



Lyon County Landfill Long-Range Planning Document PFAS MANAGEMENT

SUMMARY DOCUMENT FOR LYON COUNTY LANDFILL PLANNING

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Leachate Treatment for PFAS

BACKGROUND

The Lyon County Regional Landfill serves 100,000 residents, and 450 businesses, industries, & institutions in 8 counties: Lac qui Parle, Yellow Medicine, Lincoln, Pipestone, Rock, Lyon, Redwood, and Renville.

The landfill has several strategies to remain a positive environmental steward; including groundwater monitoring, litter control, landfill gas management, and leachate* collection and disposal.

➔ Existing Treatment Agreement

A significant industrial user (SIU) agreement between the Marshall wastewater treatment plant (WWTP) and the Lyon County Regional landfill was approved in 2016; allowing the landfill to discharge its leachate at the Marshall WWTP.

This cost-effective method of leachate management has allowed the landfill to keep its tipping fees (cost per ton of garbage) competitively low for the 8 counties.

➔ MPCA PFAS BLUEPRINT

In 2021, the Minnesota Pollution Control Agency (MPCA) released a PFAS blueprint to address concerns over pre- and poly- fluoroalkyl

substances (PFAS) in Minnesota. MPCA encourages leachate treatment onsite, and guides WWTP facilities to identify SIUs that may have PFAS compounds in their wastewater discharge.

It is widely known that numerous industrial and consumer products contain PFAS compounds. When decomposing in landfills these PFAS containing compounds can leach into rainfall infiltration as it descends through the garbage into the leachate collection system.

➔ CITY OF MARSHALL RESPONSE

In 2024 the Marshall WWTP requested the landfill submit a PFAS Reduction Plan, and informed the landfill of its intent to stop accepting leachate in the near-term. A recent meeting of the two entities affirmed the City of Marshall will continue to allow local discharge leachate - providing the landfill remains on a path toward wastewater discharge reduction.

➔ LYON COUNTY ACTIONS

The landfill is currently conducting two leachate management projects; reverse osmosis filtering, and evaporation. Both technologies are in operation at facilities in temperate climates of North America, and have

promising application at the Lyon County landfill. Once the pilot projects are complete Lyon County will review options to cease leachate discharge; thereby removing the need for future hauling to a WWTP.

Removing leachate from wastewater discharge is in line with MPCA PFAS blueprint objectives; providing both environmental and energy benefits.

➔ SUMMARY OF NEED

This effort does, however, come at substantial cost. Either technology the landfill is considering has a capital construction cost estimated about \$4M. Lyon County cannot make this level of financial investment on its own. Lyon County estimates a tip increase fee of \$8.00/ton (15%) would be required to raise enough funds in (after 10-15 years) to pay for this infrastructure project. This level of increase would not be supported by our partner Counties out of concern for their residents and businesses; which are already facing increased property taxes and inflation-induced operational costs.

Lyon County welcomes any opportunity to have dialogue with those who can help to advance this beneficial project.

**Leachate is water that absorbs chemicals and nutrients as it passes through decomposing waste in a sanitary landfill.*