

Commonwealth of Pennsylvania
Department of Environmental Protection
September 14, 2026

Subject: Aquatic Biology Investigation
Case: Shull Farm FPR Operation
UNT Geddes Run
Plumstead Township, Bucks County

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On September 11, 2026, the Shull Farm food processing residuals (FPRs) operation was visited as a follow-up to the April 30, 2026 aquatic biology investigation of Geddes Run. Waste Management Program staff including Badhr Salam Majeed (Solid Waste Specialist), James Horan (Environmental Protection Specialist), and Kuang Chung Ou (Environmental Engineer) were also present during the visit along with the property owner, Art Shull, who showed us the composting and lagoon area. It was discussed that additional FPRs for composting have not been accepted at the site since April and a berm was constructed below the composting pads to direct any runoff from the composting area to the lagoons. Solid and liquid levels in the lagoons were low compared to April as described by WM staff. The lagoons were pumped earlier in the month for field application and several feet of exposed vegetation that appeared previously submerged was observed.

The area behind the lagoons near the beginning of the formation of UNT Geddes Run was observed. Plant growth including grasses and jewelweed was much higher compared to the previous visit and seep areas were not as prominent. Some areas of standing water and mud in channels in the grass were found and the pooled area observed during the previous visit was mostly mud with some water (Photo 1). No dark colored seeps were observed. Mostly standing water with areas of very small flow were observed where the drainage became a more consistent channel further down gradient. No undesirable algal growth or sewage fungus was observed in the channel. A drainage channel with consistent bed and banks was observed with a small amount of flow emanating from the pond up gradient of the lagoons. Some filamentous green algal growth was observed in the channel at that location.

UNT Geddes Run was also observed near Tollgate Road after leaving the lagoon area (Photo 2). Unlike the previous visit, there was no flow observed in the channel with only small areas of standing water present. Dry areas in the channel bed had a white appearance indicative of dried biofilm and algal growth.

Field meter readings were taken at three locations (Figure 1) including in the channel upstream of the lagoons (STA1), where the channel formed downstream of the lagoons (STA2), and in a pooled area in the UNT at Tollgate Road (STA3). Dissolved oxygen was higher in the channel at STA2 compared to the previous visit and comparable to the channel from the pond (STA1) and downstream near Tollgate Road (STA3). Conditions of UNT Geddes near the lagoons seemed improved with no observed impacts from the FPR operation runoff or seeps likely caused by operational changes and hydrological differences since April.



Photo 1: Pooled area behind the lagoons.



Photo 2: UNT Geddes near Tollgate Road.



Figure 1. Aerial imagery showing field meter reading locations. Solid blue lines are NHD Plus V2 flowlines. Dashed blue line added by writer.

Table 1. Field chemistry results

	Temp °C	pH	Sp. Cond. µs/cm	DO mg/L	DO%
STA1	20.6	7.51	413.8	4.88	55.0
STA2	18.9	7.41	366.9	6.33	69.0
STA3	19.2	6.83	370.1	4.73	51.8