Kootenai County
Solid Waste Department
2024 Waste Analysis Report

Kootenai County Solid Waste Department
3650 N Ramsey Road
Coeur d'Alene, ID 83815
(208) 446-1430

2024 Waste Stream Analysis for Kootenai County Solid Waste

Introduction

The annual report is an important historical record and planning tool. Utilizing historical data, the Solid Waste Department can address current obligations while looking to the demands of the future.

You may view detailed reports and information at either the Idaho Department of Environmental Quality (DEQ) office in Coeur d'Alene, Idaho or in the administration office of the Kootenai County Solid Waste Department.

In 2024, the Solid Waste Department continued its focus of providing waste disposal for the people of Kootenai County as well as preparing for the future. By the end of 2024, we were over 95 percent finished with constructing a new cell at the landfill – E3, which will be needed by 2026 for waste placement. Wastewater treatment equipment was delivered to the landfill late in 2024 for processing leachate and we are excited to run the pilot program for this equipment in 2025. We have constructed a new drop-off area at the Ramsey Transfer Station that will be ready in 2025, and this will help alleviate traffic during the busy seasons. And lastly, we purchased property in the wolf lodge area for a new rural site. Construction of the new site will begin in 2025.

The Department managed 249,058 tons and served 817,071 customer site visits – an increase of 3% or 23,489 customer visits in one year. In 2024, the landfill managed 221,686 tons of material - an increase of 1.7% or 3,597 tons as compared to 2023.

The Solid Waste Department offers a variety of services and strives to implement best management practices in compliance with ever-changing regulatory requirements. We are committed to providing citizens with affordable and efficient waste disposal.

Summary

This section contains an overview of the solid waste system and some planning tools used to help meet the needs of Kootenai County residents relative to waste disposal.

The Department is an affordable asset to Kootenai County providing financial stability to the County's financial future. This enterprise-funded program is currently debt-free, managing assets appropriately, and maintaining fiscal responsibility for operations, development, equipment, expansion and future landfill closure and post-closure costs.

Kootenai County Solid Waste department consists of the following:

- Fighting Creek Farm Landfill – the active landfill open 6 days per week;
- Prairie Transfer Station – a full-service transfer station open 7 days per week;
- Ramsey Transfer Station – a full-service transfer station open 7 days per week;
- 12 Rural Residential Collection sites located throughout the County; and
- Granite & Ramsey Landfills both closed for waste disposal.

Flexibility is the key to success in managing solid waste and it takes many talents and skills to keep the department running smoothly. When fully staffed, the department has 66 full-time employees and additional seasonal staff for the summer months.

The Department is always researching alternative methods to maximize disposal space, alternative waste management methods, and disposal and management of leachate. In addition, material reuse or recycling is encouraged to reduce the amount of waste sent to the landfill.

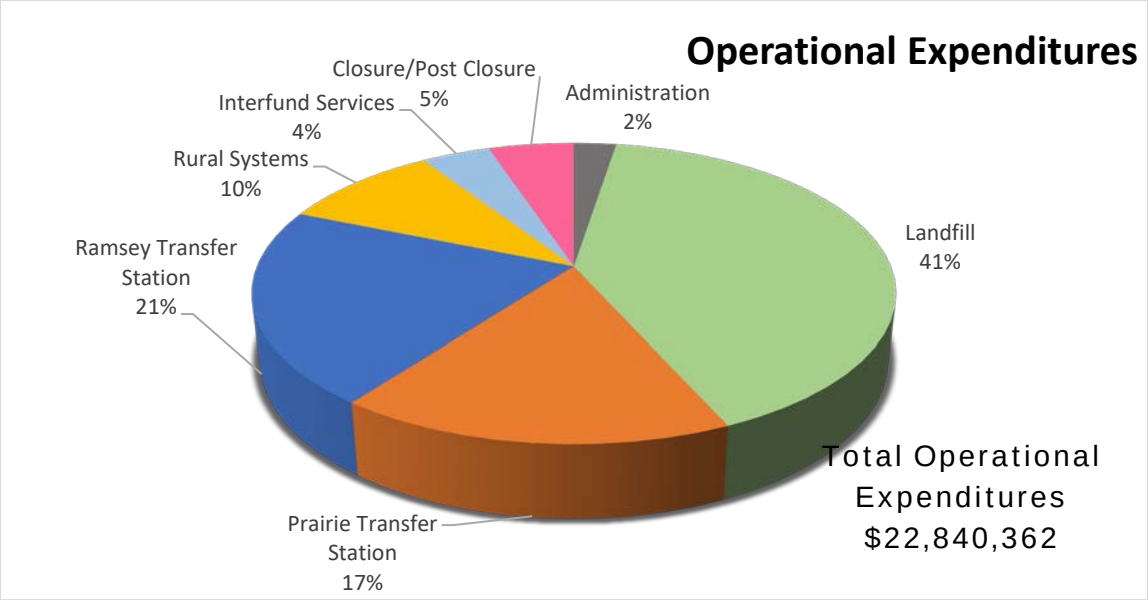
Budget

The Solid Waste Department carefully plans activities to provide for the maximum benefit of available funding. As an enterprise fund, the solid waste program operates more like a business than the typical tax-based government entity and does not receive any support from tax dollars. Solid waste dollars are managed in the solid waste fund, which is restricted for solid waste operations, activities, capital improvements, and construction.

Idaho Code §39-7417 requires that financial assurance mechanisms are in place for landfill closure and post-closure expenditures. Kootenai County's policy is to set aside the calculated cost of the depletion of landfill airspace annually. The practice sets aside funds each year for future closure post-closure costs to close and maintain the closed landfill. This fairly allocates future costs to the current year's disposers and reduces the future need to come up with substantial funds for these required actions.

These funds are restricted and used for closure and post-closure expenses only. Each year the County Finance Director provides a letter to Idaho DEQ meeting this financial assurance requirement. As of September 30, 2024, a total of $15,668,000 has been set aside for closure/post-closure expenditures. See Appendix A-4 for additional information.

For detailed information about the financial records, view the Comprehensive Annual Report prepared by Kootenai County Auditor's office on the County's website at: https://www.kcgov.us/211/Financial-Reports



The Department maintains strategic, long-term financial plans and works to finance the required operation and expansion of services within the solid waste system. Expenditures are broken down into the following categories: Administration, Closure/Post Closure funding, Interfund Services (payment to the general fund for services provided by other departments), Landfill, Prairie Transfer Station, Ramsey Transfer Station, and Rural Systems. In 2024, the Department expenditures were $22,840,362. The expenditures were higher than a typical year largely due to construction costs. All salaries necessary to support these activities are contained within the budget categories.

Fighting Creek Farm Landfill

Kootenai County owns and operates a fully permitted municipal solid waste landfill located approximately 16 miles south of Coeur d'Alene, Idaho. The Fighting Creek Farm Landfill includes over 500 acres of land, with approximately 115 acres permitted for active landfill. Recent estimations are that the currently constructed cells reach interim elevation by 2026. The additional cell developments and construction (E3/E4) will extend the landfill life to 2038, depending on waste growth.

The landfill was designed under 40 CFR 258, Federal Subtitle "D" regulations and complies with the Idaho Solid Waste Facilities Act, Idaho Code §39-7400. To meet these requirements, the landfill has been, and will continue to be, constructed with a fully developed liner, leachate collection system, and gas extraction system.

On September 9, 2022 the Department obtained a renewal of the Tier 1, Title V Air Quality Permit and has continuously maintained compliance with this permit. Copies of the semi-annual and annual reports to the EPA are included with the electronic version of this report. (See Appendix A-2)

The landfill is the cornerstone of the solid waste system in Kootenai County. The facility is open 307 days per year providing service 6 days per week (Monday through Saturday). The facility is not open to the public as processing of most waste is completed through the two transfer stations. The removal of recyclable and reusable materials from the waste stream at the transfer stations prior to landfilling is imperative to save landfill space.

The landfill received 221,686 tons of material in 2024 - an increase of 3,597 tons over the previous year. The waste going to the landfill has steadily increased each year since 2011. A life cycle analysis is a planning tool to help understand how well operators are doing in managing and disposing of waste within the landfill. Based on historical data, the overall long-term growth rate of waste to the landfill is 3%. The current life cycle analysis report uses a planning growth factor of 5% based on prior five-year's growth. This results in a planning strategy of design and build of the next landfill expansion.

Daily operations include placement/compaction of refuse and covering of these materials. Native clay soil is used for intermediate (or longer term) cover, as well as the application of Posi-Shell™ material as an approved ADC (alternative daily cover). ADCs conserve landfill space and generally allow for better landfill gas migration controls and gas recovery within the waste mass.

The original landfill footprint started fill placement in 1993 and reached interim closure elevation in August 2013 with approximately 2,350,597 tons of material in place. Placement of waste in Phase 1 of the East Cell began on August 5, 2013, and then shifted over to Phase 2 on June 14, 2016. Since the opening of the east cell footprint, a total of 2,064,311 tons of waste has been placed.

In 2019 the area between the original landfill footprint and the east cell development was developed into landfill space. This area, referred to as the "corridor" began waste placement on May 27, 2020. Cell E3 was almost fully constructed in 2024, and garbage placement will begin in 2026.

Gas System

The landfill has a gas extraction system, which currently includes 242 active landfill gas wells. This extensive gas well and trenching system collects landfill gas and conveys it to a collection point that feeds two operational enclosed flares and a landfill gas to energy facility. This system is regularly monitored and adjusted to ensure compliance. Required reporting for this system is included with the Tier 1, Title V semi-annual and annual reports (See Appendix A-2)

In 1994, installation of the first blower/flare took place and the gas system activated in 1995. Installation of a second enclosed flare took place in 2000. Kootenai County continues to implement landfill-gas control devices well ahead of state and federal requirements.

In March 2012, a landfill gas to energy project with Kootenai Electric Cooperative for the utilization of landfill gas to generate electricity became operational. Since then, this facility has generated approximately 176 million kilowatt hours of electricity.

Leachate

Leachate is a liquid by-product that results from the compaction of saturated refuse and/or the migration of natural precipitation through garbage. Under current rules, all landfill leachate must

be treated and disposed. Leachate is not characterized as hazardous material, but does contain soluble suspended material that comes from the waste.

Not allowing storm water to contact garbage is the best way to minimize leachate production. In 2018, the department completed construction that consisted of covering approximately 16 acres of landfill with a liner material to minimize leachate production as much as possible. It is anticipated that approximately 6 of these acres of liner are temporary in nature. The remaining 10 acres of liner material may qualify as final cover for the landfill. The installation of this material has the potential of preventing millions of gallons of clean storm water from becoming leachate, thus reducing the quantity of leachate to manage on-site.

The landfill manages leachate in a variety of methods, with ultimate disposal handled one of three ways: recirculation, evaporation, or off-site delivery to a wastewater treatment facility. A total of 5.1 million gallons of leachate was handled through the on-site evaporation process and 1.3 million gallons of leachate was hauled off site. (See Appendix A-7)
The following represents the leachate processed utilizing the misting system over the last 5 seasons:

- April-November 2020 – 3.6 million gallons
- April-November 2021 – 5.4 million gallons
- April-October 2022 – 4.2 million gallons
- April-October 2023 – 6 million gallons
- May-October 2024 – 5.1 million gallons

Leachate is collected in lined ponds before disposal.

Groundwater

The landfill operations permit requires a groundwater monitoring system. Nine (9) groundwater monitoring wells are sampled biannually on the property. The location of these monitoring wells are up gradient and down gradient from landfill operations. The positioning of these sampling points allows for comparative analysis to background conditions of natural groundwater. Results enable engineers to discern if any ground water degradation has occurred due to landfill operations.

As part of a community outreach program, sampling of four domestic wells (up from two previously) is completed at the same time as the semi-annual sampling events. To date, no landfill related degradation of ground water, at the landfill or the five domestic well sites, have been found. (See Appendix A-6)

Surface Water Monitoring - MSGP

The EPA and Idaho DEQ have established rules for surface water monitoring at the Fighting Creek landfill. Over time, the Department has established an extensive surface water infrastructure to assure any surface water leaving the site is clean.

A series of sedimentation ponds situated throughout the property accept run-off from all the local drainage areas. These ponds function mainly to aid in removing suspended solids. The design of each pond is for a specific retainage period to adequately control sedimentation. Cleaning of these ponds is done as necessary during the summer months, if silt has significantly reduced the holding capacity of water in the pond.

These ponds typically drain through large pre-designed vegetated drainages. This allows for natural filtration and aids in further cleaning the water. Within the drainage areas there also exists a series of rock “finishing dams” designed to slow down the run-off allowing more time for sediment to drop or filter out.

Enhanced wetland structures also help to remove solids and provide a robust microenvironment. These areas positively affect local wildlife. An abundance of ducks and geese migrate to these wetlands each year to nest.

The impact from efforts to maintain such clean water is also evident through sampling results. Typical data shows the surface water leaving this site to consistently be of higher quality than the surrounding receiving drainages. (See Appendix A-8)

Landfill Future Development

The Solid Waste Department regularly reviews/updates its development strategy. Planning for future work, including site development for future material sources for landfill cover, phases 3 and 4 landfill development, and south cell permitting/engineering is necessary and maintains our fiscal accountability.

The landfill property includes an area to the south and west of the original landfill footprint estimated to provide solid waste disposal needs for Kootenai County through 2052.

Closed Landfills

In addition to the landfill at Fighting Creek, the Department is responsible for two closed landfills.

The closed Ramsey landfill is located adjacent to the Ramsey transfer station in Coeur d'Alene, Idaho. The landfill portion of this complex stopped taking waste in 1993 upon the opening of the landfill at Fighting Creek. The Ramsey landfill utilizes an active gas extraction system combined within an impermeable cover. Landfill gas from this landfill is flared onsite. The older portion of this landfill (located on the west side of Ramsey Road) no longer produces measurable quantities of gas. See Appendix A-5 for additional Ramsey Gas System Reporting data.

The closed Granite landfill is located on the northern border of Kootenai County. This facility (shared between Kootenai and Bonner County) stopped accepting waste in the early 1990's. For many years, this location was far from dwellings. The sale of adjacent property and the establishment of rural residential development prompted the fencing of this property. A passive gas probe system was installed in 2008 to verify the absence of meaningful methane production at this location.

Complete landfill gas reports are available for review at the Idaho DEQ office in Coeur d'Alene or the administration office of the Solid Waste Department.

Customer Statistics – Transfer Stations

The Department is an affordable asset with a positive customer service reputation. The solid waste system in Kootenai County is owned by the citizens and exists solely for their use. A great deal of effort and funds are expended to provide safe and efficient service to citizens while working to deny access when out of county customers attempt to use the facilities.

In 2024, a total of 817,071 customer site visits (customers) occurred, an increase of 3% or 23,489 from 2023. This number does not take into account the ten unattended rural sites in the County.

Prairie customer site visits totaled 218,310 in 2024. These figures break down as follows:

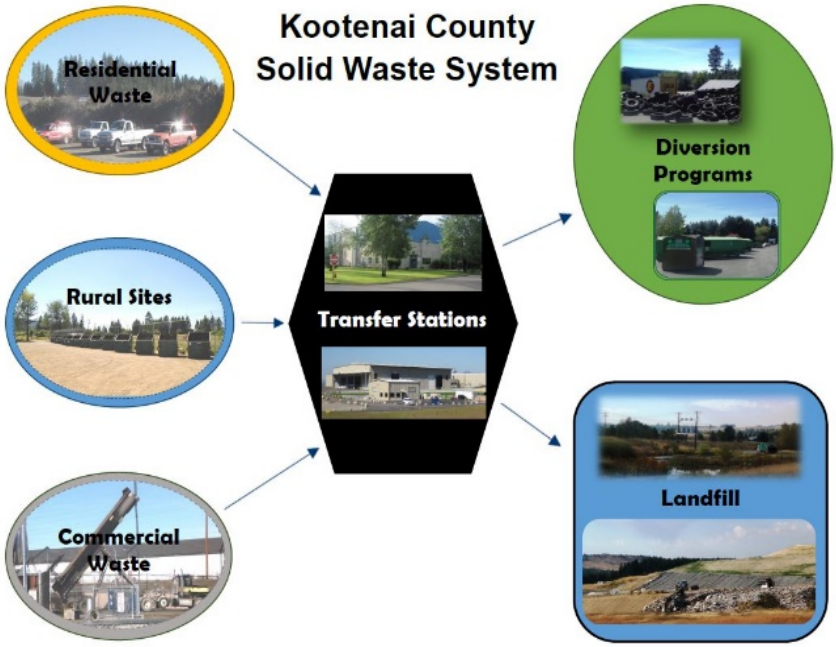
- Increase of 389 or .2% compared to 2023.
- Average of 606 per day.
- Saturday was the busiest averaging 761 per day.
- Thursday was the least busy averaging 510 per day.
- Low of 122 customers on January 17, 2024.
- High of 1,101 customers on April 14, 2023.
- Trivia note: From 2009 through 2023, there have been 2,617,796 customer site visits to the Prairie site.

Ramsey customer site visits totaled 375,540 in 2024. These figures break down as follows:

- Increase of 266 or .1% compared to 2023.
- Average of 1,043 per day.
- Saturday was the busiest averaging 1,196 per day.
- Thursday was the least busy averaging 948 per day.
- Low of 8 recorded customers on January 13, 2024: this was due cold temperatures affecting the scales.
- High of 1,726 on June 1, 2024.
- Trivia note: Since opening in 1993, there have been 9,179,624 customer site visits to the Ramsey site.

The staffed rural sites at Athol and Chilco saw 223,221 customer site visits in 2024, an increase of 22,834 or 11.39% compared to 2023. The large increase was partly due having less site visits at Athol in 2023 while the site was closed from 6/12 – 7/6/2023 for paving.

See Appendix B for additional charts relating to customer statistics.



Waste Statistics

In 2024, the Department processed 249,058 tons. This represents an increase of 58 tons from 2023 for waste coming into the facilities.

Waste shipped to the landfill was 221,686 tons, which is up 1.7% or 3,597 tons from 2023. The landfill received 11,580 loaded trailers from the two transfer stations, which is an increase from the 11,110 loaded trailers in 2023. Kootenai County has seen a lot of growth in the construction of housing and people moving to the area. There are many things that contribute to the rise of solid waste, but the growth in our area is a factor to consider.

See Appendix C for waste statistics charts.

Prairie Transfer Station

The Prairie site received 93,637 tons of material in 2024. This represents 36% of the waste processed in Kootenai County and an decrease of 1,925 tons or 2% from last year. The measurement of the waste stream from Prairie is the weight of all materials weighed into the facility during the calendar year.

- Average daily tons received was 260 (which is down from 266 last year).
- Heaviest tonnage day was May 28, 2024 with 496 tons.
- Lowest tonnage day was January 13, 2024 with 36 tons.
- Friday is the highest tonnage day of the week with an average of 338.
- Sunday is the lowest tonnage day with an average of 126.

After processing the waste for recyclables and removal of other materials, the Prairie site shipped 85,713 tons or 4,369 trailer loads of waste to the landfill. From 2009 through 2024, the Prairie site has processed 1,115,795 tons of material.

Ramsey Transfer Station

The Ramsey site received 149,733 tons of material in 2024. This represents 57% of the waste processed in Kootenai County. It is an increase of 2,127 tons or 1.4% from last year. The measurement of the waste stream from Ramsey is the weight of all materials entering into the facility during the calendar year.

- Average daily tons received was 416 (up from 411 last year).
- Heaviest tonnage day was May 28, 2024 with 763 tons.
- Lowest tonnage day was January 13, 2024 with 22 tons – the scales froze that day.
- Tuesday is the highest tonnage day of the week with an average of 526.
- Sunday remains the lowest tonnage day with an average of 172.

After processing the waste for recyclables and removal of other materials, the Ramsey site shipped 130,285 tons or 7,211 trailer loads of waste to the landfill. From January 1992 through 2024, the Ramsey site has processed 4,321,210 tons of waste.

Direct Landfill Discharge

In 2024, over 5,688 tons (2% of the waste stream) of material were directly taken to the landfill in an effort to divert waste from the transfer stations from large construction/demolition projects. The contractors utilized the scales at the landfill for measurement and delivered the material to the working face of the landfill. This operational change reduces the number of large loads into the transfer station and provides a rate decrease to the contractor for direct haul to the landfill. These projects are by authorization of the Department only.

See Appendix C for additional charts regarding waste statistics.

Recycling

Kootenai County encourages waste diversion, reduction, reuse and recycling before material becomes part of the solid waste system, but does not mandate or control what is collected outside County operated sites.

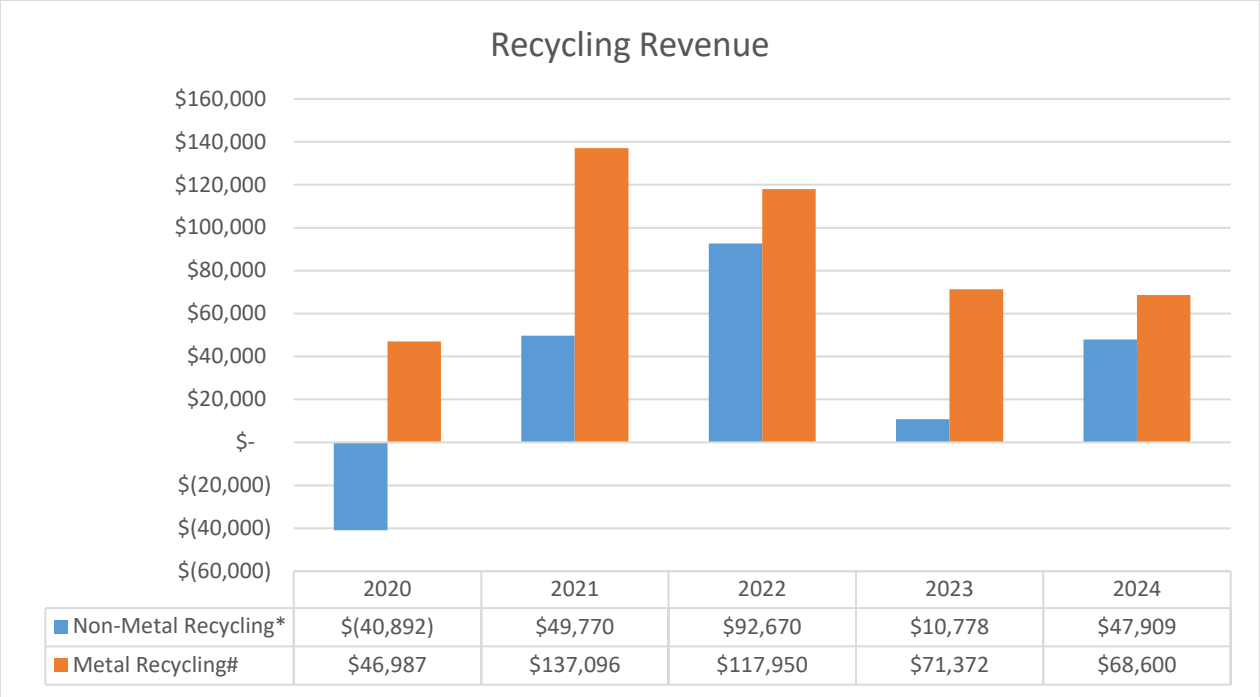
A wide variety of reuse, reduction, and recycling programs are in place throughout the area operated by businesses or other entities independent of County programs. Material collected by the County and recycled include, single-stream material (cardboard, newspaper, plastics, and other segregated recyclables), textiles, automotive batteries, scrap metal, used oil, wood waste and other materials.

The Department offers recycling drop off stations at both transfer stations and some of the rural residential collection sites. These materials are modified dependent on current markets, challenges with marketing material, and problems with contamination of the recyclables.

There are significant issues facing recycling markets in the United States. The Department remains focused on providing as many opportunities to recycle as fiscally reasonable. Until there are significant changes made, recycling processing costs will continue. Working together with our recycling contractor, the Department has limited these costs, but the recycling markets are extremely volatile and unsteady, and will remain that way for several years.

Recycling can provide an effective means of conserving landfill space; however, it is not a free service. It takes funds to collect, sort, store, transport and manage these materials. If there is no end market for a particular material (i.e. plastics or glass) then these items may be removed from the offered recycling programs.

To help consumers understand the tough decisions made regarding recycling, we are providing revenue information regarding the two main components of the Department's recycling programs: metal and non-metal recycling. The non-metal recycling figure includes revenue for the product less the processing costs charged by the broker. Non-metal materials consist of corrugated cardboard, mixed paper, mixed plastics, aluminum and tin cans.



	2020	2021	2022	2023	2024
Non-Metal Recycling*	$(40,892)	$49,770	$92,670	$10,778	$47,909
Metal Recycling#	$46,987	$137,096	$117,950	$71,372	$68,600

In 2021, we made a few small changes that helped with the cost of non-metal recycling and the price of metals increased substantially.

The recycling programs managed by the Department diverted a total of 18,638 tons of material from the landfill in 2024. This includes all materials removed from the waste stream at transfer stations and rural sites. This represents a decrease of 3.4% or 656 tons from last year. See Appendix D for additional data regarding recycling.

Rural Residential Collection System

There are 12 rural residential collection sites spread throughout the county, of which the County owns the property for four. There are two staffed sites in the northern portion of the County and 10 collection sites on the east and west side of Coeur d'Alene lake and in the southern portion of the county. The challenge is to keep this waste stream confined to household waste from Kootenai County residents. Over the years, changes implemented include staffing sites and increasing public awareness for unacceptable material at these sites. Another challenge is to restrict out of county/out of state use and ensure they are used by the citizens who pay for the system.

Rural sites received 15,316 tons of waste in 2024. This represents 6% of the waste processed in Kootenai County. The total waste was 924 tons more, or a 6% increase than 2023. Waste was diverted to other locations for almost a month during the summer of 2023 while the Athol Rural Site was closed for paving. This could explain part of why there was less waste from the rural sites in 2023. Customers removed 261 tons of cardboard by placing items into the recycling bins provided at these sites.

The two staffed northern sites are open the same hours and days as the transfer stations. These

sites assisted 223,221 site visits in 2024. This is an increase of 22,834 or 11% more from the total customers reported in 2023. These two staffed sites processed 6,140 tons of waste, which is down 767 tons or 11% from last year.

Ten other collection sites make up the remaining portions of the rural collection system. Waste collected from these other sites equaled 9,176 tons which is an increase of 23% or 1,690 tons.

We collaborate with the Kootenai County Sheriff's Office for additional patrolling of the rural sites and continue to make improvements to our video surveillance at locations that are not staffed.

Entry to the Chilco Rural Site.

Household Hazardous Waste (HHW)

Both transfer stations operate year-round HHW collection facilities. The Ramsey site is open Wednesdays and Saturdays from 8:00 a.m. to 4:00 p.m. The Prairie site is open on Fridays and Saturdays at the same hours. These facilities accept up to ten (10) gallons from residential customers only. Commercial hazardous waste is not accepted at any County sites.

Most communities offer limited HHW collection (some only a few days per year). The Department offers these services over 200 days per year. Limiting days is necessary as trained and certified technicians are responsible for safe identification, acceptance, material handling, packaging, shipping, etc. to avoid spills, contaminations, injuries, or improper storage of materials.

Only household hazardous waste is accepted. There are restrictions on types and volumes of materials set forth in the Panhandle Health District Critical Materials Regulation/Certification and the facility operating permit. Transfer stations are Tier II facilities which are permitted to accept municipal solid waste and no industrial or commercial hazardous waste.

The Department processed approximately 246 tons of special waste through the HHW program. See Appendix D for the breakdown of these materials.

All paint is collected in the HHW programs at the transfer stations. Staff sort and separate the paint and set aside latex paint for shipment to the landfill. Landfill staff mix the latex paint with a Posi-shell© material and spray it over the face of the landfill as daily cover. This unique approach provides the department with a cost-effective and environmentally safe alternative cover and reduces expenses for transportation of HHW disposal. This cover system also saves very valuable landfill air space.

A large time component in processing special waste each day is the removal of refrigerants from units (refrigerators, freezers, AC units) brought into the transfer station. The number of units processed by the staff in 2024 was 6,072, which is 522 more units than in 2023. Within the last 5-years, the department has decommissioned over 27,000 units.

In 2024 a big emphasis was placed on lithium-ion batteries in devices such as vapes. By removing items like this from the waste stream, we reduce the chances of having fires while processing waste.

See Appendix E for additional data relating to HHW collection.

Index to Appendix "A"
DEQ Reporting Requirements

In May 2009, Idaho Department of Environmental Quality terminated the Conditional Use Permit and Consent Order for the Kootenai County Farm Landfill. DEQ requires that the following reports and documents are included in the department's annual report each year.

The following is a summary of the information provided to Idaho Department of Environmental Quality (DEQ) and Idaho Panhandle Health District (PHD) with this annual report.

A-1 Inspections and Reports: Annual report for 2022 was submitted to DEQ and PHD in April 2023. In July 2023 the department finalized a Landfill Operations Plan 2023 Update. Idaho DEQ conducted a Tier 1 Air Quality inspection at the landfill in October 2023. A Landfill Closure and Post-Closure analysis was completed.

A-2 Tier 1 Operating Air Quality Permit: Copies of all Tier 1, Title V Air Quality Permit documents and reports have been provided and can be viewed at the Idaho DEQ office in Coeur d'Alene.

A-3 Closure and Post-Closure Plan: There were no changes or modifications to the Closure Plan in 2023.

A-4 Financial Assurance Plan (FAP): Updated information regarding monies spent and set aside to fund future closure and post-closure requirements per §39-7417 of Idaho Code has been included in the electronic version of this report. A copy of the letter from Kootenai County Finance Director, Brandi Falcon, is included herein.

A-5 Landfill Gas Reporting: Fighting Creek gas system reports were included in the required reporting to the EPA, a copy of which is included in the electronic version of this report. The Ramsey gas system report is included in the electronic version of this annual report.

A-6 Ground Water Summary: The electronic reports and data from bi-annual ground water monitoring as described in the Ground Water Monitoring Plan is included in the electronic version of this report.

A-7 Leachate Report: A summary of the performance of the leachate treatment and disposal system during the preceding calendar year containing the same information as previously reported in the annual leachate report is included in the electronic version of this report.

A-8 Surface Water: The Department complied with the regulations of the EPA regarding MSGP and SWPPP. Copies of these reports have been provided, previously, to DEQ, but are included on the flash drive accompanying this report to DEQ.

A-9 Plans and Specifications: No construction completed in 2023 required approval of plans and specifications.

Appendix A-1: Inspections and Reports

Below are the inspections and/or reports completed during calendar year 2024:

a) On April 16, 2024, the department submitted the 2024 Waste Stream Analysis Report to DEQ and Panhandle Health District.
b) On May 4, 2024 PHD did a Critical Materials Inspection at the Ramsey Transfer Station and subsequently issued a new Critical Materials Compliance Certificate.
c) On April 9, 2024, Idaho DEQ conducted a compliance evaluation inspection of the Kootenai County Fighting Creek Landfill in accordance with the Idaho Pollutant Discharge Elimination System (IPDES) Multi-Sector General Permit (MSGP).

Electronic records of these reports and inspections are on file with DEQ, Panhandle Health District and the Solid Waste Department.

Appendix A-2: Tier 1 Operating Air Quality Permit

The Department has maintained compliance with the Tier 1, Title V Air Quality Permit. Copies of the semi-annual and annual reports to the EPA are included in the electronic version of this report.

Idaho DEQ approved a new Tier 1 Operating Permit effective September 9, 2022. The permit and reporting documents can be reviewed at the Idaho DEQ office in Coeur d'Alene, Idaho or at the administration office of the Solid Waste Department.

a) The AQ-C4 for the reporting period of July 1, 2024 to December 31, 2024 is included herein.
b) The AQ-C1 for the reporting period of July 1, 2023 to June 30, 2024 is included herein.

Appendix A-3: Kootenai County Farm Landfill Closure and Post-Closure Plan

We are operating under the Closure and Post-Closure Plan that was updated December 28, 2023 and submitted to Idaho DEQ and Panhandle Health District in early 2024. A digital copy of the plan was submitted with this report and is available at the Idaho DEQ office in Coeur d'Alene and the administration office of the Kootenai County Solid Waste Department.

Appendix A-4: Financial Assurance for Closure and Post-Closure Activities

Enclosed is a letter of Financial Assurance from the Kootenai County Finance Director stating that Kootenai County meets the financial obligations of Closure and Post-Closure for the Fighting Creek Farm Landfill.

Kootenai County Auditor
Jennifer Locke · Clerk
451 Government Way · P.O. Box 9000 · Coeur d'Alene, ID 83816-9000
Phone (208)446-1650 · Fax (208)446-1662
http://www.kcgov.us/departments/auditor · Email kcauditor@kcgov.us

March 20, 2025

Idaho Department of Environmental Quality
Attn: Katy Baker-Casile, Engineering Manager
2110 Ironwood Parkway
Coeur d'Alene, ID 83814

RE: Kootenai County Farm Landfill - Closure and Post-Closure Funding

Dear Ms. Baker-Casile;

The financial liability associated with monitoring the closure and post-closure responsibilities, assumed by Kootenai County, is fully funded for the portion of the Kootenai County Farm Landfill (Fighting Creek) that has been depleted to date. The estimated liability at the end of our most recently completed fiscal year is defined and summarized on the attached schedule, which indicates an accrued obligation balance of $15,668,000.

Additionally, this information will be included in our (Audited) Annual Comprehensive Financial Report for Kootenai County, Idaho for the year ending September 30, 2024. The restricted cash balance for closure and post-closure will be displayed in the Business-type Activities column under the Assets section of the report and will support or exceed the total noted above.

Please contact me for further questions or additional assistance. I can be reached at the address above, or by phone at (208) 446-1665.

Sincerely,

Brandi Falcon
Finance Director

cc: Solid Waste
BOCC

Attachment

Appendix A-5 Landfill Gas Reports for Ramsey and Fighting Creek Farm Landfills

The Fighting Creek Farm Landfill is required to report to the EPA twice a year under the Tier 1 annual compliance requirements. Copies of these reports are attached to the electronic version of this report.

The gas system at the old Ramsey Landfill does not fall under the same reporting requirements. The annual gas system report for Ramsey is attached to the electronic version of this report. An excerpt from the report shows below.

Parametrix
let's create tomorrow, together

March 13, 2025

Parametrix No. 233-1660-049 (03.02)

John Phillips, Director
Kootenai County Solid Waste Department
3650 N. Ramsey Road
Coeur d'Alene, ID 83815

Re: The Ramsey Road Landfill Gas Control Annual Report for 2024

Dear JP:

This letter is an annual summary of the landfill gas monitoring and landfill gas management activities performed at the Ramsey Road Landfill in 2024. It is specific only to the landfill gas control system. This letter can be forwarded to Idaho Department of Environmental Quality and Panhandle Health District to communicate gas information and evaluations.

The annual letter report includes the following sections:

- Introduction
- Description of Facilities
- System Monitoring Results
- Conclusions
- Recommendations

Introduction

The Ramsey Road Landfill is owned by Kootenai County (County) and is located at 3650 N. Ramsey Road, Coeur d'Alene, Idaho 83815. Ramsey Road divides the site into east and west areas. The landfill, which was a municipal solid waste landfill, is now closed. The landfill began accepting waste in 1963 and closed in 1993.

During the summers of 1992 and 1993, a gas control system was installed at the site in both the east and west areas. The gas control system consists of in-refuse wells, perimeter (native soil) wells, horizontal trenches, collection manifold and laterals, condensate traps, and a blower/flare station. Landfill settlement throughout the landfill made it difficult to locate and repair all the pipe failures, resulting in low methane and high oxygen concentrations. Consequently, in December 2002 and January 2003, the buried polyvinyl chloride (PVC) manifold and lateral piping was replaced with high-density polyethylene (HDPE) by the County. In May 2006, four additional shallow gas wells (ER-12 through ER-15) were installed by the County to increase landfill gas collection along the east side to help eliminate methane levels in GP-6 and 7, which are located just outside of the landfill footprint. A down-sized open flare was installed at the blower/flare facility (October 2007) to better handle the low landfill gas stream from the landfill. Two additional gas probes (GP-6A and 7A) were installed in June 2008 between the landfill and proposed development projects on the east side to monitor potential impacts to human health since there has been evidence of subsurface migration in the past.

Appendix A-6: Ground Water Summary

The bi-annual monitoring requirements for ground water were completed as required in 2024.

The following is an excerpt from the 2024 Ground Water Monitoring Report prepared for Kootenai County Farm Landfill by the Engineering Firm of Parametrix. The full reports are available for review at the Idaho DEQ office in Coeur d'Alene and the administration office of the Solid Waste Department.

Ground water quality results as stated in Sections 2.4 and 2.3.2 of the Summary Report were below primary state or federal groundwater quality criteria.

2.4 Summary and Conclusions

The groundwater quality results for downgradient monitoring wells were below primary state and federal groundwater quality criteria. No VOCs were detected in any of the monitoring wells.

The September dissolved iron result at M-17 was slightly above the UPL for the first time and will be verified in April 2024; this result was qualified as estimated based on variability between the sample and field duplicate that may be related to slight turbidity in the samples.

Nitrate concentrations have increased in some wells over the history of monitoring but remain substantially below the groundwater quality criteria. Concentrations in M-9 and M-17 continued to be above the UPL, but the 2024 concentrations in M-16 were below the UPL as they were in 2022 and 2023. Since nitrate concentrations have also shown increases in East Expansion Landfill upgradient well M-15, it is recommended that continued monitoring of nitrate without verification resampling be conducted at these wells per agreement with IDEQ (IDEQ 2004).

Chloride concentrations in wells M-16 and M-17 have recently fluctuated above and below their calculated UPLs but have remained substantially below the secondary MCL of 250 mg/L. Both 2024 chloride concentrations in well M-16 were below the seasonally adjusted UPL and overall concentrations in M-16 have decreased since October 2018. Both the April and September 2024 chloride concentrations in M-17 were above the UPL but remained less than the concentrations measured at upgradient well M-15.

Trends in ammonia concentrations are continuing to be monitored. Concentrations of other leachate indicator parameters in downgradient wells did not show evidence of landfill impacts.

2.3.2 Comparison to Quality Criteria

The groundwater data (Tables A-1 through A-4) were compared to applicable state and federal groundwater quality criteria. Applicable criteria are Federal Maximum Contaminant Levels (MCLs), Idaho Rules for Public Drinking Water Systems (IDAPA 58.01.08 et seq.), and Idaho Groundwater Quality Rules (IDAPA 58.01.11).

In the active landfill monitoring wells, the results were all below primary and secondary groundwater quality criteria except for the April pH measurement that was below the lower criteria limit in well M-16. No VOCs were detected.

The remaining East Expansion Landfill wells are being sampled to collect background data prior to construction of future cells. The results were all below primary and secondary groundwater quality criteria. No VOCs were detected.

Appendix A-7: Kootenai County Farm Landfill Leachate Report

A copy of the report to Idaho DEQ outlining the volume of leachate processed in 2024 and the methods used is attached in the electronic version of this report. In 2024 the total leachate processed was 6,392,639 gallons.

KOOTENAI COUNTY

SOLID WASTE

March 11, 2025

Ms. Katy Baker-Casile, P.E.
%Division of Environmental Quality
2110 Ironwood Parkway
Coeur d'Alene, ID 83814

Re: 2024 Annual Leachate Report – Fighting Creek Farm Landfill

Dear Ms. Baker-Casile,

Attached you will find a spreadsheet that lays out how the Solid Waste Department managed leachate during the 2024 season. The Department processed a total of 6,392,639 gallons of leachate. During the 2024 season we utilized the misting system for processing leachate and 1,303,200 gallons of leachate was hauled offsite to the Hayden Area Regional Sewer District.

We consult with Drew Norton of the engineering firm, Parametrix, to review the results of our leachate and gas systems. Mr. Norton will continue to look for any inconsistencies or trends appearing from the data collected at the landfill. Leachate quality data will be included within the semiannual and annual groundwater reports.

Please let me know if you have any questions or concerns about this information.

Sincerely,

Doug Goodwin
Operations Manager

Appendix A-8: Kootenai County Farm Landfill Surface Water Reporting

The Solid Waste Department complied with the regulations of the EPA regarding the MSGP and SWPPP. Copies of these reports were provided to Idaho DEQ at the time they were submitted. Courtesy copies of the submittals have been included in the digital files provided to Idaho DEQ and Idaho Panhandle Health District.

DMR Copy of Record

Form Approved OMB No. 2040-0004 expires on 07/31/2026

EPA may make all the information submitted through this form (including all attachments) available to the public without further notice to you. Do not use this online form to submit personal information (e.g., non-business cell phone number or non-business email address), confidential business information (CBI), or if you intend to assert a CBI claim on any of the submitted information. Pursuant to 40 CFR 2.203(a), EPA is providing you with notice that all CBI claims must be asserted at the time of submission. EPA cannot accommodate a late CBI claim to cover previously submitted information because efforts to protect the information are not administratively practicable since it may already be disclosed to the public. Although we do not foresee a need for persons to assert a claim of CBI based on the types of information requested in this form, if persons wish to assert a CBI claim we direct submitters to contact the NPDES eReporting Help Desk for further guidance. Please note that EPA may contact you after you submit this report for more information.

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2040-0004). Responses to this collection of information are mandatory in accordance with this permit and EPA NPDES regulations 40 CFR 122.41(l)(4)(i). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information are estimated to average 2 hours per outfall. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

Permit

Permit #:	**IDR053195**	**Permittee:**	KOOTENAI COUNTY SOLID WASTE	**Facility:**	KOOTENAI COUNTY FIGHTING CREEK FARM LANDFILL
Major:	No	**Permittee Address:**	22089 S. Hwy 95 Coeur D Alene, ID 83814	**Facility Location:**	22089 S. HWY 95 3650 N. RAMSEY ROAD COEUR D ALENE, ID 83814
Permitted Feature:	SW11 External Outfall	**Discharge:**	**SW11-L1** All Landfill, Land Application Sites and Open Dumps		

Report Dates & Status

Monitoring Period:	**From 01/01/24 to 03/31/24**	**DMR Due Date:**	**05/31/24**	**Status:**	**NetDMR Validated**

Considerations for Form Completion

Principal Executive Officer

First Name:	William	**Title:**	Landfill Manager	**Telephone:**	208-661-2869
Last Name:	Marks				

No Data Indicator (NODI)

Form NODI: –

Parameter		Monitoring Location	Season #	Param. NODI		Quantity or Loading					Quality or Concentration							# of Ex.	Frequency of Analysis	Sample Type
Code	Name					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
00530	**Solids, total suspended**	1 - Effluent Gross	0	--	Sample										<	5.0	19 - mg/L		01/90 - Quarterly	GR - GRAB
					Permit Req.										<=	100.0 MAXIMUM	19 - mg/L		01/90 - Quarterly	GR - GRAB
					Value NODI															

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Attachments

No attachments.

Report Last Saved By

KOOTENAI COUNTY SOLID WASTE

User: WMARKS@KCGOV.US

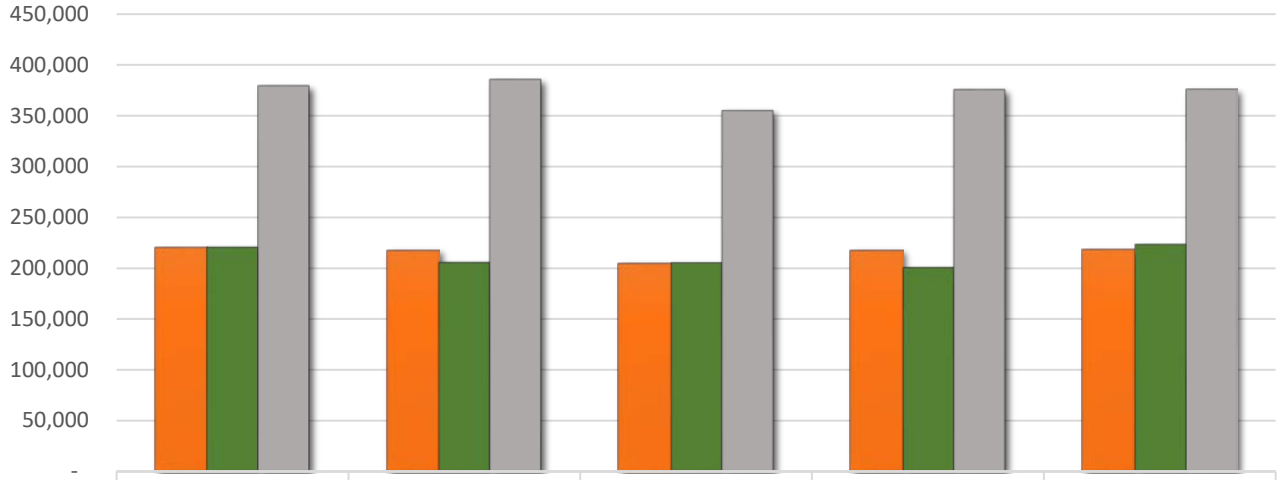
Name: William Marks

Appendix A-9: Plans & Specifications

1. IDEQ approved the plans and specifications of Landfill Cell E3 construction on February 29, 2024 after the 28-day review period was provided to the public.
2. Construction of Landfill Cell E3 began in March of 2024. As of the end of 2024, the construction is 95% complete.

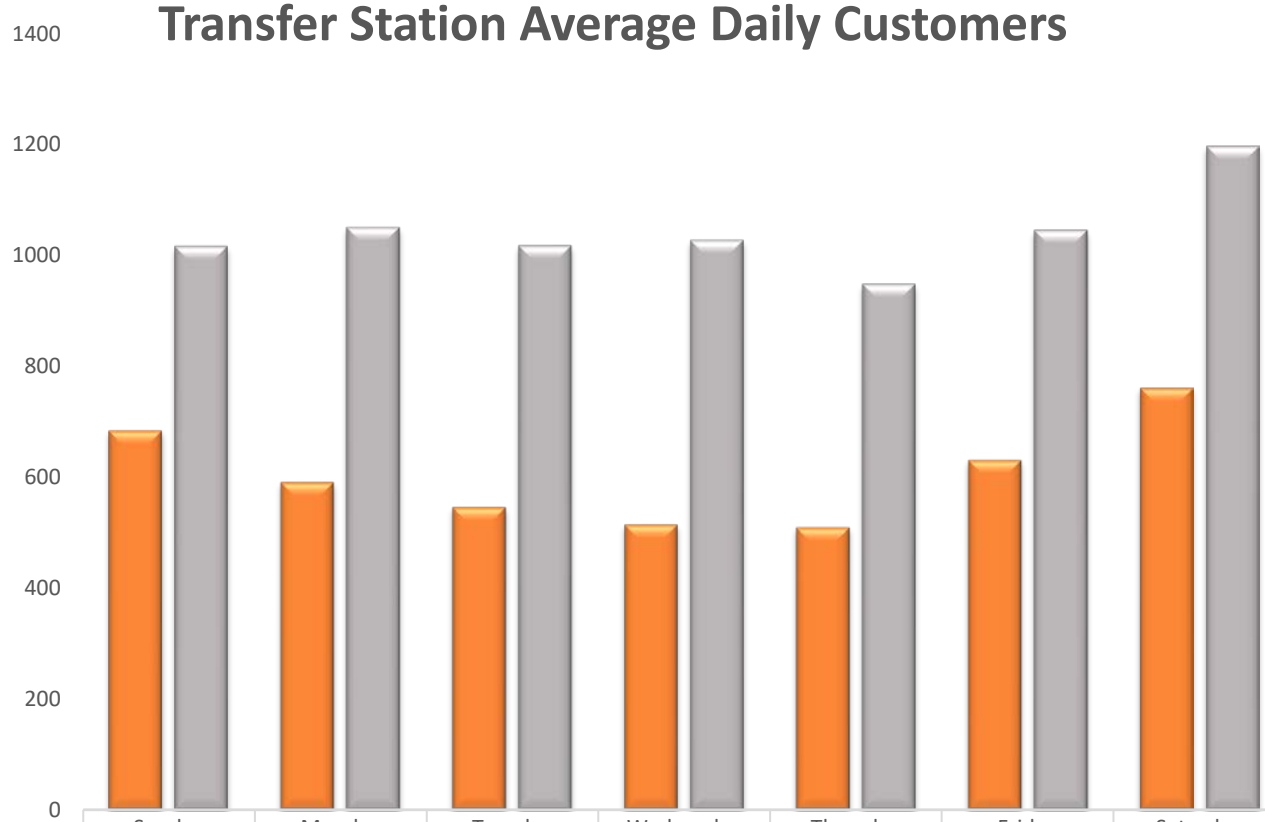
Appendix “B”
Customer Statistics

Total Customer Site Visits in 2024: 817,071



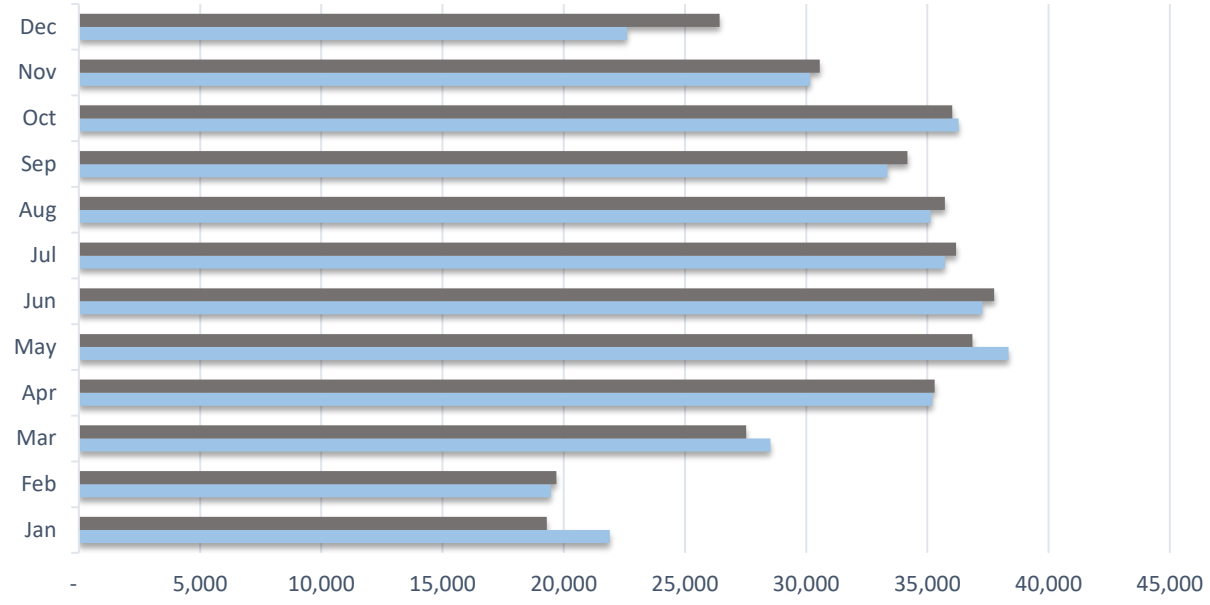
	2020	2021	2022	2023	2024
Prairie	220,446	217,916	205,114	217,921	218,310
Rural	220,388	205,526	205,185	200,387	223,221
Ramsey	378,994	385,302	354,867	375,274	375,540

Transfer Station Average Daily Customers



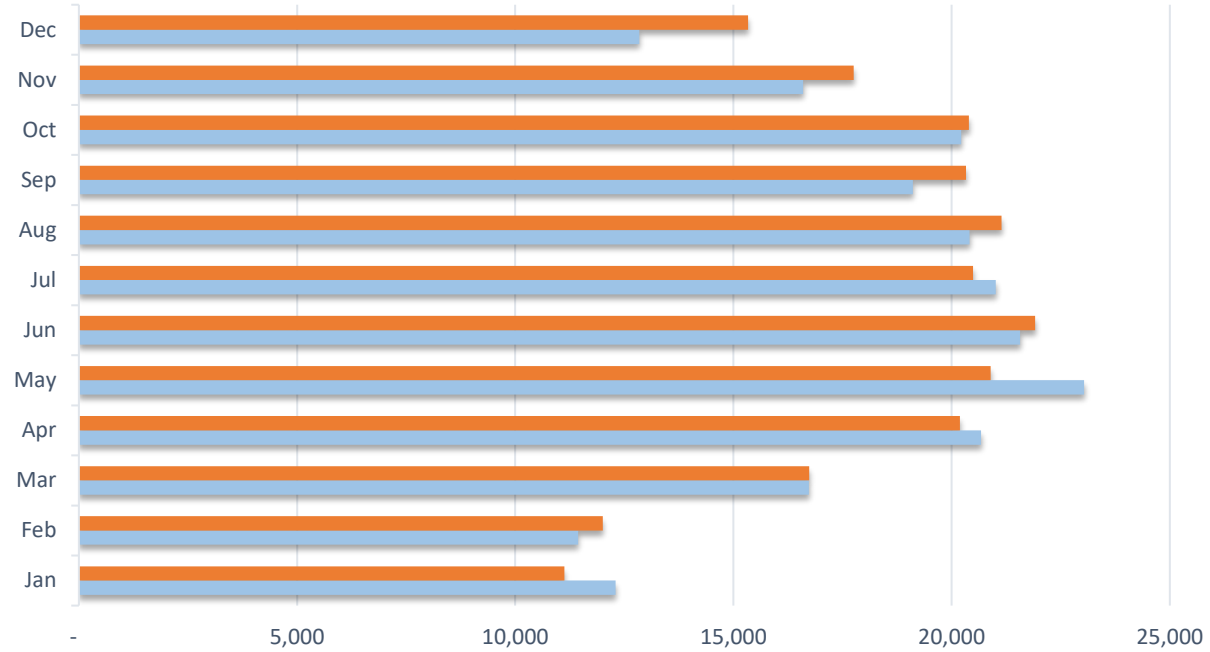
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Prairie	684	591	546	515	510	631	761
Ramsey	1,016	1,050	1,017	1,027	948	1,045	1,196

Ramsey Monthly Customers 2024 Actual v. 5-Year Average

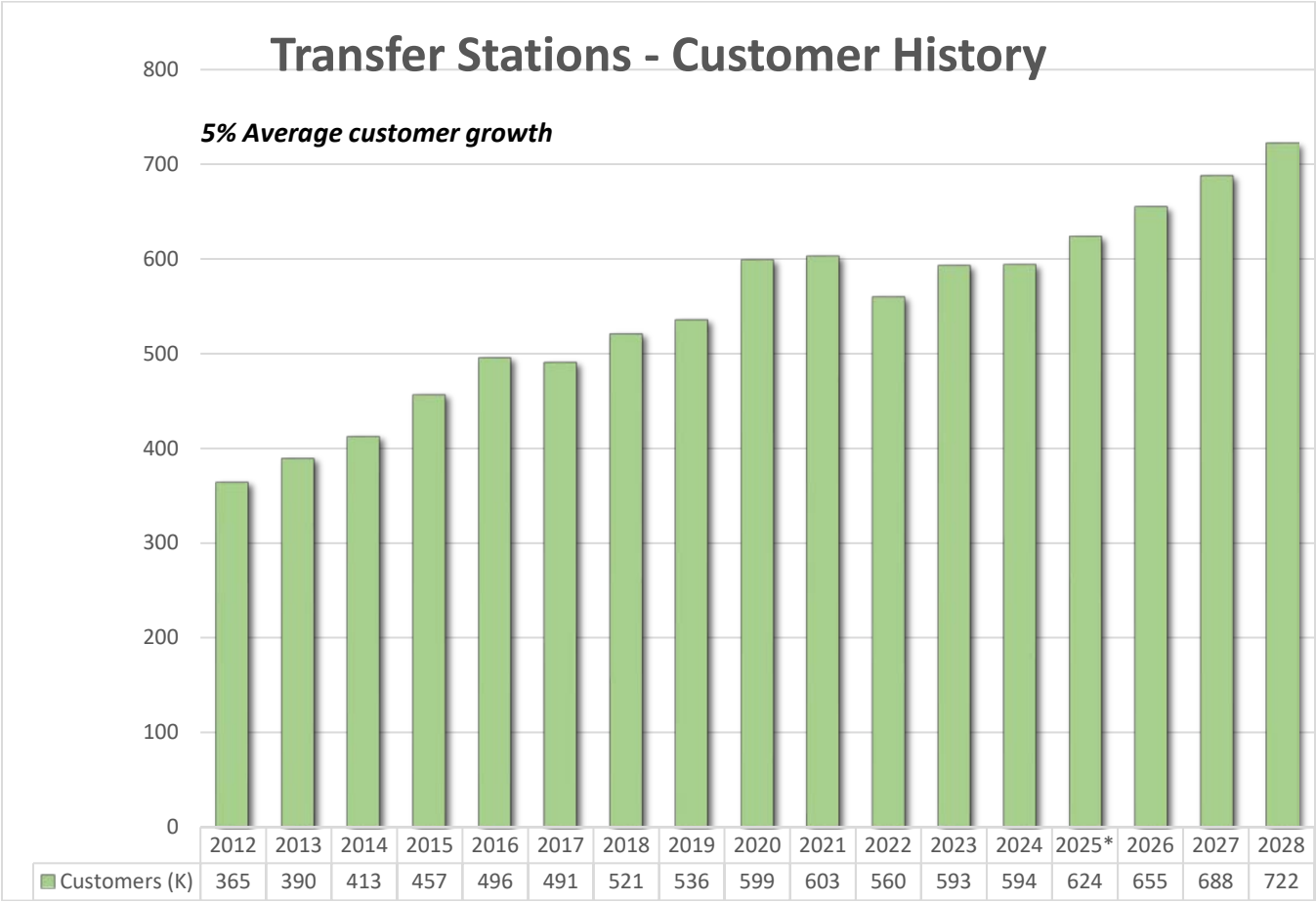


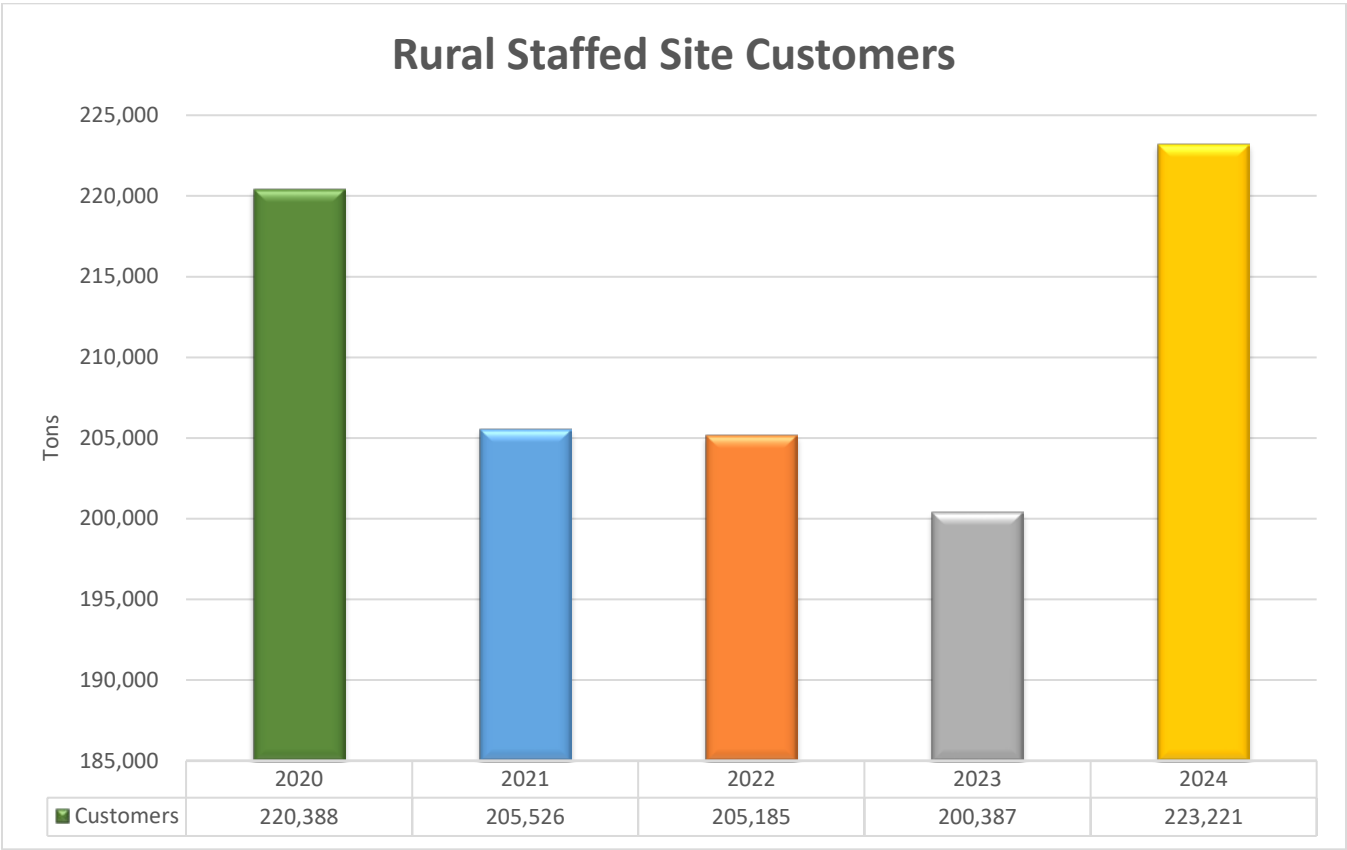
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2024 Actual	19,303	19,692	27,530	35,302	36,861	37,758	36,179	35,725	34,170	36,027	30,562	26,431
5-yr Ave	21,907	19,472	28,531	35,201	38,351	37,269	35,727	35,122	33,339	36,292	30,168	22,616

Prairie Monthly Customers 2024 Actual v. 5-Year Average



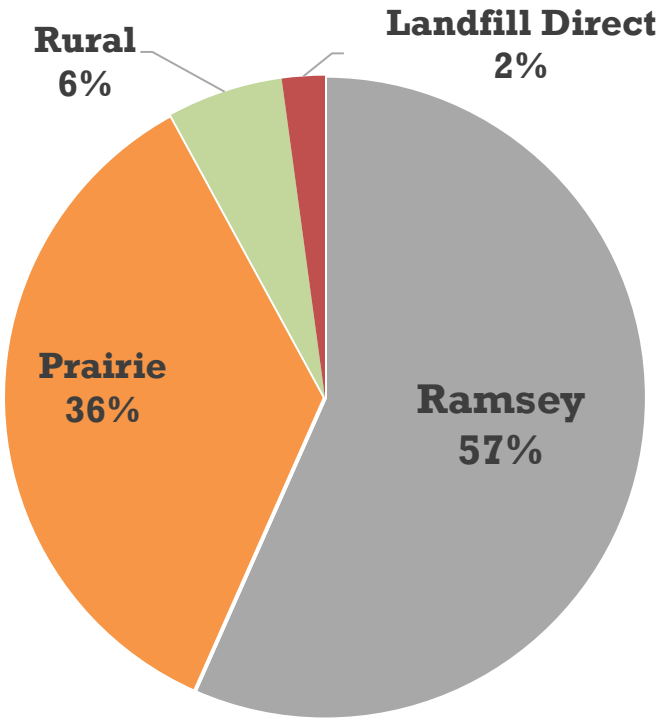
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2024 Actual	11,128	12,005	16,736	20,193	20,893	21,916	20,490	21,141	20,329	20,394	17,752	15,333
5-yr Ave	12,303	11,442	16,730	20,674	23,038	21,570	21,009	20,407	19,115	20,221	16,594	12,839


Transfer Stations - Customer History
5% Average customer growth
800
700
600
500
400
300
200
100
0
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025* 2026 2027 2028
Customers (K) 365 390 413 457 496 491 521 536 599 603 560 593 594 624 655 688 722


Rural Staffed Site Customers
Tons
225,000
220,000
215,000
210,000
205,000
200,000
195,000
190,000
185,000
2020 2021 2022 2023 2024
Customers 220,388 205,526 205,185 200,387 223,221

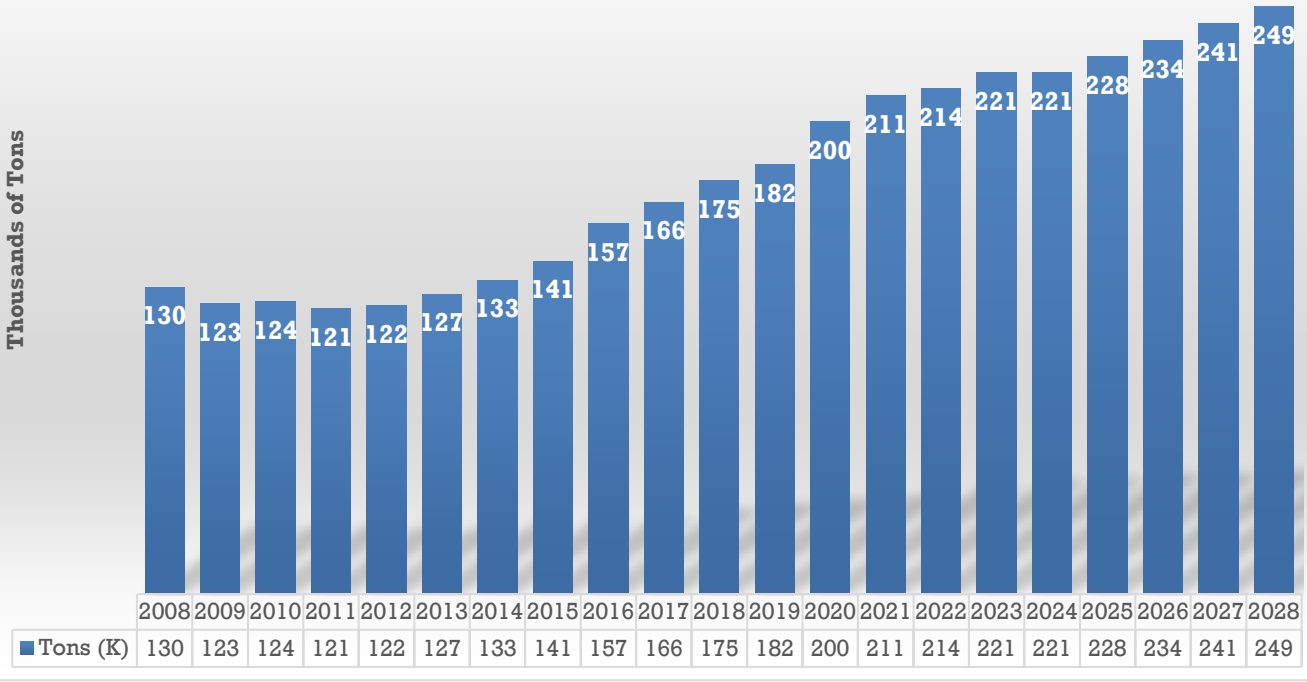
Appendix “C”
Waste Statistics

Waste Stream by Location

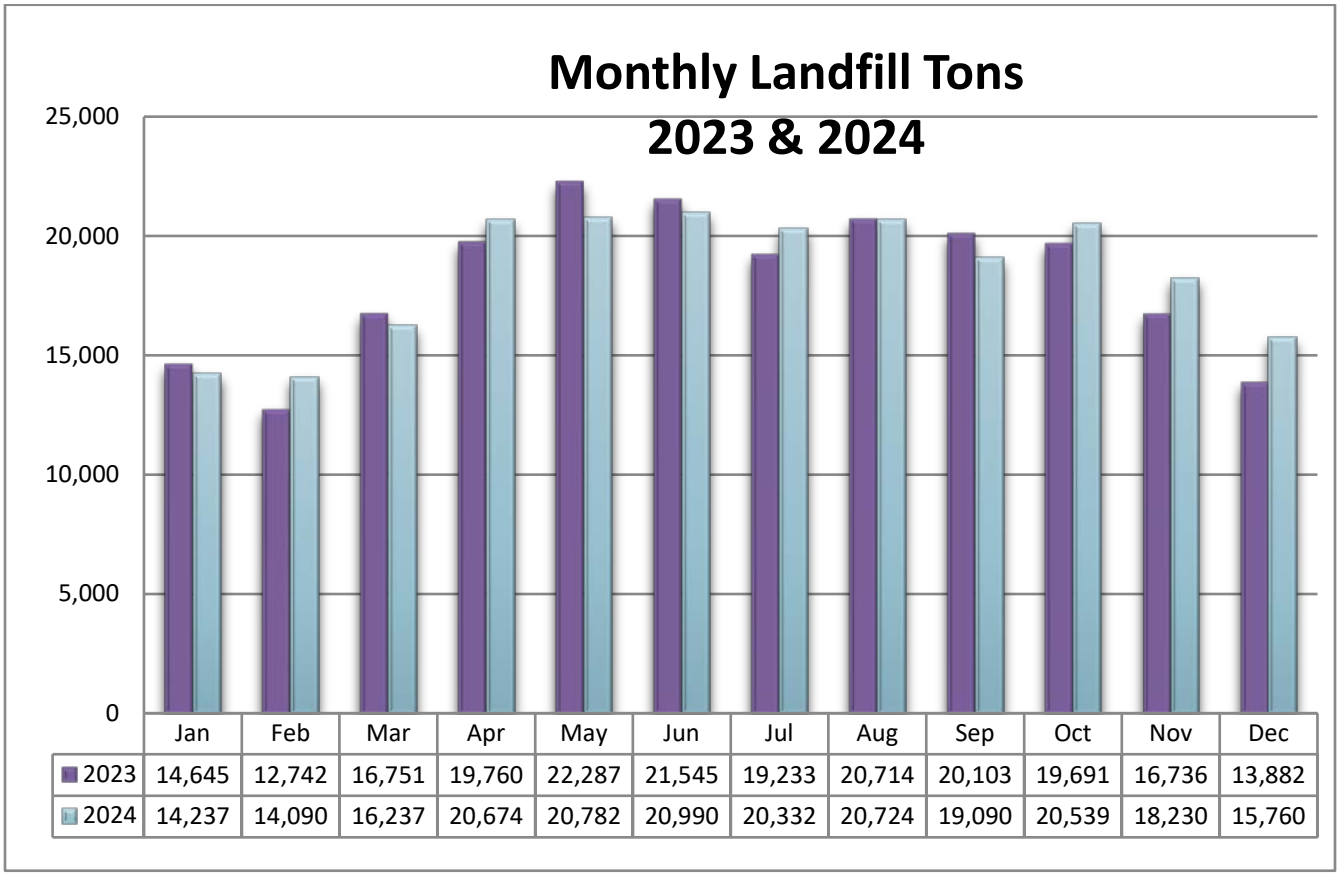


Landfilled Waste History & Projection*

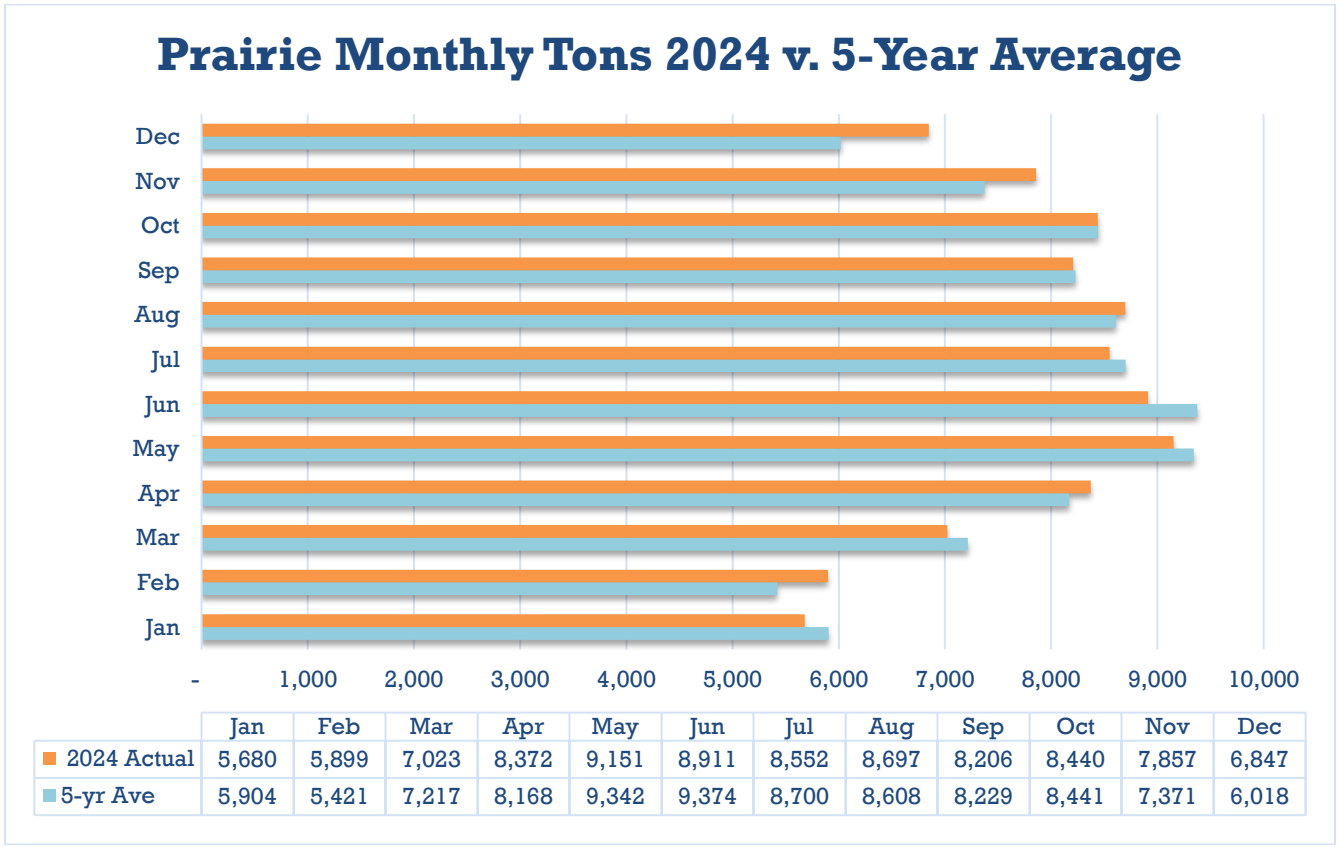
Waste Projected from 2024 at 3% Growth



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Tons (K)	130	123	124	121	122	127	133	141	157	166	175	182	200	211	214	221	221	228	234	241	249

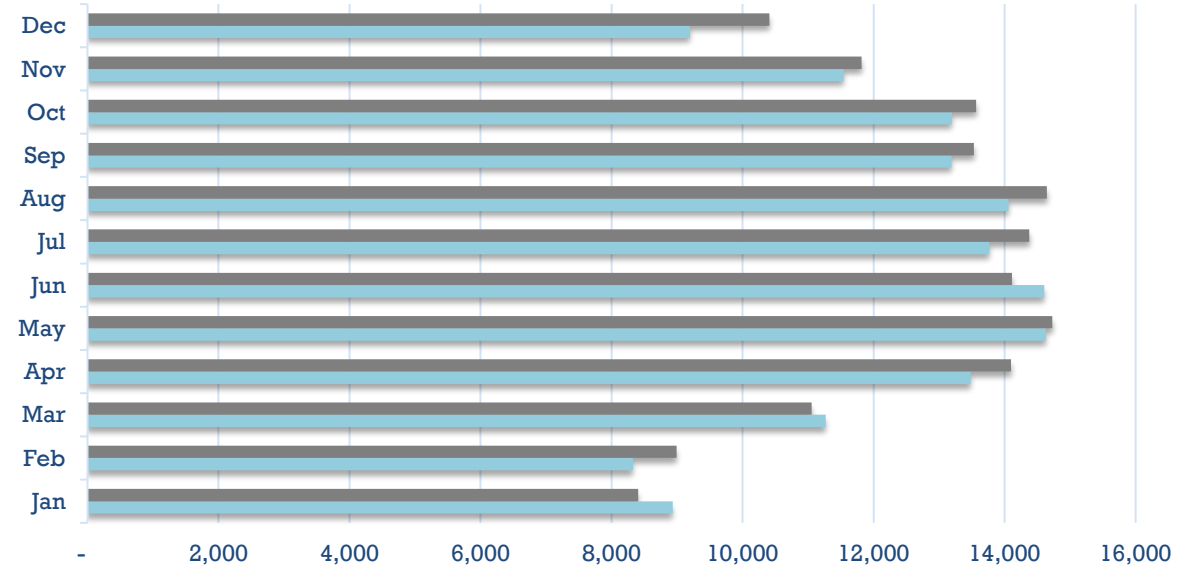


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2023	14,645	12,742	16,751	19,760	22,287	21,545	19,233	20,714	20,103	19,691	16,736	13,882
2024	14,237	14,090	16,237	20,674	20,782	20,990	20,332	20,724	19,090	20,539	18,230	15,760



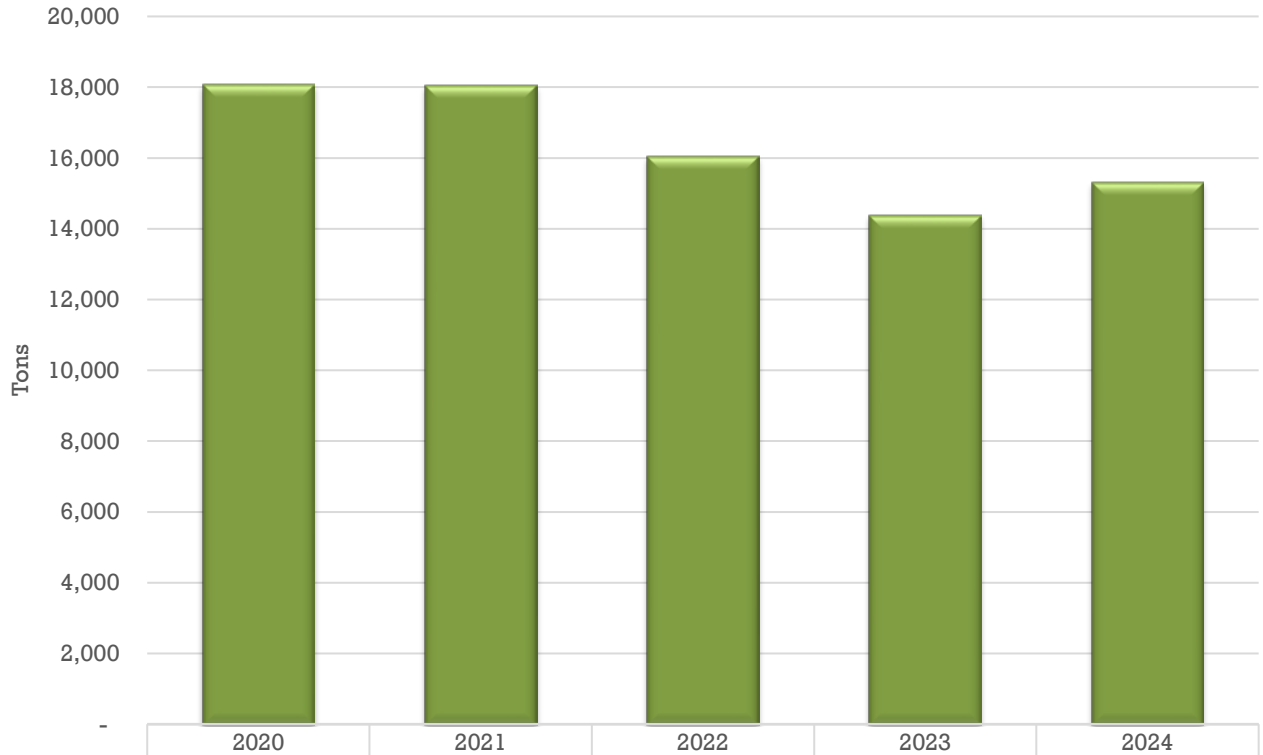
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2024 Actual	5,680	5,899	7,023	8,372	9,151	8,911	8,552	8,697	8,206	8,440	7,857	6,847
5-yr Ave	5,904	5,421	7,217	8,168	9,342	9,374	8,700	8,608	8,229	8,441	7,371	6,018

Ramsey Monthly Tons 2024 Actual v. 5-year Average



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2024 Actual	8,406	8,992	11,054	14,098	14,727	14,113	14,375	14,647	13,532	13,565	11,817	10,407
5-yr Ave	8,935	8,326	11,267	13,482	14,631	14,604	13,764	14,059	13,191	13,195	11,544	9,196

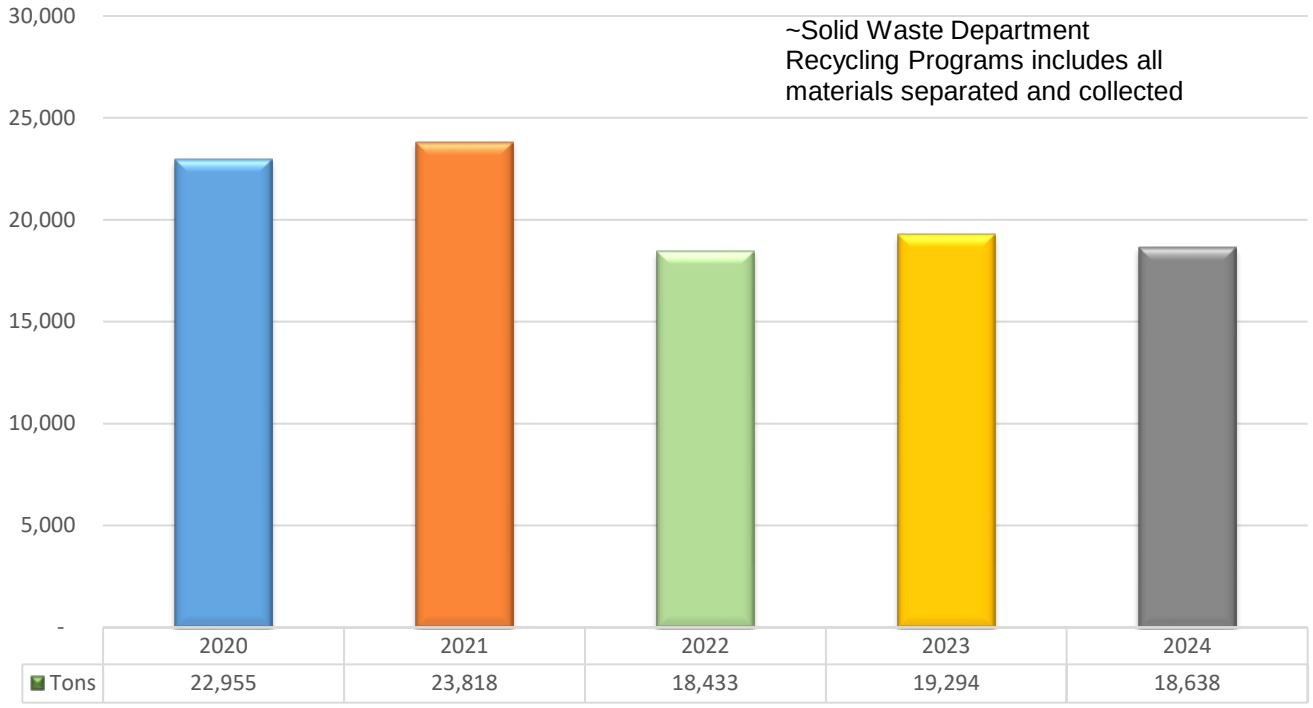
Rural Systems Tons 2020 - 2024



	2020	2021	2022	2023	2024
Tons	18,078	18,042	16,036	14,393	15,316

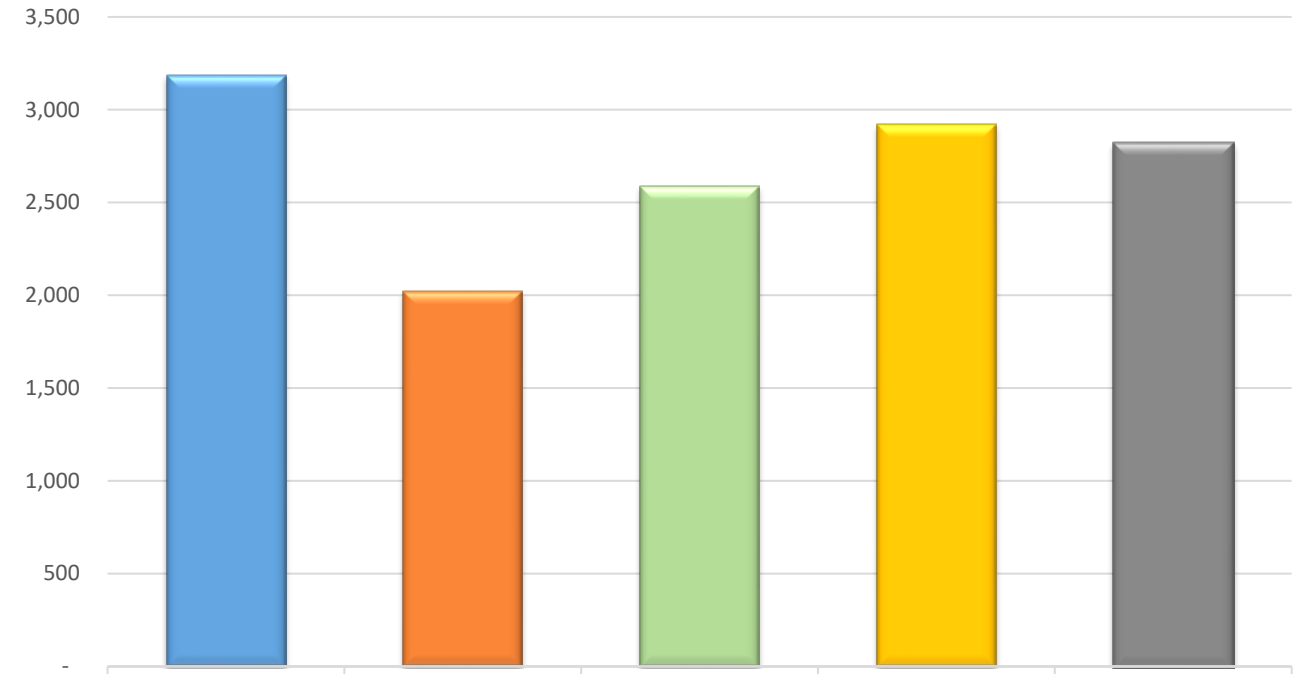
Appendix “D”
Recycling

Solid Waste Department Recycling Programs~

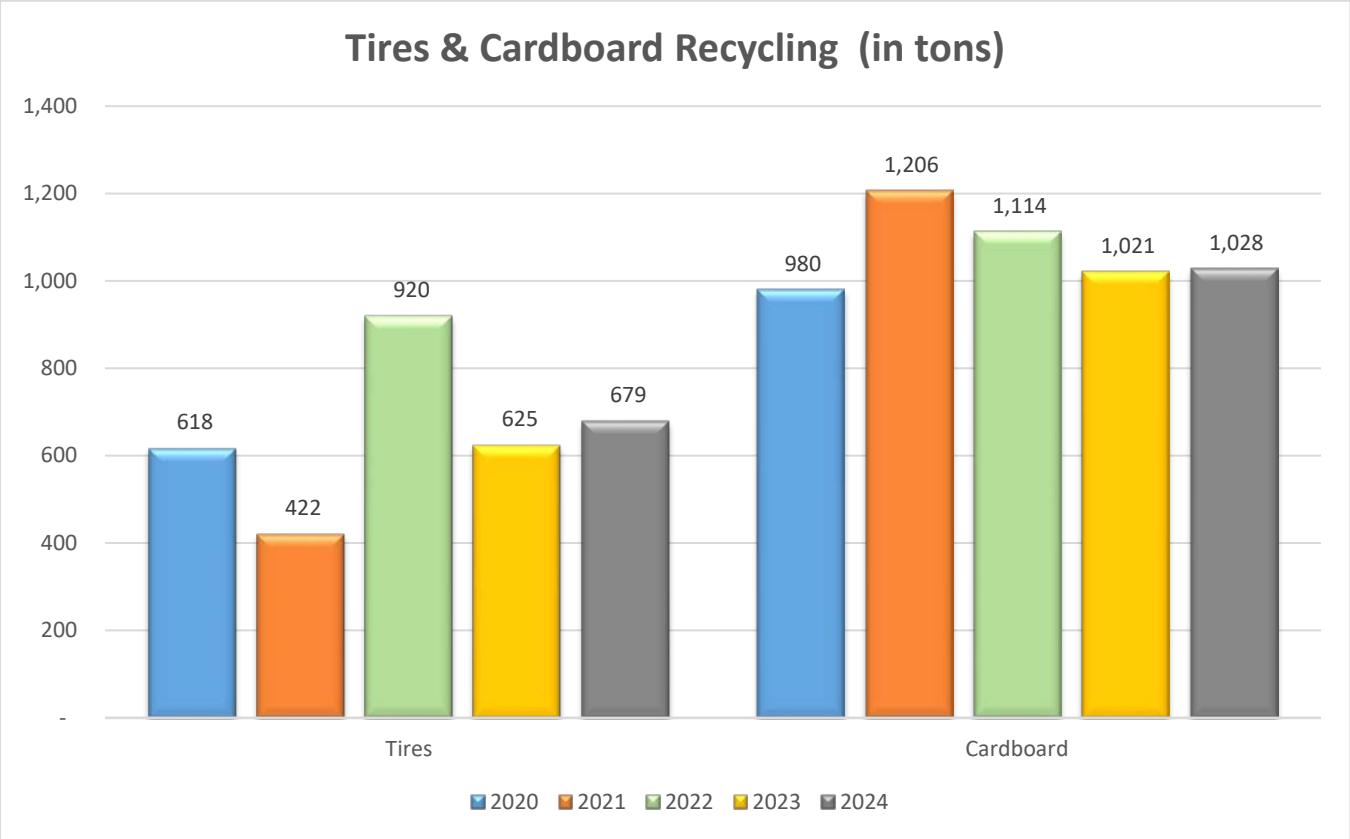


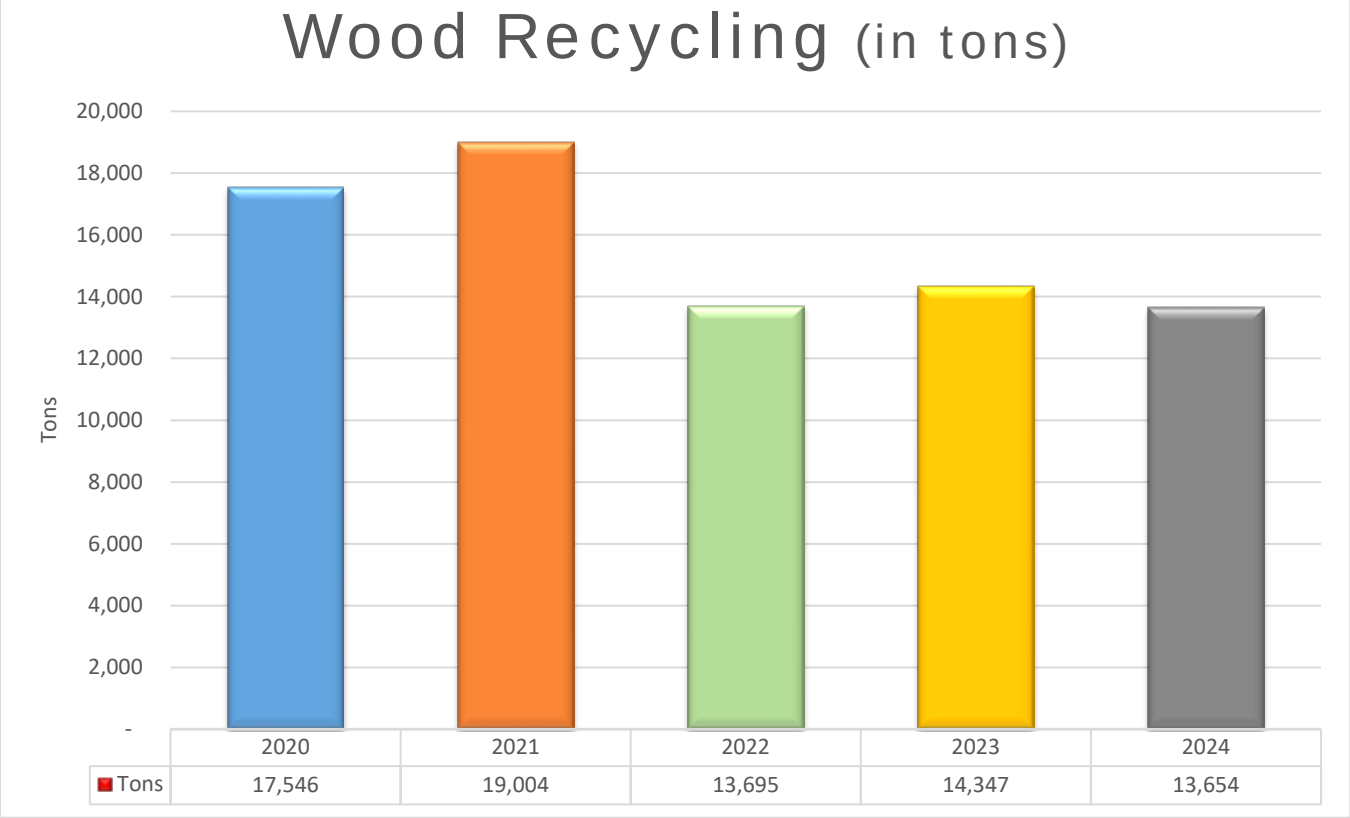
	2020	2021	2022	2023	2024
Tons	22,955	23,818	18,433	19,294	18,638

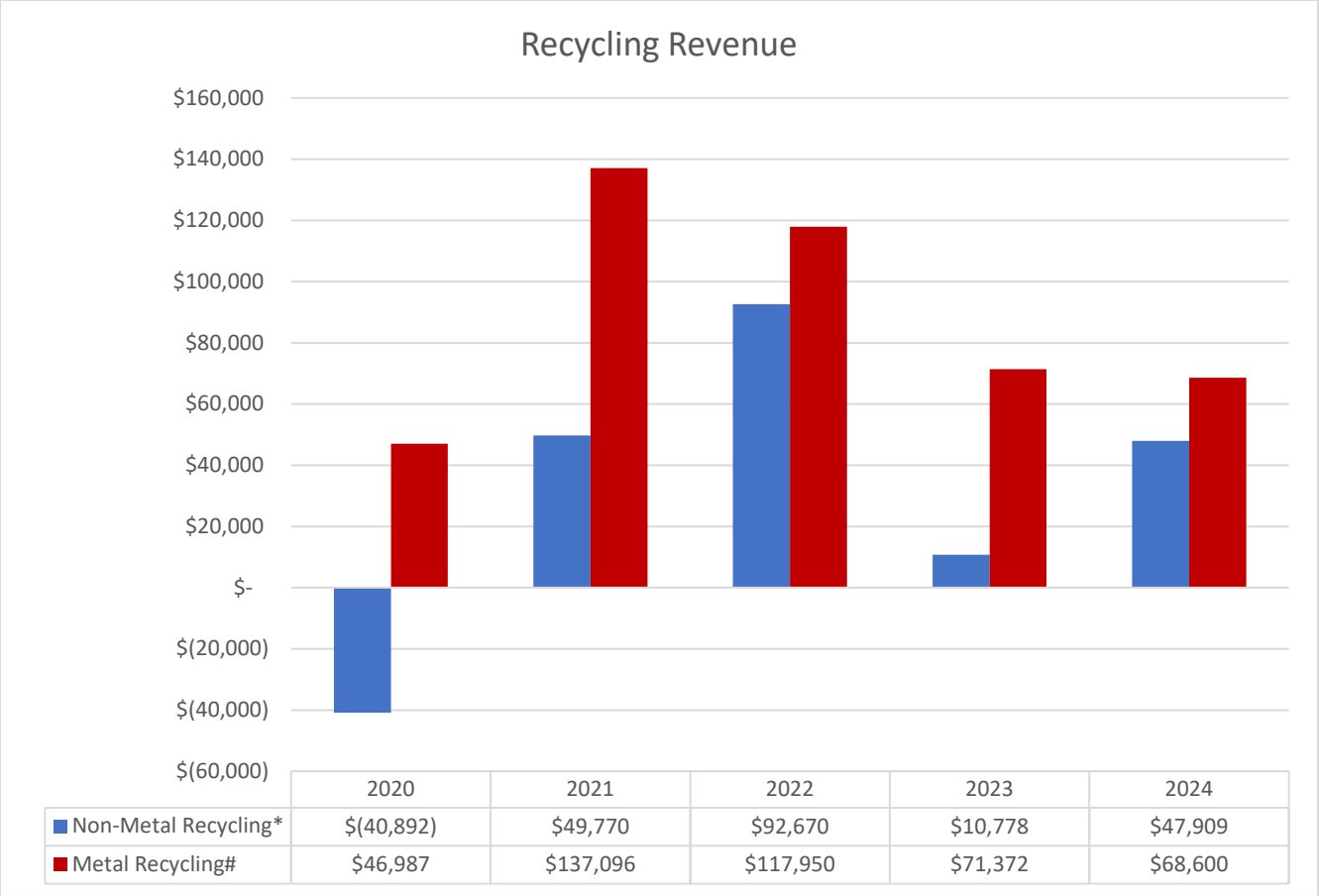
Metals Recycling (in tons)



	2020	2021	2022	2023	2024
Metals	3,188	2,022	2,588	2,923	2,818


Tires & Cardboard Recycling (in tons)
1,400
1,200
1,000
800
600
400
200
-
618
422
920
625
679
980
1,206
1,114
1,021
1,028
Tires
Cardboard
2020
2021
2022
2023
2024

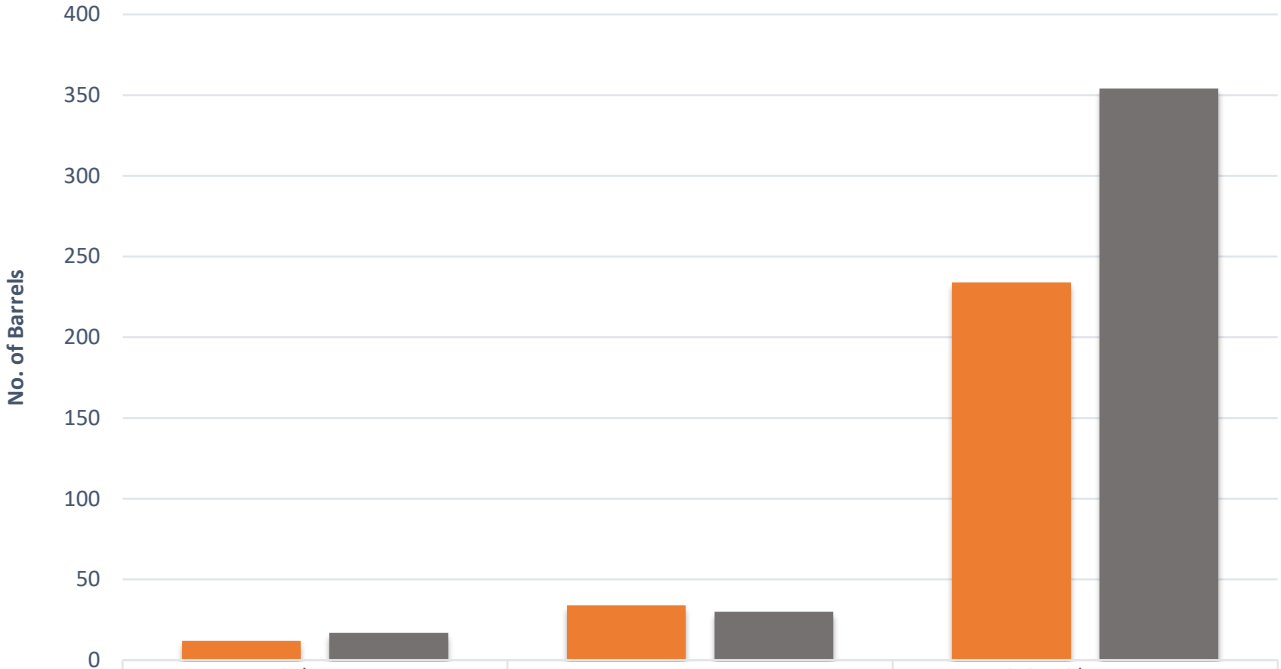

Wood Recycling (in tons)
Tons
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
-
2020
2021
2022
2023
2024
Tons
17,546
19,004
13,695
14,347
13,654



	2020	2021	2022	2023	2024
Non-Metal Recycling*	$(40,892)	$49,770	$92,670	$10,778	$47,909
Metal Recycling#	$46,987	$137,096	$117,950	$71,372	$68,600

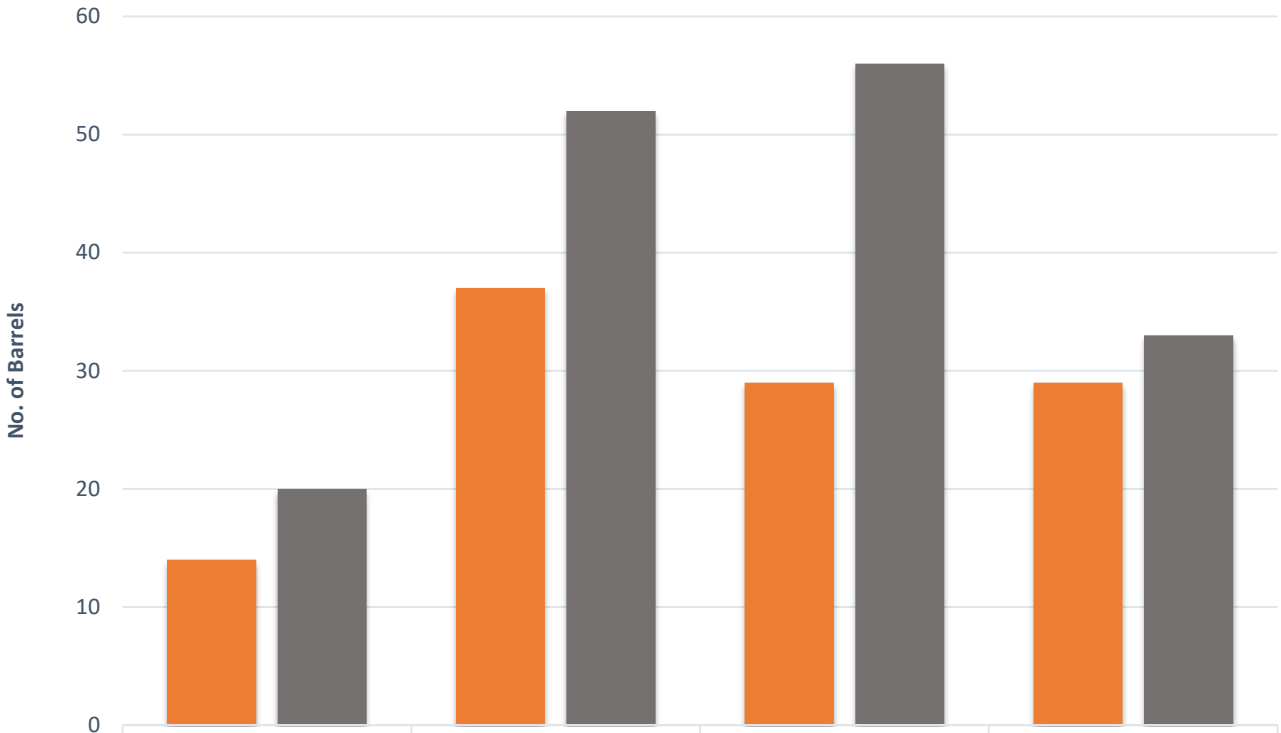
Appendix “E”
Household Hazardous Waste (HHW)

HHW Processed - Acids, Toxics and Oil

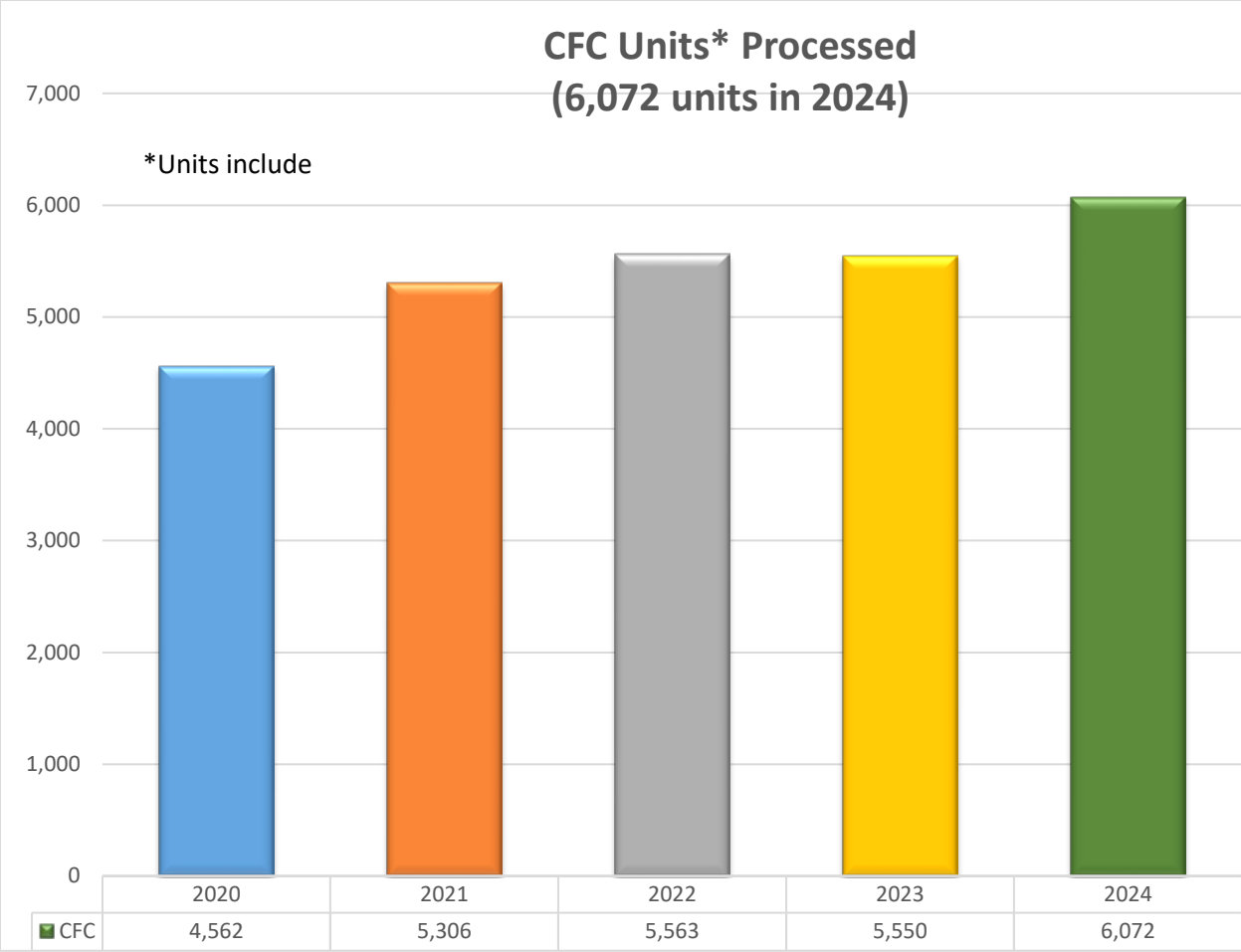


	Acids/Caustics	Toxics	Oil & Oil/Water Mix
Prairie	12	34	234
Ramsey	17	30	354

HHW Processed - Paint, Sharps and Antifreeze



	Flammable Paint	Latex Paint	Sharps	Antifreeze
Prairie	14	37	29	29
Ramsey	20	52	56	33


CFC Units* Processed
(6,072 units in 2024)
*Units include
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
2020
2021
2022
2023
2024
CFC
4,562
5,306
5,563
5,550
6,072