

21835: Drawdown from current location = 0.06 ft
Drawdown from proposed location = 1.33 ft
Net drawdown = **1.3 ft**

20874: Drawdown from current location = 0.06 ft
Drawdown from proposed location = 1.06 ft
Net drawdown = **1.0 ft**

21211: Drawdown from current location = 0.08 ft
Drawdown from proposed location = 1.44 ft
Net drawdown = **1.4 ft**

22053 ID 1: Drawdown from current location = 0.05 ft
Drawdown from proposed location = 1.16 ft
Net drawdown = **1.1 ft**

22053 ID 3: Drawdown from current location = 0.06 ft
Drawdown from proposed location = 1.46 ft
Net drawdown = **1.4 ft**

22053 ID 5: Drawdown from current location = 0.05 ft
Drawdown from proposed location = 1.28 ft
Net drawdown = **1.2 ft**

22053 ID 6: Drawdown from current location = 0.06 ft
Drawdown from proposed location = 1.86 ft
Net drawdown = **1.8 ft**

14552: Drawdown from current location = 0.05 ft
Drawdown from proposed location = 1.04 ft
Net drawdown = **1.0 ft**

Net drawdown exceeds the drawdown allowance of 1.5 ft for the well authorized under water right number 22053, DWR Computer ID 6. Critical well analysis is necessary on that well.

Critical Well Evaluation:

22053 ID 6:

Water Column = 61 ft

DP = 1.80 ft

DE = 32.0 ft (Water level decline from 2020 through 2045 based upon GMD3 model)

DD = 42.8 ft (S = 0.2873, T = 74,241 gpd/ft, Q = 248 gpm, tp = 194 days, efficiency = 70%)

DT = 42.8 ft

Economic Drawdown Constraint (EDC) = $0.4 * 61 \text{ ft} = 24.4 \text{ ft}$

Physical Drawdown Constraint (PDC) = $61 \text{ ft} - 60 \text{ ft} = 1 \text{ ft}$

The PDC is more conservative than the EDC, so maximum allowable drawdown is 1.0 ft.

Total drawdown of 42.8 ft is greater than the allowable drawdown of 1.0 ft, so the well is **critical**.

Conclusion:

This move is being proposed in an area with low saturated thickness and low yielding wells. The area has little remaining water supply, and aquifer conditions will become worse as supply declines. If the applicant were to pump the proposed well at the fully authorized rate and quantity of 950 gpm and 252 AF, it is likely that effects on neighboring wells that already have low yield would be noticed. In order to prevent future impairment, **GMD3 staff recommends limiting the applicant to a rate of 325 gpm and an annual quantity of 252 AF from the proposed well location.** This would be a limitation on the water right, not a reduction. Current authorized rate of 950 gpm would be considered on any future change. Net drawdown effect on the critical well, 22053 ID 6, would be reduced to 1.5 ft, which falls within the drawdown allowance for current saturated thickness conditions specified by the GMD3 Drawdown Assessment Guidelines.