



Community Development Department

315 Kennel Ave/PO Box 248

Molalla, OR 97038

Phone 503.759.0205

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October 13, 2022

To: Mike Pinney
Oregon Dept of Environmental Quality

RE: Aeration Basin Drawdown and Inspection

Dear Mike,

The City of Molalla has drawn down and bypassed its influent Aeration Basin due to the development of holes in the Asphalt Lining. This report documents the situation and findings as we understand them today. On October 5th 2022 the Lead Operator contacted me regarding what appeared to be a hole developing in the asphalt lining of the influent aeration basin at the Molalla WWTP. The observed hole is as it appeared that day are shown in the image (right). I asked him to organize a drawdown of the aeration basin so that



we could inspect. The initial drawdown occurred on October 10th (the same day as an unrelated Recycled Water Spill, which has been previously reported). That initial inspection revealed that the asphalt lining had failed in multiple locations. The wide-angle photograph below was taken during that inspection. The City began treating the situation as a full failure of the aeration basin and, to be as conservative as possible, ran its emergency procedures.

The first concern was whether any raw sewerage from the Aeration Basin was immediately leaking in to Bear Creek to the North. However, an inspection of the creek bed revealed it was dry to the east in the direction of the Aeration Basin, no leaking was immediately evident. The image below is taken from the Driveway bridge at the wastewater plant, facing East up the creek, along side the aeration basin. The

nearest standing water in the creekbed was observed to the West of this bridge, but this pool (1) did not appear to be flowing, and (2) had obvious signs of aquatic creatures (tadpoles and small fish) indicating to us during our inspection that the pool had good dissolved oxygen, not the low oxygen one would expect of raw sewage from the Aeration Basin.

Next, DEQ was contacted by telephone (24hr notice). I reviewed the situation with Tiffany Yelton-Brahm around 5pm on the 10th. We decided during that call that the most important thing to do right then was to completely bypass the aeration basin and perform a more thorough inspection. That more thorough inspection happened on October 11th and consisted of:



- a. Walkaround: the entire structure was found to be in poor condition with multiple holes in the asphalt lining below the normal high-water level.
- b. Shovel Checks: I descended the side of the structure suspended by a rope and worked the area that appeared to be still asphalt with a shovel. The asphalt came apart with ease.
- c. Hand Checks: I pulled gently on portions of the asphalt lining that appeared to be in good shape and they flaked away under my fingers.

Two photographs below follow. The first is from the inspection on October 11th, 2022. The second is the same angle, photo from archives, on the dewatered aeration basin taken during biosolids removal in 2018.





Upon these findings the Transfer Pump Station was configured to permanently bypass the aeration basin. The Basin may experience water entering as the winter months approach, but the intent is to keep it clear of raw influent until further notice. The City expects that the transfer pumps can keep up with the expected peak winter flows, and the City does not believe equalization of raw sewerage in the basin should be required (peak influent flows observed are in the 9.0 MGD range, whilst the two large transfer pumps (Grundfos Model S3.45.A.1.20.1070.8) are plated to run Qmax of 9,827 gpm each which should be more than sufficient. A small amount of water is required to be left in the basin so that these Transfer Pumps do not cycle so much that they will burn up.

On the morning of October 12th, 2022 I had a meeting with the City Engineer (Dyer Partnership, who is also performing the design of the new Wastewater Facility). They had reviewed all the above mentioned findings and were asked to begin the process of providing assessment, options, and recommendations in the form of a technical memorandum. They are also reviewing the best way to configure the pumps, and determining what kind of additional aeration, if any, may need to be added to Lagoon 1 to compensate for the loss of treatment in the aeration basin. Dyer expects to produce that memorandum by October 26th.

Respectfully,

Andy Peters, Public Works Div Manager

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