

# Kootenai County Solid Waste Department 2019 Waste Analysis Report



Kootenai County Solid Waste Department  
3330 N Ramsey Road  
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# 2019 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 2019, the Department experienced an increase in overall waste generation. In reviewing the data, it appears that the waste stream has changed from rapid growth due to demolition and construction to steady growth due to construction and an increase in population.

The Department managed 219,201 tons and served 727,814 customer site visits – an increase of 2.4% or 17,146 customers in one year. The landfill managed a total of 182,677 tons - an increase of 4.2% or 7,428 tons in 2019.

The Department offers a variety of services and strives to implement best management practices in compliance with ever-changing regulatory requirements. We are committed to provide 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. The department has 62 full-time employees, with 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 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.

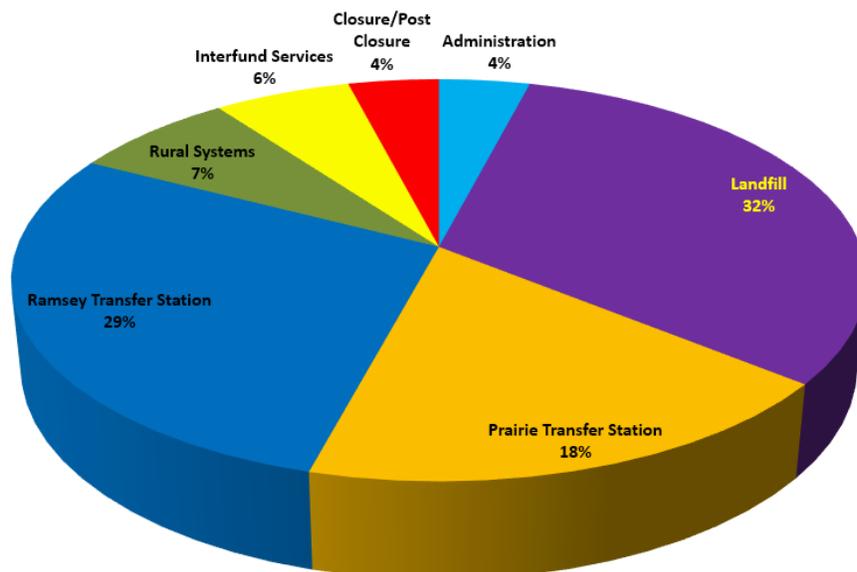
Idaho Code §39-7417 requires that financial assurance mechanisms are in place for landfill closure and post-closure expenditures. Kootenai County's policy is to set aside the calculated cost of the depletion of landfill airspace annually. The practice sets aside funds each year for future closure post-closure 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, 2019, a total of \$9,032,000 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: [www.kcgov.us/departments/auditor/financials/downloads.asp](http://www.kcgov.us/departments/auditor/financials/downloads.asp).

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 2019, the Department expenditures were \$12,570,076. All salaries necessary to support these activities are contained within the budget categories.

### Operational Expenditures



## 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 2025. The additional cell developments and construction (E3/E4) will extend the landfill life to 2040, 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 October 25, 2016, the Department obtained a 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 182,677 tons of material in 2019 - an increase of 7,429 tons over last 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 4%. 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 in 2023/2024.

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. A total of 998,849 tons of waste has been placed since opening the east cell footprint.

## Gas System

The landfill has a gas extraction system, which currently includes 144 landfill gas wells in the original landfill footprint, and 34 collection points in the East cell. 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 over 95 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 prevent leachate 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. The department processed leachate onsite in 2019. A total of 6.1 million gallons was handled through the on-site evaporation process. (See Appendix A-7)

The following represents the leachate processed and disposed utilizing the misting system over the last 5 seasons:

- July-September 2014 – 5 million gallons
- April-August 2015 – 5.7 million gallons
- April- September 2016 – 4.8 million gallons
- April-October 2017 – 5.5 million gallons
- April-October 2018 – 6.6 million gallons\*
- April-November 2019 – 6.1 million gallons

*\*This does not include leachate hauled offsite to a WWTP in 2017-2018 based on a federal disaster storm event.*



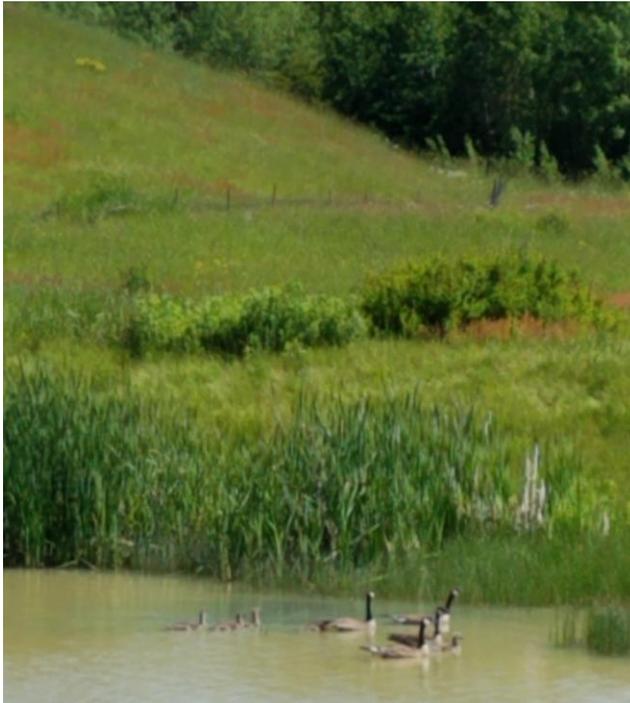
## Groundwater

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 two domestic wells 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 two 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 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 2070.

**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.

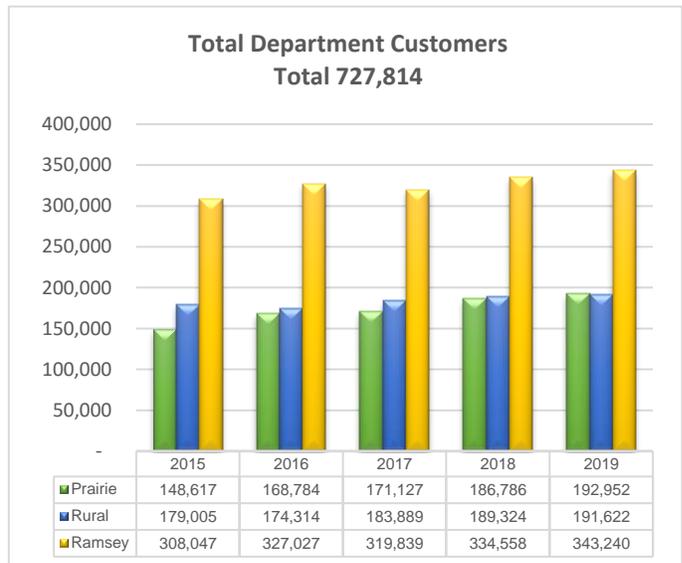
The closed Granite landfill is located on the northern border of Kootenai County. This facility (shared between Kootenai and Bonner County) stopped accepting waste in the 1980’s. For many years, this location was far from dwellings. The sale of adjacent property and the establishment of rural residential 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 2019, a total of 727,814 customer site visits (customers) occurred, an increase of 2.4% or 17,146 from last year. This number does not take into account the ten unattended rural sites in the County.



Prairie customer site visits totaled 192,952 in 2019. These figures break down as follows:

- Increase of 6,166 or 3.3%.
- Average of 537 per day.
- Saturday was the busiest averaging 699 per day.
- Thursday was the least busy averaging 442 per day.
- Low of 121 customers on February 19, 2019.

- High of 1,002 customers on June 1, 2019.
- Trivia note: From 2009 through 2019, there have been 1,538,088 customer site visits to the Prairie site.

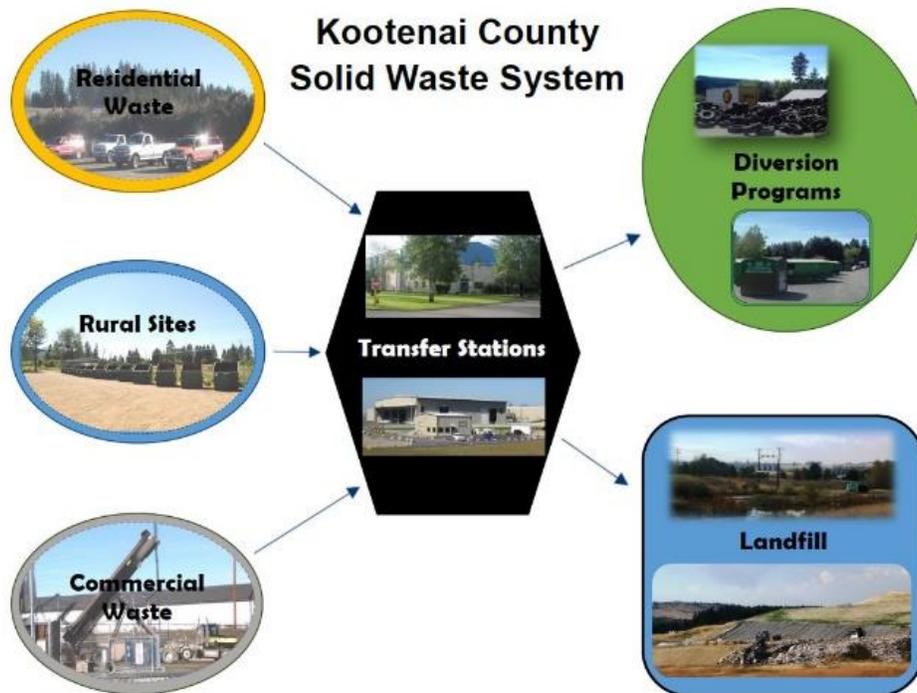
Ramsey customer site visits totaled 343,240 in 2019. These figures break down as follows:

- Increase of 8,682 or 2.6%.
- Average of 956 per day.
- Saturday was the busiest averaging 1,129 per day.
- Thursday was the least busy averaging 851 per day.
- Low of 244 customers on February 12, 2019.
- High of 1,736 on May 28, 2019.
- Trivia note: Since opening in 1993, there have been 7,059,106 customer site visits to the Ramsey site.

The staffed rural sites at Athol and Chilco saw 191,622 customer site visits in 2019.

See Appendix B for additional charts relating to customer statistics.

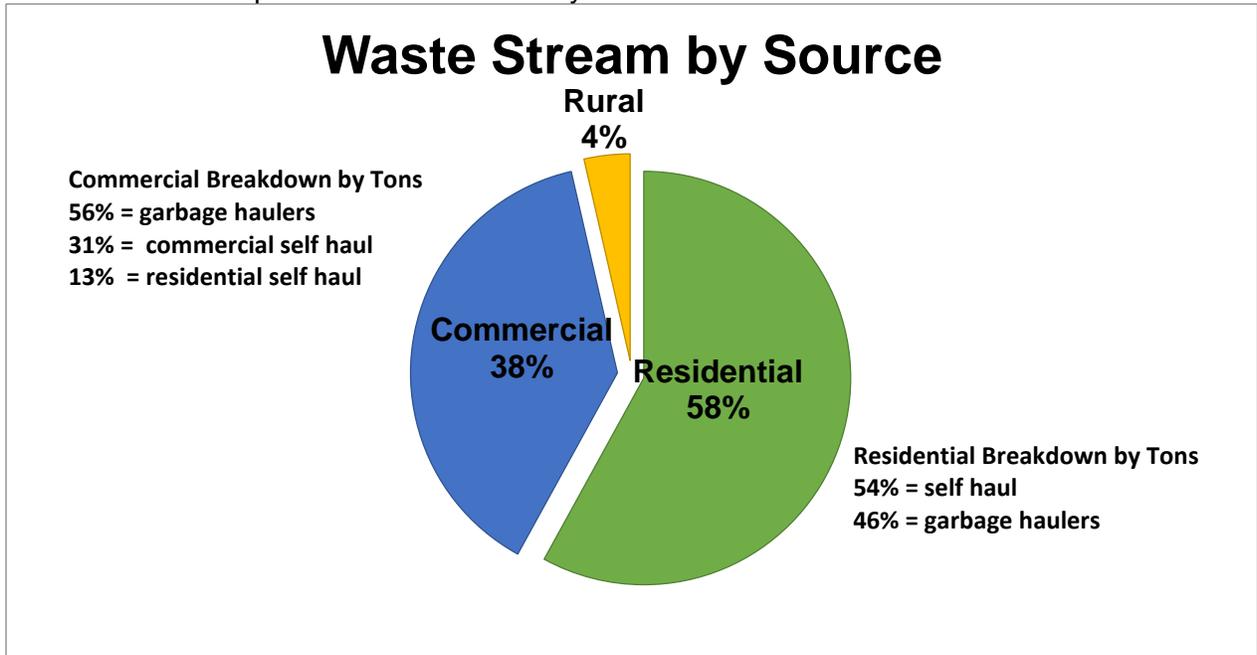
### Waste Statistics



In 2019, the Department processed 219,201 tons. This represents an increase of 3.7% or 7,884 tons from last year for waste coming into the facilities. Material diverted from the waste stream reduces what goes into the landfill.

Waste shipped to the landfill was 182,677 tons, which is up 4.2% or 7,884 tons from 2018. The landfill received 9,656 loaded trailers from the two transfer stations. The indication here is that the construction/demolition boom is slowing.

The chart below depicts the waste stream by source.



This shows that 58% of the waste into the transfer stations comes from residential users, 38% from commercial activity and 4% from the rural systems collection sites. An interesting footnote is that 54% of the residential waste comes from individual vehicles to the transfer stations.

### Prairie Transfer Station

The Prairie site received 80,461 tons of material in 2019. This represents 40% of the waste processed in Kootenai County and an increase of 755 tons or 0.9% from last year. **Note:** In 2018 approximately 3 weeks during the year, the majority of the waste from Ramsey was sent to the Prairie site. 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 225 (which is up from 223 last year).
- Heaviest tonnage day was September 3, 2019 with 417 tons.
- Lowest tonnage day was February 9, 2019 with 20 tons.
- Friday is the highest tonnage day of the week with an average of 288.
- Sunday is the lowest tonnage day with an average of 121.

After processing the waste for recyclables and removal of other materials, the Prairie site shipped 68,520 tons or 3,584 trailer loads of waste to the landfill. From 2009 through 2019, the Prairie site has processed 650,503 tons of material.

## Ramsey Transfer Station

The Ramsey site received 132,250 tons of material in 2019. This represents 60% of the waste processed in Kootenai County. It is an increase of 6,398 tons or 5.1% from last year. **Note:** In 2018 approximately 3 weeks during the year, the majority of the waste from Ramsey was sent to the Prairie site. 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 370 (up from 352).
- Heaviest tonnage day was May 28, 2019 with 730 tons.
- Lowest tonnage day was February 17, 2019 with 54 tons.
- Monday is the highest tonnage day of the week with an average of 453.
- Sunday remains the lowest tonnage day with 178.

After processing the waste for recyclables and removal of other materials, the Ramsey site shipped 106,796 tons or 6,072 trailer loads of waste to the landfill. From January 1992 through 2019, the Ramsey site has processed 3,593,156 tons of waste.

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.

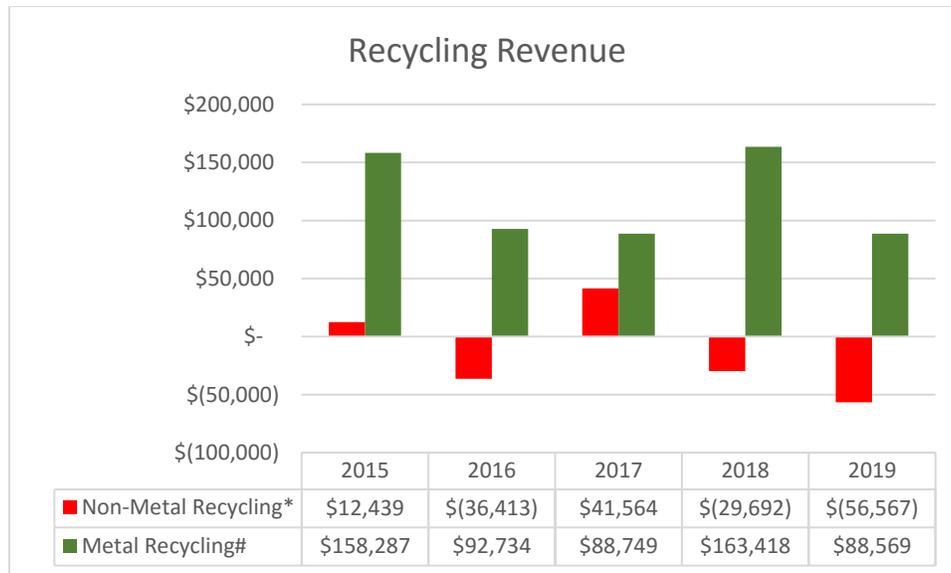
The Department offers recycling drop off stations at both transfer stations and some of the rural residential collection sites. These materials are modified dependent on current markets, challenges with marketing material, and problems with contamination of the recyclables.

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 reducing 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. Tough decisions to be made are based on one program or commodity subsidizing the cost of another program or commodity.

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.



In 2019, the revenue from metals recycling covered the costs of recycling processing fees charged on other recycling items. Reports like these are very important to help make the decision on what products are viable to continue recycling.

The recycling programs managed by the Department diverted a total of 18,772 tons of material from the landfill in 2019. This includes all materials removed from the waste stream at transfer stations and rural sites. This represents a decrease of 4% or 789 tons over 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 15,854 tons of waste in 2019. This is a decrease of 2% or 362 tons from last year. Customers removed 412 tons of material 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 191,622 site visits in 2019. This is an increase of 2,298 or 1% from the total customers reported in 2018. These two sites processed 7,107 tons of waste, which is up 49 tons from last year.

Ten other collection sites make up the remaining portion of the rural collection system. Waste collected from these sites equaled 8,703 tons which is a decrease of 5% or 456 tons.



The Department focused on site surveillance during the year. Staff utilized game cameras to watch over remote locations. Three sites (Athol, Chilco, and Rose Lake) installed video surveillance systems. These systems allowed staff to monitor activity, contact customers regarding appropriate disposal, and, in some instances, contact law enforcement regarding on-site activity.

### **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.

A total of 9,324 customers took advantage of the HHW services in 2019. The Prairie site had 3,045 customer site visits and the Ramsey site saw 6,279 customers. Both Wednesday and Saturday are equally busy at the Ramsey site with an average of 61 customers. Saturdays at Prairie are the big HHW day with 55% of the total number coming in that day and an average of 32 customers.

Panhandle Health District completed the Critical Materials Compliance inspection and issued a certification for the Prairie facility on June 4, 2019. This certification expires on June 3, 2021. See Appendix A-1 for additional details.

The Department processed approximately 225 tons of special waste through the HHW program. The chart below shows the breakdown of these materials.

For the most part, the breakdown of materials shipped out as HHW remained the same (8 barrels less than last year). 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 was 4,883, which is 82 greater than in 2018. Within the last 5-years, the department has decommissioned over 25,451 units.

A substantial change in facilities is currently taking place at the Ramsey site. Demolition of the old buildings began on September 11, 2019. Construction of a larger building is in progress with a covered drop-off area for customers. This new building will open in the spring of 2020.

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 2018 was accepted and approved on February 20, 2020. Prairie Transfer Station Critical Materials Certificate issued June 4, 2019. Copies of these documents are included with this report.

**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 2019.

**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, Deena Darrow, 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 in the CD accompanying this report to DEQ.

**A-9 Plans and Specifications:** No construction completed in 2019 required approval of plans and specifications.



## **Appendix A-1: Inspections and Reports**

Below are the inspections and/or reports completed during calendar year 2019:

- a) On February 19, 2019 the department submitted the 2018 Waste Stream Analysis Report to DEQ and Panhandle Health District. DEQ accepted and approved the on February 20, 2020. A copy of the confirmation letter is included herein.
- b) Panhandle Health District conducted a Critical Materials inspection on June 4, 2019 at the Prairie Transfer Station. A copy of the Compliance certificate is included herein.





STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

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Brad Little, Governor  
John H. Tippetts, Director

February 20, 2020

Cathy Mayer, Director  
Kootenai County Solid Waste Department  
3650 N. Ramsey Road  
Coeur d'Alene, ID 83815  
[cmayer@kcgov.us](mailto:cmayer@kcgov.us)

Subject: Kootenai County Solid Waste – 2018 Solid Waste Analysis

Dear Ms. Mayer:

On February 19, 2019, the Department of Environmental Quality (DEQ) received the Kootenai County Solid Waste Department 2018 Solid Waste Analysis. This report contains an overview of the Kootenai County Solid Waste facilities and operations. Included with the analysis are 2018 Inspections and Reports, Tier 1 Operating Air Quality Permit and documents, Closure and Post-closure Plan, updates to the Financial Assurance Plan, Landfill Gas Reporting, Ground Water Summary, Leachate Report and the Surface Water Reporting.

DEQ has reviewed the Analysis and finds it to be acceptable. Thank you for providing this report. If you should have any questions, please contact me at 208-666-4615.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Metcalf".

Monja Metcalf  
Waste Management Compliance Officer

2020BAB971

c: Erik Ketner, PHD, [eketner@phd1.idaho.gov](mailto:eketner@phd1.idaho.gov)  
Laureen Chaffin, KCSW, [lchaffin@kcgov.us](mailto:lchaffin@kcgov.us)  
Matt Plaisted, DEQ-Coeur d'Alene [Matthew.Plaisted@deq.idaho.gov](mailto:Matthew.Plaisted@deq.idaho.gov)  
Gary Stevens, DEQ-Coeur d'Alene [Gary.Stevens@deq.idaho.gov](mailto:Gary.Stevens@deq.idaho.gov)  
Seth Oliver, DEQ-Coeur d'Alene [Seth.Oliver@deq.idaho.gov](mailto:Seth.Oliver@deq.idaho.gov)  
Matt Beeter, DEQ- State Office [Matthew.Beeter@deq.idaho.gov](mailto:Matthew.Beeter@deq.idaho.gov)





**Public Health**  
Prevent. Promote. Protect.  
Panhandle Health District

# PANHANDLE HEALTH DISTRICT

*Healthy People in Healthy Communities*

8500 N. ATLAS ROAD  
HAYDEN, IDAHO 83835  
<http://phd1.idaho.gov>

June 4, 2019

**SAM COOK**  
**KOOTENAI COUNTY SOLID WASTE - PRAIRIE TRANSFER**  
**15580 W. PRAIRIE AVE**  
**POST FALLS, ID 83854**

*RE: required compliance certificate for current operations at KOOTENAI COUNTY SOLID WASTE - PRAIRIE TRANSFER*

Dear MR. COOK,

Thank you for the time and effort spent on complying with Panhandle Health District's Critical Materials Regulation. The enclosed Critical Materials Compliance Certificate shows that your fixed facility has satisfied the Health District's requirements for storage, use and handling of "critical materials" over the Rathdrum Prairie Aquifer.

Please post your compliance certificate in a conspicuous place.

Please keep in mind that any of the following activities shall require a new application to Panhandle Health District to determine continued compliance with the regulation:

1. Establishing a new use that would qualify as a Fixed Facility.
2. Remodeling, operating changes, or expansion of the Fixed Facility which would modify the type or quantity of Critical Materials used.
3. Changes in the location or method of use, storage, manufacture or handling of Critical Materials at your Fixed Facility.
4. A change in ownership or addition of new Critical Materials meeting the quantity thresholds established by the Critical Materials Regulation at your Fixed Facility.

Thank you for your cooperation and participation in our Aquifer Protection Program.

Sincerely,

Tyler Barrientos  
Environmental Health Specialist

Encl: CMCC

**A-1(b)**

Panhandle Health District  
CRITICAL MATERIALS COMPLIANCE CERTIFICATE

Issuance Date: 6/4/2019

6/3/2021 Expiration Date

Issued to: Sam Cook

Name

Kootenai County Solid Waste – Prairie Transfer

Business Name

51N05W-29-2400

Parcel Number

15580 W. Prairie Ave, Post Falls

Location

This permit is non-transferable and is the property of the issuing agency and may be revoked for failure to maintain compliance with Section 41.1.400 of the Environmental Health Code.

KOOTENAI  
County

  
Health Authority – Tyler Barrientos (208) 415-5213



**CRITICAL MATERIALS INSPECTION REPORT**  
Panhandle Health District- Aquifer Protection Program



Facility Name: <b>SOLID KOOTENAI COUNTY WASTE</b>	Facility ID #: <b>15-107289</b>	Number of Violations: <b>0</b>	Unmet BMPs: <b>0</b>
Address: <b>15580 W. PRAIRIE AVE, POST FALLS</b>	Repeat Violations: <b>0</b>	Repeat Unmet BMPs: <b>0</b>	
Facility Contact: <b>SAM COOK</b>	Total Score: <b>0</b>	Total Score: <b>0</b>	
Inspection Type: Biennial <input checked="" type="checkbox"/> Site Visit <input type="checkbox"/> Follow-up <input type="checkbox"/> Post-Opening <input type="checkbox"/> Complaint <input type="checkbox"/>	Facility Classification: Un-fixed <input type="checkbox"/> Fixed <input type="checkbox"/> Exempt <input checked="" type="checkbox"/>	Date: <b>06/04/19</b>	EHS: <b>833</b>

**REPORTING OF CHEMICALS, USE, & STORAGE**

A) Chemical Inventory	Increased <input checked="" type="checkbox"/> Decreased <input type="checkbox"/> Same <input type="checkbox"/>	D) New Chemical(s)	Yes/No: <b>0</b>
B) Remodel / Expansion	Yes/No: <b>0</b>	E) Changes in Storage Location	Yes/No: <b>0</b>
C) Vehicle Maintenance On-site	Yes/No: <b>0</b>	F) Shallow Injection Wells (if yes, how many _____)	Yes/No: <b>0</b>

**CONTAINMENT ADEQUATE AND MAINTAINED (Fixed Facilities)**

Compliance Status: IN= in compliance OUT= not in compliance R= repeat violation	R	Compliance Status: IN= in compliance OUT= not in compliance R= repeat violation	R
1. Chemicals in Secondary Containment	<b>In</b> /Out	5. Containment Non-Reactive and Resistant 05.(b)	<b>In</b> /Out
2. Containment: 10% (agg.) <input checked="" type="checkbox"/> 110% (lrgst cont.) <input type="checkbox"/>	<b>In</b> /Out	6. Isolated from Reactive Critical Materials 05.(b)	<b>In</b> /Out
3. Containment Empty	<b>In</b> /Out	7. Handling/Transfer of Chemicals	<b>In</b> /Out
4. Containment Integrity (cracks, holes, maintained)	<b>In</b> /Out	8. Isolated from Storm/Surface Waters 05.(b)	<b>In</b> /Out

**BMPs**

Containment: **HAZMAT CONTAINED IN CONCRETE BUILDING, DOUBLE-WALLED TANKS.**

Standard Operating Procedures:

Self-Inspection: **DAILY LOGS**

Maintenance: **IN MAINTENANCE FACILITY.**

Wastewater/Stormwater/NDWW: **PUMPED FROM SUMPS IF COLLECTED AFTER STORM/RAIN FALL.**

**OBSERVATIONS AND CORRECTIVE ACTIONS**

Violation #	Violations cited in this report must be corrected within the time frames below	Correction Date:
	<b>- NO VIOLATIONS NOTED. ALL CMS IN CONTAINMENT AND MEET BMPs FOR SECONDARY CONTAINMENT REQUIREMENTS.</b>	
	<b>- CONTAINMENT AREAS ARE KEPT CLEAN AND INSPECTED REGULARLY FOR SUMP STORMWATER COLLECTION.</b>	
	<b>- ADDED (X) AGT 1,500 GALLON WASTE OIL STORAGE FOR HEATER.</b>	

Contact Name (please print): <b>SAM COOK</b>	Contact Signature: <i>[Signature]</i>	Phone/Email:
Inspector Signature: <i>[Signature]</i>	Phone: (208) 415- <b>5213</b>	Date: <b>06/04/19</b>



## **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 October 25, 2016. 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 January 1, 2019 to June 30, 2019 is included herein.
- b) The AQ-C4 for the reporting period of July 1, 2019 to December 31, 2019 is included herein.





# TIER I SEMIANNUAL REPORT

FORM AQ-C4

## FACILITY INFORMATION

Facility/Permittee Name: Kootenai County Farm Landfill  
Co-Permittee Name(s): \_\_\_\_\_  
Facility Location: 22089 South Highway 95, Couer d'Alene, Idaho 83814  
AIRS Facility No.: EPA Plant ID: 110028125516 Idaho DEQ: 055-00044  
Facility Contact: Cathy Mayer Ph: 208-446-1430 Fax: 208-446-1431

## PERMIT AND COMPLIANCE INFORMATION

Tier I Operating Permit No.: T1-2015.0038 Project 61569 Issuance Date: October 25, 2016  
Tier I Operating Permit No.: \_\_\_\_\_ Issuance Date: \_\_\_\_\_  
Compliance Reporting Period: From: July 1, 2019 To: Dec 31, 2019  
Deviations Reported This Period?  Yes  No

List of Attachments:

<input checked="" type="checkbox"/> Semiannual Monitoring Table (Form AQ-C5)	No. of Pages: <u>8</u>
<input type="checkbox"/> Semiannual Deviation Summary Table (Form AQ-C3)	No. of Pages: _____
<input checked="" type="checkbox"/> Other: <u>Surface Emission Summary - Sept &amp; Dec 2019</u>	No. of Pages: <u>2</u>
<u>Flare Facility Ledger</u>	No. of Pages: <u>2</u>
<u>Farm Landfill Gas Collection Report</u>	No. of Pages: <u>51</u>
<u>Collector Ledger</u>	No. of Pages: <u>2</u>
_____	No. of Pages: _____
_____	No. of Pages: _____

### Certification of Truth, Accuracy, and Completeness (by Responsible Official)

I hereby certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this and any attached and/or referenced document(s) are true, accurate, and complete in accordance with IDAPA 58.01.01.123-124.

Cathy Mayer  
Responsible Official Signature

Director  
Responsible Official Title

1/28/2020  
Date

Cathy Mayer  
Print or Type Responsible Official Name

\_\_\_\_\_  
Co-Permittee Responsible Official Signature

\_\_\_\_\_  
Co-Permittee Responsible Official Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print or Type Co-Permittee Responsible Official Name

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

No changes were made to the Closure and Post-Closure Plan since 2010. The plans are available for inspection 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

Jim Brannon - 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](mailto:kcauditor@kcgov.us)

January 30, 2020

Idaho Department of Environmental Quality  
Attn: Matt Plaisted, Technical Engineer  
2110 Ironwood Parkway  
Coeur d'Alene, ID 83814

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

Dear Mr. Plaisted;

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 \$9,032,000.

Additionally, this information will be included in our (Audited) Comprehensive Annual Financial Report for Kootenai County, Idaho for the year ending September 30, 2019. 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 446-1665.

Sincerely,

Dena Darrow  
Finance Director

cc: Solid Waste  
RCC





## Kootenai County Auditor

Jim Brannon · 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](mailto:kcauditor@kcgov.us)

January 30, 2020

Idaho Department of Environmental Quality  
Attn: Matt Plaisted, Technical Engineer  
2110 Ironwood Parkway  
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Additionally, this information will be included in our (Audited) Comprehensive Annual Financial Report for Kootenai County, Idaho for the year ending September 30, 2019. 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 446-1665.

Sincerely,

A handwritten signature in black ink, appearing to read "Dena Darrow", with a long horizontal line extending to the right.

Dena Darrow  
Finance Director

cc: Solid Waste  
BOCC

Attachment

**Kootenai County  
Solid Waste Landfill - Closure & Postclosure Liability  
Estimate for FY-2019**

	<u>CPI-U Rate (Size B/C)</u>	<u>Inflation Amount</u>	<u>Balance</u>
Total estimated closure & post closure costs as updated by CH2M Hill 9-30-2010 engineering report			\$13,100,400
Estimated Closure & Post Closure Costs Original Cell (all) + East Cell (phase 1 & 2)	<u><u>\$13,100,400</u></u> a		
Total usable capacity, per engineering estimate (tons)	<u><u>4,706,715</u></u> b		
Tons of capacity used per <b>calendar</b> year:		<u>Payments to date, by fiscal yr</u>	
1993	69,645		
1994	87,504		
1995	89,383		
1996	92,451	\$ -	
1997	101,580	-	
1998	102,183	-	
1999	105,945	-	
2000	105,288	-	
2001	110,838	-	
2002	112,867	-	
2003	118,531	-	
2004	136,011	-	
2005	137,687	-	
2006	140,436	-	
2007	137,832	-	
2008	129,571	-	
2009	123,117	-	
2010	124,031	-	
2011	121,172	-	
2012	121,873	70,867	
2013	127,089	76,244	
2014	132,978	19,618 **	
2015	140,722		
2016	157,130 *		
2017	165,545		
2018	175,248		
2019	138,151		
Estimated capacity used as of Sept 30, 2019	<u><u>3,304,808</u></u> c	<u>\$ 166,729</u> d	
Estimated percentage of landfill capacity (c / b)	<u><u>70.2%</u></u>		
Estimated calculation of liability at Sept 30, 2019		<u><u>Net Closure Costs:</u></u>	
Calculated liability (a * c/b)	\$ 9,198,412	<u><u>12,933,671</u></u>	
Less payments to date (d)	(166,729)		
Estimated liability at 9/30/2019	<u><u>\$ 9,031,683</u></u> e		
Balance per general ledger (prior to Clsr/P.Clsr JE)	<u>Liability</u>	<u>Expense</u>	
Csr/P. Clsr JE Adjustment	\$ 8,527,000	\$ -	
Ending balance (rounded)	<u><u>\$ 9,032,000</u></u>	<u><u>\$ 505,000</u></u>	<b>JE 19-8600</b>

\* Adjust for actual tons reported by Laureen Chaffin, SW Planning Coordinator, who accumulates information for the Solid Waste Ar

\*\*Fund 60 Obj Code 8280 - "Closure & post Closure costs"

	<u>Original Cell</u>	<u>East Cell Phase 1 &amp; 2</u>
Landfill Capacity per engineering report (volume in cubic yards) $\Psi$	3,241,000	3,877,000 yd <sup>3</sup>
multiplied by Compaction Rate $\Psi$	x 1,469	1,200 lbs / yd <sup>3</sup>
divided by	/ 2,000	2,000 lbs / ton
Landfill Capacity in Tons	<u><u>2,380,515</u></u>	<u><u>2,326,200 (b)tons</u></u>

## 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.



719 2ND AVENUE, SUITE 200 | SEATTLE, WA 98104 | P 206.394.3700

February 5, 2020  
Parametrix No. 553-1660-042 (02/02)

Cathy Mayer, 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 2019

Dear Cathy:

This letter is an annual summary of the landfill gas monitoring and landfill gas management activities performed at the Ramsey Road Landfill in 2019. It is specific only to the landfill gas control system. This letter can be forwarded to Division of Environmental Quality and Panhandle District Health Department to communicate gas information and evaluations.

The annual letter report includes the follow sections:

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



## Appendix A-6: Ground Water Summary

The bi-annual monitoring requirements for ground water were completed as required in 2019.

The following is an excerpt from the 2019 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 2.5 and 3.2 of the Summary Report were below primary state or federal groundwater quality criteria.

### 2.5 Summary and Conclusions

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

Nitrate concentrations have increased in well M-9 over the past few years but remain well below the groundwater quality criteria. Nitrate concentrations in well M-17 have also been above the UPL since the April 2016 event, and nitrate concentrations in M-16 have been above the UPL for three consecutive quarters. 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 wells M-9, M-16, and M-17.

Chloride concentrations in well M-16 have been above the seasonally adjusted UPL since the April 2017 event. Chloride concentrations in this well showed an increasing trend during the background data collection period but remain substantially below the secondary MCL. Therefore, it is recommended that continued monitoring of chloride without verification resampling be conducted at well M-16.

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.

### 3.2 Groundwater Quality Results

The analytical data for the 2019 domestic well semiannual events are summarized in Table A-5 (Appendix A). For the October 2019 monitoring event, the laboratory reports and chain-of-custody forms are provided in Appendix B. The April 2019 laboratory and field data were presented in the semiannual groundwater monitoring report (Parametrix 2019b). Field data are provided in Appendix C. A review of the laboratory data was conducted including a check of holding times, method blanks, and trip blanks. No data were qualified as a result of this review.

The data collected from the domestic wells indicate that the concentrations of iron and manganese in both the Brand and Shriner wells were above secondary state and federal drinking water standards. These parameters have periodically exceeded water quality criteria in both wells during previous sampling events, which is a reflection of natural occurrence of these minerals in groundwater.

Time-series plots for parameters that were detected in the domestic wells during the last few years are presented in Appendix D-2. The plots also include data for Original Landfill upgradient and downgradient monitoring wells and the MCL, if applicable. For the Brand well, the time-series plots show upward trends in some parameters (including conductivity, chloride, iron, and manganese) in the last 10 years. These trends are likely unrelated to the landfill, since similar increases have not been observed in the landfill monitoring wells.



## Kootenai County Farm Landfill Leachate Report

A copy of the report to Idaho DEQ outlining the volume of leachate processed in 2019 and the methods used is attached in the electronic version of this report. In 2019 a total leachate processed was 6, 119,530 gallons.



## KOOTENAI COUNTY

SOLID WASTE

---

February 13, 2020

Mr. Matt Plaisted, P.E.  
%Division of Environmental Quality  
2110 Ironwood Parkway  
Coeur d'Alene, ID 83814

Re: 2019 Annual Leachate Report – Fighting Creek Farm Landfill

Dear Mr. Plaisted,

Attached you will find a spreadsheet that lays out how the Solid Waste Department managed leachate during the 2019 season. The Department processed a total of 6,119,530 gallons of leachate. This year we utilized the misting system for processing leachate. No leachate was hauled offsite.

We continue to consult with Steve Emge of the engineering firm, Parametrix, to review the results of our leachate and gas systems. Mr. Emge 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,

A handwritten signature in blue ink that reads "John Phillips".

John Phillips  
Operations Manager

cc: Eric Ketner, PHD  
Steve Emge, Parametrix;





# KOOTENAI COUNTY

## SOLID WASTE

---

February 13, 2020

Mr. Matt Plaisted, P.E.  
%Division of Environmental Quality  
2110 Ironwood Parkway  
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We continue to consult with Steve Emge of the engineering firm, Parametrix, to review the results of our leachate and gas systems. Mr. Emge 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,

John Phillips  
Operations Manager

cc: Eric Ketner, PHD  
Steve Emge, Parametrix;

A-7

**Kootenai County Solid Waste Department**

**2019 Annual Leachate Report**

Week of	Pond 1 Gallons	Pond 2 Gallons	Pond 3 Gallons	Pond 4 Gallons	Misting Evaporation (Gallons)	Leachate Hauled Offsite (Gallons)
1-Nov-18			2,287,300			
5-Nov-18			2,323,900			
12-Nov-18			2,360,000			
19-Nov-18			2,400,100			
26-Nov-18			2,494,500			
3-Dec-18			2,666,400			
10-Dec-18			2,732,800			
17-Dec-18			2,878,300			
24-Dec-18			2,993,800			
31-Dec-18			3,188,900			
7-Jan-19			3,275,100			
14-Jan-19			3,450,100			
21-Jan-19			3,617,000			
28-Jan-19			3,775,100			
4-Feb-19			3,895,400			
11-Feb-19			3,952,100			
18-Feb-19			4,029,500			
25-Feb-19			4,099,300			
4-Mar-19	14,500		4,244,600			
11-Mar-19	33,300		4,370,800			
18-Mar-19	141,000		4,370,800			
25-Mar-19	416,800		4,370,800			
1-Apr-19	609,900		4,370,800			
8-Apr-19	757,400		4,413,200			
15-Apr-19	1,667,000		4,320,200			
22-Apr-19	1,667,000	178,700	4,244,600			
29-Apr-19	1,050,500	568,900	3,996,800			
6-May-19	1,050,500	919,900	3,763,100		93,280	
13-May-19	1,016,400	988,800	2,871,100	595,800	223,610	
20-May-19	1,002,900	998,800	2,950,300	626,100	196,370	
27-May-19	699,800	1,043,800	3,041,200	677,100	190,460	
3-Jun-19	490,700	1,030,600	2,935,800	707,000	336,880	
10-Jun-19	316,200	1,016,100	2,743,400	834,600	290,500	
17-Jun-19	176,300	1,016,100	2,743,400	821,100	348,030	
24-Jun-19		1,004,600	2,950,300	784,700	327,610	
1-Jul-19		998,800	2,835,400	784,700	251,180	
8-Jul-19		722,900	2,501,300	1,008,700	385,360	
15-Jul-19		649,900	2,137,700	1,156,600	258,310	
22-Jul-19		546,700	2,042,100	1,156,600	345,570	
29-Jul-19		256,800	1,948,100	1,156,600	374,860	
5-Aug-19		24,000	1,901,600	1,156,600	374,610	
12-Aug-19			1,749,500	1,156,600	320,650	
19-Aug-19			1,601,700	1,147,100	350,420	
26-Aug-19			2,058,000	344,800	334,000	
2-Sep-19			1,932,500	122,000	420,950	
9-Sep-19			1,886,200	50,800	374,040	
16-Sep-19			1,719,600	50,800	322,840	
23-Sep-19			1,616,300	50,800		
30-Sep-19			1,855,500	50,800		
7-Oct-19			840,200	1,152,800		
14-Oct-19			168,800	1,870,700		
21-Oct-19			57,700	2,224,800		
28-Oct-19		34,235		2,497,100		
	<b>Evaporated with Misting System (Gallons)</b>					<b>6,119,530</b>
	<b>Leachate Hauled Offsite</b>					<b>0</b>
	<b>Grand Total Gallons of Leachate Processed</b>					<b>6,119,530</b>

## 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 on the CD provided to Idaho DEQ and Idaho Panhandle Health District.

### DMR Copy of Record

<b>Permit</b>		<b>Permittee:</b> KOOTENAI COUNTY SOLID WASTE		<b>Facility:</b> KOOTENAI COUNTY FIGHTING CREEK FARM LANDFILL													
<b>Permit #:</b> IDR053195	<b>Major:</b> No	<b>Permittee Address:</b> 22089 S. Hwy 95 Coeur D Alene, ID 83814		<b>Facility Location:</b> 22089 S. HWY 95 COEUR D ALENE, ID 83814													
<b>Permitted Feature:</b> SW21 External Outfall		<b>Discharge:</b> SW21-1L All Landfill, Land Application Sites and Open Dumps															
<b>Report Dates &amp; Status</b>																	
<b>Monitoring Period:</b> From 06/01/18 to 05/31/19		<b>DMR Due Date:</b> 07/31/19		<b>Status:</b> NetDMR Validated													
<i>Considerations for Form Completion</i>																	
<b>Principal Executive Officer</b>																	
<b>First Name:</b> Cathy		<b>Title:</b> Director		<b>Telephone:</b> 208-440-1430													
<b>Last Name:</b> Mayer																	
<b>No Data Indicator (NODI)</b>																	
<b>Form NODI:</b> --																	
Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading		Quality or Concentration			# of Ex.	Frequency of Analysis	Sample Type					
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units				Qualifier 3	Value 3	Units		
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample					3.16	3.16	19 - mg/L	D1/YR - Annual	GR - GRAB			
					Permit Req.								37 MO AVG	140 DAILY MX	19 - mg/L	D1/YR - Annual	GR - GRAB
					Value NODI												
00400	pH	1 - Effluent Gross	0	--	Sample					7.4	7.4	12 - DU	D1/YR - Annual	GR - GRAB			
					Permit Req.								MINIMUM	9 MAXIMUM	12 - DU	D1/YR - Annual	GR - GRAB
					Value NODI												
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample					6	6	19 - mg/L	D1/YR - Annual	GR - GRAB			
					Permit Req.								27 MO AVG	89 DAILY MX	19 - mg/L	D1/YR - Annual	GR - GRAB
					Value NODI												
01092	Zinc, total [as Zn]	1 - Effluent Gross	0	--	Sample					10	10	28 - ug/L	D1/YR - Annual	GR - GRAB			
					Permit Req.								110 MO AVG	200 DAILY MX	28 - ug/L	D1/YR - Annual	GR - GRAB
					Value NODI												
34694	Pheno	1 - Effluent Gross	0	--	Sample					0.5	0.5	28 - ug/L	D1/YR - Annual	GR - GRAB			
					Permit Req.								15 MO AVG	26 DAILY MX	28 - ug/L	D1/YR - Annual	GR - GRAB
					Value NODI												
34726	Nitrogen, ammonia, total [as NH3]	1 - Effluent Gross	0	--	Sample					0.03	0.03	19 - mg/L	D1/YR - Annual	GR - GRAB			
					Permit Req.								4.9 MO AVG	11 DAILY MX	19 - mg/L	D1/YR - Annual	GR - GRAB
					Value NODI												
77146	p-Cresol	1 - Effluent Gross	0	--	Sample					0.5	0.5	28 - ug/L	D1/YR - Annual	GR - GRAB			
					Permit Req.								14 MO AVG	25 DAILY MX	28 - ug/L	D1/YR - Annual	GR - GRAB
					Value NODI												
77247	Benzoic acids, total	1 - Effluent Gross	0	--	Sample					0.5	0.5	28 - ug/L	D1/YR - Annual	GR - GRAB			
					Permit Req.								71 MO AVG	120 DAILY MX	28 - ug/L	D1/YR - Annual	GR - GRAB
					Value NODI												
77493	alpha-Terpineol	1 - Effluent Gross	0	--	Sample					0.5	0.5	28 - ug/L	D1/YR - Annual	GR - GRAB			
					Permit Req.								16 MO AVG	33 DAILY MX	28 - ug/L	D1/YR - Annual	GR - GRAB
					Value NODI												
<b>Submission Note</b>																	
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.																	
<b>Edit Check Errors</b>																	
No errors.																	
<b>Comments</b>																	
<b>Attachments</b>																	
No attachments.																	
<b>Report Last Saved By</b>																	
KOOTENAI COUNTY SOLID WASTE																	
<b>User:</b> JHAGENBARTH																	
<b>Name:</b> James Hagenbarth																	
<b>E-Mail:</b> jhagenbarth@kcgov.us																	
<b>Date/Time:</b> 2019-08-08 07:47 (Time Zone: -07:00)																	
<b>Report Last Signed By</b>																	



## **Appendix A-9: Plans & Specifications**

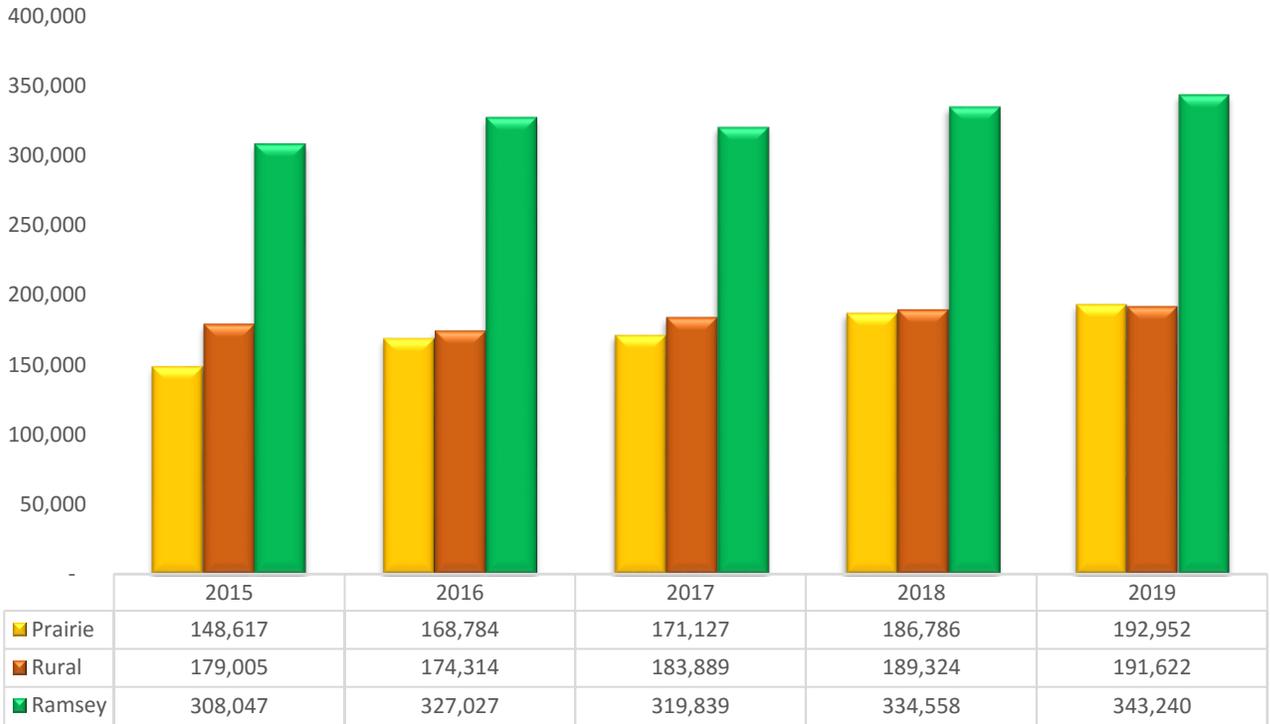
No construction projects or plans completed in 2019 required a submittal as part of current permits.



# Appendix “B” Customer Statistics



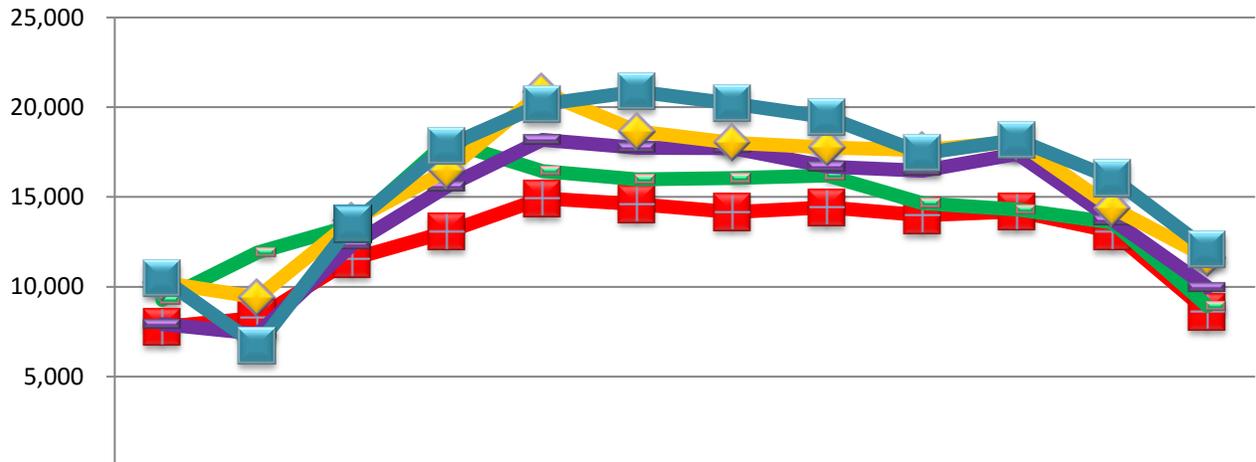
## Total Department Customers Total 727,814



## Transfer Stations - Customer History

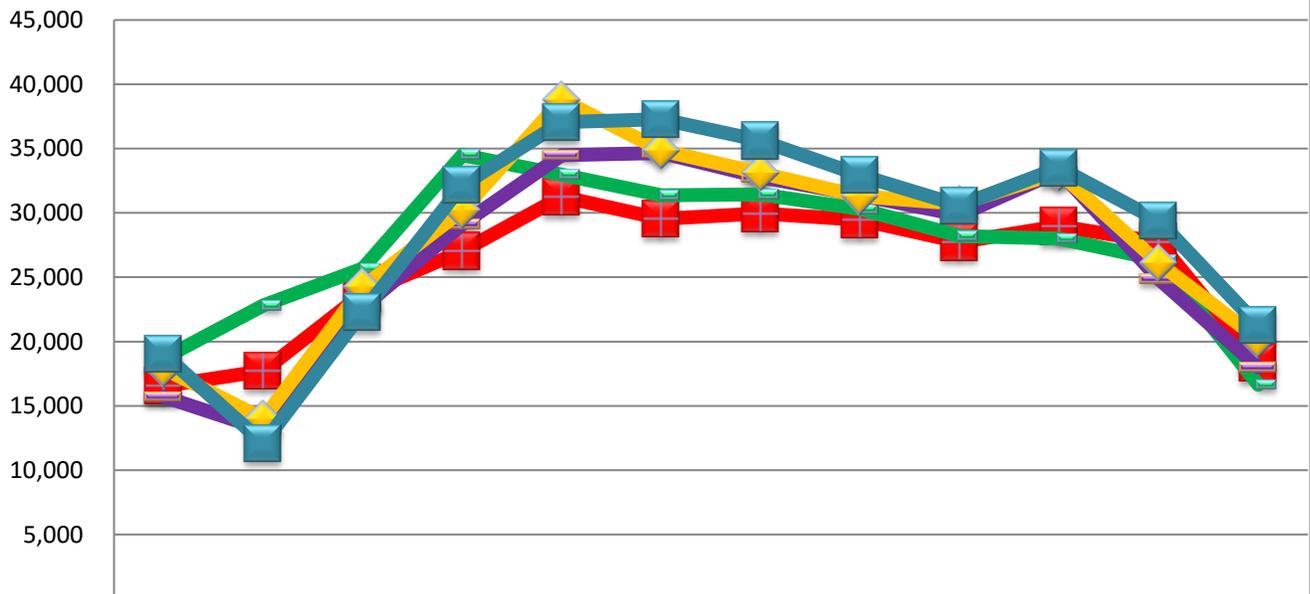


## Prairie Customers By Month



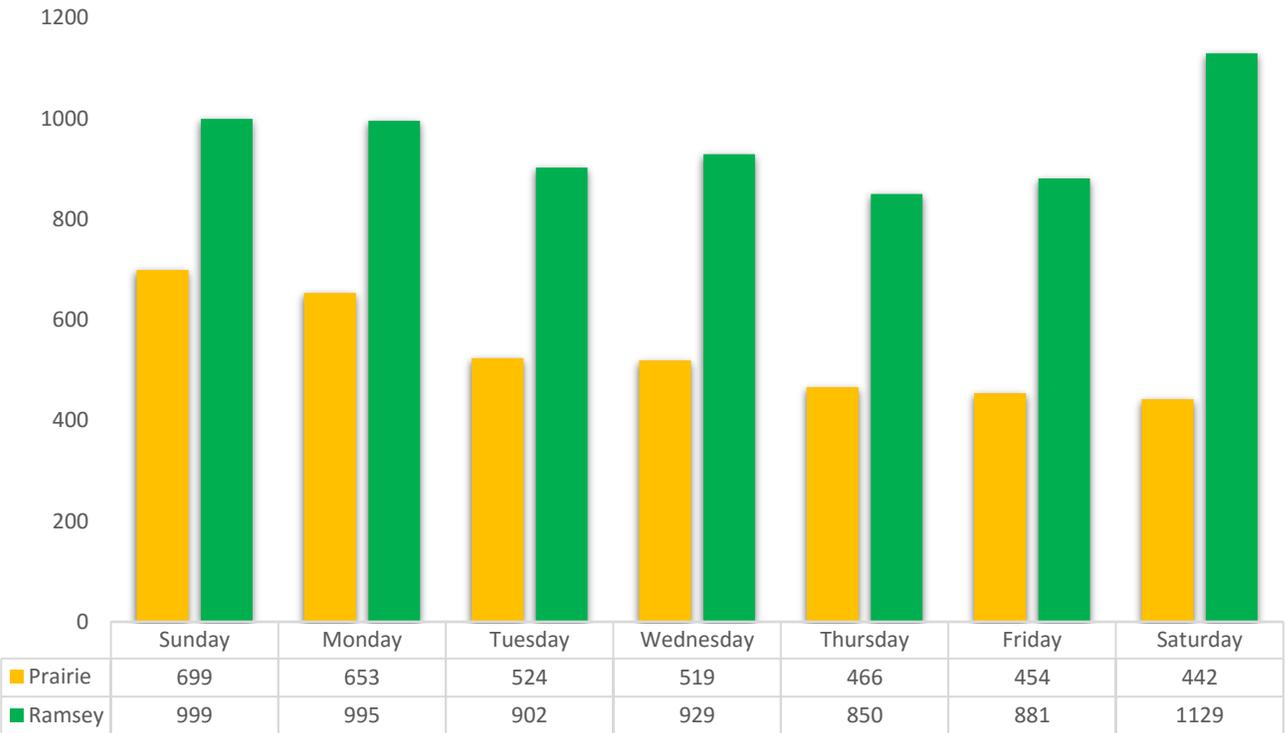
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	7,760	8,280	11,554	13,053	14,927	14,608	14,156	14,420	13,987	14,189	13,075	8,608
2016	9,258	11,901	13,414	18,090	16,440	15,985	16,045	16,189	14,658	14,306	13,578	8,920
2017	7,918	7,377	12,358	15,599	18,184	17,743	17,723	16,694	16,454	17,397	13,707	9,973
2018	10,235	9,405	13,684	16,471	20,843	18,653	18,014	17,760	17,616	18,085	14,395	11,625
2019	10,477	6,714	13,518	17,848	20,160	20,871	20,197	19,443	17,441	18,174	16,041	12,068

## Ramsey Customers By Month

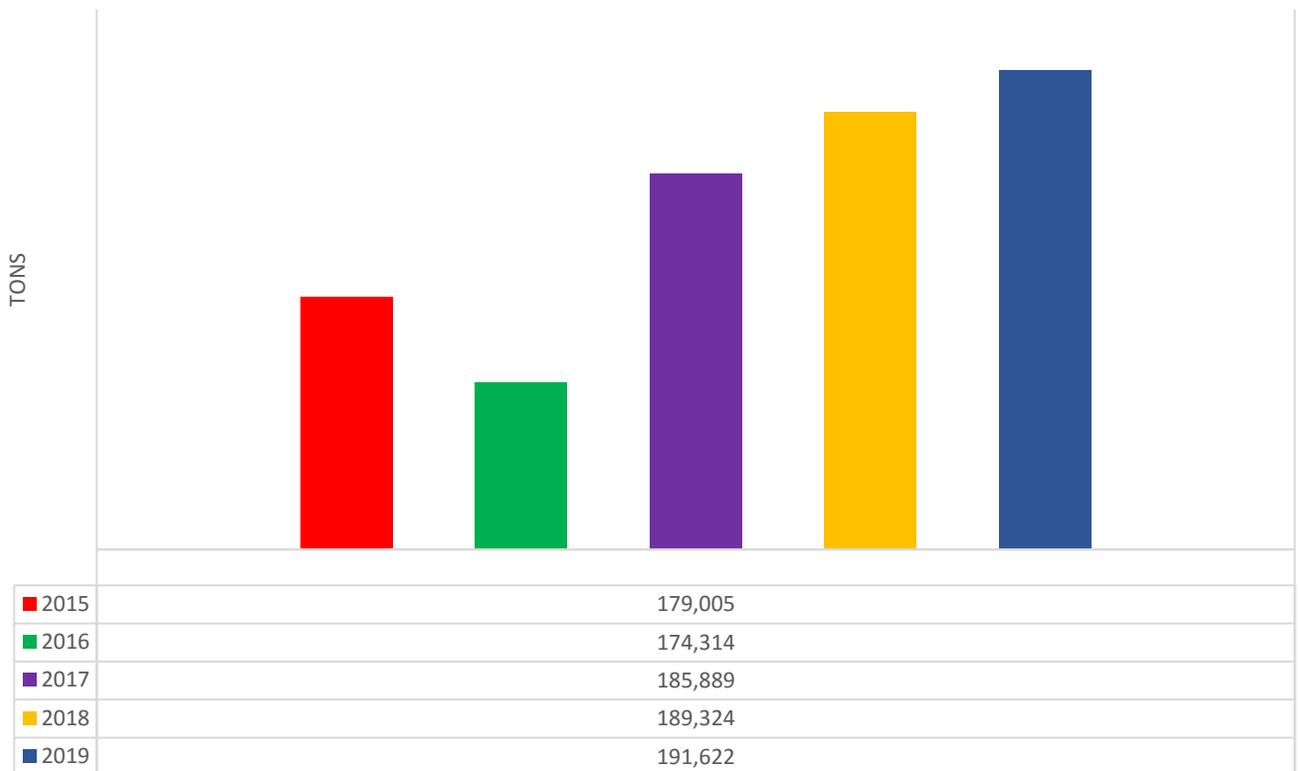


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	16,546	17,716	23,737	27,051	31,262	29,548	29,971	29,455	27,736	28,971	27,726	18,328
2016	18,713	22,816	25,689	34,504	32,984	31,381	31,447	30,296	28,200	28,012	26,344	16,641
2017	15,708	13,153	22,652	29,114	34,493	34,662	32,787	31,370	29,827	33,242	24,851	17,980
2018	17,886	13,996	24,246	30,214	38,799	34,866	33,108	31,299	30,707	33,160	26,098	20,179
2019	19,034	12,084	22,293	32,165	37,052	37,288	35,624	32,939	30,587	33,532	29,381	21,261

## Transfer Station Average Daily Customers



## Rural Staffed Sites Customers



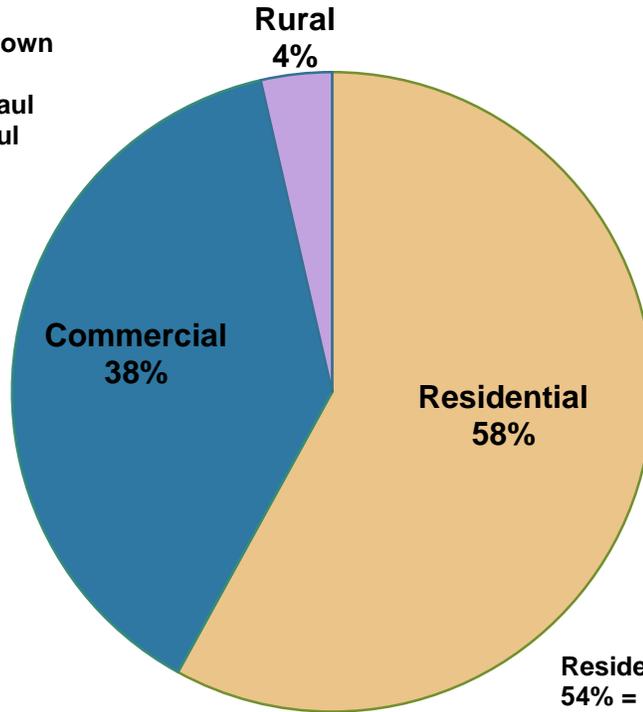


Appendix “C”  
Waste Statistics



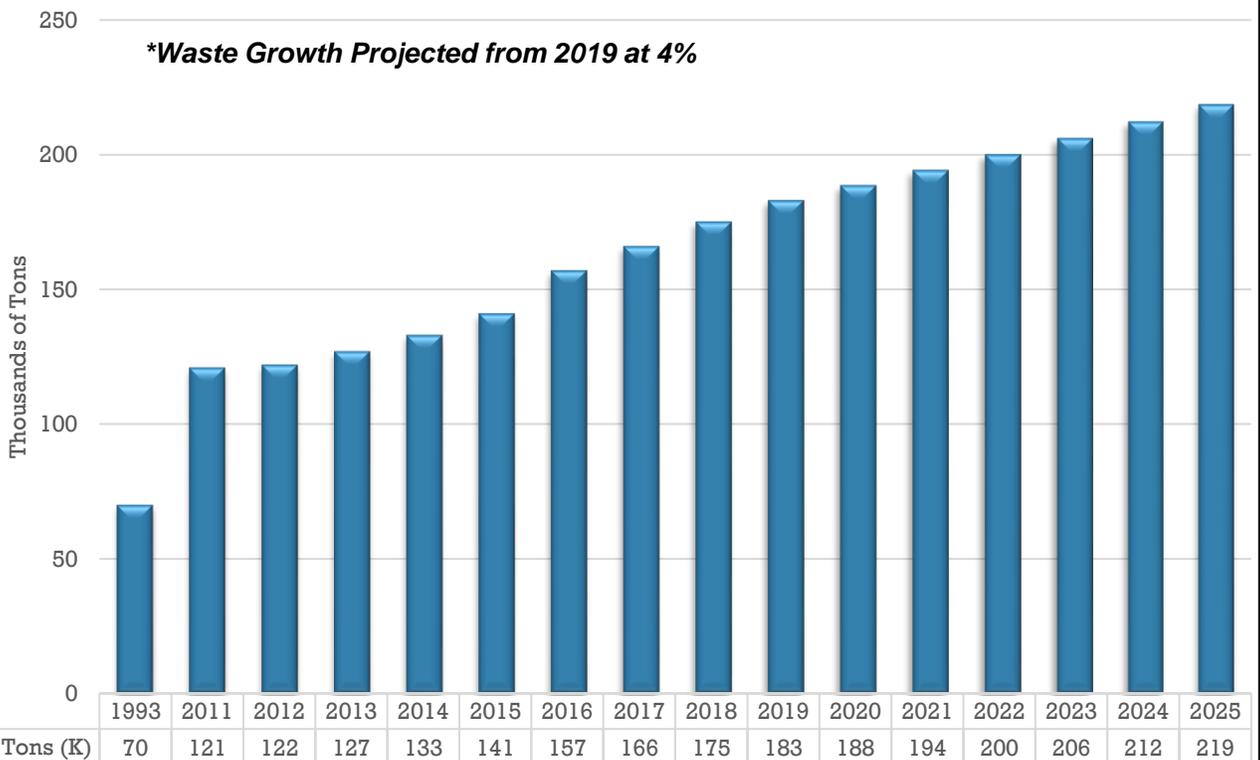
## Waste Stream by Source

**Commercial Tons Breakdown**  
 58% = garbage haulers  
 31% = commercial self haul  
 11% = residential self haul

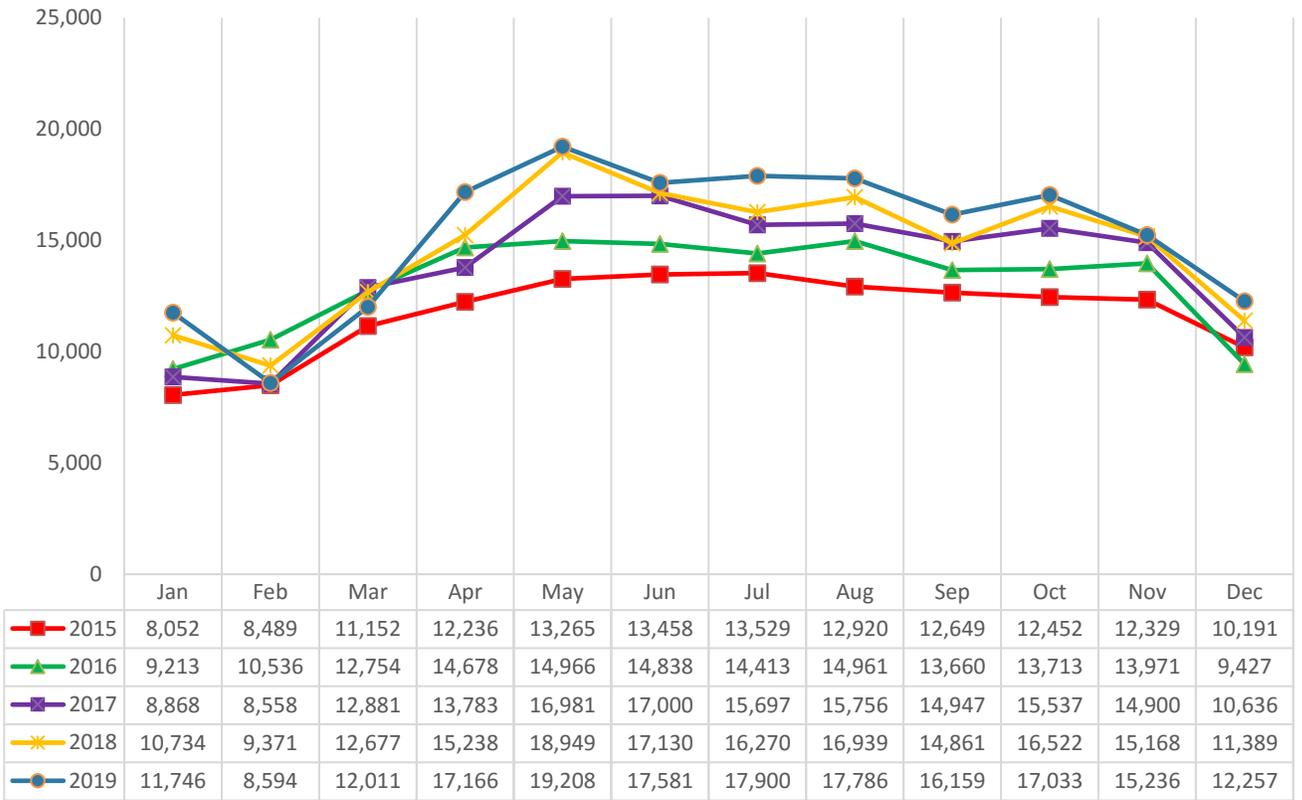


**Residential Tons Breakdown**  
 54% = self haul  
 46% = garbage haulers

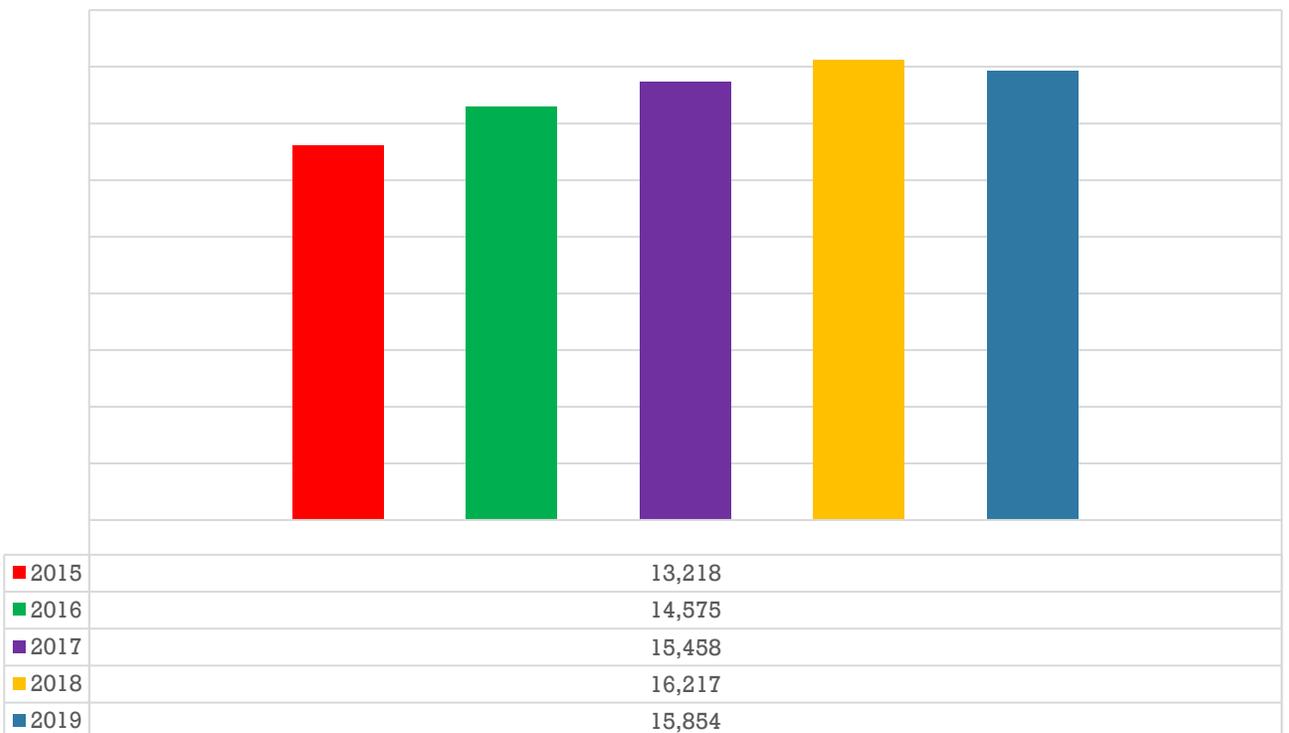
## Landfilled Waste History & Projection\*



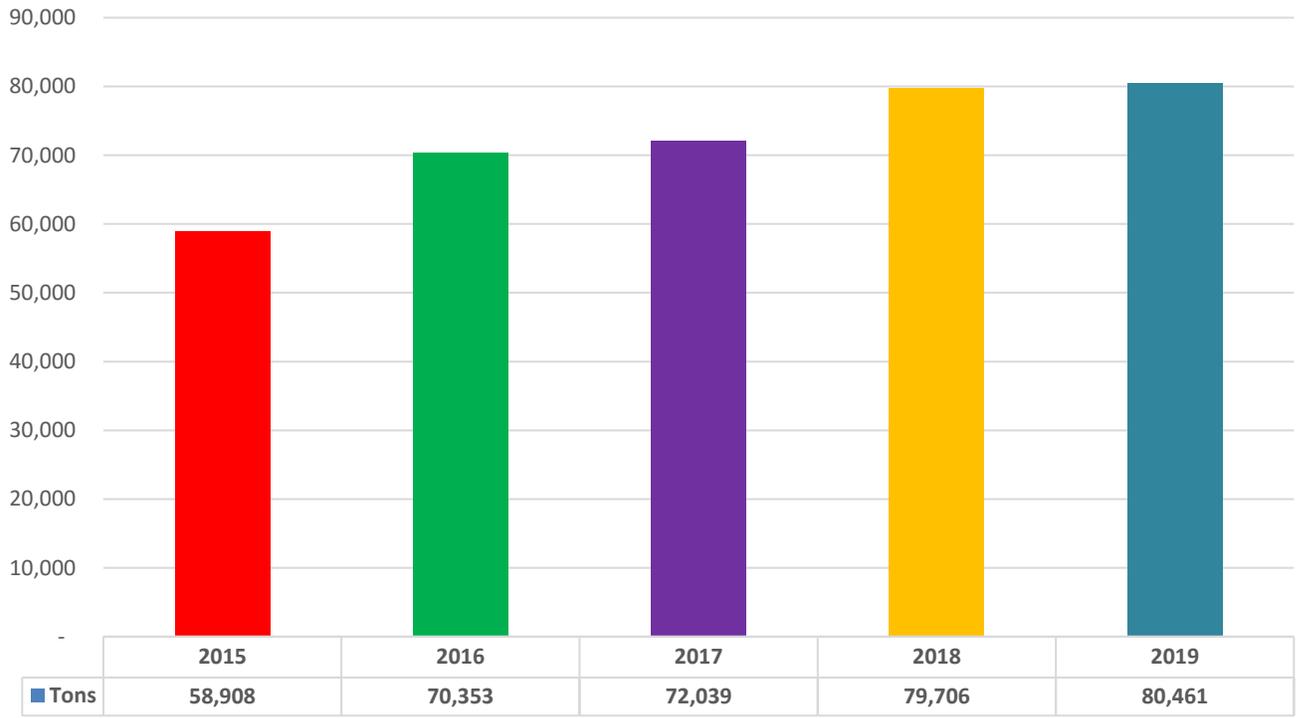
## Landfill Waste by Month



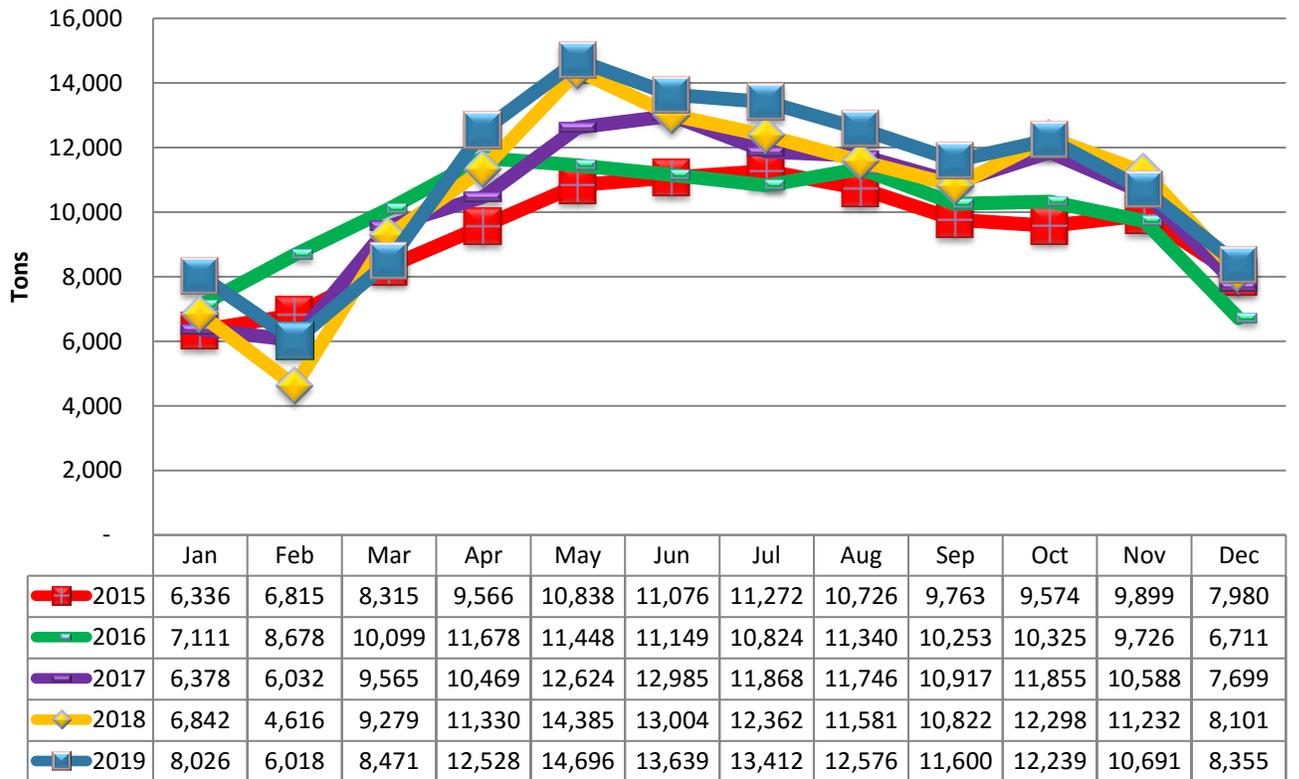
## Rural Systems Tons



## Praire Transfer Stations Tons



## Ramsey Transfer Station Tons

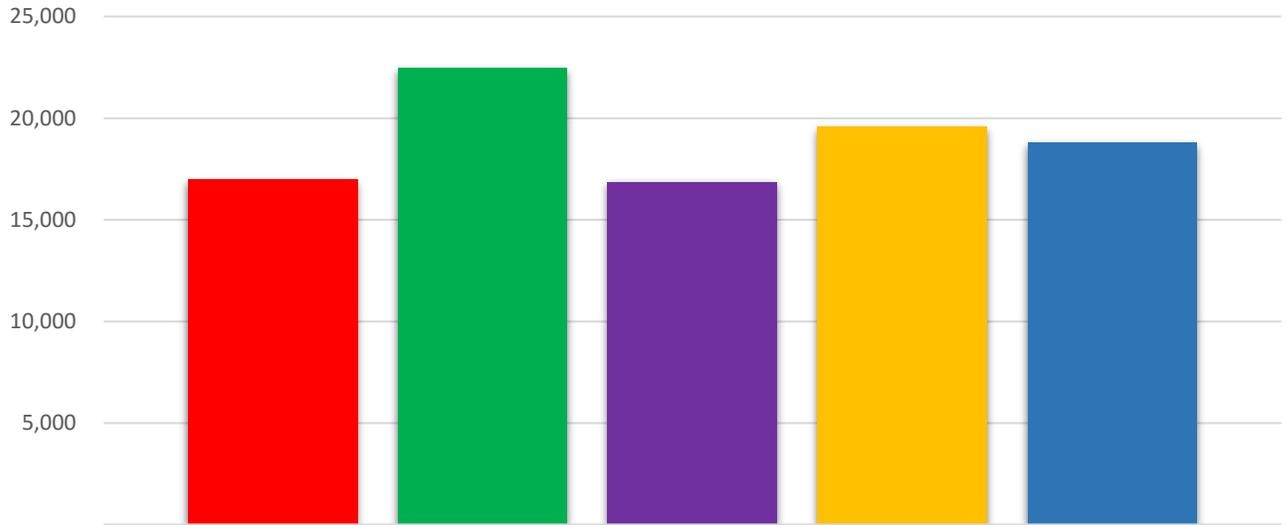




# Appendix “D” Recycling

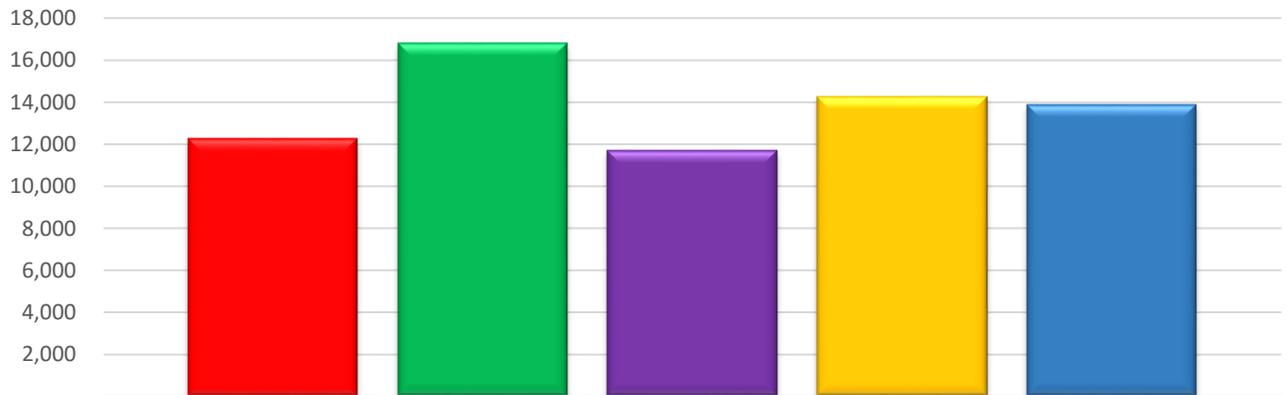


## Solid Waste Department Recycling Programs~



	Tons
■ 2015	16,966
■ 2016	22,451
■ 2017	16,864
■ 2018	19,561
■ 2019	18,772

## Wood Recycling



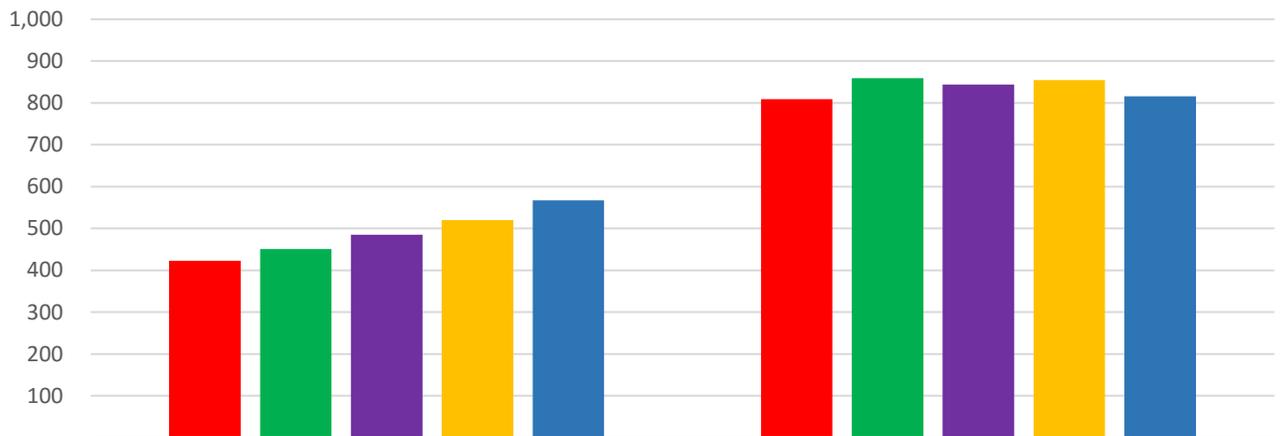
	Tons
■ 2015	12,251
■ 2016	16,816
■ 2017	11,673
■ 2018	14,262
■ 2019	13,892

## Metals Recycling



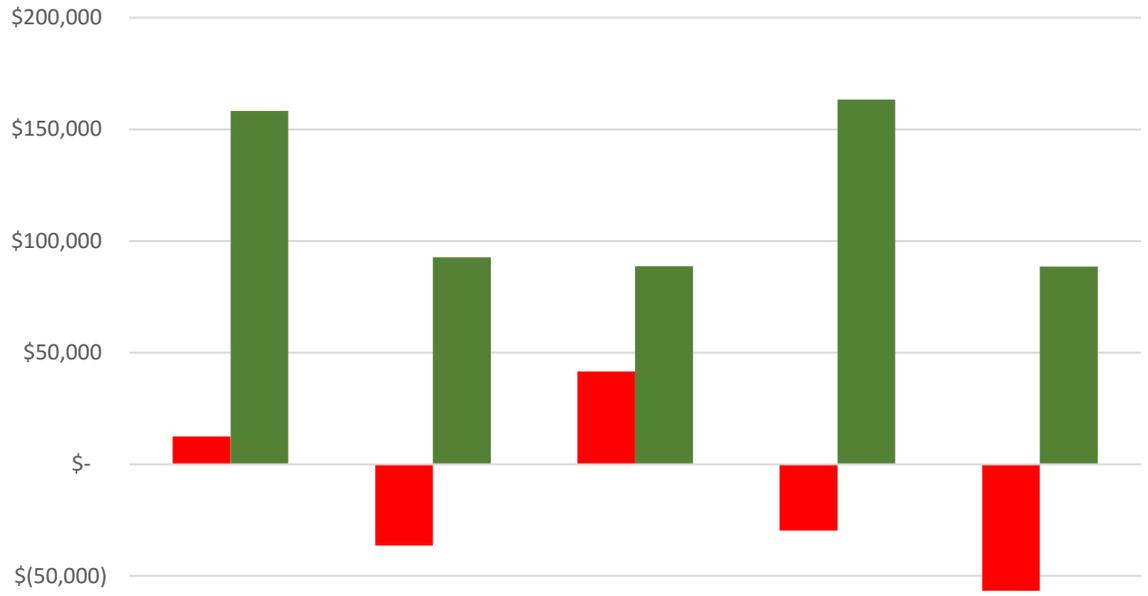
Year	Metals*
2015	2,043
2016	2,933
2017	2,780
2018	2,963
2019	3,182

## Tires & Cardboard Recycling



Year	Tires	Cardboard
2015	423	809
2016	451	859
2017	485	844
2018	520	855
2019	567	816

## Recycling Revenue

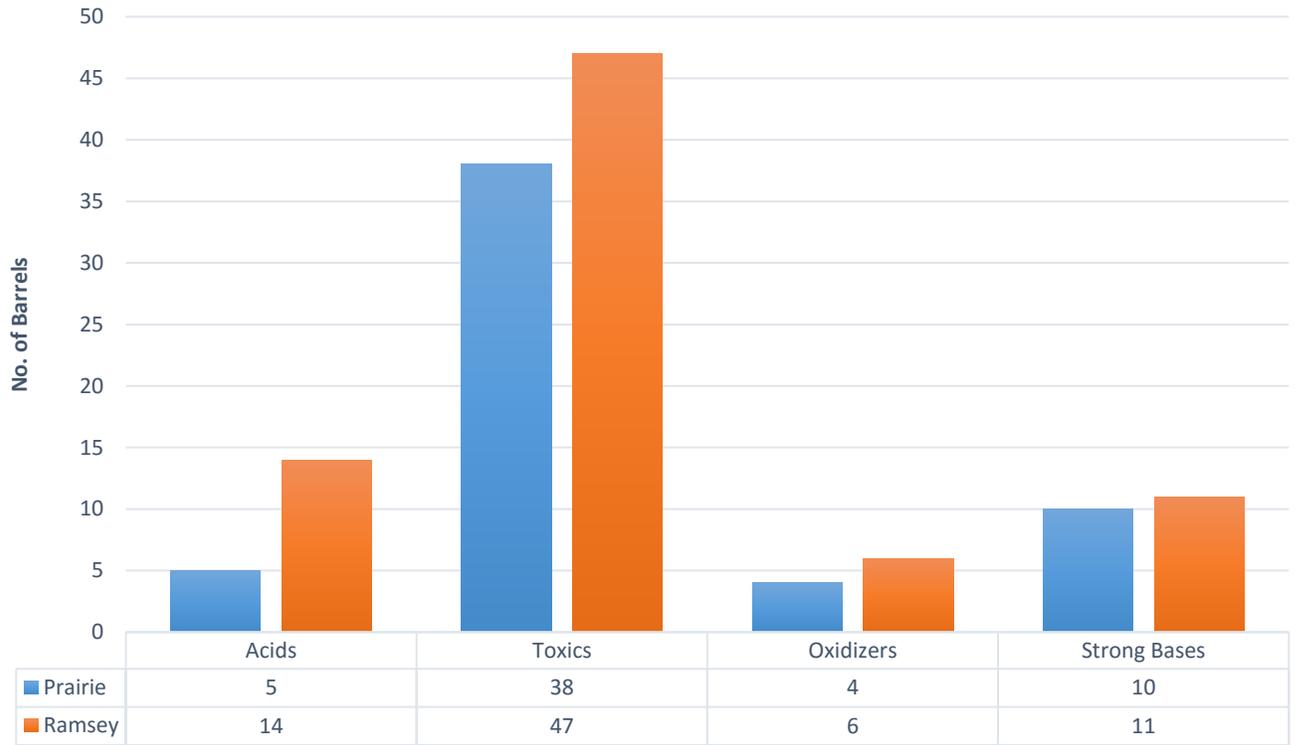


	2015	2016	2017	2018	2019
■ Non-Metal Recycling*	\$12,439	\$(36,413)	\$41,564	\$(29,692)	\$(56,567)
■ Metal Recycling#	\$158,287	\$92,734	\$88,749	\$163,418	\$88,569

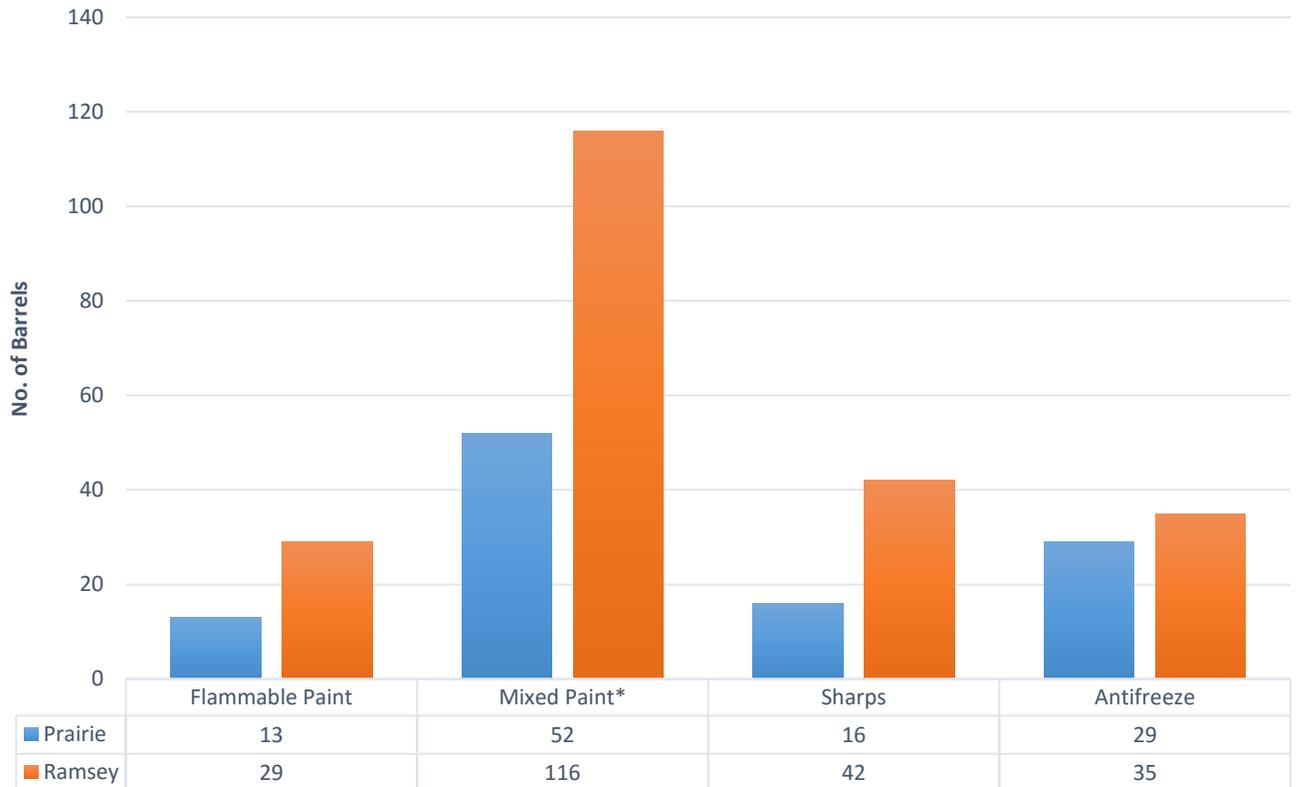


Appendix “E”  
Household Hazardous Waste (HHW)

### HHW Processed - Acids, Toxics, Oxidizers and Bases



### HHW Processed - Paint, Sharps and Antifreeze



### CFC Units\* Processed (4,883 units)

