



*Marin Sanitary Service*  
CONSERVATION — OUR EARTH, OUR MISSION, OUR JOB

# FAIRFAX ANNUAL REPORT

FOR CALENDAR YEAR 2019

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## Operational Improvement

### OPERATIONAL EFFICIENCY

MSS regularly looks for more efficient means to provide optimum service to our customers while reducing environmental impact. Our goal is to keep costs low while maintaining quality service as we expand our knowledge of modern technologies and best utilize fleet enhancement and management tools. In 2019 we implemented a new fleet inspection software, Whip Around. Whip Around is a fleet inspection software that streamlines our pre- and post-trip vehicle condition report process for our drivers.

Route Smart and Mobile-pak continue to allow drivers and managers to improve routing and customer service delivery. By adding tablets to our remaining five routes, we now have 100% of our Fairfax routes using this software. The tablets improve overall operations efficiency allowing drivers to provide their own route management. For example, by inserting notes and pictures directly to the account from their tablet while on their route. The cart inventory policy has also been changed to an electronic report generated out of our Soft-pak software. By transitioning to more electronic reporting, we are also reducing paper waste.

### ROUTING UPDATES

#### Route Productivity

In 2019, no re-sequencing or re-routing were necessary. We added a helper to the yard waste route to assist with the extra customer owned carts three days a week. There was a total of 465 customer owned extra yard waste carts placed out for service in 2019 and 246 in 2018. This is being phased out by 2021. Customers in the Town will be provided with literature educating them on this new requirement.

#### Route Audits

All landfill and organic routes in the Town were audited to verify services and billing. The following was found:

Service Discrepancies: A service discrepancy is an issue with either the size or quantity of cart.

Customers were contacted and given the option to pay for the larger/uncounted cart or drop down to a smaller size cart.

- 60 customers were identified who had discrepancies with their landfill service.
  - o 50 customers requested to change their cart size and 10 customers requested to keep the carts identified in the audit.
- 75 customers were identified who had discrepancies with their organics service.

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- o 52 customers requested to change their cart size and 23 customers requested to keep the carts identified in the audit.
- 12 customers were identified to be receiving service without obtaining an active account. Customers were contacted to open an active account. Half called to open an account; the other half did not respond.

## Scheduled Curbside Clean-up Program

This program offers residential customers the opportunity to set out additional recycling, yard waste and landfill waste twice per year for the removal of excess materials. In 2019, there was increased participation in this program. In the spring of 2019, there were 1,980 residential customers that participated in the program, compared to 615 in 2018. In the fall, there was a slight decrease - from 625 participants in 2018 to 525. Each customer is mailed a flyer in their bill alerting them to their scheduled clean-up dates for spring and fall. It is also located on our website under the “Residential Clean-Ups” tab. By optimizing our routes with Route-Smart this program runs ten consecutive weeks, Monday-Friday in the spring and fall each year per each jurisdiction. No errors were detected in determining where the customer fit in the scheduled curbside cleanup calendar. Customer Relations determines the scheduled curbside cleanup based on a customer’s billing cycle and tax body.

## FRANCHISE AGREEMENT UPDATE

MSS and the Town began discussions in early 2019 regarding the existing agreement which is due to expire on November 30, 2021. The purpose of the meetings was to evaluate progress of programs and goals that were set in December, 2011 in order to better serve the residents of the Town. R3 Consulting was contracted to oversee the negotiations. After several months of negotiations, the following was agreed to:

1. A 10-year franchise agreement extension upon expiration of the contract in November 2021 through November 30, 2031.
2. Addition of a Performance Review to the existing Performance section of the agreement in which MSS agrees to a formal audit of its operations and finances as they pertain to the contract.
3. Brush Clearing/Fuel reduction Fee of \$10,000 per year to help alleviate costs of removing, chipping and disposing of heavy brush that may pose a fire risk for the Town.
4. Addition of a Zero Waste Event Fee of \$10,000 per year to be used at the Town’s discretion to help cover Town costs for implementing zero waste goals at events such as the Fairfax Festival.
5. Additional services include:
  - a. Occasional collection of illegally dumped material at the Town’s request.
  - b. Compost delivery for customer use will be increased from three (3) to four (4) times per year at the Town’s request.

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- c. Increased tonnage collected at Chipper Days to allow for more disposal of heavy brush for fire fuel reduction.
- 6. Program changes:
  - a. Residential customers will only be allowed to set out MSS tipper carts for the collection and disposal of organic material including yard waste and food waste. Effective January 2, 2021, MSS will no longer empty owner cans for weekly collection of yard waste. Customers will be given one year to comply with the new program rules. All residential customers will receive a full-page letter, four (4) bill inserts, a postcard and cart hanger reminders during this transition period.

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## Public Outreach & Education

### OUTREACH AND EDUCATION SERVICES

At Marin Sanitary Service, community involvement through education, outreach and alliance building is our greatest passion and supports our ultimate goal of Zero Waste. Our duty is to engage and educate our community in how *they too* can be part of the solution. Outreach is the most important aspect in reaching our goal of Zero Waste. In order to provide more hands-on training to customers, MSS employs four full-time Recycling Programs Coordinators and a full-time Household Hazardous Waste Coordinator.

**Table 1: Outreach Contacts by Specialty**

| OUTREACH DEPARTMENT STAFF               |   |  |  |
|---|---|--|--|
| Name                                    | Title   | Email  | Primary Focus                                |
| Jennifer Grenier Selvig                 | Recycling Programs Coordinator                              | <a href="mailto:Jennifer.Grenier@marinsanitary.com">Jennifer.Grenier@marinsanitary.com</a> | Large Commercial Businesses and C&D Programs |
| Ruben Hernandez                         | Recycling Programs Coordinator                              | <a href="mailto:Ruben.Hernandez@marinsanitary.com">Ruben.Hernandez@marinsanitary.com</a>   | Food to Energy and Commercial Organics       |
| Andy Buck                               | Recycling Programs Coordinator                              | <a href="mailto:Andy.buck@marinsanitary.com">Andy.buck@marinsanitary.com</a>               | Multifamily Dwellings                        |
| Casey Fritz                             | Schools & Community Outreach Recycling Programs Coordinator | <a href="mailto:Casey.fritz@marinsanitary.com">Casey.fritz@marinsanitary.com</a>           | All schools and Community Organizations      |
| Kathy Wall*                             | HHW Program Manager   | <a href="mailto:Kathy.Wall@marinsanitary.com">Kathy.Wall@marinsanitary.com</a>             | HHW Programs                                 |
| <i>*Position funded through the JPA</i> |   |  |  |

### 4R PLANET SCHOOL PROGRAM AND TOURS

To date, White Hill Middle School and Manor Elementary School have completed the Zero Waste Schools Program (<https://zerowastemarin.org/schools>), which is run by both Zero Waste Marin (ZWM) and Marin Sanitary Service (MSS). Schools enrolled in this program receive onsite outreach and education visits comprised of: meetings with the Green Team students, monitoring the new sorting

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stations at lunch, student, staff and custodial trainings. One (1) Fairfax school, a preschool, came on a tour of MSS in 2019.

## OUTREACH MATERIALS AND COMMUNITY EVENTS

Public information and education are the cornerstone of the MSS Outreach Program. All Fairfax residential and commercial customers have received multiple direct mail pieces informing them of our programs and services. These mailings continue to educate the public on Zero Waste programs; proper recycling and composting practices; the hours of operation at all facilities; proper disposal of household hazardous waste; and the Town's Mandatory Commercial Recycling and Organics Ordinance. Materials were also distributed to public libraries, town halls, Police and Fire Departments, Chambers of Commerce and Community Bulletin Boards to reach more of the community.

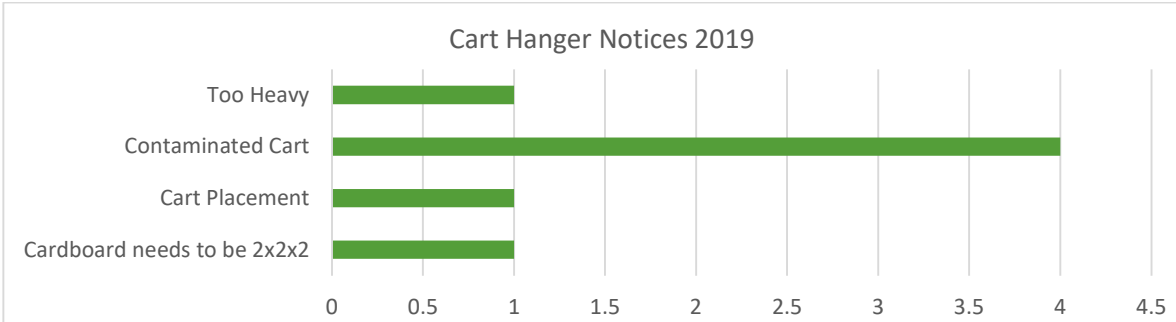
**Table 2: Public Outreach in the Town by Type (not including Schools or Mandatory Commercial Recycling)**

| Outreach Type     | Total |
|-------------------|-------|
| Advertisement     | 38    |
| Billing Insert    | 18    |
| Cart Hanger       | 44    |
| Community Event   | 6     |
| Community Meeting | 8     |
| Newsletter        | 2     |

Another important customer communication piece is the cart hanger notice. Drivers leave cart hangers on containers to notify customers of any issues they noticed. This data is analyzed and used for future newsletter articles and bill insert messages to customers (Figure 1). A total of 7 cart hangers were left for customers in 2019 down from 43 in 2018. All customers received a phone call from customer service to educate them on proper sorting practices.

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Figure 1: Reasons for Leaving Cart Hanger Notices





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## Online Education

As more people turn to the internet for information, the MSS website is filled with information on all services and programs. In 2019, we updated our website allowing customers to more easily locate information and stay up to date with news. In an effort to better educate residents on best practices and reduce recycling contamination, we also launched an online and mobile app tool called “Where’s It Go, Joe?” which allows customers to easily find out if a material can be reused, recycled, composted or disposed of in garbage.

The “Where’s it Go, Joe” tool is a searchable database of more than 300 common household materials. When a customer enters the material into the search, the tool provides instructions on how to properly prepare or clean the item as well as what “stream” the material should go into: recycling, compostables or garbage.



The “Where’s it Go, Joe?” online tool is available on our website. A free, mobile app is being designed and will launch in 2020.



## Website

- [www.marinsanitaryservice.com](http://www.marinsanitaryservice.com)

## Social Media Presence

MSS has grown its social media presence across platforms since hiring a Community Outreach Coordinator in June 2019.

- Facebook (<https://www.facebook.com/marinsanitary>)
- Twitter ([mssrecycles](https://twitter.com/mssrecycles))
- Instagram ([mssrecycles](https://www.instagram.com/mssrecycles))
- You Tube Channel (<https://www.youtube.com/user/MSSoutreach>)

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## instagram metrics

june 2019 - december 2019

follower count: 472 (up from 378 in june 2019)



**Reach**

**7,488**

The number of people that viewed the post. The data does not allow us to know if these are distinct individuals or not.

**Likes**

**860**

The number of likes we received on all of our posts.

**Comments**

**51**

The number of comments that we received on all of our posts.

**Shares**

**30**

The number of shares on our posts - in Instagram, this means someone directly sending the post to a friend or other account.

**Saves**

**27**

The number of times that one of our posts was "saved" to someone's account archive so they can easily view it again.



## facebook metrics

june 2019 - december 2019

follower count: 608 (up from 520 in june 2019)



**Reach**

**10,142**

The number of people that viewed the post. The data does not allow us to know if these are distinct individuals or not.

**Likes**

**302**

The number of likes we received on all of our posts.

**Comments**

**37**

The number of comments that we received on all of our posts.

**Shares**

**138**

The number of shares on our posts - in Facebook, this is when someone reposts our post on their page for all of their friends to see.

**Engagements**

**1,437**

Facebook tracks "interactions" with the post, including reactions, link clicks, etc. on the original post and reposts.

## Residential Programs

### RESIDENTIAL SERVICE LEVELS

There are 2,499 Residential customers signed up for service with MSS in Fairfax. Residential customers include single, duplex and triplex units; for this reason, cart subscription numbers do not match customer counts. All residential customers are offered three services as part of the bundled “resource hauling” rate. This includes a gray “landfill” (garbage) cart, a dual sort split body recycling cart and a green organics cart. The bundled rate is based on the size of the landfill cart. Below (Tables 3-4) are the residential cart subscription levels for year end 2019 compared to year end 2018. The three services cart subscriptions have stayed flat in 2019 compared with the previous year.

**Table 3: Residential Landfill Cart Subscriptions**

| Residential Weekly Garbage Service |                     |       |          |
|------------------------------------|---------------------|-------|----------|
| CART size                          | Number of customers |       |          |
|                                    | 2019                | 2018  | % Change |
| 20 gallon                          | 663                 | 642   | 3%       |
| 32 gallon                          | 1,688               | 1,719 | -2%      |
| 64 gallon                          | 180                 | 172   | 5%       |
| 96 gallon                          | 14                  | 11    | 27%      |
| Total                              | 2,545               | 2,544 | 0%       |

**Table 4: Residential Recycling & Organics Cast Subscriptions**

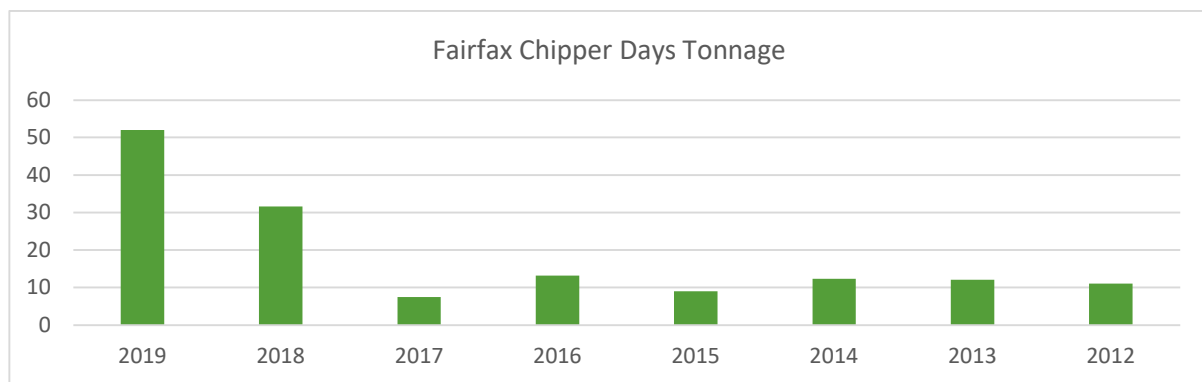
| Residential Weekly Dual Sort Recycling Service |                     |       |          |
|--|---------------------|-------|----------|
| CART size                                      | Number of customers |       |          |
|  | 2019                | 2018  | % Change |
| 5 gallon                                       | 42                  | 48    | -13%     |
| 64 gallon                                      | 2,397               | 2,373 | 1%       |
| 96 gallon                                      | 110                 | 110   | 0%       |
| Total  | 2,549               | 2,531 | 1%       |
| Residential Weekly Green Waste Service         |                     |       |          |
| CART size                                      | Number of customers |       |          |
|  | 2019                | 2018  | % Change |
| 32 gallon                                      | 164                 | 136   | 21%      |
| 64 gallon                                      | 2,454               | 2,446 | 0%       |
| 96 gallon                                      | 29                  | 34    | -15%     |
| Total  | 2,647               | 2,616 | 1%       |

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## CHIPPER DAYS

Marin Sanitary Service partnered with the Town of Fairfax and the Ross Valley Fire Department on the 6<sup>th</sup> Annual Chipper Days events. Town residents were allowed to drop off brush at several locations around the Town in the months of July and August. The intent of these chipper days is to remove vegetation "fuel" to reduce wildfire hazards near homes in Fairfax. Two additional collection events were added this year which resulted in a significant increase in tonnage. Since 2012, the Town has diverted 148.63 tons of yard debris from the landfill (Figure 2).

Figure 2: Fairfax Chipper Days Tonnage



## COMMUNITY COMPOST AVAILABILITY

Per our agreement with the Town, MSS will deliver up to a total of 45 cubic yards of compost material to a designated bunker for distribution to the citizens of the town. The full amount was requested and delivered to the Town in 2019. Beginning 2020, the Town may request delivery of up to 60 cubic yards annually for Fairfax rate payers to enjoy.

**SAVE THE DATE** for the MSS 4th Annual Customer Appreciation Day, Saturday, April 18, 2020. Customers can receive up to one 64-gallon cart of compost to use in their garden, take a tour of the recycling facility, participate in a composting workshop, and have questions answered by local Zero Waste experts.

## PROMOTION OF COMPOSTING USING GREEN CARTS

Customers continue to receive bill insert reminders at least twice per year describing the program as well as cart hangers informing them of the program rules for what is accepted and prohibited. The program is promoted at Town events and on the MSS website. Customers have reported participating more in the weekly food scraps collection program since receiving the pails and the information.

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## NEW CURBSIDE CLEAN-UP PROGRAMS



In 2016, the Town added two new curbside clean-up programs for residents (Table 5). Participation in and tonnage collected and diverted increased in 2019. (Table 6).

**Table 5: Clean-Up Programs**

| Program Name                  | Details   | 2020 Dates   |
|-------------------------------|---|--|
| Scheduled Curbside Clean-up   | Curbside collection of up to fourteen (14) 32-gallon bags or cans of additional garbage, recyclables, or yard waste at the curb in the fall and the spring. | <b>SAVE THE DATES:</b><br><b>Spring Clean-up:</b> May 4-8, 2020<br><b>Fall Clean-up:</b> October 19-23, 2020 |
| On-Call Bulky Item Collection | Curbside collection of up to two (2) bulky items twice per year   | At customer request  |

**Table 6: Clean-Up Data 2019 and 2018**

| Participation |      | Tons Collected |       | Tons Diverted |       |
|---------------|------|----------------|-------|---------------|-------|
| 2019          | 2018 | 2019           | 2018  | 2019          | 2018  |
| 30%           | 25%  | 33.29          | 25.16 | 19.97         | 14.77 |

## Commercial and Multifamily Programs

Since there are a wide variety of container types, sizes and collection frequency, overall weekly yardage of service is shown on page 22 (Multifamily and Commercial business are combined.)

### COMMERCIAL SERVICE OFFERINGS

Commercial businesses are offered recycling services as part of a “bundled rate”. MSS also offers two organics programs to all commercial customers for a fee that is ~30% less than landfill service for comparable service levels. Commercial business customers are offered the following containers types and service for landfill (garbage) materials.

- 32, 64, and 96-gallon MSS tipper carts. 20-gallon carts are offered on a case by case basis only after a successful recycling and composting program has been established
- 1, 2, 3, 4, 5, and 6 cubic yard bins
- 10, 18, 20, 25 cubic yard roll-off boxes. Larger sizes are available upon request
- Compactors: sizes range from 3 cubic yards to 40 cubic yards

Recycling and Organics Services are primarily offered for collection in carts. Cardboard and Organic materials may be collected in bins. The following container types and sizes are available for commercial customers.

- 32, 64, and 96 gallon blue carts for paper recycling
- 32, 64, and 96 gallon brown carts for containers recycling (plastic, glass, metal bottles & cans)
- 32 and 64 gallon organics green carts for composting
- 32 and 64 gallon food waste dark green carts for food to energy
- 1, 2, and 3 cubic yard bins for cardboard recycling
- 1 and 2 cubic yard bins for food waste for food to energy

### MULTIFAMILY SERVICE OFFERINGS

Multifamily Dwellings (MFDs) are offered recycling services as part of a “bundled rate”. Organics service is offered to tenants at apartment buildings and up to 256 gallons (four 64-gallon carts) of organic service is included as part of the bundled rate. Additional carts beyond the four in the bundled rate can be rented for a nominal monthly fee. MFD tenants may also receive kitchen pails after attending a workshop for the collection of compostable materials. Multifamily Dwelling customers are offered the following containers types and service for landfill (garbage) materials.

- 32, 64, and 96 gallon MSS tipper carts. 20 gallon carts are offered only after a successful recycling and composting program has been established

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- 1, 2, 3, 4, 5, and 6 cubic yard bins
- 10, 18, 20, 25 cubic yard roll-off boxes - larger sizes are available upon request
- Compactors: sizes range from 3 cubic yards to 40 cubic yards

Recycling and Organics Services are primarily offered for collection in carts. Cardboard and Organic materials may be collected in bins. The following container types and sizes are available for MFD customers

- 32, 64, and 96 gallon blue carts for paper recycling
- 32, 64, and 96 gallon brown carts for containers recycling (plastic, glass, metal bottles & cans)
- 32 and 64 gallon organics green carts for composting
- 1, 2, and 3 cubic yard bins for cardboard recycling
- 2 and 3 cubic yard organics bins for composting

## Mandatory Commercial Recycling and Composting Compliance

Educating businesses about recycling is a dynamic and ongoing process. MSS currently has four full time Commercial Recycling Coordinators working with businesses and apartment buildings on all organics and recycling programs. New businesses and their employees are educated about recycling requirements and opportunities. Existing businesses and their employees are monitored and encouraged to divert even more resources from the landfill.

Waste audits are part of the monitoring process and help to identify waste types and volumes of divertible materials in the disposed of waste stream. Every year, in February and March, drivers perform visual waste audits of landfill containers for all commercial and multifamily dwelling customers to determine the percentage of divertible material such as glass, plastic, cans, paper, cardboard, yard waste and food waste. There were approximately 100 visual audits performed in 2019 in the Town. Customers with 50% or more of divertible material were referred to the appropriate Outreach Staff for waste stream assessments. Customers are prioritized on their compliance status with state laws. Waste stream assessments are on-site assessments of the waste stream (total flow of materials generated) and recycling potential of an individual business, institution, or household. From this assessment, service and education needs are determined and a waste reduction plan is developed and implemented.

MSS is working with the Town and Sustainable Fairfax to implement recycling and/or organic services at all Commercial and Multifamily Dwellings (MFDs) per the Town’s Mandatory Commercial Recycling Ordinance, [8.08.130](#). Table 7 shows the number of commercial and multifamily dwellings who are compliant with the Town’s recycling ordinance. There are currently 3 commercial businesses who are non-compliant with the ordinance. Table 8 shows the number of MFDs and commercial businesses who have an organics service. Of the 103 commercial businesses, only 58 have business types that would require an organics service under the Town’s ordinance. Of these, 43 are currently compliant. 27 businesses are enrolled in the commercial compost program and 16 restaurants are enrolled in the commercial food to energy program. 22 Multifamily Dwellings (Apartments with 4 or more units) have organics composting service. 4 are non-compliant with the Town’s ordinance.

**Table 7 Compliance: commercial recycling businesses and apartments**

| Customer Type        | NOT compliant | Compliant | Grand Total |
|----------------------|---------------|-----------|-------------|
| Multifamily Dwelling | 0             | 26        | 26          |
| Commercial Business  | 3             | 100       | 103         |
| Total                | 3             | 126       | 129         |



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**Table 8: Compliance: Commercial Organics recycling Businesses and Apartments**

| Customer Type        | NOT compliant | Compliant | Grand Total |
|----------------------|---------------|-----------|-------------|
| Multifamily Dwelling | 4             | 22        | 26          |
| Commercial Business  | 15            | 43        | 58          |
| Total                | 19            | 65        | 84          |

## COMMERCIAL AND MULTIFAMILY OUTREACH, EDUCATION AND MONITORING

Having specialized Recycling Program Coordinators has allowed MSS to streamline and individualize outreach efforts for the variety of customers in the commercial sector. Assessments of the customers' waste stream is then used to tailor a recycling program that best suits the business type. The Operations staff and Outreach staff use this data to create a comprehensive diversion plan. Once recycling and/or organics services are established, the teams work to "right size" the garbage service which often results in decrease in the overall "resource hauling" bill.

**Table 9: Commercial/Multifamily Outreach by Type January-December, 2019**

| Compliance Packets Mailed | Phone Call or Email | Onsite Education & Training | Recycling Needs Assessment | Waste Audits | Grand Total |
|---------------------------|---------------------|-----------------------------|----------------------------|--------------|-------------|
| 39                        | 18                  | 20                          | 1                          | 6            | 84          |

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## Zero Waste Events

### ANNUAL “TAKE BACK DAY”: PAPER SHREDDING, E-WASTE, AND UNUSED MEDICATION COLLECTION DAY APRIL 27, 2019

Another successful Zero Waste Event Partnership! Sustainable Fairfax, Conservation Corp North Bay, Marin Sanitary Service and the Fairfax Police department hosted the annual Take Back Day on April 27, 2019. This year, a new participant record was hit! Thanks Fairfax residents for keeping these resources out of the landfill! 100% of all material collected was diverted (Table 10).

**Table 10: Take Back Day Diversion (weight in pounds)**

| Material              | 2019        | 2018        | 2017        | 2016        | 2015       |
|-----------------------|-------------|-------------|-------------|-------------|------------|
| E-waste               | 5,232       | 4,223       | 4,921       | 4,450       | 4,245      |
| Document Shredding    | 4,400       | 3,560       | 4,180       | 2,440       | 2,860      |
| Pharmaceutical Waste  | 153         | 180         | 116         | 148         | 0          |
| Mattresses            | 2,948       | NA          | NA          | NA          | NA         |
| Landfill              | 0           | 0           | 0           | 0           | 225        |
| <b>Diversion Rate</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>100%</b> | <b>97%</b> |
| Participants          | 243         | 166         | 192         | 186         | 191        |

### FAIRFAX FESTIVAL

In collaboration with Sustainable Fairfax, MSS was able to provide services and event waste management guidance to the town for the Fairfax Festival June 9-10, 2019. The Fairfax Festival was a huge success both in providing entertainment and activities to patrons and in diverting wasted material from the landfill (Table 11). 109 residents of the Town visited the MSS educational booth and learned more about the value of keeping food scraps and other resources out of the landfill.

**Table 11: Fairfax Festival Recycling Rates 2015-2018 (weight in pounds)**

| Material              | 2019       | 2018       | 2017       | 2016       | 2015       |
|-----------------------|------------|------------|------------|------------|------------|
| Cardboard             | 690        | 806        | 700        | 900        | 160        |
| Compost               | 1,660      | 1,880      | 1,520      | 559        | 750        |
| MSS Recycling         | 2,784      | 0*         | 991        | 0*         | 90         |
| CCNB Recycling        | 0*         | 786        | 1,341      | 667        | 1,582      |
| Landfill              | 946        | 254        | 409        | 449        | 750        |
| <b>Recycling Rate</b> | <b>84%</b> | <b>93%</b> | <b>92%</b> | <b>83%</b> | <b>77%</b> |

\*Recycling was managed by Conservation Corp North Bay in 2016 except for cardboard.

## Diversion, Recycling, and Global Impacts of State Mandates

### DIVERSION RATES

Jurisdictional ***diversion rates*** are calculated based on a disposal-based indicator which is a per capita disposal rate expressed as pounds per person per day (PPD). This disposal rate uses two factors: a jurisdiction's population and its disposal tonnage, as reported by disposal facilities. Table 12 details the State diversion goals and activities that contribute to it.

**Table 12: State Diversion Goal: AB 939 (1989)**

| <b>AB 939 State Goal: 50 Percent Diversion from the Landfill (Jurisdictional Mandate)</b> |  |
|---|--|
| <b>Activities that Count Toward Goal</b>  | <b><i>Diversion:</i></b><br>Source Reduction<br>Composting<br>Recycling<br>ADC<br>AIC<br>Other Beneficial Reuse<br>Transformation Credit                         |
| <b>Activities that <b>Do Not</b> Count Toward Goal</b>                                    | <b><i>Disposal:</i></b><br>Landfill (Including Exports)<br>Some Transformation<br>Engineered Municipal Solid Waste (EMSW)<br>Green Waste ADC (Beginning in 2020) |
| <b>Baseline Waste Generation and Base Years in pounds per person per day (ppd)</b>        | 12.6 ppd (2003-2006)   |
| <b>Statewide Disposal Target in pounds per person per day (ppd)</b>                       | 6.3 ppd  |

Tonnage reported from residential and commercial self-hauling, construction & demolition debris box rentals, and a host of other non-franchised programs within the County and Town are reflected in the Jurisdictional diversion rate that is reported by MSS to the Marin Hazardous and Solid Waste Joint Powers Authority (JPA), who in turn reports this tonnage information to the State of California.

### EVALUATION OF CURRENT TRENDS

Table 13 shows the historical trends in the County Diversion Rates reported to CalRecycle. The Marin JPA AB 939 landfill diversion rate dropped from 66% in 2018 to 63% in 2019. This trend was seen nationwide.

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Diversion rates have been decreasing for the past several years despite state and local recycling mandates and efforts.

**Table 13: Marin County Historical Diversion Rates**

| Year | Diversion Rate |
|------|----------------|
| 2012 | 75%            |
| 2013 | 74%            |
| 2014 | 75%            |
| 2015 | 74%            |
| 2016 | 70%            |
| 2017 | 69%            |
| 2018 | 66%            |
| 2019 | 63%            |

## RECYCLING RATES

The State set a goal to recycle 75% of all materials collected from the landfill by 2020. This goal also includes AB 341 (Mandatory Commercial Recycling-2012) and AB1826 (Mandatory Commercial Organics Recycling-2016). Activities that count as recycling are defined in Table 14. For the purpose of this report, only tonnages for materials collected and processed under the Franchise Agreement with the Town are presented going forward as “Recycling Rates”.

**Table 14: AB 939 Definition of Recycling**

| State Goal: 75 Percent Recycling Rate  |   |
|--|---|
| <b>Activities that Count Toward Goal</b>   | <b>Recycling:</b><br>Source Reduction<br>Composting<br>Recycling  |
| <b>Activities that Do Not Count Toward Goal</b>                                    | <b>Disposal:</b><br>Landfill (Including Exports)<br>Engineered Municipal Solid Waste (EMSW)<br><b>Disposal-Related:</b><br>ADC / AIC<br>Other Beneficial Reuse<br>All Transformation<br>Waste Tire-Derived Fuel |
| <b>Baseline Waste Generation and Base Years in pounds per person per day (ppd)</b> | 10.7 ppd (1990-2010)  |
| <b>Statewide Disposal Target (ppd)</b>   | 2.7 ppd   |

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## Summary of MSS Recycling efforts over the years

China's policies have affected recycling and diversion rates for the County of Marin and the State of California: however, the MSS Rate regulated recycling rate has been gradually improving despite rising regional disposal increases due in large part to its pursuit of other recycling goals and ongoing attention to outreach & education. Fairfax is the only jurisdiction serviced by MSS that has implemented mandatory recycling and organics service that are more comprehensive than the State Mandates. This has contributed to higher recycling rates than the other MSS service areas as shown in Table 15.

**Table 15: Historical Recycling Rates: County vs. MSS**

| Year | State of California | MSS Rate Regulated | Fairfax Rate Regulated |
|------|---------------------|--------------------|------------------------|
| 2012 | 50%                 | 45%                | 57%                    |
| 2013 | 50%                 | 53%                | 59%                    |
| 2014 | 50%                 | 50%                | 57%                    |
| 2015 | 47%                 | 50%                | 58%                    |
| 2016 | 44%                 | 52%                | 59%                    |
| 2017 | 42%                 | 53%                | 58%                    |
| 2018 | 41%                 | 51%                | 60%                    |

## GLOBAL AND LOCAL IMPACTS OF AB 341: CONTAMINATION AND COMMODITY VOLATILITY

In July, 2012, California established and passed a Statewide goal to reach a 75% recycling rate and passed Mandatory Commercial Recycling legislation (AB 341). At the same time, California was setting higher recycling goals to move more materials from landfills to recycling markets. China, a major market for recyclables in the United States, was passing stricter laws on imports of recycling materials. 'Operation Green Fence' was formally implemented in February 2013, enforcing a 2011 law, and was billed as an aggressive inspection effort aimed at curtailing the amount of contaminated recyclable bales and waste that was being sent to China. China has since implemented an even stricter law known as the National Sword (2017), that will further decrease the contamination rate for mixed paper and other plastics and metals to just 0.05%. Their decision to significantly reduce the amount of contaminated materials they have been receiving has major implications for recycling operations. To keep up with the strict export policies, recycling processors, like the Marin Recycling Center, is having to add costly measures such as increased staffing, slowing of conveyor belts, and the addition of specialized equipment, to guarantee cleaner bales.

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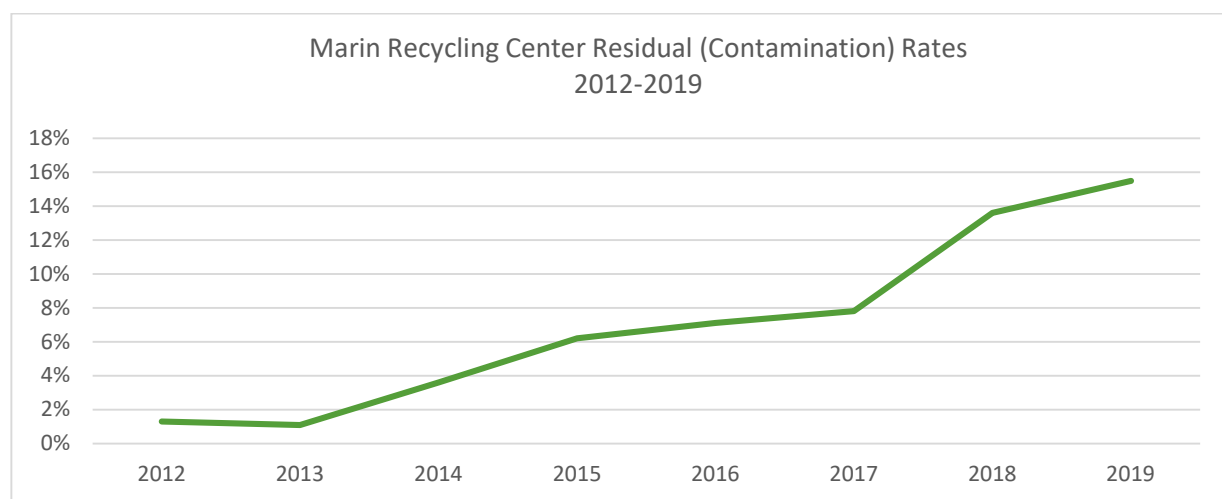
In 2018 & 2019, several other countries followed China’s lead and stopped importing mixed plastics including Malaysia, Indonesia, Thailand and India. Mixed paper loads continue to go unsold and with the rainy season, are being rejected due to high moisture content.

The mandates to remove more materials from the landfill and “wishful” recycling on the part of consumers are leading to more and more contaminants in the recycling stream and a decline in salvage values as more materials are moved to market (Table 16). Figure 3 shows the trends in contamination at the Marin Recycling Center (MRC) from 2012 through 2019. Prior to 2012, the Marin Recycling Center had average residual (contamination) rates of 1%.

**Table 16: Commodity Price Changes 2017-2018 Average Price Per Ton**

| Commodity                   | 2018    | 2019    | % Change |
|-----------------------------|---------|---------|----------|
| Cardboard                   | \$168   | \$100   | -40%     |
| Newsprint                   | \$117   | \$87    | -26%     |
| Office paper                | \$251   | \$168   | -33%     |
| Mixed paper                 | \$28    | \$23    | -18%     |
| Aluminum cans               | \$1,375 | \$1,023 | -26%     |
| Glass                       | \$27    | \$27    | 0%       |
| HDPE #2 natural (jugs)      | \$672   | \$641   | -5%      |
| HDPE #2 color (jugs)        | \$310   | \$249   | -20%     |
| PET #1 (bottles)            | \$262   | \$201   | -23%     |
| Mixed Rigid Plastics (#3-7) | \$0     | \$39    | 100%     |

**Figure 3: Historical Contamination Rates**



## MSS CONTAMINATION MITIGATION EFFORTS

Since April of 2017 when China announced plans to lower the threshold for contamination in bales of recyclables, MSS has been working hard to keep contamination low.

### Operational Improvements

1. MSS continues to identify and exchange broken split carts.
2. Drivers continue to educate customers on what is accepted and prohibited in the recycling containers. Carts that contain contamination are tagged with instructions on the recycling error and how to correct it.
3. Customer Service Representatives and Outreach staff follow-up with all customers identified by drivers as having issues with contamination. Driver tablets help streamline this process. Repeat customers or those with extreme contamination are charged for contaminated carts and bins. The importance of contaminant free recycling carts and bins will require stricter enforcement by MSS in light of what is happening in the Asian commodity markets.

### Outreach Campaigns

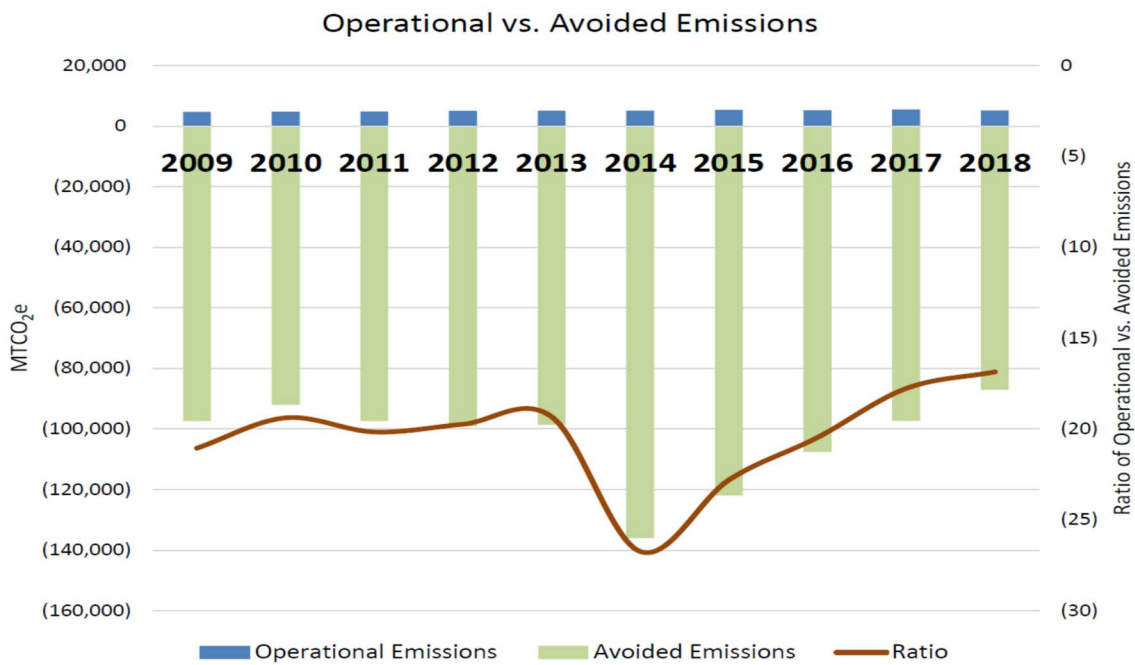
1. Bill inserts continue to be mailed to all customers (single family, multifamily and commercial business).
2. New warning and violation tags were implemented for recycling route drivers to leave with customers. A warning tag means the customer had only minimal contamination that the driver could clean-up in order to empty the container and was left with an educational flyer. A violation means the cart was not emptied due to excessive contamination. To avoid a contamination fee, the customer will have to remove all prohibited items.
3. A webpage was created with information <https://marinsanitaryservice.com/reducing-contamination/>.
4. Customer education is ongoing through the website, the “Where Does it Go Joe” online search tool and social media campaigns.

## Green House Gas Mitigation

### GREEN HOUSE GAS MITIGATION

MSS has been annually tracking its operational emissions since 2006 and its avoided emissions since 2009, and has fully offset its direct emissions, on average 18 times - well beyond Net-Zero! The majority of our emissions are from direct mobile combustion, which includes the on and off-road vehicles. Figure 4 below depicts the history of MSS' avoided emissions and demonstrates how MSS' Net-Zero offsets have been steadily improving.

Figure 4: Emissions Reporting



### Renewable Diesel

In October 2019, MSS switched from clean diesel to renewable diesel in the entire collection fleet. Reduced vehicle emissions from using renewable diesel will allow MSS to instantly reduce its carbon footprint overnight and help meet aggressive Greenhouse Gas (GHG) reductions implemented by the State. The Renewable Diesel for sale in California is derived entirely from waste feedstock sources and offers an immediate 70% reduction in Greenhouse Gas emissions versus petroleum diesel.

The carbon intensity<sub>2</sub> (CI) is calculated through the Low Carbon Fuel Standard (LCFS) and takes into account the GHG emissions associated with all of the steps of producing, transporting, and consuming a fuel—also known as a complete lifecycle. The approved CI for renewable diesels range as low as



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16.89 and as high as 56.57 (or approximately half that of regular diesel). This wide range of carbon intensities is due to variations in feedstock types, origin, raw material production processing efficiencies, and transportation, all of which contribute to an individual producer's fuel pathway CI. To estimate the reduction in greenhouse gas emissions, MSS used a conservative estimate of 30 CI to show the potential impact of this fuel change.

In 2018 MSS consumed 429,435 gallons of ULS Diesel. Using an estimated CI of 30.0, emissions would be reduced by 4,073 MTCO<sub>2e</sub>.

| Diesel LCFS                     |                |                         |
|---------------------------------|----------------|-------------------------|
| Annual Total Fuel:              | 429,435        | Gallons                 |
| Conversion:                     | 127,500        | Btu/gallon              |
| Total energy:                   | 54,752,962,500 | btus                    |
| Conversion:                     | 0.00105587     | MJ/btu                  |
| Total energy:                   | 57,812,011     | MJ                      |
| Carbon Intensity:               | 100.45         | g CO <sub>2e</sub> / MJ |
| <b>MTCO<sub>2e</sub> Total:</b> | <b>5,807</b>   |                         |

| Renewable Diesel (at 30 CI)     |                |                         |
|---------------------------------|----------------|-------------------------|
| Annual Total Fuel:              | 429,435        | Gallons                 |
| Conversion:                     | 127,500        | Btu/gallon              |
| Total energy:                   | 54,752,962,500 | btus                    |
| Conversion:                     | 0.00105587     | MJ/btu                  |
| Total energy:                   | 57,812,011     | MJ                      |
| Carbon Intensity:               | 30             | g CO <sub>2e</sub> / MJ |
| <b>MTCO<sub>2e</sub> Total:</b> | <b>1,734</b>   |                         |

Removing food waste from landfill containers continues to be a priority as it is not only a heavy material, it is the number one cause of GHG emission. By offering two comprehensive organics programs for customers, the municipalities served by MSS are in compliance with AB 1826 (Mandatory Organics Recycling-2016) and are ahead of the curve for compliance with SB 1383 (Short Lived Climate Pollutants-2017).

MSS's partnership with the Central Marin Sanitation Agency allows commercial food waste to be transformed into renewable electricity rather than producing methane at a landfill. At the end of 2019, 225 participants were enrolled and diverted ~2,500 tons of food. This is comparable to removing 5,775 cars from the road annually and has led to 2,229 metric tons of carbon dioxide from being released into the atmosphere (Figure 5).

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Figure 5: F2E Historical Program Data MSS Service Area

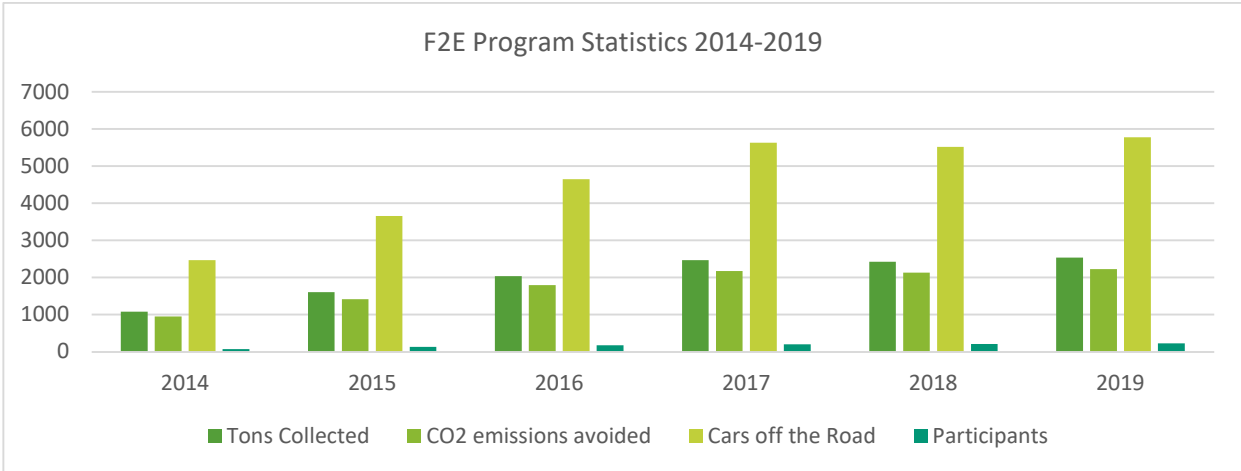


Table 17: F2E Fairfax Participants in 2019

|                         |                   |
|-------------------------|-------------------|
| Mana Bowls              | The Hummingbird   |
| Perry's Deli            | Barefoot Café     |
| Café Lotus              | Fairfax Market    |
| Sorella Café            | Tamal             |
| Grilly's Restaurant     | 123 Bolinas       |
| Red Boy Pizza           | Fradelizio's      |
| The Coffee Roastery     | Care Meridian LLC |
| Taste Kitchen and Table |                   |

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## Fairfax Recycling Rates

### RECYCLING RATES BY WEIGHT AND BY VOLUME

Under the Director of Financial Reporting, we continue to update and fine tune the tonnage reporting system in order to accumulate the most accurate data available. Table 18 shows the tonnage-based recycling rate. Overall, the tonnage-based recycling rate was stable comparing 2019 with 2018 at 60%.

**Table 18: Weight Based Recycling Rates by Sector (tons)**

|                               | Residential  |              | Commercial   |              | Total        |              |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                               | 2019         | 2018         | 2019         | 2018         | 2019         | 2018         |
| <b><u>Tons Collected:</u></b> |              |              |              |              |              |              |
| Curbside Yard Waste           | 1,802        | 1,566        | 95           | 82           | 1,897        | 1,648        |
| Containers Curbside Recycling | 461          | 463          | 171          | 171          | 632          | 635          |
| Paper Fiber Curbside Recycle  | 447          | 445          | 165          | 165          | 613          | 610          |
| Cardboard Curbside Recycle    | -            | -            | 371          | 362          | 371          | 362          |
| Transfer Station              | 1,527        | 1,475        | 938          | 838          | 2,465        | 2,313        |
| Commercial Food Waste (F2E)   | * N/A        | * N/A        | 183          | 131          | 183          | 131          |
| Commercial processed at MRRC  | * N/A        | * N/A        | 217          | 174          | 217          | 174          |
| <b>Total Tons Collected</b>   | <b>4,237</b> | <b>3,949</b> | <b>2,139</b> | <b>1,922</b> | <b>6,376</b> | <b>5,872</b> |
| <b><u>Tons Recycled:</u></b>  |              |              |              |              |              |              |
| Curbside Yard Waste           | 1,802        | 1,566        | 95           | 82           | 1,897        | 1,648        |
| Curbside Recycle              | 908          | 909          | 707          | 698          | 1,615        | 1,607        |
| Commercial Food Waste (F2E)   | * N/A        | * N/A        | 183          | 131          | 183          | 131          |
| Commercial recovered at MRRC  | * N/A        | * N/A        | 141          | 113          | 141          | 113          |
| <b>Total Tons Recycled</b>    | <b>2,710</b> | <b>2,474</b> | <b>1,126</b> | <b>1,024</b> | <b>3,836</b> | <b>3,498</b> |
| <b>Recycling Rate</b>         | <b>64%</b>   | <b>63%</b>   | <b>53%</b>   | <b>53%</b>   | <b>60%</b>   | <b>60%</b>   |
| <b>Landfilled</b>             | <b>1,527</b> | <b>1,475</b> | <b>1,013</b> | <b>898</b>   | <b>2,541</b> | <b>2,374</b> |

\* These are commercial programs not available to residential customers.

## Household Hazardous Waste (HHW) Facility Drop-off Program

All new customers receive a Residential Services Guide that explains the drop-off facility program. A new HHW website ([www.marinhhw.com](http://www.marinhhw.com)) has detailed information on the materials accepted, how to transport materials to the facility, and more. MSS continues to partner with Sustainable Fairfax to get the message out at community events about the use of the HHW drop-off facility. Participation for the drop off program at the Marin Household Hazardous Waste Facility averaged 125 Fairfax participants per month in 2019 (Figure 6).

In 2019, there were 1,506 combined Residential and Commercial Conditionally Exempt Small Quantity Generators (CESQG) participants (Table 19). In 2018, there were 1,430 participants. The main products being collected are latex paint, batteries, and fluorescent tubes and bulbs.

Figure 6: HHW Participation 2019

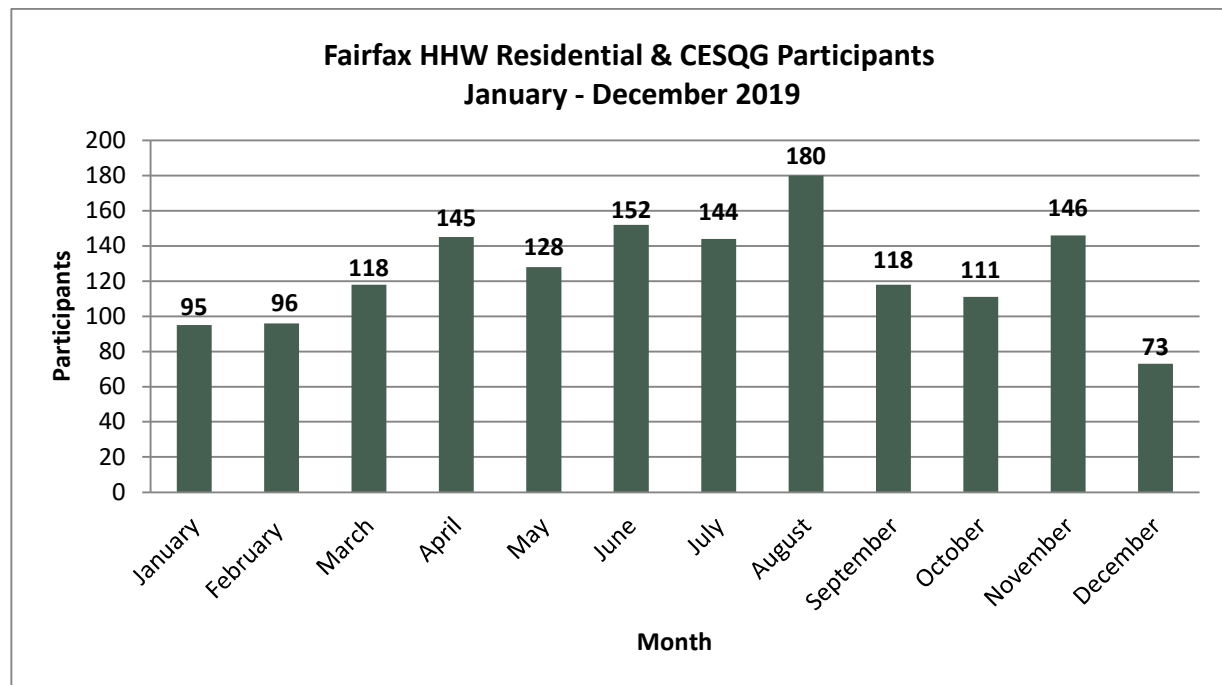


Table 19: HHW Customers by Type

| Customer Type | Participants |
|---------------|--------------|
| Residential   | 1,499        |
| CESQG         | 7            |

## Customer Service Logs

### RESIDENTIAL, MULTIFAMILY AND COMMERCIAL NEW STARTS FOR 2019

Table 20 details the number of new accounts and closed accounts by customer type. All new Residential customers received the Residential Service Guide that explains MSS Curbside collection services and programs, debris box rental and document shredding; Marin Resource Recovery Center drop-off information; Marin Recycling drop-off and buy-back information; and Marin Household Hazardous Waste drop-off information as well as the HHW Curbside Collection Brochure. Commercial and Multifamily new customers received information on MSS Curbside collection services and programs, debris box rental and document shredding; Mandatory Recycling & Organics laws and ordinances; and Marin Household Hazardous Waste drop-off information. In an effort to increase productivity and reduce hold times, MSS implemented an online customer service feature that enables customers to ask questions, make service changes and pay their bills.

**Table 20: New Starts and Account Closures by Type**

| New Starts            |     | Closed Accounts       |     |
|-----------------------|-----|-----------------------|-----|
| Residential           | 204 | Residential           | 183 |
| Multifamily Dwellings | 3   | Multifamily Dwellings | 3   |
| Commercial Business   | 10  | Commercial Business   | 13  |

### AUTOMATIC PAYMENT SERVICES

In an effort to conserve resources, MSS encourages customers to receive their bills electronically and to pay their bills online. This program is gaining in popularity. At the end of 2018 we reached 10,000 participants in our online bill pay programs. MSS also offers automatic payments by credit card or electronic check that is managed by the customer service department for those customers who prefer not to use a web-based service (Table 21).

**Table 21: Automatic Payment Data**

| Online Bill Pay 2018  |     | Automatic Payments not web-based 2018 |     |
|-----------------------|-----|---------------------------------------|-----|
| Residential           | 648 | Residential                           | 111 |
| Multifamily Dwellings | 5   | Multifamily Dwellings                 | 3   |
| Commercial Business   | 21  | Commercial Business                   | 6   |

### CUSTOMER COMPLAINTS

We are proud to report that there are minimal complaint calls from the customers we serve. While service complaints were down significantly, missed collections and broken container calls increased in 2019 (Table 22). In most cases, the drivers were able to empty the missed containers on the same service day or the next business day. All broken containers were either repaired or replaced. Service complaints include calls for carts not being left in the same location, noise, or driver behavior related issues. Each complaint is reviewed by a route supervisor and resolved. Drivers are counseled

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individually to correct service-related issues. In addition, MSS had seven (7) written (letter, email) compliments for MSS staff from Fairfax customers.

**Table 22: Complaint Log by Type 2018 compared to 2017**

| Missed Collections |      | Broken Containers |      | Service Issues |      | Compliments |      |
|--------------------|------|-------------------|------|----------------|------|-------------|------|
| 2019               | 2018 | 2019              | 2018 | 2019           | 2018 | 2019        | 2018 |
| 173                | 185  | 361               | 356  | 11             | 8    | 7           | 6    |

## REPORTS OF INJURIES AND DAMAGE TO PROPERTY

Marin Sanitary Service has an active safety committee that includes owners, supervisors, loss control and insurance personnel that meets monthly to review accidents and injuries. Each department has a tailored safety plan that includes ongoing training and review for new equipment, procedures and all OSHA required safety subjects. Documented employee safety meetings are held daily, weekly, monthly and throughout the year with written agendas and handout materials in all departments.

All accidents and injuries are investigated in an interactive process with the employee to determine what factors caused the event. Details are covered in Table 23. If it is discovered that changes to equipment, procedures, or collection location could prevent a recurrence, corrective action is taken whenever possible. If refresher training is needed, it is addressed with the entire department. Any claim of damage is investigated immediately by supervisors and the safety administrator. If the Company is liable, restitution is made to the owner/customer by either repair at the Company's expense or payment to the owner/customer. Liable automobile damage is repaired by a reputable, local business and a rental is provided if needed, or payment is made if the owner/customer prefers. Work comp claims increased due to repetitive lifting of customer owned yard waste cans.

**Table 23: Injuries, Accidents and Workers Compensation Claims in Fairfax**

| Reportable Event                    | Description  | 2019 Totals | 2018 Totals |
|-------------------------------------|--|-------------|-------------|
| <b>Preventable Damage Event</b>     | Property or vehicle damage determined the fault of MSS driver.   | 2           | 5           |
| <b>Non-preventable Damage Event</b> | Not due to driver negligence and not fault of any other party. Trees/wires snagged that are lower than allowed or damage that driver could not have avoided, malfunctioning gates closing on trucks, gate blowing shut, etc. | 1           | 2           |
| <b>Work comp injuries</b>           | Injuries on the job defined by OSHA as work related.   | 2           | 4           |
|                                     | <b>GRAND TOTAL</b>   | 5           | 11          |

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