



MEMO

Date: 7/11/23

To: Board of Trustees

From: Virgil Farnen

Through: Tom Ratermann

Subject: Answers to follow up questions regarding;
Midway Arms – Unsatisfactory Feature
Clear Creek – Sanitary Sewer Overflow
Rocheport - Bypass

- 1) Midway Arms – What is the documentation process and training for changes in equipment? There is no documentation. The new operators typically spend 4-5 days with each operator of each region for On the Job Training. They will also spend about 7-10 days with an experienced operator for the region they will be responsible. Does the operator involved provide a report? Typically, the operator involved would not provide a report for something I determine as minor. What is included in this report. N/A Seems like a root cause analysis is appropriate. If the O&M Manual for the facility is in both paper and digital form, confirm that the update process addresses all forms. Midway Arms does not have an O&M Manual. Many of the facilities the District has, were inherited over time. Many of these do not have O&M manuals.

- 2) Clear Creek – Again seems like an incident report is appropriate including before and after picture of the cleanout, root cause analysis, and recommended corrective action to minimize future occurrences. The District's Service Call sheet would be our incident report. Along with the SSO report submitted to DNR. It was determined that the cause of this cleanout breaking was low flow in the force main most likely during freezing temperatures. Additional fill around the cleanout will be placed this late summer/fall when equipment is present during routine right-of-way maintenance occurs.

- 3) Rocheport – Recommend that an Incident Report be submitted by the operator involved. The report should address impacts on treatment performance and capacity. For example, how much sludge was lost in pounds? 375lbs What was the impact on the MLSS? Before 3900 mg/l, after 4300 mg/l, the higher MLSS was due to me turning on the decant pump to stop the sludge overflowing. This put thicken sludge into the aeration basin. What was the sludge age? No sludge ages were calculated. Will there be an impact on BOD removal or nitrification? Yes, though Total Nitrogen removal is not a permit requirement. What is the wasting process? The operator takes weekly samples of the MLSS and determines how much he should waste. Along with routine wasting, they will batch waste if needed. Rocheport seems to run best with a MLSS a little above 3000. At Rocheport you open a slide gate that diverts the RAS to the sludge storage basin. This gate can be removed, or if the operator chooses, a block installed that will allow flow to both RAS and WAS.

How is the wasting volume and frequency determined? The operator will use the results of the ML to determine if more or less wasting is needed. He tries to maintain the MLSS at a level that the wwtp runs well to meet effluent limits. The operator usually does some routine wasting while performing the operations test 3 times a week. Using the results, he determines if more or less wasting is necessary.