



24273: Drawdown from current location = 1.40 ft  
Drawdown from proposed location = 2.42 ft  
Net drawdown = **1.0 ft**

14101: Drawdown from current location = 1.72 ft  
Drawdown from proposed location = 2.83 ft  
Net drawdown = **1.1 ft**

19809: Drawdown from current location = 1.74 ft  
Drawdown from proposed location = 1.97 ft  
Net drawdown = **0.2 ft**

21455: Drawdown from current location = 1.47 ft  
Drawdown from proposed location = 1.97 ft  
Net drawdown = **0.5 ft**

Domestic NW 12-27-29: Drawdown from current location = 2.63 ft  
Drawdown from proposed location = 2.37 ft  
Net drawdown = **-0.3 ft**

Domestic SW 12-27-29: Drawdown from current location = 2.26 ft  
Drawdown from proposed location = 4.19 ft  
Net drawdown = **1.9 ft**

Domestic 13-27-29: Drawdown from current location = 1.34 ft  
Drawdown from proposed location = 2.00 ft  
Net drawdown = **0.7 ft**

Many of these wells will also be impacted by a proposed move of water right number 20063 in this area.  
The combined effects of both moves are as follows:

21865: Combined effect = **2.5 ft**

24273: Combined effect = **1.9 ft**

14101: Combined effect = **2.8 ft**

19809: Combined effect = **1.6 ft**

Domestic NW 12-27-29: Combined effect = **0.6 ft**

Domestic SW 12-27-29: Combined effect = **3.0 ft**

Domestic 13-27-29: Combined effect = 1.5 ft

The well under water right number 14101 is owned and operated by the applicant. The well under water right number 21865 and the domestic well in the southwest ¼ of section 12-27-29 are not. Critical well analysis was performed for those wells and the results are as follows:

**Critical Well Analysis:**

**21865:**

Water Column = 108 ft

Drawdown due to proposal = 2.5 ft

Drawdown due to existing conditions = 33.3 ft

Dynamic drawdown = 30 ft

Total drawdown = 65.8 ft

Physical Drawdown Constraint (PDC) = 108 ft – 60 ft = 48 ft

Economical Drawdown Constraint (EDC) = 108 ft \* 0.4 = 43.2 ft

Both the physical and economical drawdown constraints are exceeded, so this well is **critical**.

**Domestic SW 12-27-29:** Water Column = 96 ft

Drawdown due to proposal = 3.0 ft

Drawdown due to existing conditions = 31.4 ft

Total drawdown = 34.4 ft

Physical Drawdown Constraint (PDC) = 96 ft – 20 ft = 76 ft

Economic Drawdown Constraint (EDC) = 96 ft \* 0.4 = 38.4 ft

Neither the PDC or EDC are exceeded, so this well is **not critical**.

**Conclusion:**

21865 is a critical well, meaning that it is not likely to remain operable for full irrigation over the next 25 years, or is otherwise likely to be impaired. The combined effects of this proposal and the proposal to move water right number 20063 exceed 2.0 ft, which is the minimum effect due to changes on critical wells allowed under GMD3 criteria. GMD3 recommends limiting the rate at the proposed well location to 425 gpm and the quantity to 195 AF. This will lower the combined effect of both moves to 2.0 ft.