

# CITY OF WINLOCK

DATE: 3-9-23

TO: planned Growth Committee

FROM: Rodney Cecil

SUBJECTS: water and sewer

The city of Winlock has a population of around <sup>1,700</sup>~~2,400~~ as of the last census. We have 5 wells, 2 sewer lift stations, 2 Booster stations and a wastewater treatment plant. The treatment plant is a MBR plant with UV disinfection. Our sewer and water lines run all the way out to the Lowes building and down to the gas station by the freeway. There are hydrants all along this run. The water and sewer department has 3 full time operators and 1 part time position approved. The public works and water department work hand in hand to address any issues in the streets, water, and sewer. All departments also cross train on all the equipment and procedures.

1. The Winlock water and sewer plan, dated 2008, considered the UGA, and the industrial area through 2028. We are in the process of updating our sewer plan.
2. We have just been issued a new NPDES permit, and we have the following **Influent Limits**. (WA0021199)

Maximum Month Design Flow (MMDF) 0.491 MGD (June – Sept) 1.00 MGD (Oct – May)

Peak Day Design Flow 0.865 MGD (June – Sept) 2.00 MGD (Oct – May)

BOD5 Influent Loading for Maximum Month 1,084 lbs/day

TSS Influent Loading for Maximum Month 723 lbs/day

**We average around 140 LBS a day for our influent BOD and around 130 Lbs a day on our TSS. so, this plant is fully capable of processing future growth. Our flow rate averages around .085 to .125 MGD in the summer months and can be over 1 million in the winter months.**

3. **Effluent Limits** for the wastewater plant:

BOD. 123 lbs/day

TSS: 109 LBS/day

PH: 6-9 winter months and 6.5-9 in the summer months

Fecal coliform: 200/100 ML

**We average around 1.68 lbs/day of BOD and .56 of TSS to the creek.**

4. Right now, the City of Winlock has been approved to pump 560-acre feet per year out of existing 5 wells. Last year we used about 380-acre feet for all the connections. That still leaves about 56 million gallons ( 180 acre feet) available per year under our existing water rights. We are also consolidating our water rights so we can pump out of any well. This will maximize use of all our water rights. The average residential user uses about 53,000 GPY
5. Winlock has been using ARPA funding and Capital Improvement funding to increase our inventory. We have upgraded old equipment down at the plant and in the water distribution system. All of our wells have had new pumps installed within the past 10 years. Some within the past 3 years. We have added a vac truck/sweeper, mini excavator to our inventory. We have changed out most of our meters with Kamstrup radio read meters.
6. We have brought our water loss down from 40% when I started in 2014, to around 12%. We have an application into DOH for extra connections based on this water savings. I'm estimating anywhere from 50-200 extra connections.
7. No one in the UGA will be required to connect to water and sewer until there system completely fails and then only if their property is within 200 feet of an existing water/sewer connection. Right now, the water is on the North side of 505 and the sewer is on the South side of 505. If a system fails in the UGA and they are on a side that does not have water and/or sewer on that side of the road they will be given a waiver to install a well and/or septic system. Any new development would have to connect and run services to their location.
8. Any new development must conduct a downstream analysis and mitigate any known issue. This could require upgrades in the water, sewer, and collection systems. This also includes providing/seeking water rights for the specific development.
9. We also no longer allow irrigation systems for commercial projects landscaping.
10. Winlock has completed two Galvanized water projects since 2019 and one Inflow and infiltration project. The galvanized project has removed around 70% of all our galvanized lines. We will be applying for another grant to get even more of the galvanized out of our system. We are also doing in house projects to replace new service lines from galvanized to poly. We are trying to get funding this year (2023) to complete the other half of our I&I project. This is also a requirement in our NPDES permit. This will further extend the life of the sewer plant by treating waste and not stormwater. We have seen a major improvement in these areas.
11. The city is also conducting leak checks yearly to keep our water loss in check and address situations before they lead to bigger issues.
12. All our wells have had upgraded pumps installed.
13. We also have water being provided from the Exeter construction. They have around 189-acre feet of irrigation that will be converted to municipal. They also must build a new well and

reservoir, as of this writing we do not know how much we will be getting but we can use the following for a comparison.

1. Back in 2022 we had a new well put online with a pumping rate of 125GPM. This well tested at around 160 GPM which will be updated later. We also added 32-acre feet that was not originally included in the 2017 WSP, and we had a new reservoir built with around 260,000 gallons. Based on this the city was given 586 connections from DOH, that brought our total to 1244.
2. DOH has approved the city of Winlock for 1244 connections. We are using around 888.
3. If the exciter well brings a minimum of 32-acre feet and they build a new well that pumps at least 125 -160 gpm and they put in a new reservoir the it would stand to reason that we would get another 586 connections. Exeter is required to transfer that water to the city with the well and a reservoir. That would take our total to around 1830 connections. Then depending on what DOH does on the water loss we could see another 50-200 connections on top of this. So, I feel that Winlock is in a great position to handle all the growth that is projected out to 2045 to include the industrial park. It is also important to note that our water connections will be the deciding factor on how much we grow. All this projected growth may take several years to realize or may not happen at all depending on the economy.
4. There is also another 93-acre feet of water that will become available at some point from the Mickelson property.
5. We still have 75-acre feet that we are getting from cardinal glass at some point in the future.
6. At some point water will run up past the high school and that well will be added to the city infrastructure.
7. There is also a mobile home private water system down near the freeway that will be added to the city system at some point in the future.

If you need more information, you can obtain a copy of our 2023 Fact sheet, 2023 NPDES permit and the 2008 sewer plan.

Thank you.

Rodney Cecil

Water/Sewer Superintendent

City of Winlock

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# CITY OF WINLOCK

## PROJECT UPDATES

### Water/Sewer Department

5-22-23

1. We are continuing to purchase and install equipment as was approved by the counsel over the past year.
2. We are still waiting for the DOH to review our submittal to increase our approved connections. This was submitted several months ago but do to covid and the holidays this has not been reviewed yet. **UPDATE: DOH has reviewed the submittal and at first had us re-do the process and then later changed back to the original scope. The end result is we went about 4,000 over budget. We should be seeing several hundred new connections within the next 60 days or so. I think the report submitted allows for around 283 new connections. This would bring our total to around 1,527. This would cover all the connections that are pending and already approved.**
3. We are still waiting for the final report for the consolidation of the water rights for each of the wells. This will include two new potential locations for withdrawal. Once we get this final report it will then go to ecology for their review and hopefully acceptance. **UPDATE: the consolidation report showed that the well location out at the exiter site can only be connected with the 505 well and not at any of the other locations. In order to do that we would have to provide a mitigation plan. We can also link the 505 with the exiter well. This is being addressed in a separate report that is being funded by exiter through our water right attorney.**
4. The contract for the exiter water rights has been approved and submitted. This work has just started. This will be the process that will transfer the irrigation water right into municipal water rights and then be transferred to the city. The next part of the process will be the construction of a new well site out at the industrial park, along with a new reservoir. This will be covered by the developers. This will further increase the connections that the city will have. **UPDATE: see note in item # 3 This will bring roughly 400-600 more connections into the city system.**
5. Future water rights. There is still an existing Mickelson well that has not been addressed. There have been some talks about transferring this water right to the city with some guarantees of future connections. The well is for around 92-acre feet of irrigation rights. At some point this will become city water. **UPDATE: I did put an email into Aaron Mickelson, and he stated that this water right has been placed into a trust. That will protect the validity of the water right for later use.**

Cardinal glass still owes us around 75-acre feet. This was part of their original agreement of returning 154-acre feet back to the city. We will be starting talks again to address this issue. The completed well satisfies the GPM rate that they are responsible for via there contract. **UPDATE: Had a meeting with cardinal and we discussed some water right options. There are not a lot of water rights still available within the UGA, so we will be discussing some options to deal with the 75-acre that is still owed by cardinal.**

We will also be requiring new industrial users to start looking for other water sources to supply their businesses.

6. The new 505 well has been completed, however we are still having issues with the telemetry. It won't communicate most of the time and therefore it won't operate as planned. Still working with cardinal and the contractor to address this issue and get this well working. We just had a new VFD installed.

**UPDATE This well has been running for the past several months and is performing well. We are still requiring cardinal to replace the comm wire at the 505 locations because it tested bad, and there is still an issue with the Chlorinator. The repair is still waiting to be scheduled. NOTE: The telemetry has been running without issue other than it is a weak signal which should be corrected with the replacement of the cable.**

7. We will be having a meeting next week with Devin and his contractor to get the ball rolling on the belt press submittal to ecology. Once ecology accepts this submittal then the next step is to get funding and implement construction on this project. Devin will be looking for ecology grants for this work.
8. We will also be submitting a grant application to ecology this year to complete our I&I issues in the collection system. This is a requirement per our NPDES permit and must be completed before 2024.
9. Devin is also working on a new guideline for connecting to the forced main system. There will be some extra steps on the 505 run as they put the 4 and 8 inch pipe in a 16 inch sleeve.

Thank you



Rodney Cecil

Water/Sewer Superintendent

Talk about the Covid testing