



968 & 8210 ID5: Drawdown from current location = 2.99 ft  
Drawdown from proposed location = 5.99 ft  
Net drawdown = **3.0 ft**

15366: Drawdown from current location = 1.94 ft  
Drawdown from proposed location = 5.15 ft  
Net drawdown = **3.2 ft**

17498: Drawdown from current location = 2.16 ft  
Drawdown from proposed location = 7.19 ft  
Net drawdown = **5.0 ft**

6032 & 32443 & 33039: Drawdown from current location = 1.86 ft  
Drawdown from proposed location = 5.60 ft  
Net drawdown = **3.7 ft**

Domestic 1: Drawdown from current location = 2.68 ft  
Drawdown from proposed location = 5.66ft  
Net drawdown = **3.0 ft**

Domestic 2: Drawdown from current location = 2.16 ft  
Drawdown from proposed location = 5.56 ft  
Net drawdown = **3.4 ft**

Domestic 3: Drawdown from current location = 2.25 ft  
Drawdown from proposed location = 5.35 ft  
Net drawdown = **3.1 ft**

Domestic 4: Drawdown from current location = 3.09 ft  
Drawdown from proposed location = 6.00 ft  
Net drawdown = **3.0 ft**

Domestic 5: Drawdown from current location = 2.58 ft  
Drawdown from proposed location = 5.57 ft  
Net drawdown = **3.0 ft**

Domestic 6: Drawdown from current location = 1.45 ft  
Drawdown from proposed location = 6.00 ft  
Net drawdown = 4.5 ft

Domestic 7: Drawdown from current location = 1.52 ft  
Drawdown from proposed location = 6.73 ft  
Net drawdown = 5.2 ft

Net drawdown exceeds the drawdown allowance of 4.0 ft for water right numbers 6032 & 32443 & 33039, and 17498, as well as domestic wells 6 and 7. Critical well analysis is necessary on those wells.

**Critical Well Evaluation:**

**6032 & 32443 & 33039:**

Water Column = 174 ft

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

DE = 22.8 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 112.9 ft (S = 0.134, T = 36,689.4 gpd/ft, Q = 1604 gpm, tp = 86 days, efficiency = 70%)

DT = 139.4 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 174 \text{ ft} = 69.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $174 \text{ ft} - 60 \text{ ft} = 114 \text{ ft}$

Total drawdown of 139.4 ft is greater than the EDC and PDC, so this well is **critical**.

**17498:**

Water Column = 266 ft

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

DE = 21.3 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DD = 50.3 ft (S = 0.1835, T = 61,946.6 gpd/ft, Q = 1212 gpm, tp = 64 days, efficiency = 70%)

DT = 76.6 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 266 \text{ ft} = 106.4 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $266 \text{ ft} - 60 \text{ ft} = 206 \text{ ft}$

Total drawdown of 76.6 ft is less than the EDC and PDC, so this well is **not critical**.

**Domestic 6:**

Water Column = 209 ft

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

DE = 23.8 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DT = 28.3 ft

Economic Drawdown Constraint (EDC) =  $0.4 * 209 \text{ ft} = 83.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $209 \text{ ft} - 20 \text{ ft} = 189 \text{ ft}$

Total drawdown of 28.3 ft is less than the EDC and PDC, so this well is **not critical**.

**Domestic 7:**

Water Column = 209 ft

DP = 5.2 ft (Net drawdown from the proposal indicated above)

DE = 23.8 ft (Water level decline from 2021 through 2046 based upon GMD3 model)

DT = 29.0 ft

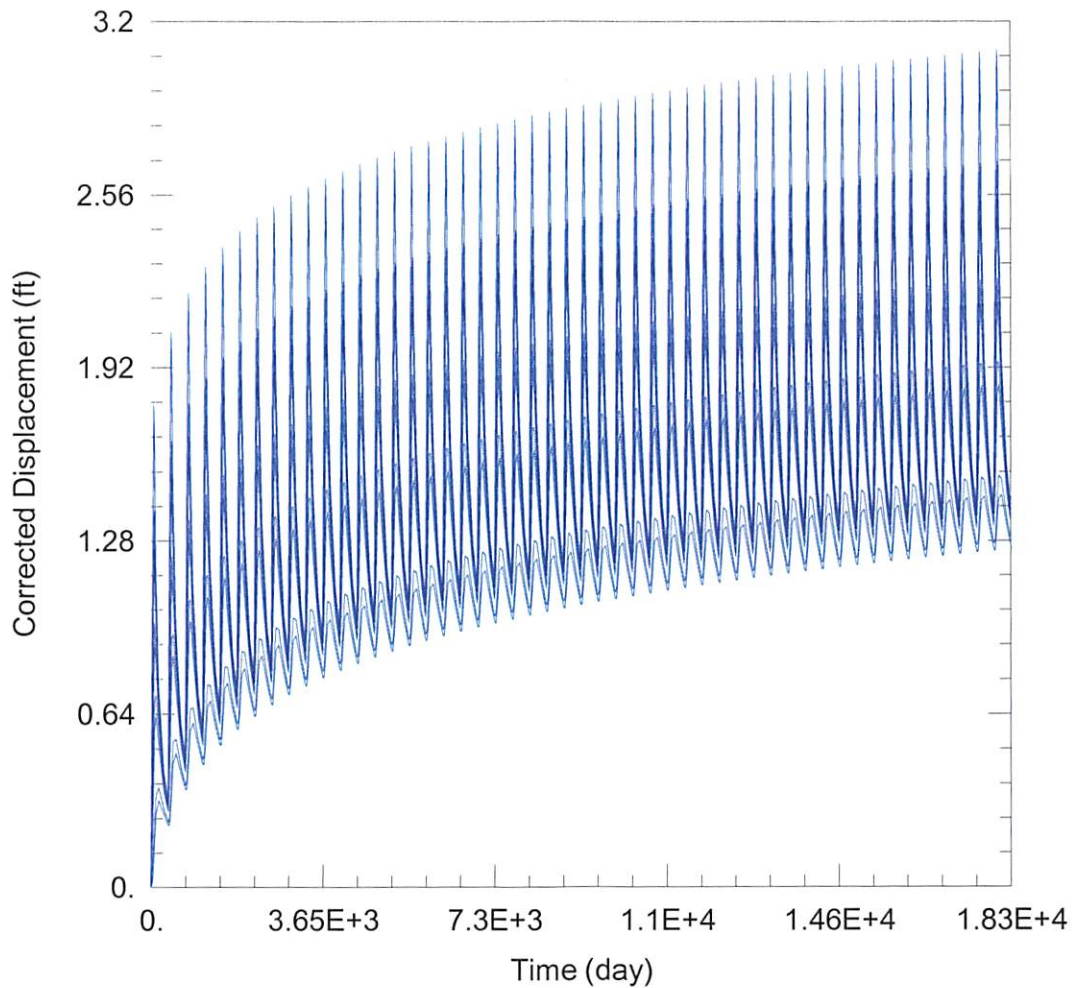
Economic Drawdown Constraint (EDC) =  $0.4 * 209 \text{ ft} = 83.6 \text{ ft}$

Physical Drawdown Constraint (PDC) =  $209 \text{ ft} - 20 \text{ ft} = 189 \text{ ft}$

Total drawdown of 29.0 ft is less than both the EDC and PDC, so this well is **not critical**.

**Conclusion:**

The proposed moves are located in an area with ample saturated thickness and aquifer properties that allow for productive wells. If the proposed well were to pump its full authorized authority, there would likely be a noticeable effect on some neighboring wells. Critical well analysis shows that one neighboring well, authorized under water right nos. 6032 & 32443 & 33039, is critical because its pumping season saturated thickness is projected to decline by more than 40% over the next 25 years, likely causing some loss in productivity. GMD3 staff is not recommending a limitation to mitigate this effect because this well is operated by the applicant, so any effect would be self-imposed. GMD3 recommends approval of the application as submitted.



WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021\_Moves\968\_8210\968 & 8210 Current.aqt

Date: 10/07/21

Time: 10:50:13

PROJECT INFORMATION

Company: GMD 3

Project: 968 & 8210

Location: Stevens County

WELL DATA

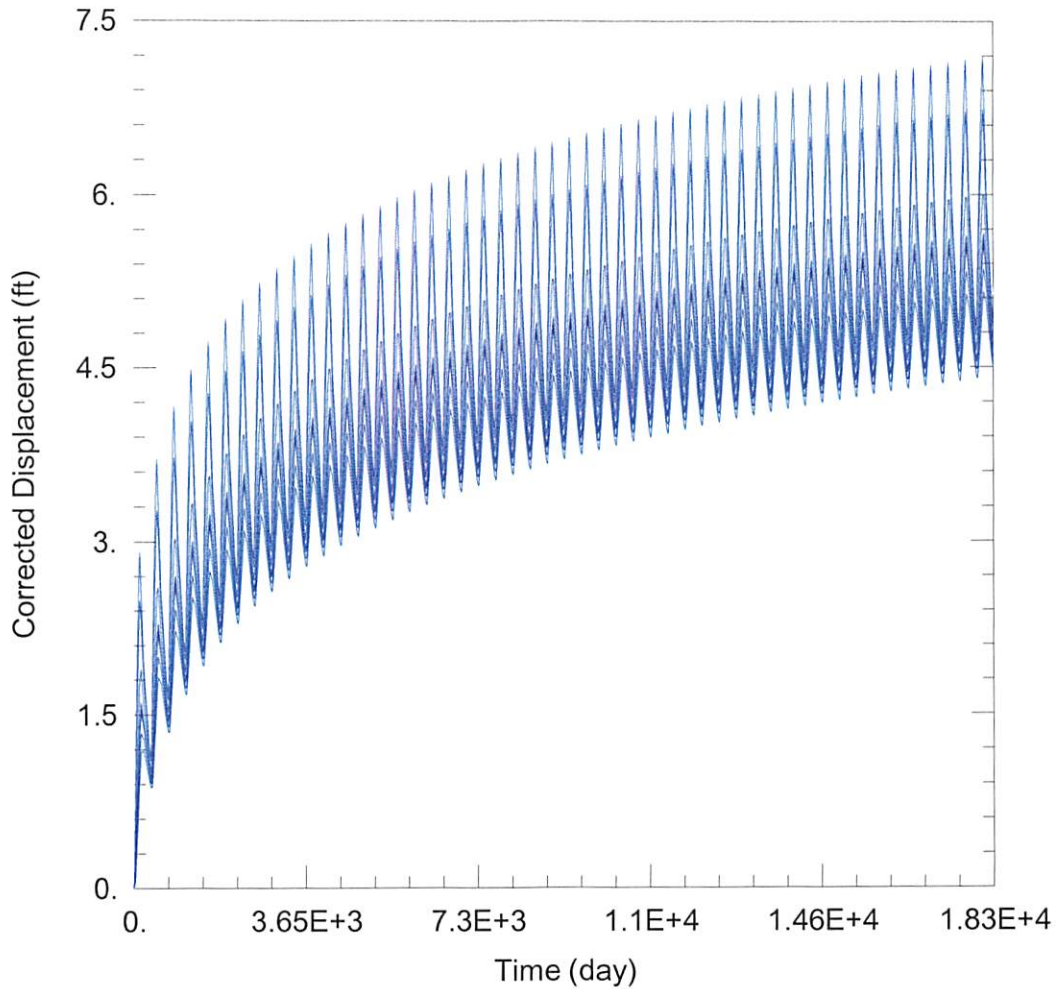
Pumping Wells

Well Name	X (ft)	Y (ft)
968 & 8210 ID3	-191464	106761

Observation Wells

Well Name	X (ft)	Y (ft)
□	-191464	106761
□ 21070	-193996	107267
□ 968 & 8210 ID5	-192268	108562
□ 15366	-191352	110278
□ 17498	-188687	108114
□ 6032 & 32443 & 33039	-194164	104108
□ Domestic 1	-193053	108428
□ Domestic 2	-194401	105798
□ Domestic 3	-194385	107119
□ Domestic 4	-193058	107768
□ Domestic 5	-193718	107774
□ Domestic 6	-190146	101478
□ Domestic 7	-189483	102130





### WELL TEST ANALYSIS

Data Set: C:\Users\trevora\Documents\2021\_Moves\968\_8210\968 & 8210 Proposed.aqt  
 Date: 10/07/21 Time: 10:50:06

### PROJECT INFORMATION

Company: GMD 3  
 Project: 968 & 8210  
 Location: Stevens County

### WELL DATA

#### Pumping Wells

Well Name	X (ft)	Y (ft)
968 & 8210 ID3	-189918	105403

#### Observation Wells

Well Name	X (ft)	Y (ft)
□	-189918	105403
□ 21070	-193996	107267
□ 968 & 8210 ID5	-192268	108562
□ 15366	-191352	110278
□ 17498	-188687	108114
□ 6032 & 32443 & 33039	-194164	104108
□ Domestic 1	-193053	108428
□ Domestic 2	-194401	105798
□ Domestic 3	-194385	107119
□ Domestic 4	-193058	107768
□ Domestic 5	-193718	107774
□ Domestic 6	-190146	101478
□ Domestic 7	-189483	102130