



OPERATIONS REPORT – NEVADA DIVISION

September 2020 Report to the City of Nevada

Water Treatment Plant Operations & Maintenance

OUR MISSION

We partner with communities to deliver the finest water and wastewater services available at a competitive price. We are committed to keeping water safe and clean while serving people and taking care of communities with improved technical operations, careful management and financial oversight, and ensured regulatory compliance.

**Alliance Water
Resources, Inc.**

**206 S. Keene St.
Columbia, MO
65201**

(573)874-8080

1. Gathered and tested samples for Langlier Index (weekly).
2. Monthly facility inspections (facility maintenance staff).
3. Processed special bacteriological samples in laboratory.
4. Staff performed routine cleaning maintenance on odor scrubber #1 and #2.
5. Staff completed cross section analyses on well #3 and #4.
6. Staff off loaded weekly deliveries of chemicals for the treatment process.
7. Troubleshoot failed High-Pressure Pump Motor #2, determined motor was shorted. Pulled motor and prepped it to be taken to repair shop. Obtained 3 bids for repairs and proceeded with low bidder.
8. Updated SDS records.
9. All staff completed TR-600 virtual training (Breathing apparatus).
10. Exercised standby-power generators per schedule.
11. Repaired cracked check valve on bleach line.
12. General maintenance on blowers.
13. Cleaned and disinfected all PPE.
14. Repaired door to chem feed room.
15. Obtained three quotes and ordered chlorination equipment (capital item).
16. Completed monthly 4-log reports for submission to MO-DNR.
17. Changed out nozzles on odor scrubber #1 and acid cleaned drain line.
18. All staff received virtual safety training on Flagger, confined space entry and use of gas detectors.
19. Exercised all valves in High Service pump room.
20. Packaged and shipped electrical gloves for testing.
21. Performed general maintenance on High Service pumps and motors.
22. Replaced defective pressure gauges on both High-Pressure Pumps.
23. Acid cleaned and changed out fluids in Cl-17 unit.
24. Flushed eye wash stations and emergency shower stations.
25. Evacuated accumulated water from chemical tank containment area.
26. Relayed Covid-19 information to staff on an ongoing basis, posted notices as needed.
27. Regular cleaning and disinfection of hard surfaces and areas frequented by staff including vehicles, lab equipment, lab counters, shared key boards, phones, tools, control knobs, switches etc.
28. Conducted facility tour with the City's insurance provider.
29. Repaired plugged drain line on drinking fountain.
30. Changed out acid and caustic filters.
31. Mowed and weed-eated WTP grounds.



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Wastewater Treatment Plant Operations & Maintenance

1. Submitted monthly eDMR to MO-DNR.
2. Pulled samples and processed for annual WET testing (samples passed) with 100% success rate (0% mortality rate).
3. Completed RACO alarm system checks at all pump stations.
4. Completed monthly and weekly influent and effluent testing.
5. Completed monthly facility inspections (facility maintenance).
6. Cleaned PS #2 and #4 wet wells.
7. Weekly e-coli testing.
8. Performed weekly COVID 19 testing (MO-DNR Program).
9. Submitted DMR-QA study 40 lab results.
10. Continued review and work on Permit renewal (currently on hold by MO-DNR).
11. Completed quarterly stream report and submitted to MO-DNR.
12. Deep cleaned scum pit.
13. Exercised all stand-by power generators.
14. Performed semi-annual sampling.
15. Worked on brush hog in preparation of mowing around plant and PS's.
16. Continued Covid-19 cleaning and disinfection of facilities on a regular basis.
17. Pulled PS #1 pump to unclog.
18. Facility tour for City's insurance provider.
19. All staff attended Alliance sponsored virtual safety training on Flagger, confined space entry and use of gas detector.
20. Mowed, weed-eated, and sprayed at WWTP facilities.
21. Mowed, weed eaten, and sprayed at PS #2 and #3.
22. Secured permission from CM to participate in a MO-DNR sponsored sampling program for COVID-19 in WWTP influent flow.
23. Relayed covid-19 info to staff on an ongoing basis and posted all related policies.

Wastewater Collection / Water Distribution

1. Weekly grinder pump station checks and float cleaning.
2. Weekly inspection on wells and towers.
3. Cleaned and or root sawed 10,850' of sewer mains.
4. CCTV inspection of 5,125' of sewer mains.
5. Adjusted belts and throttle cable on old Jetter in an effort to increase pressure.
6. Prepped brush hog for mowing of sewer line easements.
7. Mowed all sewer line easements for ease of entry in the event of an emergency.



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8. Installed new LED lights on utility trailer (old lights were dim and could not be seen in bright sun light).
9. Removed roots from manhole on Adams Street.
10. Inspected several lines for root control demo.
11. Observed root control demo performed on sewer line on Garfield Dukes performed demo and will return to show proof of product.
12. Used vac truck to remove debris from Nevada Fire Department Station sediment trap.
13. Picked up and assembled new drill press in field office shop (old one not safe to use, had no guard and table was broke).
14. Obtained quotes for and ordered new root saw.
15. Responded to 6 various sewer calls.
16. Assisted with sewer line locations.
17. Assisted city staff with operation of old jet truck.
18. Performed several building demolition inspections (water and sewer disconnects).
19. Found AT&T Fiber conduit bored through 15” sewer line and started repair process (this will be on installation contractor).
20. Assisted local plumbers with sewer line issues and locations.
21. Monthly turn offs.
22. Monthly meter reads.
23. Relayed covid-19 info to staff and posted any and all information related to the subject.
24. Continued cleaning and disinfection of shop, vehicles, key boards, vehicles, tools, and etc. to limit possible exposure to covid-19.
25. Changed out defective meter at 1104 Elmwood.
26. Repaired service leak at 2117 E. Austin (Sonic), repair made at 5 am as not to interrupt service during business hours.
27. Replaced leaking service line at 1234 N. Chestnut.
28. Developed fall flushing schedule and informed radio and newspaper.
29. Mowed wells and towers.
30. Performed shut-offs (70).
31. Installed blue tooth transmitting meter heads for contactless meter reads at NRMC (units working great).
32. Performed pressure check at 1202 Ridge Road. PSI at 80 recommended to customer to install a pressure regulator.
33. Repaired leaking service at 893 E. Vernon.
34. Raised meter pits at 1203 N. Elizabeth, and two at 329 N. Jefferson.
35. Assisted City Staff with quarterly inventory.
36. Performed dirt work from previous repairs at 916 W. Hunter, 1107 n. Commercial, 219 W. Garfield, 1400 Blk of W. Maple, 2117 E. Austin, 1234 N. Chestnut, and 803 E. Vernon.
37. Exercised valves on South side of system.
38. Trained new hire on how to perform line locates.
39. All staff attended Alliance sponsored virtual Flagger, confined space entry and use of gas detector training.



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Recommendations

1. Change language of City code Sec. 40-4 and 40-11 to minimize possible liability. Responsibility should be from the water main to the first point of shut off, whether it is a corporate shut off (curb stop) or inside the meter box.
2. Review demolition permit procedures and implement changes to allow for water and sewer utilities to be disconnected properly prior to demolition commencing.

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WATER TREATMENT PLANT PERFORMANCE

4 Log Sampling

Parameter	Monthly Average
pH	8.89
Temperature	20.4
Lowest Cl ₂ residual	1.6

Bacteriological Results

Date	Results (Absent or Present)
09/01/20	A
09/14/20	A

Flow Totals (Million Gallons per Day)

Meter	Average Daily Flow	Total Monthly Flow
Feed	0.768 MGD	23.046 MG
Product	0.535 MGD	16.051 MG
Blend	0.233 MGD	6.987 MG
Brine	0.191 MGD	5.724 MG
Distribution	0.780 MGD	23.402 MG

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WASTEWATER TREATMENT PLANT PERFORMANCE

NPDES Effluent Limits

Parameter	Monthly Average	Permit Limit
pH	6.7 min. and 7.2 max.	6.5 - 9.0
TSS	2.0 mg/L	20 mg/L
BOD ₅	5.0 mg/L	20 mg/L
NH ₃ -N	< 0.10 mg/L	1.40 mg/L
E. coli	10#/100mL	206 #/100mL
Oil & Grease	< 5.0 mg/L	10 mg/L

Flow Totals (Million Gallons per Day)

Average Daily Flow / Design Flow	Total Monthly Flow	Year to Date Total Flow
3.50 MGD / 2.0 MGD	38.19 MG	651.211 MG

Biosolids

	Report Period	Year to Date
Quantity Applied	Sept. 0 tons applied	94.6 tons
Acres Applied	0 acres	132.5 acres



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September 2020 Customer Service Work Orders

Action	Completed This Period	Completed Year to Date
Connect	39	281
Disconnect	49	287
Cut Off	0	6
Meter Info	122	1,108
Meter Change	9	51
OCC Change	40	319
Reinstate	62	176
Service Change	0	0
Miscellaneous	1	71
TOTALS	322	2,299

Utility Locates	146	1,186
Back Flow Notices	25	321
Valve Exercised	10	120
Sewer Cleaning	5,425'	19,418'
Sewer Root Saw	5,425'	11,153'
Sewer CCTV	5,125'	12,188'

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WTP Staff preparing to pull failed #2 High Pressure Pump Motor



Motor pulled and being moved for loading Into truck for transport to repair shop



AWR Staff setting CCTV for an Inspection



Dukes Root Control Application on Garfield