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State Says NCES Landfill Not Leaking

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As fallout continues over Casella Waste Systems' involvement in the writing of a landfill setback bill in New Hampshire, recent documents show contaminants showing up in its NCES landfill in Bethlehem, pictured here, and an environmental group being granted intervenor status in the company's lawsuit against the New Hampshire Department of Environmental Services. (File photo)

Following a request from the N.H. House of Representatives Environment and Agriculture Committee to take action on recent detections of PFAS compounds in ground and surface waters near the NCES landfill in Bethlehem, state officials have responded to say they are aware and the detections do not constitute a new or ongoing release or a landfill failure.

Rather, they stem from the former unlined area of the landfill, where detections can last for decades, as well as possible leachate handling, and do not indicate a leak in the liner system, said Mike Wimsatt, director of the New Hampshire Department of Environmental Services' Waste Management Division.

At the same time, NCES owner Casella Waste Systems is being directed to do additional site investigation, he said.

On Nov. 21, state Rep. Judy Aron, R-South Acworth, the chair of the committee, wrote to Wimsatt and NHDES Commissioner Robert Scott about the PFAS detections and inquiring as to "what immediate steps your department is taking to verify and deal with what appears to be an environmental crisis unfolding in the Ammonoosuc River."

Her letter of concern follows recent water testing of PFAS in the vicinity of the landfill by Dalton resident Jon Swan, who forwarded his findings to legislators on the committee.

Swan, an opponent of Casella and its plan for a new landfill in Dalton, said that based on his testing and research it's his opinion that NCES could be leaking and he doesn't want to see what is happening in Bethlehem happen in Dalton.

On Thursday, Wimsatt responded to Aron to say NHDES "understands that this topic has been of increasing interest to legislators and citizens, and we appreciate the opportunity to address it."

Since the removal of the unlined landfill, concentrations of contaminants in groundwater and at the seeps have decreased significantly over time as PFAS, an emerging contaminant that is exceptionally resistant to degradation, has only been tested at the site since 2017, he said to Aron.

On Nov. 28, Wimsatt told The Caledonian-Record that the area in question at the landfill is one that is subject to much monitoring, both because of the presence of the former unlined landfill, which was removed in the early 1990s and placed in a new lined cell after NCES bought the property, as well as the routine monitoring via test wells that NHDES conducts around any lined landfill in operation.

"And it's a busy area of the landfill because as the landfill expands there's leachate management infrastructure there, there's leachate off-loading that occurred in that area of the landfill over the years, there was a leachate release spill [154,000 gallons] that occurred back in 2021, and, of course, the impact that the unlined landfill has had that we are monitoring and have been aware of for many years," he said.

New Hampshire has some 300 unlined landfills that were once operated by municipalities, and the majority of them have had some impact on groundwater quality, with some effects lingering to the present day, said Wimsatt.

“Of course, back in the day, PFAS was not something we were looking for, but since 2016 when we became aware that PFAS is a contaminant of concern, we asked all the folks who were doing monitoring of unlined landfills to sample for PFAS, and you pretty much find it everywhere,” he said. “So we see PFAS in groundwater at a lot of landfills, and this one is no exception.”

Along with PFAS being a common contaminant in municipal solid waste, another one that stems from unlined landfills are volatile organic compounds (VOCs), said Wimsatt.

In New Hampshire, waste sites that impact groundwater are managed through a groundwater management permit, which requires that an area be circumscribed into a groundwater management zone that defines the extent of contamination associated with a facility, which employs monitoring wells both within and outside the zone to adequately delineate the contamination and to monitor its progress over time, he said.

“Unlike other unlined landfills that still have their waste in the ground, that unlined landfill was actually picked up and removed [to the lined area], but impacts to groundwater linger,” said Wimsatt. “But we have actually seen a significant drop-off in the VOC contamination associated with that facility.”

One contaminant that has shown up in some NCES wells has been 1, 4-dioxane, a VOC that the state became aware of 10 to 15 years ago, he said.

“That is one of the VOCs that’s more persistent, so even when the rest of the VOCs diminish in concentration, we still tend to see 1,4-dioxane at a lot of our unlined landfills,” said Wimsatt.

It’s also regulated at a low level compared to other VOCs, at about .35 parts per billion, he said.

PFAS is regulated even lower, at 12 parts per trillion.

“So it’s not surprising that even though most of the VOCs have disappeared at a landfill or gone down to below detection that we would continue to see PFAS at detectable concentrations because we can both detect it and we regulate it at much lower concentrations,” said Wimsatt.

The information in Aron's letter included data collected by Swan, though NHDES can't speak for the data's efficacy because the department wasn't involved in the PFAS testing and isn't aware of quality control or assurance measures taken through its collection, he said.

The department has, however, even before her letter, tested groundwater at NCES's main seep, which flows at 60 to 100 gallons a minute, and at smaller seeps, said Wimsatt.

The area has long had a number of seeps that are down-gradient from the landfill and approach the Ammonoosuc River, he said.

"In some recent data, we basically saw single-digit parts per trillion levels of PFAS compounds, not at the main seep, but in a couple of the smaller seeps," said Wimsatt. "It wasn't a surprise to us. I think it's important to put in context that the reality is in that same round of testing we actually took river channel samples both upstream and downstream from where the landfill is located and there were no detectable levels of PFAS in the Ammonoosuc River water."

NHDES believes that some, if not all, of the PFAS concentrations are associated with the former unlined landfill, he said.

"But it has to be said that we issued a letter on Nov. 7 to the company in response to our review and we have them doing some additional site investigation work related to the unlined landfill and we have also now asked them to do some additional hydro-geological investigations surrounding the further assessment of detections of PFAS in a couple of the monitoring wells in that area," said Wimsatt.

It's an area that the department has had concerns about and wants continued investigation, he said.

"But I think it's important to understand at this point nobody's drinking water is being impacted, the river water quality is not being impacted, but this is how we ensure landfills are safe," said Wimsatt. "We monitor them pretty intensively, whether it's an old unlined landfill or a currently operating lined landfill, and we work to ensure that whenever we see contaminants in those monitoring wells that we require the work necessary to evaluate what's happening."

While the 2021 leachate spill mostly went into storm-water detention ponds that have low permeability and the spill was pumped off quickly and removed with no significant impacts to groundwater quality, NHDES is concerned at some level about PFAS detections in wells, and is thus requiring the further investigation, he said.

“If we find something that needs remediation, we’ll direct the company to do that,” said Wimsatt. “But I want to emphasize that there’s nothing in that data that suggests that the liner has failed or there’s a liner leak from the lined facility. We believe that all the PFAS detections that we’re aware of at this point are either associated with the former unlined landfill or potentially with leachate handling releases that have occurred over the years.”

Still, some House committee members, among them state Reps. Kelley Potenza, R-Rochester, and Nicholas Germana, D-Keene, call for an independent third-party investigation at NCES.

Two days before Wimsatt’s response, in an email to Aron, Germana said, “While it is obviously important for us to read and consider what NH DES has to say about the situation, I am increasingly of the mind that a third party (one that can be trusted by everyone to be completely independent) needs to be brought in to conduct testing.”

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