APPROVED
Board of Directors
Wynola Water District and
Wynola Estates Fire Safe Council
July 13, 2024, 9:00 a.m.
22135 CA – 79 Santa Ysabel CA 92070

1. **Call to Order: 9:00 a.m.**
2. **Roll Call of Board of Directors:**
    - **Jim Madaffer, President-present**
    - **Ron Placa, Vice President-present**
    - **Brenden Kelso, Treasurer-present**
    - **Sandie McCann-present**
    - **Steve Kincaid, present**
3. **Additions to the Agenda-none**
4. **Approval of meeting minutes of June 8, 2024**
    i. **Motion from Placa and second from Madaffer to approve minutes. 5 Ayes, 0 Noes, 0 Absent**
5. **Public Comment – Opportunity for members of the public to address the Board on matters within the Board's jurisdiction. People addressing the Board are requested to state their name and address for the record. None**
6. **Treasurer's Report:**
    i. **Total cash on hand from checking, savings and Chase CD = $450,000**
7. **Office Manager's Report: Karen Kincaid**
    i. **Three lots on Riverwood have fallen out of escrow.**
    ii. **Penelope DiBernardo is selling her house at Springview and Meadowridge Rd.**
    iii. **Marquez house on Mountainbrook for sale.**
    iv. **Foreclosure property on Lakedale sold April 8th.**
    v. **New owners on Sunnypoint, The Chandlers, will move in July 22.**
8. **Old Business:**

a) Report by Board President Jim Madaffer (this will include the actions taken to date since the last Board meeting on June 8, 2024)

i. **Upcoming JPIA Insurance review on July 17th. Karen H., Karen K., and Jim will attend.**
ii. **The status on Well # 11-we received a grant for $220k for a 75kw generator. No time frame when we will receive it.**
iii. **The status on Well #9-generator that was donated by SDG&E blew up when EPX plugged it in. It was too small a kw for the well. Waiting to see what SDGE will do for us.**

iv. **Flock system asked to put signs up on the camera poles to notify the public that there are cameras in use. The Board decided not to put signs up since they are not a requirement by law.**

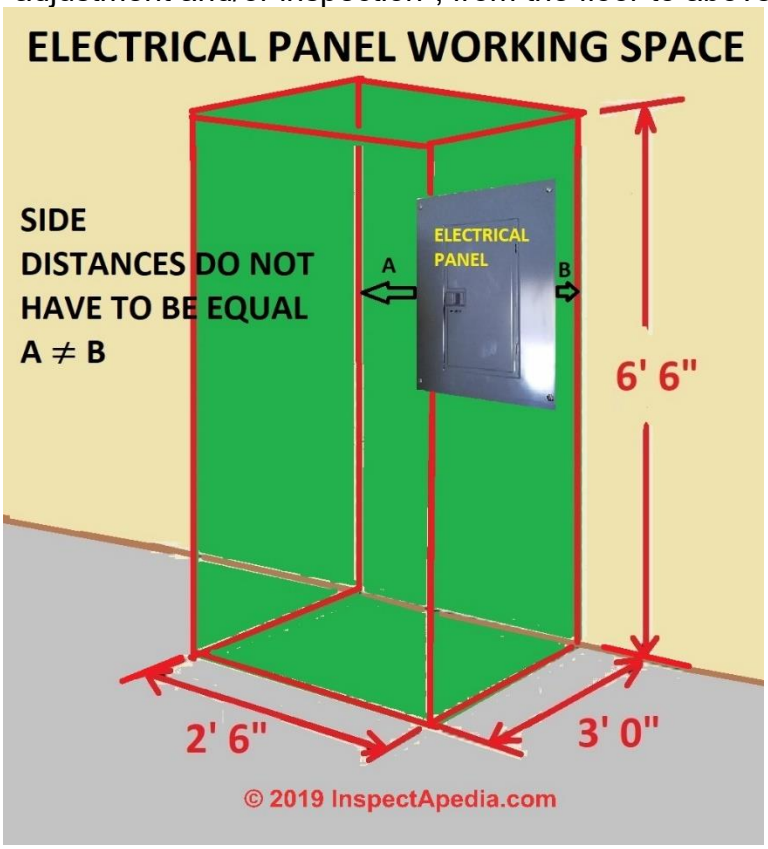
v. **A Fire Safe Council sign has been suggested to be displayed below the Wynola Estates sign.**

9. **Report by WWD Water Operator: Tim Guishard**

a) **Tim Guishard sent a report to WWD a report detailing his initial tour of the pumphouse, adjustments to the SCADA system and meeting with Jack Bainbridge and Albert Simonson.**

Notes from the June 21, 2024, investigation, with Buddy leading the way:

1. The condition of the pump house.
    a. A pump house should not be a storage room for anything other than pumps and their related pump repair parts. Tools should not even be in this room, because the room is so small.
    b. The OSHA/CEC required clear space in front of many of the electrical enclosures, has been encroached into with piping, valves, pumps, storage of equipment, etc.
2. There is supposed to be nothing in front of any electrical enclosure that needs "adjustment and/or inspection", from the floor to above an operator's head.



    a. Wynola WD needs a dedicated storage space for all the items that are loose in this room, especially items that would be damaged by water and vermin.
3. The SCADA should be in a higher-grade water-resistant computer case and the screen should be protected from damage by water.
    a. NOTE: On 2 I attempted to access the SCADA through this computer, but I was locked out. It seems that Google had signed off and I needed 2-party authentication to open up the browser .
4. The funky and extremely unsafe method to change from one booster pump to another.
    a. They make switches (and VFD's) to specifically do this safely, automatically or remotely.
5. The fire sprinklers in the pump room.
    a. These were shut off because if an intermittent discharge from the relief valve at the backflow preventer.
    b. This discharge is normal for this type of backflow assembly when placed so close to pump discharges.
    c. The backflow assembly should be changed from an RP to a DC, which does not discharge water during a pump cycle.
6. The fill and discharge lines to both tanks.
    a. These are required by regulation to be on opposite sides of each tank.
    b. When you have an issue with iron and manganese, the discharge piping should be at least 1' to 1.5' off the bottom of the tanks.
    c. All these issues can be mitigated when the tanks are drained for cleaning.
7. The generators at the pump house and at well 9 are undersized.
    a. The generator at the pump house is only sized to allow one of the booster pumps to start, and it will not allow the pump to run at full speed due to the elevation of your site.
    b. The VFD and generator should have been sized for the site elevation which is 3600' AMSL. When installed at >1000' AMSL, both drives and generators must be derated! At 4000' the derate is nearly 20%!
    c. Per all submersible motor manufacturers, a 20 HP motor requires a minimum of a 60 KW generator when operating at sea level. Thus the 30 KW generator at well 9 is severely undersized, as it cannot provide the surge of current needed to start the motor.
    d. This generator is not rated for "Prime" service at 30 KW, this is should only operate for a few hours at a time when fully loaded. It might be a good generator for another well.
8. Like the OSHA/CEC clear space requirements in the pump room, the clear space has been encroached into, at many of your wells, by piping and other components that should not have been placed in this clear space.

9. A was surprised with the lack of freeze protection at all your wells.
    a. All your well heads and related piping should be located inside an insulated metal, or fiberglass, enclosure and pipe heating cable is recommended to keep the pipes from freezing.

    b. It would not hurt if the electrical equipment were also protected from freezing.
    c. I would like to see more concrete at every well head. The concrete should extend all the way to the fences around most of the wells.
10. I am surprised that Buddy could not tell me what any well produced. This is another set of data needed for the Drought reports.
    a. With some time, we have figured this out by analyzing data on the SCADA for every well but well 3. Apparently, the SCADA was never fully equipped at well 3 to collect this data.
11. On the SCADA: some of the well water level data is dirty and not usable. This is more information needed for the Drought Reports.
    a. I have spoken to Kent about making some adjustments to see if he can clean up the signals.

I would recommend that WWD purchase the entire property that the storage tanks are located on, so that no limitations are placed on the water company by this property Owner. The water company needs a lot more room to locate a larger storage tank and treatment plant, along with drying beds to reduce waste haul off costs.

Alternately, the size of the easement needs to be increased significantly and may need to extend into the neighboring property reducing that properties property value.

Notes from the investigation on July 2, 2024, with Albert or Jack accompanying me, are as follows:

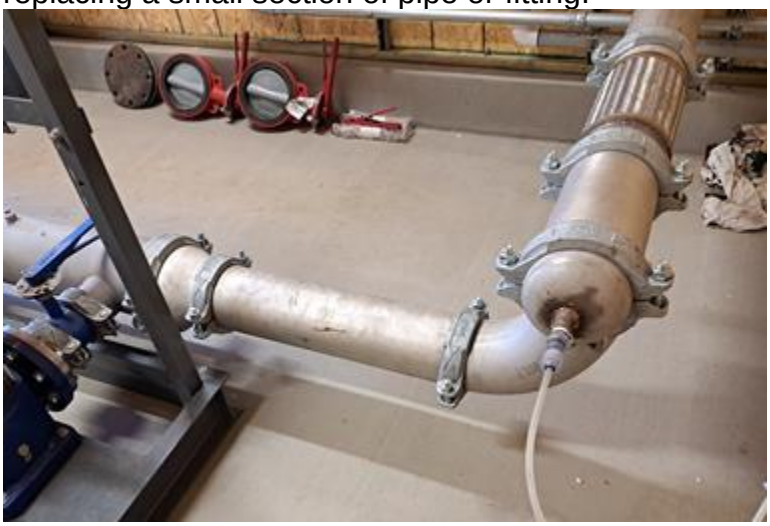
I was surprised to see so many issues that are being reported as being completed by a “professional and licensed contractor” in both the pump rooms and well heads. I would recommend not using these contractors in the future, or hiring a private electrical inspector to look over the project during and after the work is completed.

General issues in the booster pump room:

12. I could not log into Mission Communications through the computer, due to Google’s new 3-rd party authentication process. I am not a computer whiz to know if there might be a work around to use this computer to communicate with Mission Communication for SCADA purposes.
13. The logbooks were not updated during many of the inspections.
    a. The primary logbook has not been updated in about a year.
    b. The generator logbook is several months out of date.
    c. The booster pump logbook had also not been updated in about a year.
14. The headers on the booster pumps will need to be replaced soon to correct the many leaks and corrosion issues that are present. While conversing with Albert, it was revealed this piping was welded without a purge gas (Argon) being introduced into the pipe during the welding process. It is questionable if the welds were properly passivated after the welds were completed. The lack of corrosion

protection during and after the welding processes has compromised the welds and probably piping near the welds.

a. I would recommend that the headers be completely re-piped, still with stainless steel, but using grooved and flanged connections. With this connection process, a single pipe failure can easily be mitigated by replacing a small section of pipe or fitting.



An example of grooved stainless-steel pipe with related fittings at a different water system.

15. The electrical conduits related to the booster pump and generator systems do not meet the standards expected in a pump room, as they are not watertight.
    d. NOTE: All pump rooms will at some time experience water spray. This water spray can damage electrical components that are not protected from this spray.
16. Jack and I observed multiple MC cables being inserted into larger aluminum flexible conduit without the proper connectors. This is a place where vermin could attack and damage the now unprotected conductors.
17. I observed that flexible non-metallic conduit is in use far beyond the code approved maximum length.

General issues that may be present at all wells:

18. The OSHA/NEC clear space requirements are not being met at most wells.
    a. Refer to note 2.
19. The water piping needs to be better protected from freezing. The use of pipe heating cable, and/or placing the piping inside a heated enclosure is highly recommended.
20. The electrical equipment needs to be protected from fire by mounting this equipment on metal or concrete support structures and removing the wood doors.
21. The electrical equipment needs to utilize NEMA 3R or better enclosures.
    a. Some of the electrical enclosures were not rated for outdoor use, which is probably why the wood roof and doors were placed around them.
22. A concrete slab that extends a minimum of 27” radially from the outside of the casings needs to be placed around several of the wells. The slab must be set

high enough, that the concrete can shed water away from the casing, and high enough that it will not be inundated by dirt debris flow during rain events.

23. None of the wells appear to have been equipped with what is known as a sounding tube" for monitoring the water levels in the well.
    a. The sounding tube is a pipe that extends from the surface of the well head, down to just above the well pump.
    b. Without a sounding tube, any well water level measurement is suspect.
    c. When any pump is pulled, a 1" ID sounding tube must be installed in the well.
24. Sample taps lacking threads on the outlets, were not present at any of the well heads.
25. At none of your wells is there what is known as a "blow off valve".
    a. This is needed to reduce the flow though a sample tap when collecting water samples, if the well has been isolated from the distribution system for some reason.
    b. They are also utilized while disinfecting the well itself.
26. None of the wells are properly equipped with facilities to make it easy to disinfect the well.

The fitting out the side of this casing is used when disinfecting the well.

Issues at well 3:

27. The water meter was never connected to the SCADA
28. A well level sensor was never installed.
29. The concrete slab needs to be raised around the well.
30. I would like to see the actual well logs for this well.

a. If this well still only has a 14' annular seal, the well should be reconstructed with a deeper annular seal.

31. This well has a 2.0 HP x 230V V x 3- phase motor with an unknown make or model pump end
32. The pump is currently producing 15 GPM at 10:00 on 7/2/24. We do not yet know how much water the well is producing on a daily basis.

Issues at well 5:

33. We did not investigate this well on 7/2/24.
34. In the previous investigation, I observed that overhead power lines will make it difficult to do any deepening or reconstruction of this well.
35. If this well is not intended to be utilized in the future, it should be properly destroyed.

Issues at well 7:

36. The casing needs to be raised at this well.
37. I would like to see the actual well logs for this well.
    a. If this well still only has a 20.5' annular seal, the well should be reconstructed with a deeper annular seal.
38. well has a 5.0 HP x 230 V x 1- phase motor with an unknown make or model pump end.
39. The pump is currently producing 12.5 GPM at 12:30 on 7/2/24
40. NOTE: In the SCADA reports, we are seeing interference from pumping on another well. We do not yet know what well is causing the static water levels to change in this well.

Issues at well 8

41. We did not investigate this well on 7/2/24
42. I would like to see the actual well logs for this well.
43. I would like to understand more about why well 8 was shut down.
44. Well 8 is only reported to have a 32' annular seal.
    b. If this well still only has a 32' annular seal, the well should be reconstructed with a deeper annular seal.
45. If this well is not intended to be utilized in the future, it should be properly destroyed.

Issues at well 9:

46. See notes 7-10 above
47. This well has a 20 HP x 460 V x 3- phase motor with a nominal 65 GPM pump end manufactured by Goulds
48. The pump is currently producing 88 GPM at 13:30 on 7/2/24

Issues at well 10:

49. The well casing needs to be raised, and the concrete needs to be extended radially from the well casing.
50. With these wells 8 and 10 being so close together, when one is contaminated, it is very likely that both are contaminated.
51. I would like to see the original drillers log for this well. I have the log when it was deepened.
52. This well has a 3.0 HP x 230 V x 1- phase motor with a nominal 15 GPM pump end manufactured by Franklin Pump Systems
53. The local toggle switch to bypass the SCADA does not function.
54. We could not utilize the flow meter to confirm the pump capacity, as the well is reported to be contaminated and the purge to waste valve is upstream of the water meter.
    e. We would recommend that the purge to waste valve be relocated to the downstream side of the water meter, and a dedicated sample tap be installed on the upstream side of the water meter.

Well 11

55. The concrete slab needs to be enlarged at this well.
56. This well has a 20 HP x 460 V x 3- phase motor and is reported to have a nominal 65 GPM pump end manufactured by Goulds.
57. The pump is currently producing 71 GPM at 14:10 on 7/2/24

General issues in the distribution system:

58. Typically, we would have what is known as a Hand-Off-Auto switch at each well head to bypass the SCADA for various reasons.
    a. Only wells 3, 9 and 11 have these.
    b. At wells 7 & 10 there is a toggle switch, but this switch is not rated for outdoor use or this application.
59. I would highly recommend that WWD follow the construction standards that many water agencies in San Diego County follow. These are known as the Water Agency Standards (WAS) and can be found at WWW.SDWAS.ORG

This is hydrant # 14.

I think the valve in the asphalt is from the loop that extends from Oakforest, although the paint on the asphalt indicates otherwise.

I think the valve that has no cover is what shuts off the hydrant.

Note that the valve with no cover is a hazard:

1) in that someone could trip on it because it is so high.

2) in that someone could twist an ankle if part of their foot were to enter the open hole.

3) to small animals that might fall into it.

60. Weeds and debris around fire hydrants.
    a. Concrete slabs should be placed around all fire hydrants to prevent weed growth.
    b. These areas should be kept clear of all weeds and debris.
    c. The concrete also limits the amount of damage that is caused when a fire hydrant is hit by a car.
61. Gate caps should be painted per colors adopted by the WAS, as many fire agencies are also aware of this color coding in the event of an emergency.
    a. Yellow is for an open line valve in the distribution or transmission system.
    b. Red is for a closed line valve in the distribution or transmission system.
    c. White indicates that the valve only closes service to a fire hydrant.
    d. I noted that there is a missing gate cap near hydrant #14.
62. The high pressure along the lower elevations of the water system.
    a. A pressure reducing station should be installed near the intersection of Mountainbrook Road and Riverwood Road just SW of hydrant # 14. The water pressure here is about 100 PSI. The pressure should be reduced to 50 PSI or slightly lower, which would lower the pressure downstream to within a more acceptable range.
    b. This pressure reducing station should be connected to the Mission network, to be able to monitor that the pressure reducing station is working correctly.
    c. Surge anticipator valves should be part of this installation, to protect piping both upstream and downstream of the regulating station.

Issues while collecting water samples on July 10, 2024:

63. While collecting water samples at well 9 and 11, the water was milky white with lots of tiny air bubbles.
    a. This suggests that the wells are being pumped a bit too hard, and water is cascading either in the well bore or out in the formation.
    b. This caused issues when trying to fill a very small sample bottle that can have no air in it.

The water near the top of this container, is what the water in the entire container looked like when the sample was first collected.

The water is clearing near the bottom of the container after about 45 seconds.

The entire container was clear after about 2 minutes. The water level had dropped about 3/8" in the container after the water was clear.

64. There is a lack of dedicated bacteriological sample taps in the distribution system.
    a. Thus, the water sampler must enter the private property to collect water samples from places that may not be sanitary.
    b. I would urge that dedicated sample taps be installed at several water meters, mostly for bacteriological sampling. These could also be utilized for some other sampling in the distribution system as well.

Accomplishments in the past 20 days:

65. A bunch of water quality sampling has been caught up; all this sampling was 1-9 years behind schedule.
    a. We are still waiting on the results to determine if any more sampling is needed or is over the MCL's..
    b. The fact that the samples were presented late might result in citations being issued by DDW.
66. 1.25 years of Drought Reports have been caught up and are now up to date.
67. The SCADA system has been adjusted so that all the wells are being operated mostly in Super-Off-Peak electrical billing times, resulting in lower electrical costs.

8. Old Business (continued)

b) **Jim asked the Board to authorize pulling the well motors and pumps at Wells 7, 9, and 10 to make sure they are working properly and what repairs need to be done. We are hoping to have estimates on repairs by the August 2024 board meeting.**

9. New Business – none

10. Meeting adjourned at 10:15 a.m.

Next Meeting: August 10, 2024 (Second Saturday of every month) @ Santa Ysabel Nature Center