Ottumwa WPCF Biosolids and WAS Valve.

Doyle Moore spoke with Brian Lee the morning of 7/27/2026. Troy Fadiga spoke with Brian Lee the afternoon of 7/27/2026.

Ecosystems was wet hauling aerobic sludge, held in SC Tank #2, on behalf of the Ottumwa WPCF Friday 7/24/2026 and Saturday 7/25/2026 for a total of 270,000 gallons. This was surface applied to pasture at the Hatfield's property at 40° 58'54.3"N and 92° 31'26.5"W. After reviewing the stopping point on Saturday, Doyle Moore noticed a 2 foot discrepancy with where the tank should be and where the tank was and concluded we have a leaky WAS valve. This would imply that 48,000 gallons of WAS was leaked into the conditioned sludge. We do not know exactly when the leak would have began.

As per our normal procedures, wasting was cut off from SC Tank #2, a SOUR was performed 7/20/2026 with a result of 0.60 mg O_2/g/hr and seven samples from the tank were taken 7/21/2026 and driven to the Microbac lab in Centerville, IA. A SOUR performed on the remnants in SC Tank #2 7/27/2026 had a result of 1.27 mg O_2/g/hr. Both of these are less than the 1.50 mg O_2/g/hr limit for vector attraction reduction.

DATE	GEO MEANS	UNITS
1/21/2025	7,670	MPN/dry g
5/19/2025	1,790	MPN/dry g
7/8/2025	5,630	MPN/dry g
10/22/2025	25,300	MPN/dry g
2/24/2026	22,700	MPN/dry g
4/28/2026	411,000	MPN/dry g
7/21/2026	289,000	MPN/dry g

The Class B limit for Sludge Fecal Coliform is 2,000,000 MPN/dry g. I've included a table of aerobic sludge fecal coliform geometric mean results. We've met the limit fairly easily in the past (and continue to meet the limit). I dismissed the late April high result as a one-off blip with bad settling and quick processing (we also had a 220,000 result 8/7/2023). When taken in conjunction with the 7/21/2026 results the higher (but still compliant) levels might indicate that the valve has been leaking for three months. This would also imply that it was a continuous background process taken into account by our SOUR and sludge fecal analyses and that the applied sludge met the Class B criteria and no 503 violation has occurred.

The valve is planned to be replaced Wednesday 7/29/2026.