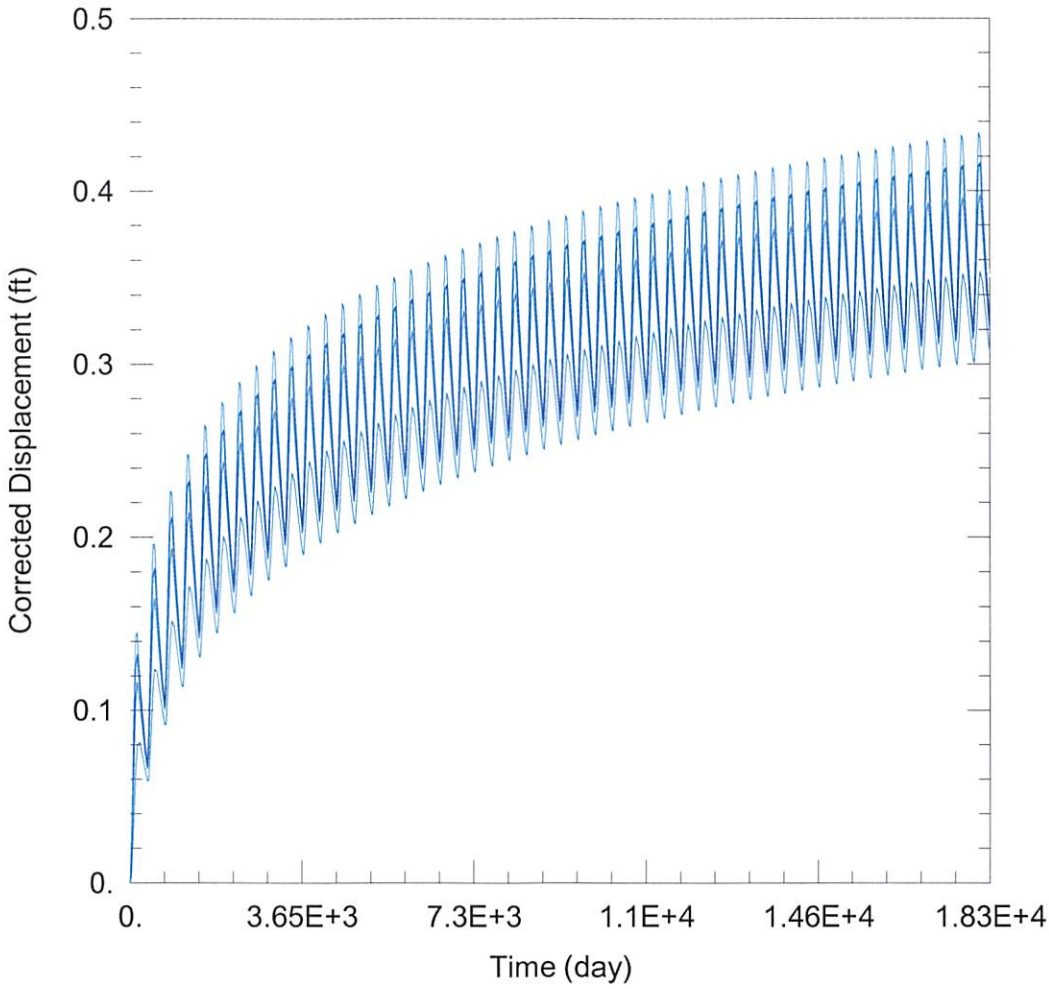
Net drawdown = **0.5 ft**

38933:	Drawdown from current location = 0.35 ft
	Drawdown from proposed location = 0.84 ft
	Net drawdown = **0.5 ft**
43585:	Drawdown from current location = 0.43 ft
	Drawdown from proposed location = 0.71 ft
	Net drawdown = **0.3 ft**
Domestic 32-34-38:	Drawdown from current location = 0.40 ft
	Drawdown from proposed location = 0.71 ft
	Net drawdown = **0.3 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\2022_moves\24944\24944 Current.aqt
Date: 02/02/22 Time: 15:18:13

PROJECT INFORMATION

Company: GMD 3
Project: 24944
Location: Stevens County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
24944	-192995	59143

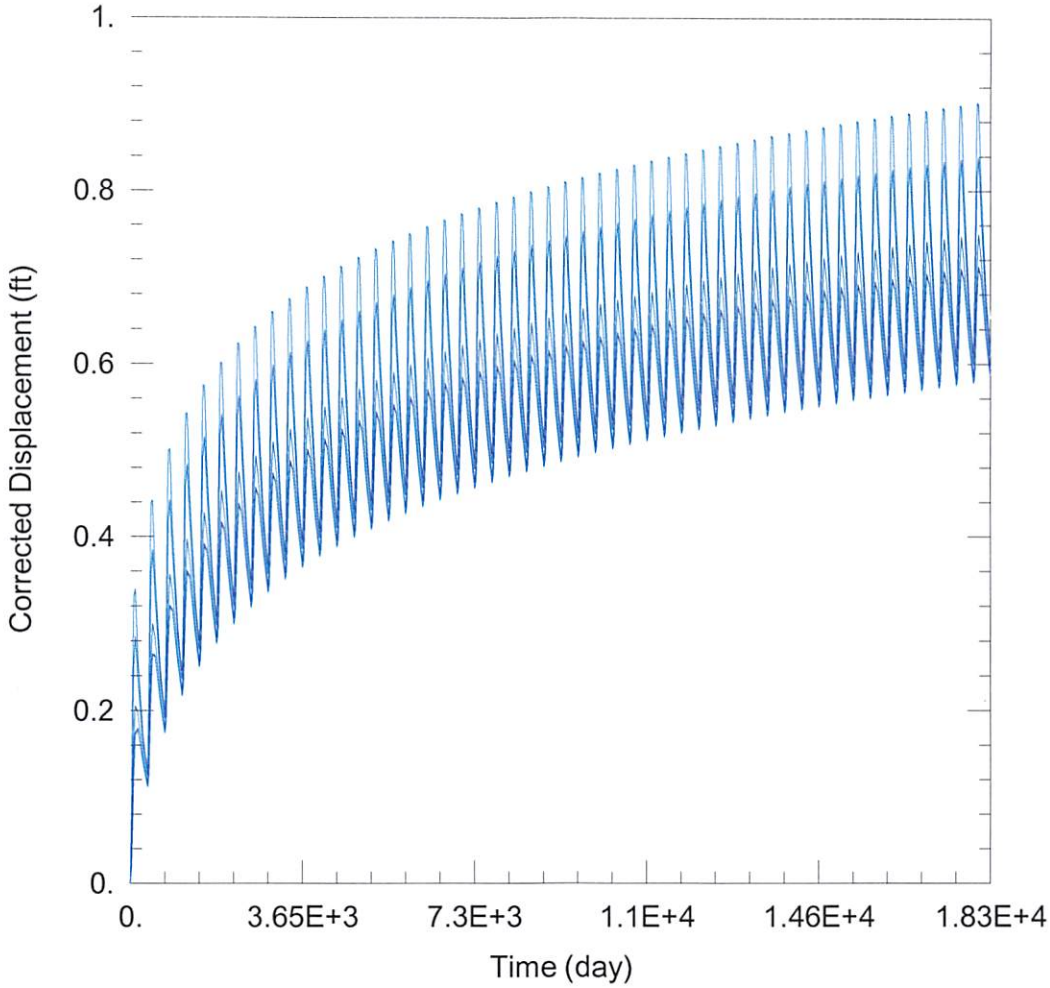
Observation Wells

Well Name	X (ft)	Y (ft)
▫	-192995	59143
▫ 39896	-196923	60817
▫ 22927 & 25878	-194250	63237
▫ 38933	-189035	63070
▫ 43585	-196884	58181
▫ Domestic 32-34-38	-197288	60853

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 1.769E+4 ft^2/day
S = 0.256
Kz/Kr = 1.
b = 193. ft



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2022_moves\24944\24944 Proposed.aqt
Date: 02/02/22 Time: 15:18:06

PROJECT INFORMATION

Company: GMD 3
Project: 24944
Location: Stevens County

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
24944	-192071	60233

Observation Wells

Well Name	X (ft)	Y (ft)
▫	-192071	60233
▫ 39896	-196923	60817
▫ 22927 & 25878	-194250	63237
▫ 38933	-189035	63070
▫ 43585	-196884	58181
▫ Domestic 32-34-38	-197288	60853

SOLUTION

Aquifer Model: Unconfined
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