

TOWN OF FAIRFAX STAFF REPORT April 7, 2021

TO: Mayor and Town Council

FROM: Garrett Toy, Town Manager

SUBJECT: Receive Marin Sanitary Service Annual Report 2020

RECOMMENDATION

Receive the report.

DISCUSSION

Attached is the Annual Report from Marin Sanitary Service for the Council's review and acceptance. The report covers the calendar year 2020.

ATTACHMENT

Marin Sanitary Service Annual Report 2020



FOR CALENDAR YEAR 2020

Contents

Operational Improvement	3
Public Outreach & Education	5
Residential Programs	11
Commercial and Multifamily Programs	14
Mandatory Commercial Recycling and Composting Compliance	16
Diversion, Recycling, and Global Impacts of State Mandates	18
Green House Gas Mitigation	26
Fairfax Recycling Rates	30
Household Hazardous Waste (HHW) Facility Drop-off Program	31
Customer Service Logs	32
Contact Information.	34

Operational Improvement

OPERATIONAL EFFICIENCY

Marin Sanitary's (MSS) attention was dominated by COVID-19 in 2020. As the company focused on the essential nature of picking up waste produced by customers, their priorities became the health and safety of the community and MSS employees. Due to the shelter-in-place orders, the company was faced with a shift in what was being collected and where we were collecting it. Commercial businesses shut down and residents stayed home generating more waste at the curbside. With residents at home, they also seemed to do more yard work and produced significantly more organics throughout the year. During this time, MSS was able to continue collection without any delays. With more people at home, the company also saw participation in the curbside clean-up program almost double.

MSS is proud of the efforts of employees and staff to ensure that trucks were able to be out in the community every day continuing to pick up waste. MSS was able to maintain recycling programs with the sorting operations continuing even during the height of the pandemic. MSS has been fortunate enough to have minimal impact from COVID-19 among the drivers allowing for the continuation of the collection operation.

Going into the 2021 year, MSS will be refocusing on the efficiency of operations with an emphasis on routing. The MSS route auditor will be ensuring the company is running the best routes possible. MSS will continue to use RouteSmart, a routing software, coupled with the experience of the management team to maximize routing efficiency.

ROUTING UPDATES

Route Productivity

During 2020, no re-sequencing or re-routing was necessary. In 2019 MSS added a helper to the organics route to assist with the extra customer owned carts three days a week. Toward the end of 2020, the organics route was converted from a rear loader truck to a fully automated side loader for pickup of compostable materials (yard waste, food scraps and food soiled paper). This allowed elimination of one extra helper improving truck hours while maintaining efficiency and protecting the safety of our drivers. In 2019, there were a total of 465 customer owned extra yard waste cans placed out for service each week. In 2020, MSS in collaboration with the Town transitioned to the use of only MSS provided wheeled tipper carts. Customers have an option to receive one additional 35 or 64 gallon in addition to the one already provided with the bundled service for a total of two. This eliminated customer owned extra organics cans and bags placed out for service. This transition to MSS wheeled tipper carts will protect the safety of the drivers and reduce injuries by utilizing the automated side loader trucks. Customers in the Town were provided with literature educating them on new requirements of proper use of only MSS provided wheeled tipper carts. There was a total of 741 customers who added one additional 64-gallon organics cart; these additional carts are included in the bundled rate. Customers also have an option to rent up to four 64-gallon organic carts in addition to the two provided with their service. As of the end of 2020, 162 customers have added organic cart rentals in addition to the bundled service.

Route Audits

Due to the COVID-19 pandemic commercial and residential auditing did not occur. Many commercial accounts were suspended during shelter-in-place orders and therefore MSS determined to wait until services returned to normal before continuing with commercial audits. Residential audits were not completed in the effort to minimize health concerns from COVID-19.

Scheduled Curbside Clean-up Program

Scheduled curbside clean-up offers residential customers an opportunity to set out additional recycling, yard waste and landfill waste twice per year. During 2020, participation almost doubled in this program. During Spring of 2020, an estimated 2,095 of residential customers participated compared to 990* in 2019. During Fall of 2020, there was an increase in participation from an estimated 525 residential customers in 2019 to 1,645 customers.

This program is advertised with each customer receiving an insert 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. This program runs ten consecutive weeks, Monday-Friday in the spring and fall each year.

^{*2019} number of 990 is a revised number from last year's report.

Public Outreach & Education

OUTREACH AND EDUCATION SERVICES

At Marin Sanitary Service, the company's mantra is community involvement through education, outreach and alliance building and supports the company's goal of conservation. MSS's duty is to engage and educate the community on how they too can be part of the solution. 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	Outreach Manager	Jennifer.Grenier@marinsanitary.com	Large Commercial Businesses and C&D Programs
Ruben Hernandez	Recycling Programs Coordinator	Ruben.Hernandez@marinsanitary.com	Food to Energy and Commercial Organics
Andy Buck	Recycling Programs Coordinator	Andy.buck@marinsanitary.com	Multifamily Dwellings
TBD	Schools & Community Outreach Recycling Programs Coordinator	TBD	All schools and Community Organizations
Kathy Wall*	HHW Program Manager	Kathy.Wall@marinsanitary.com	HHW Programs
*Position funded through the JPA			

4R PLANET SCHOOL PROGRAM AND TOURS

Shifting away from in-person outreach, MSS offered virtual tours with educational pre-tour lessons as well as remote learning resources for elementary, middle and high school students. 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).

OUTREACH MATERIALS AND COMMUNITY EVENTS

Public information and education in Fairfax during 2020 went virtual. MSS was able to pivot the customer appreciation event, which normally includes education and tours of MSS facilities, to an online virtual event. MSS provided virtual tours and encouraged residents to use the Where Does It Go Joe application to learn more about how to properly recycle specific items.

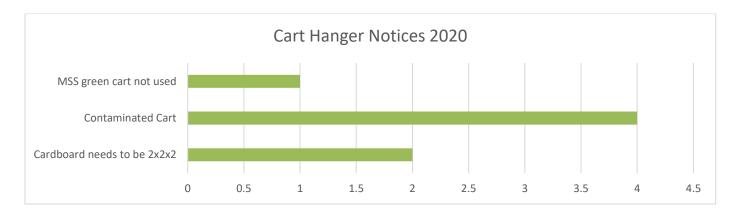
MSS also focused much of their outreach on the new Fairfax curbside organics program which discontinued collection of customer-owned carts, but allowed residents to order additional MSS organics carts.

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

Outreach Type	Total
Billing Inserts	27
Cart Hangers	7
Virtual Community Events	2
Newsletters	2

Another important customer communication piece is the cart hanger notice. Drivers leave cart hangers on containers to notify customers of any issues they observe. 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 2020 down from 44 in 2019. All customers received a phone call from customer service to educate them on proper sorting practices.

Figure 1: Reasons for Leaving Cart Hanger Notices

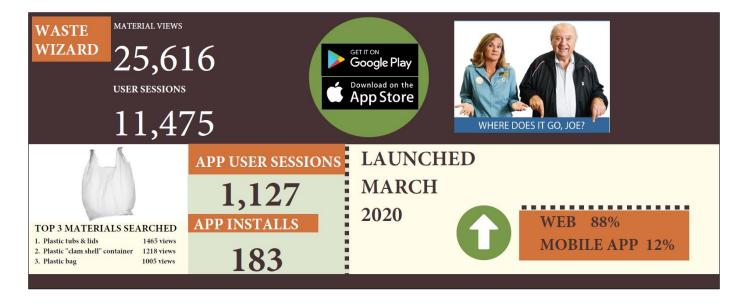


Virtual Outreach

Prior to COVID-19, MSS was working toward more virtual means of communication and education to the public. With printed materials, MSS is limited in their ability to monitor what is received and to understand the effectiveness of these communications. With social media, email communication and the MSS website, the company is now able to track who is reading company messaging and engage more effectively with customers in many new ways. COVID-19 helped to speed up some of the company's efforts for virtual communication. MSS took tours online, put more focus on social media posts and messages and was able to launch the "Where Does it Go Joe" app for mobile phones. In addition, MSS now has a chat feature available on the website to help make the customer experience even better.



Where Does it Go Joe was launched in 2019 on the MSS website. MSS has seen great utilization of this tool. In 2019, MSS had approximately 5,500 people visit this page on the site. In 2020, that almost doubled to 10,600 visitors. MSS had 183 installs of the app in 2020. Below, is the breakdown of usage for the online and mobile version of the Where Does It Go Joe app.



MSS continues to research better ways to message to and educate customers. This year will put more focus on virtual communication and move away from sending out paper inserts. MSS is looking at how to utilize more email communication and is also considering an upgrade to the Where Does It Go Joe app that will provide a calendar feature which would include messaging and push notifications to the customer through this platform.

Website

The MSS website (www.marinsanitaryservice.com) is a primary means of communication. Here MSS provides all service offerings, regulatory requirements, educational materials and contact information. MSS also hosts a blog on the site and allows customers to request services through the site. MSS had 109,000 users visit last year with 57% accessing the site via their computer and 43% by phone or tablet. In addition to the MSS website, there are separate websites for the other Marin Sanitary facilities, Marin Recycling Center (www.marinrecycling.com) and Marin Resource Recovery (www.marinresourcerecoverycenter.com).



Social Media Presence

- □ MSS has grown its social media presence across multiple platforms:
 - Facebook (https://www.facebook.com/marinsanitary)
 - Twitter (@mssrecycles)
 - Instagram (@mssrecycles)
 - You Tube Channel (https://www.youtube.com/user/MSSoutreach)



FOLLOWERS

570_{Dec 20}



POSTS

103

Top Post Topics

- 1. Zero waste during COVID
- 2. Community tours
- 3. Contests

PEOPLE REACHED

The net number of people who saw our content at least once.

14.7K



3,681



ENGAGEMENT

The net number of times people engaged with our posts through reactions, comments, shares and clicks.

REACTIONS



1,379

The net number of post reactions: Like, Love, Haha, Wow, Sad or Angry.

COMMENTS



113

The net number of comments on our posts.

SHARES



195

The net number of times our posts were shared.

Marin Sanitary Service conservation – our earth, our mission, our job



FOLLOWERS

841 Dec 20

472 Jan 20

POSTS

103

Popular Topics

- Zero waste during COVID
- Community tours
- Contests

PEOPLE REACHED

The net number of people who saw our content at least once.

16K

Up 113% from previous year

2,202



ENGAGEMENT

The net number of times people engaged with our posts through likes, comments, and shares and saves.

LIKES

ES COMMENTS



1,891



60

SHARES



251



SAVES

51



Residential Programs

RESIDENTIAL SERVICE LEVELS

There are 2,511 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 up to two green organics cart. The bundled rate is based on the size of the landfill cart. Below (*Table 3*) are the residential cart subscription levels for year end 2020 compared to year end 2019. The three services cart subscriptions have stayed flat in 2019 compared with the previous year.

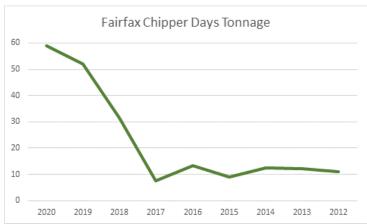
Table 3: Residential Landfill Cart Subscriptions & Residential Recycling & Organics Cast Subscriptions

Residential Weekly Garbage Service			
CART size Number of customers			
CART SIZE	2020	2019	% Change
20 gallon	660	663	0.45%
32 gallon	1644	1,688	2.61%
64 gallon	180	180	0.00%
96 gallon	14	14	0.00%
Total	2498	2,545	1.85%
	Residential Weekly Dua	al Sort Recycling Servi	ice
CART size	Number of customers		
CART SIZE	2019	2019	% Change
5 gallon	35	42	16.67%
64 gallon	2,380	2,397	0.71%
96 gallon	110	110	0.00%
Total	2,525	2,549	0.94%
	Residential Week	ly Green Waste Servic	e
CART size	Number of customers		
CART SIZE	2019	2019	% Change
32 gallon	164	164	0.00%
64 gallon	2,330	2,454	5.05%
96 gallon	29	29	0.00%
Total	2,523	2,647	4.68%

CHIPPER DAYS

Marin Sanitary Service partnered with the Town of Fairfax and Ross Valley Fire Department on the 7th 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*).





COMMUNITY COMPOST AVAILABILITY

Per the contract with the Town, MSS will deliver up to a total of sixty cubic yards of compost material to a designated bunker for distribution to the citizens of the town. During 2020, forty-five cubic yards were requested and delivered to the Town.

CURBSIDE CLEAN-UP PROGRAMS



In 2016, the Town added two new curbside clean-up programs for residents (*Table 4*). Participation in the program and tonnage collected and diverted increased in 2020. (*Table 5*).

Table 4: 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.	SAVE THE DATES: Spring Clean-up: May 4-8, 2020 Fall Clean-up: 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 5: Clean-Up Data 2020 and 2019

Tons C	ollected	Tons I	Diverted
2020	2019	2020	2019
41.22	33.29	24.73	19.97

Commercial and Multifamily Programs

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
- \Box 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

- \Box 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 an ongoing process. MSS has three full-time recycling coordinators working with businesses and apartment buildings. New businesses, existing businesses and their employees are educated about recycling requirements, opportunities and are encouraged to divert even more resources from the landfill.

MSS works 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 6* shows the number of commercial and multifamily dwellings who are compliant with the Town's recycling ordinance. There is one commercial business who is not recycling.

Table 7 shows the number of MFDs and commercial businesses who have organics service. Of the seventy-seven commercial businesses, forty are currently compliant by subscribing to one of our programs, sharing services, or self-hauling. Twenty of the businesses are enrolled in the Commercial Compost program and eight restaurants or senior rehabilitation centers are enrolled in the Food to Energy (F2E) program. Twenty-five multifamily dwellings (apartments with four or more units) have organics composting service. Three are non-compliant with the Town's ordinance.

Table 6: Recycling Compliance: businesses and multifamily dwellings

Customer Type	NOT compliant	Compliant	Grand Total
Multifamily Dwelling	0	27	27
Commercial Business	1	76	77
Total	1	103	104

Table 7: Organics Compliance: businesses and multifamily dwellings

Customer Type	NOT compliant	Compliant	Grand Total
Multifamily Dwelling	3	25	28
Commercial Business	17	40	57*
Total	20	65	84

^{*}MSS alerted all customers to the ordinance, and presume that 20 are exempt (due to only having a 32 or 64g. garbage cart) but are not yet officially exempted by the Town.

COMMERCIAL AND MULTIFAMILY OUTREACH, EDUCATION AND MONITORING

Having specialized recycling program coordinators has allowed MSS to streamline and individualize outreach coordinator's efforts for the variety of customers in the commercial sector. Assessments of the customers' waste stream are then used to tailor a waste management program that best suits specific business types. The Operations and Outreach staff use this data to create a comprehensive diversion plan. Once recycling and organics services are established, the teams work to "right size" the landfill service which often results in a decrease in their overall invoice.

Table 8: Commercial/Multifamily Dwellings Outreach by Type January-December, 2020

Cor	mpliance ter	Phone Call/ Email	Onsite Education & Training	Site Visit Monitoring		Service Assess/ Plan
	35	104	8	14	8	6
						Grand Total
						175

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 9* details the State diversion goals and activities that contribute to it.

Table 9: State Diversion Goal: AB 939 (1989)

AB 939 State Goal: 50 Percent Diversion from the Landfill (Jurisdictional Mandate)		
Activities that Count Toward Goal	Diversion:	
	Source Reduction	
	Composting	
	Recycling	
	ADC	
	AIC	
	Other Beneficial Reuse	
	Transformation Credit	
Activities that Do Not Count Toward Goal	Disposal:	
	Landfill (Including Exports)	
	Some Transformation	
	Engineered Municipal Solid Waste (EMSW)	
	Green Waste ADC (Beginning in 2020)	
Baseline Waste Generation and Base Years in	12.6 ppd (2003-2006)	
pounds per person per day (ppd)		
Statewide Disposal Target	6.3 ppd	
in pounds per person per day (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 10 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. Diversion rates have been decreasing for the past several years despite state and local recycling mandates and efforts.

Table 10: Marin County Historical Diversion Rates

Year	Diversion Rate
2012	75%
2013	74%
2014	75%
2015	74%
2016	70%
2017	69%
2018	66%
2019	Number not available from JPA
2020	Number not available from JPA

RECYCLING RATES

The State set a goal to recycle 75 percent 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 11*. 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.

Table 11: AB 939 Definition of Recycling

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

Summary of MSS Recycling efforts over the years

MSS continues to be a leader in the separation and recovery of materials. Dual-stream recycling has proven to be an effective method of keeping clean materials that are highly desired in the recycling market. This has allowed MSS to continue to see increases in recycling while the State of California has seen a decrease in the recovery of materials. Recycling in Fairfax continues to be strong with 2020 recycling rates matching those of 2019. *Table 12* provides the most recent numbers provided for the state, county and Fairfax.

Table 12: Historical Recycling Rates: County vs. MSS

Year	State of California	MSS Rate Regulated	Fairfax 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%
2019	37%	54%	60%
2020	Not Available	Not Available	Not Available

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

As California established and passed a Statewide goal to reach a 75 percent recycling rate and passed Mandatory Commercial Recycling legislation (AB 341)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 percent. Their decision to significantly reduce the number 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, has had to add costly measures such as increased staffing, slowing of conveyor belts, and the addition of specialized equipment, to guarantee cleaner bales.

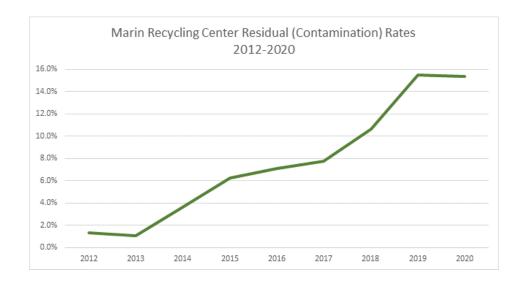
In 2018 & 2019, several other countries followed China's lead and stopped importing mixed plastics including Malaysia, Indonesia, Thailand and India. Mixed paper loads continue to go unsold and with the rainy season, are being rejected due to high moisture content. Markets continue to be impacted by these shifts in demand. While China continued to receive limited cardboard bales through 2020, they have declared that they will not longer accept cardboard imports as of 2021. MSS was delivering cardboard to China in 2020 and has had to find other outlets for this material. MSS have been fortunate, based on the reputation of high-quality bales, to find recyclers in other Asian markets who are willing to take MSS's high quality materials. Commodities such as cardboard and mixed paper have started to recover from some of the lows that MSS saw in 2018 and 2019. However, other materials, such as plastics have seen a large decline in value from 2019 (*Table 13*).

Table 13: Commodity Price Changes 2019-2020 Average Price Per Ton

Commodity	2019	2020	% Change
Cardboard	\$ 100.00	\$ 131.69	24%
News Paper	\$ 87.00	\$ 85.23	-2%
Office Paper	\$ 168.00	\$ 172.55	3%
Mixed Paper	\$ 23.00	\$ 41.67	45%
Aluminum Cans	\$ 1,023.00	\$ 812.00	-26%
Glass	\$ 27.00	\$ 27.00	0%
HDPE # 2 natural (jugs)	\$ 641.00	\$ 893.00	28%
HDPE # 2 colors (jugs)	\$ 249.00	\$ 154.00	-62%
PET # 1 (bottles)	\$ 201.00	\$ 104.00	-93%
Mixed Rigid Plastics			
(#3-7)	\$ 39.00	\$ 39.00	0%

In addition to the impacts on the markets, recycling continues to be impacted by contamination from wishful recycling. Our recyclable material loads continue to be filled with contamination due to paper and plastic items that are not recoverable and do not belong in the recyclables stream. *Figure 3* shows the trends in contamination at the Marin Recycling Center (MRC) from 2012 through 2020.

Figure 3: Historical Contamination Rates



MSS CONTAMINATION MITIGATION EFFORTS

Contamination impacts both recyclables and organics. Organics for the most part are clean, with the majority of contamination coming in the commercial food waste collected with our F2E program. During the fall of 2020 MSS saw a large increase in contaminants as restaurants opened back up. In November MSS stepped up outreach and monitoring of contaminated loads to ensure that MSS was meeting the requirements of the Central Marin Sanitation Agency.

Recyclable material contamination is mostly impacted by the effort of customers to recycle plastic waste. Most plastics are not recoverable in curbside collection programs. This is due to the large number of variations in plastic resins and additives. There continues to be misconceptions about these materials being recoverable. By volume they make up a large portion of the load and create challenges for our sorters.

Outreach has been most effective at the individual level. Drivers who come across contaminated loads take pictures and these are entered on the customer account. Customers are contacted and educated on the contamination and what is and is not acceptable in the recyclables cart. Repeat offenders are removed from the program if they are not able to clean up their recyclables.

MSS educational campaigns have focused on what is recyclable and not. In 2021 MSS plan to target specific issues such as non-recoverable plastics and other contaminates that are regularly seen in the recyclables cart.

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.

Outreach Campaigns

- 1. A webpage was created with information https://marinsanitaryservice.com/reducing-contamination/.
- 2. Customer education is ongoing through the website, the "Where Does it Go Joe" online search tool and social media campaigns.
- 3. This year a number of inserts were sent to customers in an effort to better educate on acceptable items. Inserts are included below:

CONTAMINATION RATES ARE HIGH AND WE NEED YOUR HELP!

WHAT IS CONTAMINATION?

Anything you put in your recycling cart that DOES NOT belong there.

WHAT ARE THE CONSEQUENCES OF CONTAMINATION?

- Your cart may not be emptied and you could be charged a fee to have the cart emptied as garbage instead.
- Processing costs become higher when there is more "trash" to remove.
- Less recycling is recovered and recycling rates go down.

Please take the time to learn what can be recycled by visiting our website **www.marinsanitaryservice.com** or calling customer service (415) 456-2601.



SPRING COM-MFF 2020 #A08302

CURBSIDE SERVICE RULES

- **1.** Place all carts at the curb before 6:00 am the day of service. (Certain areas of Fairfax may be required to place carts at the curb the night before.)
- **2.** Cart lids must always be closed to prevent spillage. If your cart is consistently overloaded, consider upgrading to a larger cart size.
- **3.** Consistently contaminated or overloaded carts may result in fees.
- **4.** Remove any weights, bungees, or ropes that were used to secure the lids of carts before collection.



5. Place carts two (2) feet apart from each other and anything else that could interfere with the tipper arms on the trucks. Place carts with handles facing away from the street. While we realize this may not always be possible, we appreciate your effort.

see reverse

CURBSIDE SERVICE RULES

- **6.** Fees apply for extra bags of garbage and overloaded carts. Bags must be less than 60 pounds and limited to 32 gallons.
- **7.** You can rent extra yard waste or recycling carts for a nominal fee.
- **8.** If you have a large item that requires a special pick-up, please contact us at least 24 hours prior to your service day. Fees may apply.
- **9.** Missed collections must be reported within 48 hours of the service day. Misses reported after 48 hours will be subject to a fee for an off-day collection.
- **10.** We cannot collect any hazardous, biological, medical wastes (including needles), dirt, rock, tires, construction materials, hot ashes or tree stumps in your carts.
- **11.** We cannot be responsible for items left in, on, or around garbage, recycling, or compostables containers.



www.marinsanitaryservice.com SPRING 2020 #A08301



DON'T FORGET TO ADD FOOD SCRAPS!

COMPOST FOOD SCRAPS & FOOD SOILED PAPER

Put your food scraps and food-soiled paper in with yard waste in your green compostables cart so it can be turned into rich, organic compost!

Please NO PLASTIC BAGS NO DIAPERS NO PET WASTE NO COMPOSTABLE PLASTICS

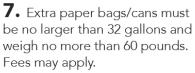


WE WANT YOUR YARD WASTE BUT THERE ARE A FEW RULES

- **1.** Lids must close completely no overloading.
- **2.** Carts must be easy to move and not overweight (no dirt, rock, lumber, sand or tree trunks).
- **3.** Please no bamboo, palm fronds, yucca or poison oak. These may be placed in your landfill cart.
- **4.** No pet or human waste.
- **5.** No plastic bags.











Customer Service: (415) 456-2601 www.marinsanitaryservice.com

SPRING 2020 #A08305

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.

Operational vs. Avoided Emissions 20,000 0 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Ratio of Operational vs. Avoided Emissions (20,000)(10)(40,000)(60,000) MTCO,e (80,000)(100,000)

Figure 4: Emissions Reporting

RENEWABLE DIESEL

(120,000)

(140,000)

(160,000)

In October 2019, MSS switched from clean diesel to renewable diesel for the entire collection fleet. Reduced vehicle emissions from using renewable diesel have allowed MSS to instantly reduce its carbon footprint 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 percent reduction in Greenhouse Gas emissions versus petroleum diesel.

Operational Emissions

Avoided Emissions

(25)

(30)

Ratio

The Carbon Intensity (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

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 MTCO2e (*Table 14*).

Table 14: Diesel vs. Renewable Diesel Emmissions

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 ₂ e / MJ				
MTCO ₂ e Total:	5,807					

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 ₂ e / MJ			
MTCO ₂ e Total:	1,734				

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. During 2020, 230 participants were enrolled in our Food-2-Energy program and approximately 1,900 tons of food was diverted. This is comparable to removing 4,336 cars from the road annually and has prevented approximately 1,674 metric tons of carbon dioxide from being released into the atmosphere (Figure 5). Participation was down in 2020 due to restaurant closures associated with COVID-19 shelter-in-place orders.

Green House Gas Impacts from Diverting Food from the Landfill 2014-20202 7000 6000 5000 4000 3000 2000 1000 0 2014 2015 2017 2018 2019 2020 2016 ■ Tons Collected C02 Emissions Avoided ■ Cars off the Road

Figure 5: F2E Historical Program Data MSS Service Area

F2E program impacts on GHG

SB 1383 goes into effect January 1, 2022 and MSS is deep into planning and preparation for the roll-out of this new regulation. In 2021, MSS will be making routing changes to accommodate the additional organic waste that is anticipated and will continue outreach to customers to prepare them for these new requirements.

Throughout 2019 MSS efforts have focused on AB 1826 compliance and compliance with the Town's mandatory recycling ordinance. Removing more organics from the landfill will continue to have an impact on GHG caused as this material breaks down in the landfill. Continued partnerships with Waste Management's Redwood Landfill for composting our organic waste volumes and with Central Marin Sanitation Agency for our commercial food waste has allowed MSS to remain on the forefront of organic waste diversion.

Table 15 details the Fairfax customers participating in F2E and organics services.

Table 15: Fairfax F2E and Organics Participants in 2020

F2E Participants	Commercial Organics Participants	Commercial Organics Participants
Perry's Deli	Woodtown Sports	Daycaring Preschool Inc
Café Lotus	Deer Park Villa	Marin Stables
Sorella Café	Fairfax Lumber	Way Station
Barefoot Café	White Hill Middle School	Wu Wei Tea Temple
Red Boy Pizza	St. Rita's Church	Fairfax Scoop
The Coffee Roastery	Canon Swim & Tennis Club	Mas Masa
Fairfax Market	Manor Elementary School	The Lodge
The Hummingbird	Marin Town & Country Club	Ross Valley Chiropractic
Fradelizio's	Children's Center Fairfax	Bolinas Partner LLC
Care Meridian LLC	Ezazi & Associates	Ross Valley Charter School
Grilly's *	Baywood Canyon Pool	Stillwater
123 Bolinas *	Meadowland of Marin	Gestalt Haus
* Closed in 2020	Marin County Library	Fairfax Theater **
	The Coffee Roastery	** Temporarily Closed

Fairfax Recycling Rates

RECYCLING RATES BY WEIGHT AND BY VOLUME

Table 16 shows tonnage-based recycling rate. Overall, the tonnage-based recycling rate was stable comparing 2020 with 2019 at 60 percent.

Table 16: Weight Based Recycling Rates by Sector (tons)

Fairfax (2020 & 2019 Tons)

	Reside	ntial	Commercial		Total	
Tons Collected:	2020	2019	2020	2019	2020	2019
Curbside Yard Waste	1,821	1,802	96	95	1,917	1,897
Containers Curbside Recycling	472	461	175	171	647	632
Paper Fiber Curbside Recycle	422	447	156	165	578	613
Cardboard Curbside Recycle	=	-	344	371	344	371
Transfer Station	1,532	1,527	771	938	2,303	2,465
Commercial Food Waste (F2E)	* N/A	* N/A	110	183	110	183
Commercial processed at MRRC	* N/A	* N/A	251	217	251	217
Total Tons Collected	4,247	4,237	1,903	2,139	6,150	6,376
Tons Recycled:						
Curbside Yard Waste	1,821	1,802	96	95	1,917	1,897
Curbside Recycle	894	908	675	707	1,569	1,615
Commercial Food Waste (F2E)	* N/A	* N/A	110	183	110	183
Commercial recovered at MRRC	* N/A	* N/A	163	141	163	141
Total Tons Recycled	2,715	2,710	1,044	1,126	3,760	3,836
Recycling Rate	64%	64%	55%	53%	61%	60%
Landfilled	1,532	1,527	858	1,013	2,390	2,541

^{*} 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) 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 115 Fairfax participants per month in 2020 (*Figure 6*).

In 2019, there were 1,506 combined Residential and Commercial Small Quantity Generators (SQG) participants (*Table 16*). In 2020, there were 1,578 participants. The main products being collected are latex paint, batteries, and fluorescent tubes and bulbs.

Figure 6: HHW Participation 2020

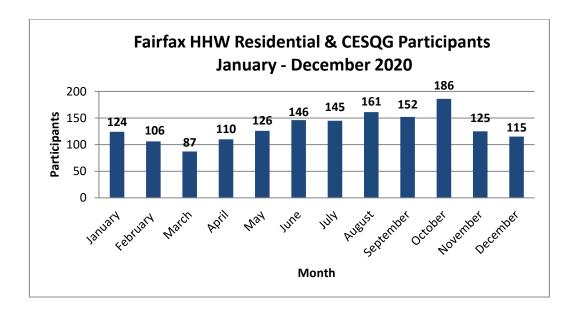


Table 16: HHW Customers by Type

Customer Type	Participants
Residential	1,499
SQG	7

Customer Service Logs

RESIDENTIAL, MULTIFAMILY AND COMMERCIAL NEW STARTS FOR 2020

Table 17 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 17: New Starts and Account Closures by Type

New Starts		Closed Accounts	
Residential	238	Residential	222
Multifamily Dwellings	3	Multifamily Dwellings	5
Commercial Business	14	Commercial Business	29

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 2020 MSS reached 605 Fairfax 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 18*).

Table 18: Automatic Payment Data

Online Bill Pay 2020		Automatic Payments not web-based 2020	
Residential	585	Residential	41
Multifamily Dwellings	2	Multifamily Dwellings	2
Commercial Business	18	Commercial Business	6

CUSTOMER COMPLAINTS

During 2020, there was a slight increase in complaint calls from the customers MSS serves. Missed Collections increased from 173 to 246 and broken carts increased from 361 to 400 (*Table 19*). We attribute this increase in missed collections to more residents working from home, forgetting to put out their carts and calling us stating it was a missed pick up. 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 individually to correct service-related issues. In addition, MSS had twenty-three written (letter, email) compliments for MSS staff from Fairfax customers, which is an increase from 2019's total of seven.

Table 19: Complaint Log by Type 2020 compared to 2019

Missed Collections Broken Containers		Service Issues		Compliments			
2020	2019	2020	2019	2020	2019	2020	2019
246	173	400	361	14	11	23	7

REPORTS OF INJURIES AND DAMAGE TO PROPERTY

Marin Sanitary Service has an active safety committee that includes owners, supervisors, loss control and insurance personnel who meet 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 20*. 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.

Table 20: Injuries, Accidents and Workers Compensation Claims in Fairfax

Reportable Event	Description	2020 Totals	2019 Totals
Preventable	Property or vehicle damage determined the fault of	4	2
Damage Event	MSS driver.		
Non-preventable	Not due to driver negligence and not fault of any	0	1
Damage Event	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.		
Work comp	Injuries on the job defined by OSHA as work related.	3	2
injuries			
	GRAND TOTAL	7	5

Contact Information

Justin Wilcock	Jason Raleigh	Patty Garbarino
Director of General Operations	CFO	President
Tel 415-456-2601	Tel 415-456-2601	Tel 415-485-5648
Justin.wilcock@marinsanitary.com	Jason.raleigh@marinsanitary.com	Patty.garbarino@marinsanitary.com