



REGION 8 ADMINISTRATOR

DENVER, CO 80202

The Honorable Jason Crow
1323 Longworth House Office Building
Washington, DC 20515-0606

Sent via email

Re: July 15, 2024, Letter to KC Becker Region 8 Administrator Regarding Lowry Landfill Superfund Site (Site) and the Crestone Peak Resources (Civitas) Lowry Ranch Comprehensive Area Plan (CAP)

Dear Mr. Crow:

Thank you for your July 15, 2024, letter regarding the Lowry Landfill Superfund Site (Site) in unincorporated Arapahoe County, Colorado. The EPA appreciates working collaboratively with you and your staff to ensure you and your constituents have ample information about the Site. While the EPA has a limited role with respect to oil and gas development at and around the Site, we remain confident that contamination at the Site is contained and that the remedy remains protective of human health and the environment.

Lowry Ranch Comprehensive Area Plan (CAP) and the Lowry Landfill Superfund Site

Oil and gas development is primarily regulated at the state level, and there are no Site decision documents that prohibit the type of development being proposed. Upon learning of the proposed fracking under Lowry Landfill in the Crestone Peak's (Civitas) Lowry Ranch Comprehensive Area Plan (CAP), the EPA conducted extensive literature and legislation searches, and did not find comparable situations regarding fracking near Superfund sites. The EPA took several proactive steps and consulted with various federal, state, and private entities to encourage safe resource development. As a result, the U.S. Bureau of Land Management committed to not lease its mineral rights under the Site in February 2023. In addition, after meeting with the EPA, in September 2023 oil and gas operator Crestone Peak (Civitas) committed to not frack under the Site. In spring 2024, the EPA also consulted with the Colorado Energy and Carbon Management Commission (ECMC) and provided written comments on the Lowry Ranch CAP. Recognizing ECMC's in-house expertise on fracking and petroleum engineering, the EPA's written comments requested that ECMC establish a reasonable setback for drilling near the Site. The EPA will continue to provide information and support to ECMC through their engineering focused, robust location-specific permitting process. As part of that process, ECMC has committed to notify and confer with the EPA as location-specific decisions regarding proposed drilling locations within one half mile of the Site boundary are evaluated. The EPA is confident that the continued site-specific engagement through the state permitting process will provide the necessary steps to minimize risk to the Site. Additionally, if fracking-related impacts should occur, they will be quickly identified by the Site's monitoring network, which is discussed in more detail below.

Current Conditions: Site boundaries and protectiveness

The [Lowry Landfill Superfund Site](#) has been in the Operations and Maintenance phase of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process for decades. All components of the remedy have been completed, and an extensive monitoring network is in place to continuously monitor their effectiveness. The EPA's most recent [2022 Five-Year Review](#) found that the remedial components and institutional controls in place at the Site are protective of human health and the environment. Environmental covenants and a City and County of Denver Executive Order are in place to restrict any groundwater well construction and to limit (surface) land use to protect the remedy.

Currently, there is no long-term or short-term risk to the health of the public. Since 2001, the EPA's Five-Year Reviews (FYRs) have determined that the remedies are protective of human health and the environment. Because the remedy remains protective, the EPA does not anticipate re-visiting Site-related cleanup decisions. There is no evidence indicating that a removal action is warranted.

North End 1,4-Dioxane Plume

While the shallow (< 50') North End Plume is outside the Site boundary, it has been investigated, managed, and monitored since 2005. The most recent reports are the [North End Investigation Report](#) and the corresponding [Risk Assessment - 1,4-dioxane](#). The 1,4-dioxane found in shallow groundwater is not considered a health risk. It is not used for drinking water, and the residential developments in the City of Aurora are served by Aurora Water. Private wells miles to the north were sampled by the State, and no elevated levels were found.

The Superfund site boundary has not been expanded to include the plume because the trace levels (average of 1 part per billion (ppb) north of Yale) of 1,4-dioxane are within the EPA's acceptable risk range. Because of that, no additional Superfund action is currently necessary.

As the Colorado groundwater standard for 1,4-dioxane was established, and progressively lowered, the performance standard for 1,4-dioxane was revised. The current site-specific performance standard for 1,4-dioxane, of 0.9 ug/L (ppb) is within the EPA's acceptable risk range and is considered to be protective. In addition, the performance standard is based on a site-specific practical quantitation limit (PQL) that is consistent with the requirements of Colorado water quality regulations and policy. A PQL is the minimum concentration of an analyte (substance) that can be measured with a high degree of confidence that the analyte is present at or above that concentration in that specific type of water. (The water in the West has minerals that interfere with the detection methods.) PQL studies are conducted annually using water upgradient of the Site to determine if the current PQL is still the lowest level that can be confidently detected using current analytical methods.

The Work Settling Defendants extract and treat water from the plume at the Site's water treatment plant, which has a state-of-the-art system to destroy 1,4-dioxane and other site contaminants. The system then polishes the water through granular activated carbon to further reduce contaminant concentrations before being sent to Metro Water Recovery for further treatment. Overall, approximately 180 million gallons of water have been treated, removing 24 pounds – the equivalent of 3 gallons – of 1,4-dioxane over the past 20 years. Concentrations of 1,4-dioxane in the North End offsite plume have decreased more than 90% to trace levels that EPA Risk Assessments have determined pose no risk to human health.

Per- and polyfluoroalkyl substances (PFAS)

While the EPA is closely monitoring PFAS developments on a nationwide scale, PFAS concerns at the Site are limited. The EPA has not identified any completed exposure pathways, meaning that people and the environment are not being exposed to elevated levels of PFAS associated with Lowry Landfill. The contamination within the landfill is contained. The offsite groundwater plume is extracted and actively treated at the onsite water treatment plant with granulated activated carbon, which is the presumptive treatment technology for PFAS. The effluent from the water treatment plant goes to Metro Water for further treatment prior to being used as drinking water. Metro Water is adding sampling requirements for PFAS into their effluent permit, so PFAS will be monitored. The state sampled water from several nearby private wells for PFAS and did not find elevated levels. Given the lack of exposure, the next step in the CERCLA process to look at PFAS at the Site is the next Five-Year Review, which will begin in 2026.

Public Engagement and Transparency

The EPA strives to be transparent and responsive to public concerns related to the Site. To that end, Region 8 continues to reach out to the community regarding the Site by hosting community outreach events such as open houses, sharing information on the [EPA site webpage](#) with just under 200 [site documents](#) available, linking site-specific videos to [YouTube](#), and sending written communications via email and direct mailings.

The EPA encourages your office to reach out with any questions about the Site. Should you have any additional questions, please feel free to contact me directly. Your staff is also welcome to reach out to David Piantanida, Region 8's Congressional Liaison, at piantanida.david@epa.gov.

Sincerely,

KC Becker
Regional Administrator

cc: Ben Frissell, ECMC
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