### HARRY C. SEIFERT

## Water Management and Technology Services

WTPO 13371 DSO 16057 2740 Salton Vista Drive PO Box 152 Julian, CA 92036 (760)765.0358 (760)791.0483 Cellular

October 27, 2021.

Wynola Water District Flushing Hydrants 5, 6, & 7.

Calculated Gal/ft in tanks: 3438 gal/ft/tank.

estimated flow at flushing: 250 GPM

Tank level at start: 15 ft. 103,600 gal.

Buddy Seifert Rodney Doss Steve Kincaid

Shut off distribution valve on Meadowridge Road at Oak Forest, isolating the 3 hydrants.

Hydrant 5:

Start: 1230 Finish: 1238 Time: 8 minutes

Comments: Outflow drained to an adjacent storm drain.

Initial water very dark, the color of dark hot chocolate. Color lightened to clear, very light brown at 6 minutes and stayed that way until the hydrant was shut

down. Estimated flow 2,000 gal. Tank level: 14.5' 99,700 gal.

Hydrant 6:

Start: 1257
Finish: 1322
Time: 25 minutes

Comments: Outflow drained to an adjacent storm drain.

Initial water very dark, the color of a 97% dark chocolate bar. Color lightened to a clear, very light brown at 19 minutes and stayed consistent

until hydrant was shut down. Estimated flow 6,250 gallons.

Tank level: 13.2' 90,800 gal

Hydrant 7:

Start: 1346 Finish: 1412

Time: 26 minutes\* (\* shut down hydrant for 8 minutes to re-direct flow off of

driveway).

Comments: Outflow drained down drainage between adjacent prpoerties/driveways.

Initial water very dark, similar to Hydrant 5. Gopher holes in drainage diverting

water down resident's driveway.

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# Hydrant 7: (con't)

Re-adjusted diverter and back-filled gopher holes. No longer draining down driveway. Continued flushing until water lightened to a clear, very light brown. There were several neighbors observing. Property owner of flooding driveway arrive home as we were shutting down, he was appreciative of what we had done and the fact that the mains were being flushed. Estimated flow: 4,500 gal. Tank level: 12.2' 83,200 gal.

### Conclusions:

- 1. The well water supply to the tanks is unfiltered and untreated as it comes from the wells. The storage tanks act as a settling pond and much of the sediment and minerals settle to the bottom of the tanks. When water of any velocity is drawn from the tanks, the sediment layer is stirred up any enters into the distribution system.
- 2. We were unaware of a distribution valve on Mountainbrook Road between Sunny Point and Riverford Road. That valve remained open throughout the flushing of these three hydrants, perhaps causing an incomplete flushing of this line.

### **Future Actions:**

1. The next hydrant/main flushing will occur with the hydrants along Meadowridge Road. This section will be isolated by closing the distribution valve on Meadowridge Road at Oak Forest and the distribution valve on Springview Road, just northerly of Meadowridge Road. The distribution line from the end of Oak Forest to Mountainbrook Road should keep the rest of the Wynola Estates residences in water. The residences on Meadowridge Road may experience low water pressure during the flushing event.

## Recommendations:

- 1. An Operations Manual should be written/updated to cover the operation of the wells, flushing of the mains, and testing/operation of the emergency generating system.
- 2. A tank cleaning contractor should be contacted and engaged to clean the interior of both storage tanks. This can be accomplished with no interruption of service to the community. Superior Tank Company offers a yearly tank servicing/inspection contract which should cover this.
- 3. Until a filtration unit can be placed between the wellheads and the storage tanks, the 6" outlets to the distribution system should be raised at least 18" above the level of the tank floors so that the sediment can remain, undisturbed, at the bottom of the tanks.