**Report on MPLS Metro Landfill Capacity**

**March 2025**

What will happen to the HERC's waste when the facility is shut down? Closing the incinerator is an opportunity to invest in waste diversion and reduction. In the short term, some waste currently burned at the HERC will be diverted to landfills.

This report compiles public data on landfill capacity. At current waste generation rates, the four main landfills serving Hennepin County will not be exhausted until 2061.[1] If the HERC is shuttered this year, and we made no progress on reducing our landfill dependence, the capacity at these four landfills will last until 2054.

## Landfills Have a Lot of Space for the HERC's Waste

The HERC processes 365,000 tons of waste per year.[2] According to public reports, the four landfills that process most of Hennepin County's waste have 54.6 million tons of remaining capacity.[3]

| Landfill | Remaining Capacity (tons) | Annual Usage (tons/year) |
|---|---|---|
| Elk River | 14,250,000 | 300,000 |
| Burnsville | 14,972,064 | 359,490 (growing 5,348 per year) |
| Pine Bend | 8,844,000 | 572,000 |
| Spruce Ridge | 16,625,000 | 234,000 |
| TOTAL | 54,692,652 | 1,464,696 (growing 5,348 per year) |

At present rates, that capacity would last until 2061.[4] **If the HERC closed, and all the 365,000 tons of annual waste were instead sent to these four landfills, capacity would still last until 2054.**[5] Put another way, the landfills Hennepin County already uses could accommodate the

[1] In 2023, these four facilities—Burnsville, Pine Bend, Elk River, and Spruce Ridge landfills—accepted 88% of waste landfilled by Hennepin County. The remaining waste was predominantly sent to out of state facilities. *See* Hennepin County, *Description of the existing solid waste management system,* at 6 (Sept. 2024), https://www.hennepin.us/-/media/hennepinus/your-government/projects-initiatives/solid-waste-planning/solid-waste-master-plan-existing-system.pdf.

[2] This report discusses landfill capacity in tons. Where sources refer to landfill capacity in cubic yards, we apply a .95 weight-to-volume conversion ratio. For example, 1,000,000 cubic feet of landfill capacity would be identified in this report as 950,000 tons of capacity. MPCA has adopted in other contexts, reporting that "0.95 tons per cubic yard is within the estimated range . . . reported by the United States Environmental Protection Agency (EPA) (2016) for compacted MMSW at large landfills with best management practices." MPCA, *Burnsville Sanitary Landfill Expansion Project Final Supplemental Environmental Impact Statement*, at 2 (Dec. 2021), https://www.lrl.mn.gov/docs/2021/other/211143.pdf.

[3] *See* Appendix for methodology and sources.

[4] *See* Appendix for yearly breakdown.

[5] To calculate this date, we assume all waste sent to the HERC—365,000 tons per year—are added to annual rate of landfill use across the four studied landfills. The present rate of 1,464,696 tons/year becomes 1,829,696 tons/year, growing at 5,348 tons/year. *See* Appendix for further details.

HERC's waste for approximately three decades. That timeline does not account for the fact that the HERC already requires ash landfilling—at least 70,000 tons of toxic ash are sent to a special landfill in Rosemount per year.[6]

Crucially, a 2054 capacity endpoint assumes we fail to reduce landfill use through waste diversion and reduction. Closing the HERC could put upwards pressure on landfill use by 365,000 tons per year. By contrast, increasing the metro's 40% recycling rate to 75%—our current state target—would reduce landfill use by over 867,000 tons per year.[7] In other words, even partial progress on our waste goals would more than offset the HERC's closure. That progress would extend landfill capacity far beyond 2060.

And it is achievable. Other jurisdictions have achieved recycling rates even higher than 75%,[8] in part by adopting common-sense policies like holding producers accountable for their packaging waste, supporting free electronics recycling,[9] and requiring curbside organics collection at apartment buildings.[10] Many of these proposals are already being pursued or implemented in Minnesota. In the meantime, 54 million tons of landfill capacity gives us plenty of headroom.

**Landfills Have More Capacity Than Is Often Talked About.**

Despite landfills' capacity to absorb the HERC's trash, there is a narrative that closing the incinerator would cause a rush to build new landfills as trash piled up on the street. To see past that myth, it's useful to discuss the difference between waste allocation and design capacity.

Waste allocation refers to how much waste the Minnesota Pollution Control Agency (MPCA) currently allows a landfill to accept.[11] Those caps ensure the waste system does not rely on landfills any more than necessary, and they are defined in a landfill's "Certificate of Need."[12] By contrast, design capacity is tied to how much waste a landfill is physically able to support, based

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[6] Hennepin County, *Ash Transportation and Disposal Agreement Contract No. PR00005989*, at 3 (Feb. 9, 2024) (on file with the Minnesota Center for Environmental Advocacy).

[7] For the last four years or reported data, the metropolitan area has sent 1,050,000 tons of trash to landfills. *See* MPCA, *Score Reports*, https://data.pca.state.mn.us/#/views/SCOREreport2023/SCOREreport. MPCA's forecast for metropolitan waste finds that achieving the state target 75% recycling rate would reduce this landfill use to 182,030, a reduction of 867,970. *See* MPCA, *Metro Policy Plan,* at Appendix F (Jan. 2024), https://www.pca.state.mn.us/sites/default/files/w-sw7-22.pdf.

[8] San Francisco Environment Department, *San Francisco Sets North American Record for Recycling & Composting with 80 Percent Diversion Rate* (Jul. 22, 2022), https://www.sfenvironment.org/blog/san-francisco-sets-north-american-record-recycling-composting-80-percent-diversion-rate.

[9] S.F. 1690, 94th Leg., Reg. Sess. (Minn. 2025).

[10] Cole Rosengren, *Minneapolis Reports Strong Participation but Low Volumes in Curbside Organics Collection*, Waste Dive, (July 17, 2017), https://www.wastedive.com/news/minneapolis-reports-strong-participation-but-low-volumes-in-curbside-organi/447269/ (reporting limited impact of curbside collection program that excludes medium and large apartment buildings in Hennepin County).

[11] Waste allocation is also referred to as "certified capacity" in Minnesota law. *See* Minn. R. 7035.0300, Subp. 11.

[12] Minn. Stat. § 115A.917 (providing there will be "no new capacity" for landfills without the "commissioner's determination that the additional disposal capacity is needed in the county."); *see also* Minn. Stat. § 473.823, subd. 6.

on environmental factors, physical space, and infrastructure.[13] This limit is defined in a landfill's solid waste permit.[14]

The numbers for waste allocation and landfill capacity can look quite different. In July 2020, the Minnesota Pollution Control Agency (MPCA) announced a plan to expand the amount of waste accepted by landfills in the seven-county metropolitan area. The agency issued new certificates of need increasing the waste allocation for four regional landfills, including two that had previously not accepted mixed municipal solid waste.[15] It also began advancing permit modifications to significantly increase the design capacity of landfills in Burnsville and Pine Bend.[16]

**Waste Allocations**

| Landfill | New Allocations (in tons)[17] |
|---|---|
| Burnsville Sanitary Landfill | 1,692,893 |
| Pine Bend Sanitary Landfill | 2,398,746 |
| Dem-Con Landfill | 627,244 |
| Rich Valley Landfill | 893,889 |
| TOTAL | 5,612,772 |

**Permit Amendments**

| Landfill | New Capacity (in tons) |
|---|---|
| Burnsville Sanitary Landfill | 15,675,000 |
| Pine Bend Sanitary Landfill | 7,790,000 |
| TOTAL | 23,465,000 |

In short, MPCA allocated 5.6 million new tons of waste to landfills, while advancing permits to increase the landfills' long-term capacity by over 23 million tons. These numbers exclude

[13] *See* Minn. R. 7035.0300, Subp. 32.
[14] Minn. R. 7001.3500, Subp. 2.
[15] *Id.*
[16] *See* MPCA, *Solid Waste Facility Permit: Burnsville Sanitary Landfill, SW-56-0001* (Nov. 18, 2022); MPCA, *Dakota County | Pine Bend Landfill*, https://www.pca.state.mn.us/local-sites-and-projects/dakota-county-pine-bend-landfill.
[17] *See* MPCA, *Metro Landfill Certificate of Need*, https://www.pca.state.mn.us/waste/certificate-need. The larger expansion by far, in Burnsville, has received all needed approvals The second largest expansion, in Pine Bend, is in the last stages of approval. It's unclear how far along the much smaller expansions in the Dem-Con and Rich Valley. If either expansion fails to proceed, MPCA has said that the expanded tonnage "will be reallocated" to other facilities.

landfills like the one in Elk River, which serves Hennepin County but lies a few miles outside the seven-county metropolitan region.[18]

All these legal distinctions—between waste allocation and design capacity, and between the seven-county metro and the rest of Minnesota—can generate confusion. In 2023, Hennepin County staff claimed that if "HERC were to cease operations in the very near future, the recently granted additional landfill capacity will last five years instead of the planned seven years."[19] Those short timelines are true in an artificially limited sense: The County only looks at MPCA's waste allocations, not permitted capacity. And, most importantly, the County excludes landfills outside the seven-county metropolitan area.

This ignores how Hennepin County's waste system actually functions. Hennepin County sends most of its to-be-landfilled waste to the Elk River and Spruce Ridge landfills. Those facilities are not accounted for at all in the County's waste allocations math, but they provide 30 million tons of remaining capacity.

In practice, the critical question is whether existing landfills can take the HERC's waste. The answer is yes: Landfills already serving Hennepin County have enough space to accommodate the HERC's waste for decades.

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[18] Hennepin County's most used landfill, Elk River, is located outside the seven-county metro and is 37 miles from the HERC. That distance is slightly further than in-metro landfills like Pine Bend, which is located 27 miles from the HERC.

[19] Hennepin County Staff, *The Hennepin Energy Recovery Center and its Role in the Solid Waste System: A Staff Report for the Hennepin County Board of Commissioners*, at 31 (Sept. 2023), https://www.hennepin.us/-/media/hennepinus/your-government/projects-initiatives/solid-waste-planning/herc-report-board-briefing-september212023.pdf.

## Appendix: Landfill Capacity Estimates

Four landfills service the majority of Hennepin County's waste.[20] They are:

- Elk River Landfill, Northwest, 22460 US-169, Elk River, MN 55330
- Pine Bend Landfill, 2495 117th St E, Inver Grove Heights, MN 55077
- Burnsville Landfill, 2650 Cliff Rd W, Burnsville, MN 55337
- Spruce Ridge Landfill, 12755 137th St, Glencoe, MN 55336.

We estimate capacity and annual usage from the following publicly available documents.

For Elk River and Spruce Ridge, data is reported by the facilities' owner.[21] Waste Management Solutions reports that the Elk River landfill has 14,250,000 tons of remaining capacity, being used at a rate of 300,000 tons per year. For Spruce Ridge, the company reports 16,625,000 tons of capacity being used at a rate of 234,000 tons per year.

For Burnsville, data is drawn from the facility's amended permit and application for a certificate of need. In late 2022, MPCA granted a permit amendment allowing the landfill to expand with 15,675,000 new tons of design capacity. In the application for a certificate of need, the Burnsville facility reported an annual usage rate of 348,794 tons/yr for 2023, growing at a rate of 5,348 tons/year. We extrapolated this data two years forward to estimate a remaining capacity of 14,972,064, with annual use in 2025 of 359,490.[22]

For Pine Bend, data is drawn from the facility's application for an expanded permit.[23] The expansion would provide 7,790,000 tons of capacity that would last the facility 13.6 years, which implies an annual rate of 572,000 tons per year. This expansion is estimated to extend the landfill's useful life through 2042, which implies the facility has existing capacity through 2028 (2042 minus the 13.6 year expansion). We estimate that existing capacity to be 1,144,000 tons (two years at the annual rate of 572,000 tons) for a total expected capacity of 8,844,000 tons.

Aggregating this data results in an estimated 54,692,652 tons of capacity available at the four examined landfills. We estimate that this capacity is being used at a rate of 1,464,696 tons/year (growing 5,348/yr). If we assume the HERC closes immediately, and all 365,000 tons of waste

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[20] *See* Hennepin County, *Description of the existing solid waste management system,* at 6 (Sept. 2024), https://www.hennepin.us/-/media/hennepinus/your-government/projects-initiatives/solid-waste-planning/solid-waste-master-plan-existing-system.pdf.

[21] Waste Management, *Elk River Landfill Fact Sheet*, https://www.wmsolutions.com/locations/details/id/69; Waste Management, *Spruce Ridge Resource Management Facility Fact Sheet*, https://www.wmsolutions.com/locations/details/id/68.

[22] *See* MPCA*, Solid Waste Facility Permit: Burnsville Sanitary Landfill, SW-56-0001*, at 5 (Nov. 18, 2022); Burnsville Sanitary Landfill, Inc., *Application for Certification of Need, MPCA Solid Waste Permit No. SW-56*, at 2 (Jan. 18, 2021), https://www.pca.state.mn.us/business-with-us/metro-landfill-certificate-of-need.

[23] *See* City of Inver Grove Heights, *Landfills in the City of IGH: Pine Bend Landfill*, https://www.ighmn.gov/1524/Landfills-in-the-City-of-IGH.

incinerated are instead sent to landfills, usage would increase to 1,829,696 tons/year, growing at 5,348 tons/year.

Extrapolated forward, we estimate year by year capacity both with and without the HERC.

| **Landfill Capacity Projections (2025-2061)** | | | | |
|---|---|---|---|---|
| | **HERC Open** | | **HERC Closed** | |
| Year | Annual Use (tons/year) | Remaining Capacity (tons) | Annual Use (tons/year) | Remaining Capacity (tons) |
| 2025 | 1,464,696 | 54,692,652 | 1,829,696 | 54,692,652 |
| 2026 | 1,470,044 | 53,227,956 | 1,835,044 | 52,862,956 |
| 2027 | 1,475,392 | 51,757,912 | 1,840,392 | 51,027,912 |
| 2028 | 1,480,740 | 50,282,520 | 1,845,740 | 49,187,520 |
| 2029 | 1,486,088 | 48,801,780 | 1,851,088 | 47,341,780 |
| 2030 | 1,491,436 | 47,315,692 | 1,856,436 | 45,490,692 |
| 2031 | 1,496,784 | 45,824,256 | 1,861,784 | 43,634,256 |
| 2032 | 1,502,132 | 44,327,472 | 1,867,132 | 41,772,472 |
| 2033 | 1,507,480 | 42,825,340 | 1,872,480 | 39,905,340 |
| 2034 | 1,512,828 | 41,317,860 | 1,877,828 | 38,032,860 |
| 2035 | 1,518,176 | 39,805,032 | 1,883,176 | 36,155,032 |
| 2036 | 1,523,524 | 38,286,856 | 1,888,524 | 34,271,856 |
| 2037 | 1,528,872 | 36,763,332 | 1,893,872 | 32,383,332 |
| 2038 | 1,534,220 | 35,234,460 | 1,899,220 | 30,489,460 |
| 2039 | 1,539,568 | 33,700,240 | 1,904,568 | 28,590,240 |
| 2040 | 1,544,916 | 32,160,672 | 1,909,916 | 26,685,672 |
| 2041 | 1,550,264 | 30,615,756 | 1,915,264 | 24,775,756 |
| 2042 | 1,555,612 | 29,065,492 | 1,920,612 | 22,860,492 |
| 2043 | 1,560,960 | 27,509,880 | 1,925,960 | 20,939,880 |
| 2044 | 1,566,308 | 25,948,920 | 1,931,308 | 19,013,920 |
| 2045 | 1,571,656 | 24,382,612 | 1,936,656 | 17,082,612 |
| 2046 | 1,577,004 | 22,810,956 | 1,942,004 | 15,145,956 |
| 2047 | 1,582,352 | 21,233,952 | 1,947,352 | 13,203,952 |

| | | | | |
|---|---|---|---|---|
| 2048 | 1,587,700 | 19,651,600 | 1,952,700 | 11,256,600 |
| 2049 | 1,593,048 | 18,063,900 | 1,958,048 | 9,303,900 |
| 2050 | 1,598,396 | 16,470,852 | 1,963,396 | 7,345,852 |
| 2051 | 1,603,744 | 14,872,456 | 1,968,744 | 5,382,456 |
| 2052 | 1,609,092 | 13,268,712 | 1,974,092 | 3,413,712 |
| 2053 | 1,614,440 | 11,659,620 | 1,979,440 | 1,439,620 |
| 2054 | 1,619,788 | 10,045,180 | 1,984,788 | 0 |
| 2055 | 1,625,136 | 8,425,392 | 1,990,136 | 0 |
| 2056 | 1,630,484 | 6,800,256 | 1,995,484 | 0 |
| 2057 | 1,635,832 | 5,169,772 | 2,000,832 | 0 |
| 2058 | 1,641,180 | 3,533,940 | 2,006,180 | 0 |
| 2059 | 1,646,528 | 1,892,760 | 2,011,528 | 0 |
| 2060 | 1,651,876 | 246,232 | 2,016,876 | 0 |
| 2061 | 1,657,224 | 0 | 2,022,224 | 0 |