

POSGCD □ DFC COMMITTEE MONITORING NETWORK UPDATE

November 6, 2018

OVERVIEW

1. Well Network Growth

i *The number of wells in the Monitoring Network has reached 200*

A concerted effort was made to add monitoring wells in the shallow (<400 ft) Carrizo-Wilcox management zones. This effort has added to the increase in network wells and should remain a focus for continued growth, particularly in the Carrizo formation.

With that said, spatial gaps in minor formations need to be addressed, particularly in the Yegua-Jackson. Staff will continue efforts to locate and enroll monitoring wells in these focus areas.

2. Technology Advancements

i *With the recent roll-out of the HALFF database we have been able to better serve our citizens with transparent data and on-site review and editing.*

The District continues to utilize equipment that allows for continuous data collection and recently staff has increased the number of sites that are utilizing this technology. Recently, 4 sites have come online that pair telemetry with Water Level readings to get daily measurements at wells located in the shallow management zone. Several more units of this kind are set for deployment in the near future at select wells.

This is in addition to the 9 wells that were equipped with acoustic technology supplied by WellIntel that have been in place and online for about 2 months now.

3. Evaluation of Drawdown -Deanville WSC

i *This is a continued effort since Spring 2018 to evaluate and determine cause for measured drawdown in excess of reasonable expectations. This work is continuing and unfortunately a lengthy process, some due to logistical complications.*

To date, the following action has taken place:

- Additional water level measurements throughout spring and summer*
- Evaluation of well reports/logs for target wells and neighboring wells*
- Data analysis of aquifer pump tests at Vista Ridge well field on overlying formations*
- Installation of acoustic logging technology for continuous measurements*
- Attempt at downhole camera survey*

4. Future Action

i *The District Monitoring Network is a staple program in its Management Plan and Rules. In order to best serve that purpose, advancements and growth in the quality and quantity of data that is collected is vital. The following are areas that can, presumably, continue to be improved upon:*

Well Network:

- *Addition of wells in Carrizo, Queen City, and Yegua-Jackson formations to improve data, while focusing on filling data gaps in all other formations.*
- *Continued effort with TWDB, Intera, and POSGCD on well formation classification.*
- *Continue work with GMA12 Districts on Management of Shallow Zones of Carrizo-Wilcox*
- *GMA12 Monitoring Network and Database*
- *Evaluate method of Displaying Water Level Measurements (i.e., depth from surface, mean sea level)*
- *Integrate Water Quality into Monitoring Network, specifically Total Dissolved Solids (TDS)*

Technology:

- *Continue clean-up of HALFF Database (i.e., remove duplicates, enter missing data, etc.)*
- *Create program to easily integrate telemetry data with HALFF database*
- *Increase the number of wells equipped with continuous measuring devices*
- *Utilize technology to conduct aquifer studies (i.e., pump tests)*
- *Increase data accuracy by utilizing surveying technology*