



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

# 2022 SERVICE AREA ANNUAL REPORT

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## Summary

In 2022 Marin Sanitary Service's (MSS) primary focus was the implementation of SB 1383 and supporting jurisdictions with the adoption of ordinances and contract amendments. These changes reflect the company's new requirements around education and compliance with this monumental state law. The company had an aggressive public outreach campaign which included general messaging to residents, businesses, and multi-family properties. Messaging was provided in print, billing inserts, electronic and in-person. On route auditing in the community commenced in 2022 and led to discussions on local social media about why people were looking through containers. This concerned dialogue helped to spread information to the public and many community members joined the conversation with additional education and support for these new programs. The company remains confident in the current roll-out plan and was pleased to see CalRecycle work in better collaboration with haulers and jurisdictions to implement this law.

2022 was also a year of new innovation for the company with two new machines installed. The Tiger depackaging unit will help with SB 1383 compliance allowing grocery stores and food producers to recover organic material previously landfilled because of the difficulty of removing packaging. This will lead to an expansion of the Food 2 Energy (F2E) partnership with the Central Marin Sanitation Agency (CMSA) and increased energy production from recovered organic material. The company remains proud of its efforts to conserve valuable resources for the community. The second machine, a TOMRA optical sorter, will help ensure even cleaner bales of recycled paper further solidifying Marin Sanitary as a producer of valuable, recyclable materials. The company moves into its 75th year poised to continue as a community partner in resource conservation.

# Operational Improvement

## OPERATIONAL EFFICIENCY

MSS continues to focus on ensuring routes are optimized for efficiency. This is accomplished with the route auditor and routing software reviewed by the routing manager and program development manager. Route efficiency requires regular review and updating to account for changing services, updated equipment, and personnel changes. One main focus of 2022 was continuing efforts to ensure organic routes can absorb increased customers and material anticipated with SB 1383. During 2022, 223 commercial customers added organic services generating an estimated 10 additional tons of material.

## ROUTING OPTIMIZATION

RouteSmart integrates with Softpak’s MobilePak routing software to develop and deliver optimized routes to the driver’s tablet. Through this program, MSS has been able to solve complex routing challenges while enhancing safety and improving efficiency.

**Table 1: Routes and Employee Breakdown**

<b>Collected Material</b>	<b># of Routes</b>	<b># of Employees</b>
Landfill	18	21
Recycling	18	18
Organics	10	10
Food Waste (F2E)	1	1
<b>Totals</b>	<b>47</b>	<b>50</b>

## ROUTING COLLECTION CHANGES

### **Commercial Organics**

RouteSmart allows users to develop route scenarios as service needs change. RouteSmart was used to develop new commercial organics routes accommodating for SB 1383 customer increases.

Approximately 350 commercial customers still need to add organic service and RouteSmart will aid in adding these additional organics customers to existing routes.



### **Commercial Recycling**

MSS added a fourth Commercial Recycle truck for two days a week service in 2022 to collect an increase of material expected from implementing SB 1383 regulations. This new truck also allows for a pure commercial recycling account which provides for better data integrity.

### **CART DELIVERY AND REMOVAL/INVENTORY MAINTENANCE**

All cart delivery and removal work orders are performed by dedicated cart route drivers. Delivery and removal work orders are added to the driver's tablet, and sequenced for optimal vehicle routing. The cart route driver works closely with the dispatcher to ensure all work orders are closed each day in preparation for running a container inventory report. Cart exchanges continued to be hindered by supply chain issues. The company is still working with vendors to deal with material and labor shortages. The specialized nature of MSS carts has impacted some vendor's ability to fulfill orders. The company continues to research alternatives to mitigate against future delays.

### **MOBILE APPLICATIONS**

MSS drivers utilize in-cab tablets to ensure accurate and efficient operations. The company uses Whip-Around software to track daily pre- and post-trip reports. This software helps ensure timely repairs to vehicles to keep them on the road. Accidents and damages are also reported through the tablet providing detailed and timely reporting.

Daily routing details are uploaded to the tablets providing drivers with real-time notes and information. This is particularly important when back-up drivers cover routes.

### **Route Productivity:**

During 2022, MSS restructured multiple routes to decrease overtime. The number of stops and cans serviced were balanced between routes to aid in efficiency. Additional factors considered included the driving conditions on the routes, truck types and other factors contributing to total route time improving the balance to achieve route parity. MSS aims to reduce unnecessary overtime whenever possible.

### Route Audits:

A route auditor rides along with route drivers to verify current services within MSS billing system match the service the customer is receiving. Driver notes and account descriptions are reviewed as tools for drivers to successfully complete service. The auditor also ensures each customer has appropriate service. When service levels require adjustments, recommendations are communicated to the customer via a customer service representative recommending an increase or decrease in service. Audits completed detail 64 customers who were identified having service discrepancies and 164 addresses did not have active service accounts. A service discrepancy occurs when there is a difference between the customer's account in MSS's system and the actual cart size, quantity, and commodity type at the service location. Customers were contacted to resolve the billing discrepancies in cart size/quantity or commodity. For those who could not be reached via telephone, a letter was mailed. Accounts that were found to not have active service were also mailed letters to initiate service. See *Table 2* for audit details, and *Table 3* for the results. Of the 164 with no active service, approximately 34% have called in to start service. Those who did not contact the company had carts removed to ensure no service is provided at that address.

**Table 2: Service Discrepancy Found in Route Audit**

<b>Row Labels</b>	<b>Count of Category of Issue</b>
Service Discrepancy - Less Service than pays for - smaller cart size	5
Service Discrepancy - More Service than covered for in service - larger cart size	59
<b>Grand Total</b>	<b>64</b>

**Table 3: Results from Service Discrepancy Found in Route Audit**

<b>Row Labels</b>	<b>Count of Result</b>
Added one time charge	2
Changed Cart Out for Correct Size	186
Corrected Service Screen	17
Customer did not respond changed rate	80
Customer has correct cart	16
Forward to CSR Resolve Distance	14
Removed Extra Cart	5
Customer called changed rate, kept cart	32
Changed Cart Out for Correct Commodity	118
<b>Grand Total</b>	<b>470</b>

### **Landfill Cart Potential Audits/Visual Audits**

In 2022, MSS completed visual waste audits. A visual waste audit is when the driver audits the landfill cart for material that potentially could be recycled. Visual waste audits are part of the monitoring process and help to identify waste types and volumes of divertible material in the landfill waste stream. Drivers perform visual waste audits of landfill containers for all commercial and multifamily dwelling customers to determine the percentage of divertible material. Drivers reported that out of all the commercial customers serviced approximately 10% have material that could be diverted from the landfill.

# Residential Services

## RESIDENTIAL SERVICE LEVELS

**Residential Customers: Comprehensive** hauling services **for one low rate**

**We're more than just the garbage company - we're your resource hauler, providing comprehensive recycling and landfill services in a basic bundled service package for one low cost.**

	<b>Dual Sort Recycling</b> Recycle bottles, cans and containers on the brown side and paper products on the blue side.	+		<b>Organics Yard / Food Waste</b> Recycle yard trimmings, kitchen scraps and food soiled paper in the green cart so they can be composted into a rich soil amendment.	+		<b>Garbage Hauling</b> Everything put in the garbage goes directly to landfill.
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**The more you recycle, the more you save.** See reverse side to learn how.

Visit [www.marinsanitaryservice.com](http://www.marinsanitaryservice.com) for guidelines on what is recyclable and compostable.

All residential customers are offered three services as part of the bundled rate. This includes a gray (landfill or 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. At the end of 2022, there were 30,266 residential customers serviced by MSS. Duplexes and triplexes are considered residential customers. If a property manager pays the bill, the duplex or triplex is considered to be a single customer; therefore, the cart numbers will exceed the actual customer count. Not all customers have recycling carts and many customers have multiple organics carts. *Tables 4, 5 and 6* show the residential cart subscription levels for year end 2022 compared to year end 2021. These numbers are only for MSS supplied tipper carts and do not reflect customer owned cans or bags that contain extra garbage, yard waste and/or recycling. During 2022, 8,810 extra garbage, yard waste and/or recycling bags were collected, this was a 64% increase from 2021. In 2021, 5,351 extra garbage, yard waste and/or recycling bags were collected.



**Table 4: Residential “Landfill” Cart Service Subscriptions**

Residential Weekly Landfill Service						
Cart Size	2019	2020	2021	2022	% Change	% of Total
20 gallon	6074	6,053	6,070	6,167	1.57%	19%
32 gallon	18,257	18,093	17,857	17,553	-1.73%	54%
64 gallon	5,420	5,888	6,098	6,088	-0.16%	19%
96 gallon	545	626	648	636	-1.89%	2%
<b>Total</b>	<b>30,296</b>	<b>30,660</b>	<b>30,673</b>	<b>32,466</b>	<b>5.52%</b>	

**Table 5: Residential Recycling and Organics Cart Service Subscription**

Residential Weekly Dual Sort Recycling Service						
Number of Carts						
CART size	2019	2020	2021	2022	% Change	% of Total
5 gallon bucket*	647	578	506	460	-10%	1%
32 gallon**	4	16	23	17	-35%	0%
64 gallon	28,555	27,384	26,910	26,291	-2%	86%
96 gallon	1,882	2,781	3,467	3,977	13%	13%
<b>Total</b>	<b>31,088</b>	<b>31,088</b>	<b>30,906</b>	<b>30,745</b>	<b>-0.52%</b>	

**Table 6: Residential Recycling and Organics Cart Service Subscription**

Residential Weekly Green Waste Service						
Number of Carts						
CART size	2019	2020	2021	2022	% Change	% of Total
35 gallon	1,859	1,971	2,216	2,298	4%	6%
64 gallon	29,297	33,471	33,678	33,449	-1%	93%
96 gallon***	29	26	31	29	-7%	0.1%
<b>Total</b>	<b>31,185</b>	<b>31,185</b>	<b>35,925</b>	<b>35,776</b>	<b>-0.42%</b>	

\*Use of 5 gallon bucket is being phased out.

\*\*Only offered in duplexes or triplexes where each tenant pays their own bill.

\*\*\*Only available at duplexes and triplexes with shared service and are being phased out.

### Scheduled Curbside Clean-up Program:

This program offers all residential customers the opportunity to set out additional recycling, yard waste and landfill waste twice per year for the removal of excess materials. Each customer is mailed a flyer in their bill alerting them to their specific scheduled clean-up dates for spring and fall. Information is also located on the MSS website under the residential clean-ups tab.

### Bulky Items:

Bulky items like mattresses, appliances, and furniture are not collected during curbside clean-ups. These collections must be scheduled separately. Residential customers are allocated 2, scheduled bulky item collections of up to 2 items each time at no extra charge.

**Table 7: Program Statistics**

	2020	2021	2022
Scheduled Clean- Ups (total tons)	219	301	229
Bulky Items (total tons)	129	187	116
Illegal Dumping (total tons)	6	36	24
Tons Recycled	433	267	184
Bulky Items Collected (number of items)	4789	5,160	4,774

Figure 1: Sample Mailer

## FALL 2022 CURBSIDE CLEAN-UP

# OCT 31 - NOV 4

## NOT ACCEPTED DURING CURBSIDE CLEAN-UP

City of San Rafael billing cycle R2.  
See [www.marinsanitaryservice.com](http://www.marinsanitaryservice.com) for  
instructions on locating your billing cycle.

### INSTRUCTIONS

- Place up to 14 bags or cans at the curb for your normal collection day
- Bags/cans must be 32 gallons or smaller
- 60 pound weight limit per container
- No loose garbage or items
- Bags/cans must be at the curbside



landfill



recyclables



yard waste

*See reverse for items not accepted.*

### PREPARE FOR WINTER



This is the perfect opportunity to clear your property of extra yard waste!

Curbside Clean-up service is proudly offered to you by:



CONSERVATION — OUR HEARTH, OUR MISSION, OUR JOB



SAN RAFAEL  
THE CITY WITH A MISSION

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### BULKY ITEM DISPOSAL

Bulky items such as couches, appliances, mattresses and other large items will not be collected on your Curbside Clean-up day. Call us at (415) 456-2601 to schedule a bulky item pick-up. Special handling fees may apply.



### MARIN SANITARY SERVICE

Customer Service: (415) 456-2601  
[www.marinsanitaryservice.com](http://www.marinsanitaryservice.com)

## Commercial and Multifamily Services

### COMMERCIAL BUSINESS SERVICE LEVELS

Commercial businesses are offered recycling services as part of a bundled rate. Two organics programs are offered to all commercial customers. Food 2 Energy (F2E) for businesses with pre-consumer food waste and commercial organics for all others. Since there is a wide variety of container types, sizes and collection frequency, the data in *Table 8* is reported based on overall weekly yardage of service. Commercial business customers are offered the following container types and services for landfill/garbage materials.

- 32, 64, and 96 gallon MSS tipper carts.
- 1, 2, 3, 4, 5, and 6 cubic yard bins.
- 10, 18, 20, 25 cubic yard roll-off boxes.
- 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, and 64 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) carts for F2E.
- 1, 2, and 3 cubic yard bins for cardboard recycling.
- 2 and 3 cubic yard bins for food waste for commercial compost.

Volume has slightly decreased for landfill material and minimally increased for recycling material (*Table 8*). There was a 10.81% increase in organic volume due to efforts in increased services offered along with outreach and education to encourage SB 1383 compliance.

**Table 8: Commercial Weekly Service in Cubic Yards**

SERVICE IN YARDS	2020	2021	2022	% Change
LANDFILL	7,869	8,188	8,045	-1.75%
RECYCLING	4,678	5,354	5,368	0.26%
ORGANICS (YW + FW)	779	805	892	10.81%
<b>Total</b>	<b>13,326</b>	<b>14,347</b>	<b>14,305</b>	<b>-0.29%</b>

### MULTIFAMILY DWELLING SERVICE LEVELS

Multifamily Dwellings (MFDs) are offered recycling and organics services as part of a bundled rate. In addition, after attending a workshop, MFD tenants receive kitchen pails for the collection of compostable materials inside their home. Since there is a wide variety of container types, sizes and collection frequencies, the data in *Table 9* is reported based on overall weekly service yards. MFD customers are offered the following container types and services for landfill/garbage materials.

- 32, 64, and 96 gallon MSS tipper carts.
- 1, 2, 3, 4, 5, and 6 cubic yard bins.
- 10, 18, 20, 25 cubic yard roll-off boxes.
- Compactors: sizes range from 3 cubic yards to 40 cubic yards.

The following container types and sizes are available for MFD customers.

- 32, 64, and 96 gallon blue carts for paper recycling.
- 32 and 64 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 bins organics bins for composting.

**Table 9: Multifamily Weekly Services for Landfill (Garbage), Recycling and Organics.**

SERVICE IN YARDS	2020	2021	2022	% Change
LANDFILL	3,805	3,766	3,851	2.26%
RECYCLING	1,924	1,998	2,035	1.85%
ORGANICS (YW + FW)	452	481	563	17.05%

## Compliance with State Laws

### COMPLIANCE WITH STATE LAWS

#### Mandatory Commercial Recycling (AB 341)

Table 10 and 11 show current compliance numbers for AB 341.

**Table 10: Commercial Business Compliance with AB 341 (4+ CY per week of landfill service must recycle)**

AB 341 - 2022								
Commercial Businesses	City of San Rafael	Marin County	Las Gallinas Valley Sanitary District	Town of Ross	City of Larkspur	Town of San Anselmo	Town of Fairfax	Grand Total
<b>Grand Total</b>	278	20	17	4	54	24	12	409
<b>Not Compliant</b>	3	0	0	0	0	0	0	3
<b>Compliant</b>	275	20	17	4	54	24	12	406
<b>% Compliance</b>	99%	100%	100%	100%	100%	100%	100%	99%

**Table 11: Multifamily Dwelling (5+ units) Compliance with AB 341**

AB 341 - 2022								
Multifamily	City of San Rafael	Marin County	Las Gallinas Valley Sanitary District	Town of Ross	City of Larkspur	Town of San Anselmo	Town of Fairfax	Grand Total
<b>Covered MFD's</b>	369	29	7	N/A	151	69	23	648
<b>Not compliant</b>	8	0	0		0	0	0	8
<b>Compliant</b>	361	29	7		151	69	23	640
<b>% Compliant</b>	98%	100%	100%		100%	100%	100%	99%

## Mandatory Commercial Organics Recycling (AB 1826)

AB 1826 has now been eclipsed by SB 1383 as they both require mandatory organics service. However, in the transition to SB 1383 CalRecycle has continued to request an accounting of AB 1826 requirements. Current compliance rates are reported in *Table 12* and *Table 13*.

**Table 12: Commercial Business Compliance with AB 1826 at Year End 2022**

AB 1826 - 2022								
Commercial	City of San Rafael	Marin County	Las Gallinas Valley Sanitary District	Town of Ross	City of Larkspur	Town of San Anselmo	Town of Fairfax	Grand Total
Covered	542	45	27	10	79	62	49	814
Exempt	253	6	5	4	39	26	6	339
Compliant	181	37	22	5	30	33	43	351
Not Compliant	108	2		1	10	3		124
% Compliance	80%	96%	100%	90%	87%	95%	100%	85%

**Table 13: Multifamily (MFD) Compliance with AB 1826 at Year End 2022**

AB 1826 - 2022								
Multi Family	City of San Rafael	Marin County	Las Gallinas Valley Sanitary District	Town of Ross	City of Larkspur	Town of San Anselmo	Town of Fairfax	Grand Total
Covered	323	22	7	N/A	129	50	20	551
Exempt	3				3			
Compliant	254	22	7		73	50	20	426
Not Compliant	66				56			122
% Compliance	80%	100%	100%		57%	100%	100%	78%

## Short-lived Climate Pollutants (SLCP): Organic Waste Reductions (SB 1383)

### Operations

MSS anticipated adding 4 days a week of commercial organics service. While the outreach team was successful in adding over 200 new organics services, the route has not grown to the full 4-day per week route. As more accounts are added, additional days are available within our current routing, truck and driver capacities.

On the processing side, the company has sufficient capacity through Redwood landfill with Napa Recycling as a back up to process organic material for composting. In an effort to increase participation in the F2E program to help ensure sufficient capacity for compostable materials, MSS purchased the depackaging unit to process the F2E materials collected. This equipment allows customers to bag their food waste in clear plastic bags to help ensure more participation in the program. In addition, the equipment processes spoiled/expired packaged food, helping ensure the organic materials, previously non-recoverable, are included in the material sent to Central Marin Sanitation Agency to be digested and create clean, renewable energy.

### Outreach

The community outreach department and communications continued to alert all customers, residential, commercial, and multifamily, to the SB 1383. All customers were mailed an insert with their bill at the beginning of the year and social media messaging included information on SB 1383. In addition both Spring and Fall newsletters discussed SB 1383 and keeping organics out of the landfill. All non-compliant businesses and multi-family dwellings were visited by our outreach staff.

In January of 2022 there were over 700 non-compliant customers, and MSS has worked diligently reducing the total non-compliant number to 320. The company continues to work with these remaining customers to bring them to full compliance or verify they are exempt from the requirements.



# MSS FALL UPDATE

SERVING CENTRAL MARIN COUNTY SINCE 1948

SEPTEMBER 2022

## ORGANICS: FROM YOUR KITCHEN TO MARIN FARMS

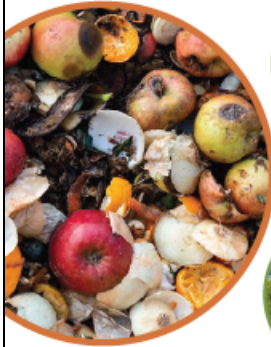
*Your food scraps and yard waste are used to grow food and nourish local soil.*



### FROM YOUR KITCHEN

**Food scraps & yard waste are collected separately from other waste**

California law (SB 1383) requires that every home, apartment complex, and commercial business collect their food waste, yard waste, and paper separately from all other waste. Make this easy for your household by collecting your food scraps in a kitchen compost pail or bowl and frequently emptying it into your green compostables cart.



### TO THE CURB

**MSS collects and transports your organic material**

All your compostables — food waste, yard waste, and food-soiled paper — should go in your green cart for curbside collection by MSS. Thank you for making sure that only accepted organic material is placed in your green cart!



**ACCEPTED ORGANIC MATERIAL**  
food, food-soiled paper, yard waste, small branches (under 4ft long & 3in diameter)



**NOT ACCEPTED**  
compostable or bio-degradable plastics of any kind, palm/bamboo, oils, grease, liquids



### TO THE COMPOSTING FACILITY

**Organic material is aerobically composted**

Rather than going to a landfill to decay into methane gas, MSS delivers your organics to Redwood Landfill's Covered Aerobic Static Pile (CASP) composting facility where it is composted following the US Composting Council's Testing Assurance protocol.



### INTO FARMER'S SOIL

**Certified organic compost is available for farming**

The state-of-the-art CASP facility at the Redwood Landfill produces WM EarthCare™ Homegrown Compost which is approved for organic farming by the Organic Materials Review Institute (OMRI) and is a California Department of Food and Agriculture certified Organic Input Material. Compost derived from your food scraps, food-soiled paper, and yard waste is used by local farmers and ranchers.

### YOUR COMPOST AT WORK AT A MARIN COUNTY RANCH

Find out how **Straus Home Ranch** uses WM EarthCare Homegrown Compost to ensure a steady supply of naturally grown grass for their dairy cows.



### WHY COMPOSTABLE OR BIO-PLASTICS CANNOT GO IN YOUR GREEN CART

We cannot accept any plastics labeled as compostable or bio-degradable. If we did, the quality compost WM EarthCare produces would lose its organic farming certification. Their compost is certified by the Organic Materials Review Institute (OMRI). OMRI doesn't allow compostable or bio-degradable plastics as many are actually petroleum based and just break down into micro plastics. Others don't break down rapidly enough and it is hard to differentiate between compostable and non-compostable plastics.

**Please put your compostable plastics or bio-degradable items in your garbage cart.**



### SB 1383 Compliance

Per the ordinances passed by all jurisdictions, all commercial and multi-family properties are required to have service or receive a de minimis waiver if they produce less than 20-gallons of organics a week. MSS provides the monitoring requirements for the jurisdictions. This includes visits to commercial and multi-family properties to look in all containers and verify proper usage ensuring there are no organics in the landfill containers. MSS drivers report which customers are “contaminating” the landfill containers with organics. There are not currently any contamination charges in place for organics in the landfill cart, but this can be addressed in the future. Residential customers will also be monitored with the MSS route auditor reviewing a sample of each route to determine if organics are in landfill carts. In all cases, when organics are discovered, a cart tag and follow up notification will be sent to each home or business. Customers will have an opportunity to correct the contamination and MSS will do a follow up inspection to confirm they have started removing organics from the landfill container.

**Table 14: SB 1383 Multi-family Dwelling Account Compliance for 2022**

SB 1383 - 2022								
Multi family	City of San Rafael	Marin County	Las Gallinas Valley Sanitary District	Town of Ross	City of Larkspur	Town of San Anselmo	Town of Fairfax	Grand Total
Subject to Compliance Review	322	22	7	N/A	129	50	20	550
Compliant	254	22	7		73	50	20	426
Not Compliant	68	0	0		56	0	0	124
% Compliance	79%	100%	100%		56%	100%	100%	77%

**Table 15: SB 1383 Commercial Account Compliance for 2022**

SB 1383 - 2022								
Commercial	City of San Rafael	Marin County	Las Gallinas Valley Sanitary District	Town of Ross	City of Larkspur	Town of San Anselmo	Town of Fairfax	Grand Total
Subject to Compliance Review	784	51	32	13	117	86	55	1138
Waivers	192	8	5	1	35	9	6	256
Compliant	430	42	27	9	69	59	49	685
Not Compliant	162	1	0	3	13	18	0	197
% Compliance	79%	98%	100%	77%	89%	79%	100%	83%



### Route Audits

SB 1383 regulations require that jurisdictions conduct education and outreach on organics recycling to all residents, businesses (including those that could donate edible food) haulers, solid waste facilities, and local food banks and other food recovery organizations. During route audits, MSS's route auditor also conducting the SB 1383 route reviews by random selection. SB1383 route reviews are defined as a visual inspection of containers along a route for the purpose of determining container contamination and or proper sorting of material. If contaminates are found, the route auditor takes a picture of the material and mails a letter to the customer for educational purposes. During 2022, 1,356 route reviews were conducted, 403 containers were found with prohibited contaminates (30%).

Table 16: SB1383 Tracking Total 2022

<b>Sb1383 Tracking Totals 2022</b>		
<b>Stream</b>	<b>No Prohibited Contaminants</b>	<b>Prohibited Contaminants</b>
<b>Cardboard Recycling</b>	80	11
<b>Containers Recycling</b>	50	51
<b>Food Waste</b>	20	3
<b>Landfill</b>	281	169
<b>Mixed Organics</b>	252	32
<b>Mixed Recycling</b>	197	122
<b>Paper Recycling</b>	73	18
<b>Totals</b>	953	403

# Diversion, Recycling, and Global Impacts of State Mandates

## DIVERSION RATES

AB 939 (Sher) requires cities and counties in California to divert 50% of solid waste delivered to landfills. The primary calculation method for diversion rates are based on three (3) factors: 1) Total Solid Waste Generation, 2) Total Landfill Disposal, and 3) Total Diversion from Landfill. This can also be expressed algebraically “Waste Generation = Total Landfill + Total Diversion”. *Table 17* highlights the various activities that contribute and/or impede progress toward the current and future diversion mandates.

**Table 17: 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>	<p><b><i>Diversion:</i></b>                      Source Reduction                      Composting                      Recycling                      ADC                      AIC                      Other Beneficial Reuse                      Transformation Credit</p>
<b>Activities that Do Not Count Toward Goal</b>	<p><b><i>Disposal:</i></b>                      Landfill (Including Exports)                      Some Transformation                      Engineered Municipal Solid Waste (EMSW)                      Green Waste ADC (Beginning in 2020)</p>

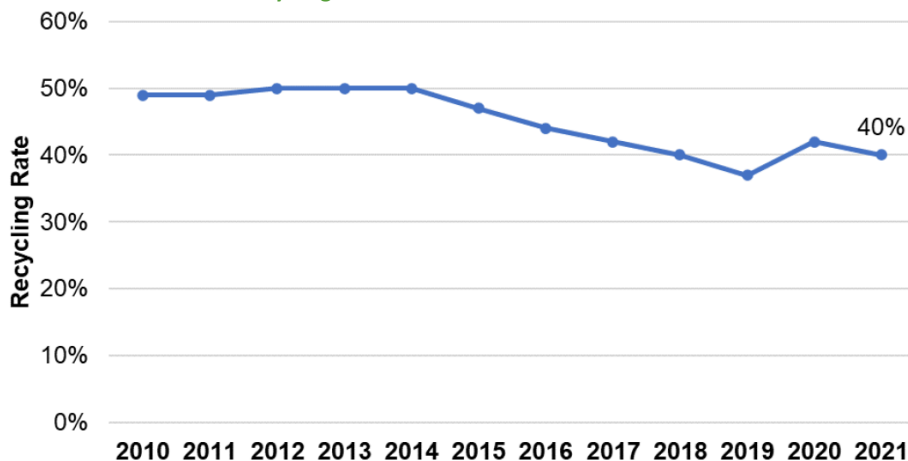
Tonnage reported from residential and commercial self-hauling, construction and demolition debris box rentals, and a host of other non-franchised programs within the County are reflected in the Jurisdictional diversion rate that is reported by MSS to the Marin Hazardous and Solid Waste Joint Powers Authority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

## RECYCLING RATES

In 2020, CalRecycle began collecting data through the Recycling and Disposal Reporting System (RDRS). This provides data direct to CalRecycle from various parties including haulers and recycling facilities. Progress is monitored by CalRecycle and continues to be supported through research and reporting.

CalRecycle adopted AB 341 (Chesbro) which strived to reach a goal of a 75% recycling rate by 2020. This goal was not achieved, with the most recent recycling rate reported being 40% as characterized below in *Figure 2*. This rate is a decrease from the 2020 rate of 42%, and is far from the goal of 75%. The state continues to move forward toward this ambitious rate through implementation and improvement of current programs including the Beverage Container Recycling program, CARE program for recycling carpet and mattress recycling programs.

**Figure 2: California Statewide Recycling Rate since 2010.**



California Department of Resources Recycling and Recovery. *State of Disposal and Recycling Report*. Retrieved March 14, 2023, from <https://calrecycle.ca.gov/reports/stateof/>

## Summary of MSS Recycling Efforts Over the Years

In 2022 recycling markets performed well. Shipping continues to be a factor, but has improved over previous year’s disruptions due to the pandemic. Paper, aluminum, and glass remained valuable and have helped ensure solid markets for recyclables overall.

**Table 18: Commodity Price Changes Average Price Per Ton**

Commodity	2020	2021	2022	% Change from 2021 to 2022
Cardboard	\$ 131.69	\$ 184.09	\$ 143.33	-22%
News Paper	\$ 85.23	\$ 139.90	\$ 167.87	20%
Office Paper	\$ 172.55	\$ 211.72	\$ 278.58	32%
Mixed Paper	\$ 41.67	\$ 94.00	\$ 109.23	16%
Aluminum Cans	\$ 812.00	\$ 1,329.00	\$ 1,628.48	23%
Glass	\$ 27.00	\$ 29.55	\$ 40.00	35%
HDPE # 2 natural (jugs)	\$ 893.00	\$ 1,375.00	\$ 937.65	-32%
HDPE # 2 colors (jugs)	\$ 154.00	\$ 683.00	\$ 288.52	-58%
PET # 1 (bottles)	\$ 104.00	\$ 361.00	\$ 383.98	6%
*Mixed Rigid Plastics (#3-7)	\$ 39.00	\$ 60.00	N/A	N/A

\*No material was sold in 2022

## MSS CONTAMINATION MITIGATION EFFORTS

### Operational Improvements

In 2022, MSS acquired two new recycling trucks. These new trucks have some customized improvements that will further ensure the split cart system works properly. The company has four additional recycling trucks of this style on order for 2023.

The Marin Recycling Center (MRC) procured a new optical sorter in 2022 which was install in January of 2023. This new technology is designed to help clean out colored paper and contaminants from the white paper recycling bales. This will ensure even cleaner bales of material.

Drivers continue to monitor for contamination. While the automated truck limits a driver’s ability to see the contamination the company is adding cameras to all trucks. These systems allow the driver to see the material enter the truck and can flag contamination. Currently ten trucks have full camera systems installed with all trucks planned for installation.

**MARIN SANITARY SERVICE**

**6 TIPS TO RECYCLE RIGHT**



- 1. KEEP YOUR RECYCLING LOOSE and never put items in plastic bags.
- 2. DO NOT MIX your paper recyclables with your glass, plastic and metal containers. See reverse.



- 3. REMOVE FOOD RESIDUE AND LIQUIDS from containers.
- 4. STACK LARGE PIECES OF CARDBOARD beside your cart in secured 2x2x2 ft. bundles.

- 5. ALL LIDS MUST CLOSE COMPLETELY. Remove bungee cords, ropes and weights prior to service.
- 6. DO NOT COMPACT MATERIAL in your cart.

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 (415) 456-2601 www.marinsanitaryservice.com

**WHAT SHOULD GO IN**

**SPLIT RECYCLING CART**

**CONTAINER RECYCLING (brown lid)**  
 BOTTLES, CANS & CONTAINERS



PLASTIC BOTTLES, JUGS & TUBS  
 GLASS BOTTLES & JARS  
 METAL CANS & CONTAINERS

**PAPER RECYCLING (blue lid)**  
 CLEAN PAPER PRODUCTS



NEWSPAPER & MIXED PAPER  
 UNWAXED CARDBOARD & PAPERBOARD



www.marinsanitaryservice.com



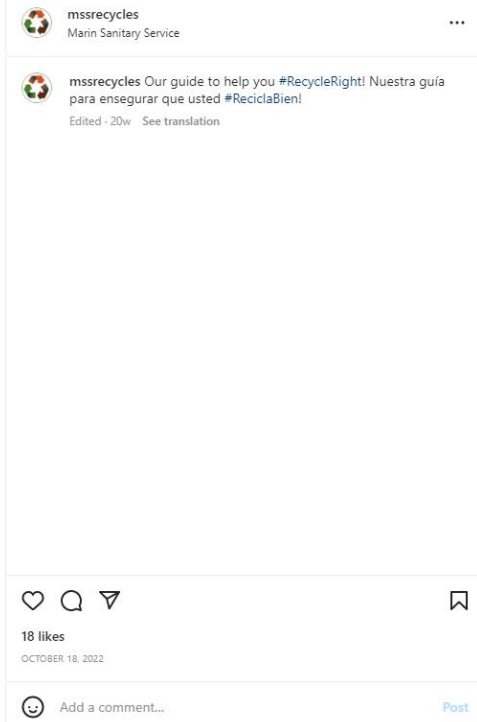
## Outreach Campaigns

Daily contamination lists are produced from driver notifications. These customers are called and the cause for contamination is discussed. The outreach team works with businesses and multi-family dwellings to provide tools and training to combat contamination. Repeat offenders are reviewed individually to determine the proper next steps including temporary removal from recycling or composting programs. Multi-family organics recycling seems to be the worst offenders with contamination. SB 1383 penalties for non-compliance will provide additional incentives for these companies to take responsibility for implementation of diversion programs.

Social media and the semi-annual newsletter are the best means for communicating contamination issues to customers on a large scale. Messaging is primarily focused on non-recyclable plastics.




**Marin Sanitary Service**  
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**RECYCLE RIGHT!**

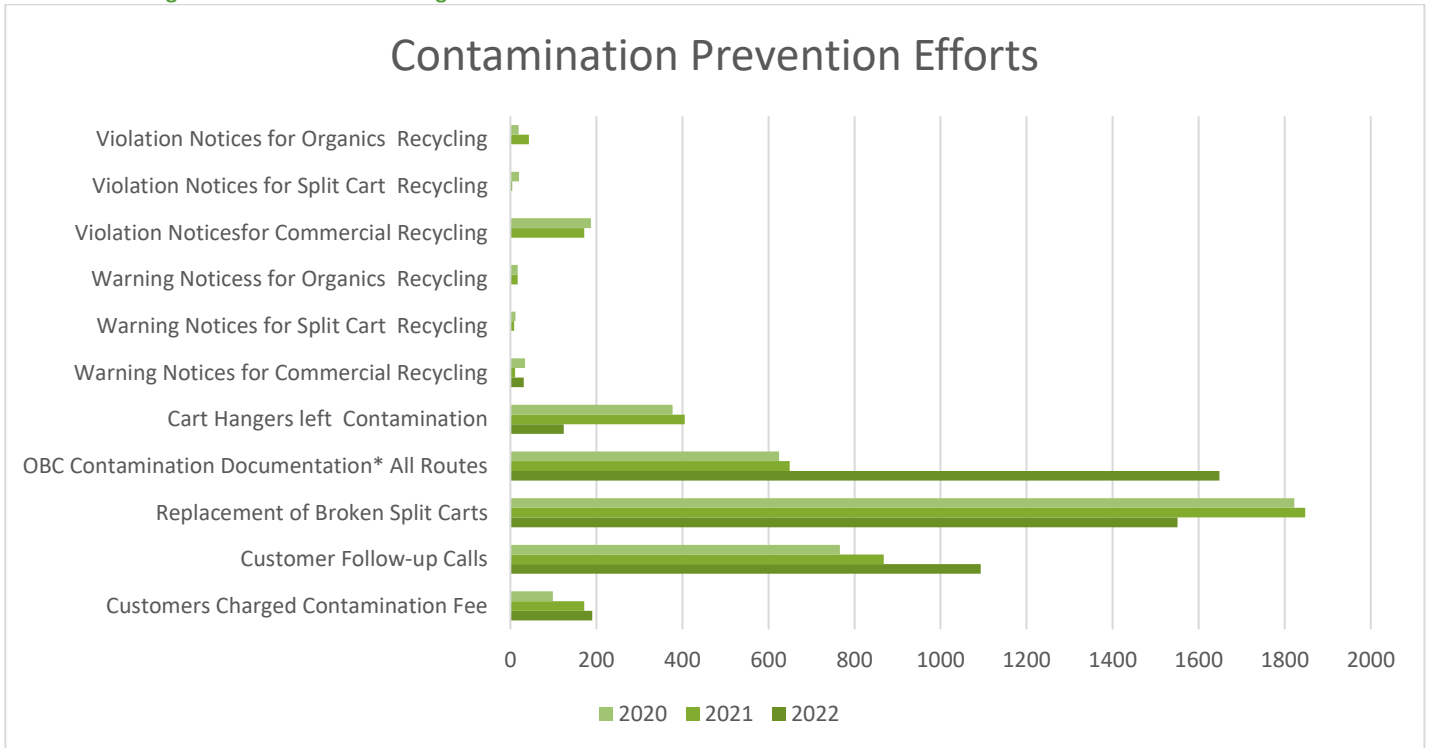


### Data Collection and Analysis

During 2022 there was 4,639 (10% increase) of separate actions taken to try and minimize contamination (Figure 3). The residual rate stayed consistent from 2021 to 2022 at 15% (Figure 3).

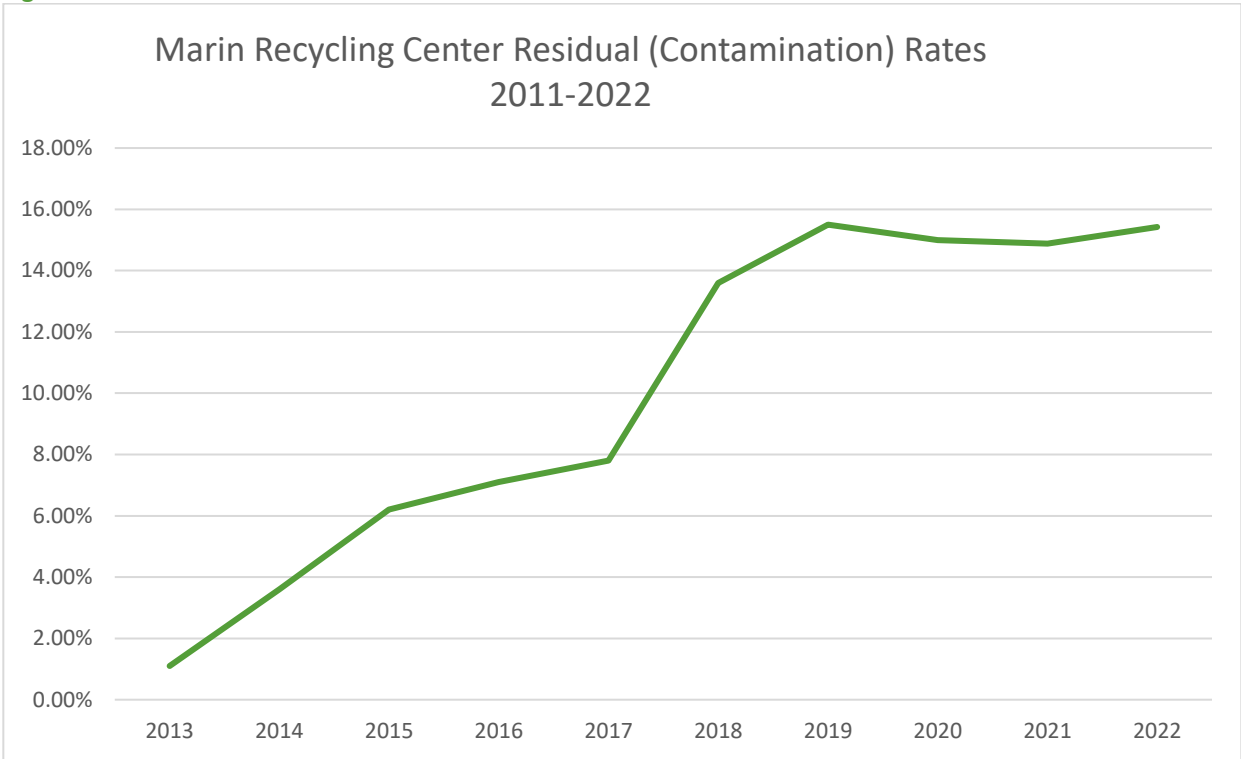


Figure 3: Contamination Mitigation Measures



\*OBC=On-board Computer documentation using tablets.

Figure 4: Historical Contamination Rates



# Recycling Rates (Weight and Volume Based)

## RECYCLING RATES BY WEIGHT AND BY VOLUME

Table 19 shows tonnage-based recycling rate. Of note is the curbside organic figure. With the addition of over 200 commercial organic accounts, it was estimated that this would generate an additional 10 tons of organic material, however, the organic material collected in 2022 actually declined. The volume of material collected is not the only factor impacting the tons of material collected. Weather plays the most significant part as dryer years would produce lighter materials and would lead to less yard waste collected. Fire fuel reduction efforts will also impact tonnages. Given that 2022 was a relatively light year for fire concern, residents may not have been as motivated to clean out debris. Also, the Marin Wildfire Prevention Authority (MWPA) has increased their collection of material through the chipper day events, which would mean less material in the green bin, even though the material is still being recovered.

Table 19: MSS SERVICE AREA DISPOSAL AND RECYCLING Rates (tons)

Weight Based Recycling Rates by Sector (tons)									
Residential			Commercial/MF			Total			
2020	2021	2022	2020	2021	2022	2020	2021	2022	
<b>Tons Collected:</b>									
Curbside Organics (Food & Yard waste)	23,192	23,214	22,574	1,221	1,222	1,188	24,413	24,436	23,762
Curbside Containers Recycling	6,030	5,540	4,980	2,230	2,049	1,842	8,260	7,590	6,822
Curbside Fiber Recycling	6,184	5,627	5,162	2,287	2,081	1,909	8,471	7,709	7,071
Curbside Cardboard Recycling*	*N/A	*N/A	*N/A	5,784	6,809	4,117	5,784	6,809	4,117
Transfer Station	26,791	26,452	24,588	16,789	21,751	21,813	43,580	48,203	46,401
Commercial Food Waste (F2E)	*N/A	*N/A	*N/A	2,235	2,247	2,385	2,235	2,247	2,385
Commercial processed at MRRC	*N/A	*N/A	*N/A	8,132	5,562	5,008	8,132	5,562	5,008
<b>Total Tons Collected</b>	<b>62,197</b>	<b>60,834</b>	<b>57,304</b>	<b>38,678</b>	<b>41,721</b>	<b>38,262</b>	<b>100,874</b>	<b>102,555</b>	<b>95,567</b>
<b>Total Tons Diverted</b>	<b>35,406</b>	<b>34,382</b>	<b>32,716</b>	<b>19,205</b>	<b>17,912</b>	<b>15,067</b>	<b>54,611</b>	<b>52,294</b>	<b>47,783</b>
* Commercial yard waste is co-collected with residential yard waste. Tonnage is included with Residential.									
<b>Recycling Rate</b>	<b>56.9%</b>	<b>56.5%</b>	<b>57.1%</b>	<b>49.7%</b>	<b>42.9%</b>	<b>39.4%</b>	<b>54.1%</b>	<b>51.0%</b>	<b>50.0%</b>

**Table 20: Landfill pounds per person per day**

	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Landfilled (tons)</b>	46,264	50,261	47,783
<b>Tons disposed per Capita</b>	0.42	0.44	0.42
<b>Pounds per person per day disposal (PPD)</b>	2.28	2.42	2.29
<b>Population</b>	112,353	113,722	114,423

**Table 21 Volumetric Recycling Rates by Sector (Cubic Yards of Service)**

<b>Service Volume (Cubic Yards)</b>	<b>Residential</b>			<b>Commercial/MF</b>			<b>Total</b>		
	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Organics</b>	10,958	11,069	11,009	1,224	1,287	1,455	12,182	12,356	12,463
<b>Curbside Recycle</b>	10,176	10,403	10,490	6,471	7,352	7,403	16,647	17,755	17,893
<b>Landfill</b>	5,639	5,683	5,653	11,504	11,954	12,021	17,143	17,637	17,674
<b>Recycling Volume</b>	79%	79%	79%	40%	42%	42%	63%	63%	63%

## Customer Service Data

### RESIDENTIAL AND COMMERCIAL/MULTIFAMILY NEW STARTS AND ACCOUNT CLOSURES FOR 2022

Table 22 details the number of new accounts and closed accounts by customer type.

Residential Service Guides are emailed or mailed out to all new customers explaining curbside collection services and programs and information pertaining to: debris box rental; document shredding; Marin Resource Recovery Center (MRRC) and Marin Household Hazardous Waste (HHW). Commercial and multifamily new customers receive information on MSS curbside collection services, mandatory recycling and organics laws/ordinances and Marin Household Hazardous Waste information. All residential, multifamily and commercial customers can also access information on our website.

**Table 22: New Starts and Account Closures by Customer Type**

<b>New Starts</b>	<b>Total</b>	<b>Closed Accounts</b>	<b>Totals</b>
Residential	2,075	Residential	2,100
Commercial Business	320	Commercial Business	151
Multifamily Dwellings	127	Multifamily Dwellings	19

### AUTOMATIC PAYMENT SERVICES

In an effort to conserve resources, MSS encourages customers to receive their bills electronically and to pay their bills online. MSS also offers automatic payments by credit card or electronic check for those customers who prefer not to use a web-based service (Table 23).

**Table 23: Automatic Payment Data 2022**

<b>Online Bill Pay</b>	<b>Totals</b>	<b>Automatic Payments non web-based</b>	<b>Totals</b>
Residential	12,439	Residential	2,970
Multifamily Dwellings	167	Multifamily Dwellings	248
Commercial Business	297	Commercial Business	291

## RESIDENTIAL AND COMMERCIAL/MULTIFAMILY CUSTOMER COMPLAINTS

In 2022, MSS received 77,123 calls compared to 66,980 in 2021. The majority of calls are service-related (start/stop service, cart exchanges, change of service), billing inquiries, or general education questions about collection and program information.

The total number of complaint calls are detailed in *Table 24*. The majority of calls were due to missed collections and broken containers. 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 or placed on a wait list for future repair when carts become available due to supply shortages we have been experiencing with our vendors. In addition, MSS had 248 written (letter, email) compliments for staff in 2022, which is a 36% increase from 2021.

**Table 24: Complaints and Compliments by Type by Service Area**

Jurisdiction	Missed Collections			Broken Containers			Misc. Service Issues			Compliments		
	2020	2021	2022	2020	2021	2022	2020	2021	2022	2020	2021	2022
Consolidated County of Marin	307	471	542	581	608	631	18	20	25	14	24	50
San Rafael	871	1,450	1,245	1,788	2,031	2,064	49	66	80	33	79	83
Las Gallinas Valley Sanitary District	247	325	290	554	534	634	7	9	9	13	14	25
Ross	77	92	129	74	115	113	6	1	6	2	5	4
Larkspur	176	257	308	334	262	350	11	13	23	8	12	26
San Anselmo	284	452	968	954	1,038	1,155	17	33	40	19	31	34
Fairfax	215	333	306	399	271	306	15	15	18	7	18	26
<b>MSS Service Area Totals</b>	<b>2,177</b>	<b>3,380</b>	<b>3,788</b>	<b>4,684</b>	<b>6,880</b>	<b>5,253</b>	<b>123</b>	<b>157</b>	<b>201</b>	<b>96</b>	<b>183</b>	<b>248</b>



## REPORTS OF INJURIES AND DAMAGE TO PROPERTY

Safety is a priority at MSS. Operations management meets regularly to review all accidents, damage and injuries. Outcomes from these meetings include making service or routing adjustments, issuing discipline, making adjustments to processes or programs and identify training needed. A safety committee including operations management, drivers, loss control and insurance carriers meets monthly and includes a facility inspection identifying and preempting any unsafe conditions. The committee also reviews the accidents, damages and injuries to discuss changes made. Documented employee safety meetings are held weekly with written agendas and handout materials. Additional forms of communication throughout the year such as videos, a safety bulletin board, public acknowledgement for examples of safe activities and rewards for employee safety tips are utilized to encourage and support the safety culture.

In 2022 the company also implemented a quarterly meeting with select members from the Teamsters Union, which includes employees and Union leadership, in order to work in concert with the employee representatives toward improving the safety culture at MSS.

Details of injuries and accidents are shown in *Table 25* below.

**Table 25: Injuries and Accidents in 2022**

<b>Title</b>	<b>Description</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Preventable Damage	Property or vehicle damage determined the fault of MSS driver.	56	50	56
Non-preventable Damage Event	Not due to driver negligence and not the 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.	14	10	20
Work Comp Injuries	Injuries on the job defined by OSHA as work related.	7	24	15
	<b>Totals</b>	<b>77</b>	<b>84</b>	<b>91</b>

## Public Outreach and Zero Waste Programs

### OUTREACH AND EDUCATION SERVICES

Table 26 lists the current contact information and community focus of outreach staff.

**Table 26 Outreach Department Staff Contacts by Specialty (Current as of April 1, 2022)**

<b>OUTREACH TEAM</b>			
Name	Title	Email	Community
Carlos Hernandez	Recycling Programs Coordinator	<a href="mailto:Carlos.Hernandez@marinsanitary.com">Carlos.Hernandez@marinsanitary.com</a>	East San Rafael
Peggy Clark	Recycling Programs Coordinator	<a href="mailto:Peggy.Clark@marinsanitary.com">Peggy.Clark@marinsanitary.com</a>	Terra Linda & Las Gallinas Valley Sanitary District
Rebecca Van Horn	Recycling Programs Coordinator	<a href="mailto:Rebecca.VanHorn@marinsanitary.com">Rebecca.VanHorn@marinsanitary.com</a>	Fairfax, Kentfield & Larkspur
Ruben Hernandez	Recycling Programs Coordinator & Governmental Affairs	<a href="mailto:Ruben.Hernandez@marinsanitary.com">Ruben.Hernandez@marinsanitary.com</a>	West/Downtown San Rafael
Kathy Wall*	HHW Program Manager	<a href="mailto:Kathy.Wall@marinsanitary.com">Kathy.Wall@marinsanitary.com</a>	All HHW Programs
Jennifer Grenier Selvig	Outreach Manager	<a href="mailto:Jennifer.Grenier@marinsanitary.com">Jennifer.Grenier@marinsanitary.com</a>	San Anselmo, Ross & County (Fairfax)
*Position funded through the JPA			

All activities are tracked through Recyclist, an industry tool designed for outreach and customer relations management. This tool allows the outreach team to monitor and track AB 341 and 1826 and SB 1383 compliance activities. Below are the outreach and communications activities of MSS outreach staff. Community meetings include, but are not limited to, chambers of commerce, climate action planning committees, school green teams, home owner and neighborhood association

meetings. Included are community tours given to our area and beyond, as well as kitchen compost pails given out and door hangers left for tenants of apartment buildings



Figure 5: Public Outreach by Type 2022 (not including Schools or Mandatory Commercial Recycling)



## Virtual Outreach

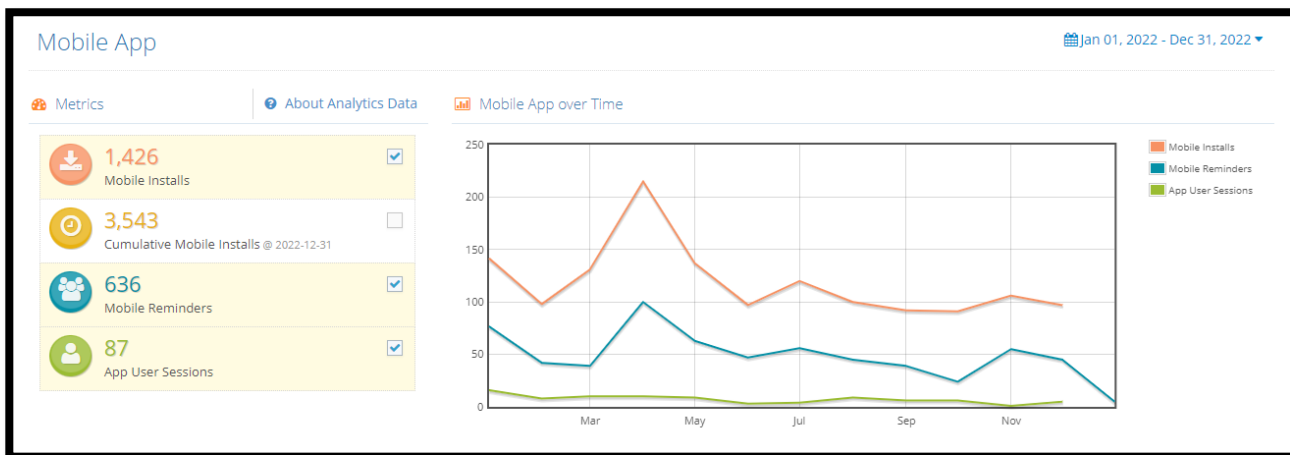
With social media, email communication and the website, MSS is now able to track who is reading company messaging and allows the company to engage more effectively with customers in many new ways.

MSS posts regularly on social media with messages influenced by questions and concerns relevant to current needs.

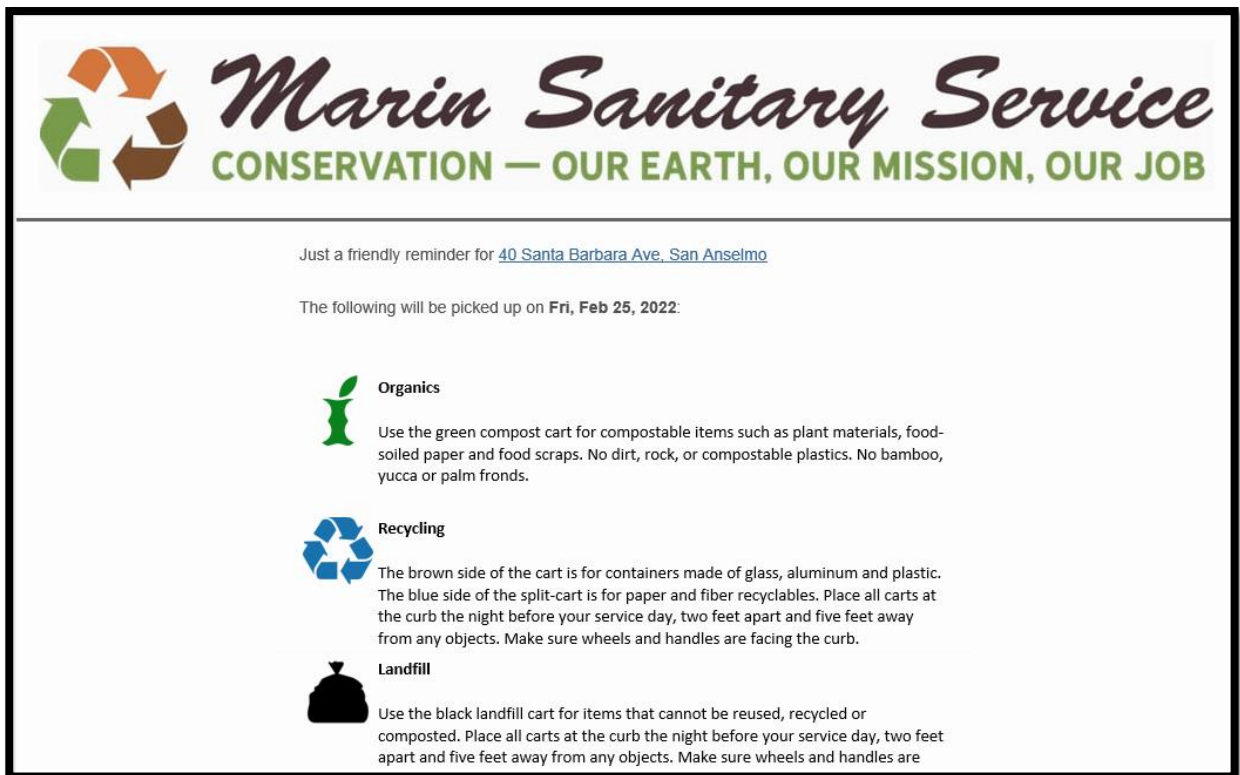
## MOBILE APP –Where Does it Go Joe Stats

The company’s online and mobile application continues to grow. 3,231 notifications were sent to customers in 2022. Reasons included streets blocked or areas the drivers were unable to receive service for other reasons. This allows for timely communication to the community. During the year, 1,426 new mobile apps were downloaded by customers throughout our entire service area (Figure 7)

Figure 6: Mobile App Stats



In 2021, the Company launched the calendaring feature with the website and mobile tool. It provides customers with a reminder of their weekly service. This tool also reminds the customer of their twice annual clean-up day. An additional 3,181 MSS customers signed up to receive weekly reminders in 2022 for a total of 16,406 customers receiving weekly reminders across the MSS service area.



### MOBILE APP –Where Does it Go Joe Stats

“Where Does It Go Joe?” mobile app is a search function to find out if an item belongs in the organics, recycling or landfill cart. In 2022 over 8,000 new visitors tried out Where Does it Go, Joe? In total there were 11,024 sessions with over 28,915 different materials viewed. This is down from last year but still shows a strong utilization of this customer education tool. Each viewing tells the customer where the material should go and provides a brief explanation as to why it goes there. This tool has been well received and continues to inform customers and inform MSS on the items that are searched the most. This informs future campaigns and messaging.

**Table 27: Top Materials Searched**

Material	Total
Plastic tubs & lids	2501
Plastic "clam shell" container	2325
Plastic take-out container	2027
Plastic soap bottle	1714
#5 Plastic	400
Clover renewable milk carton	372
Plastic bag	331
Styrofoam	317
Gable top carton	300
Paper take-out food container	299

## Website

There were approximately 76K visitors to the [www.marinsanitary.com](http://www.marinsanitary.com) website in 2022. After the homepage, visitor's number one page viewed was the Support/Pay My Bill page followed by the residential information page.



In addition to the MSS website, there are separate websites for our other facilities, Marin Recycling Center ([www.marinrecycling.com](http://www.marinrecycling.com)) and Marin Resource Recovery ([www.marinresourcerecoverycenter.com](http://www.marinresourcerecoverycenter.com)).

## Social Media Presence

The company maintains a strong social media presence primarily on Facebook and Instagram. There are currently 1,200 followers to the company's Instagram account.

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





# INSTAGRAM INSIGHTS

JAN 2022 – DEC 2022

## FOLLOWERS

**1,200**



**76** Jan 2022

## POSTS

**34**

Top Post Topics

- Halloween
- International Women's Day
- SB 1383 Audits



# FACEBOOK INSIGHTS

JAN 2022 – DEC 2022

## FOLLOWERS

**792**



**590** Jan 2021

Dec 2021

## POSTS

**56**

Top Post Topics

1. Customer Appreciation Day
2. International Women's Day

## PEOPLE REACHED

**14K**

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

## PEOPLE REACHED

**9.7K**

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

**648**

## ENGAGEMENT

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

### LIKES



**596**

### COMMENTS



**26**

### SHARES & SAVES

SHARE



**21**

### DIRECT MESSAGES



**281**

\*Data collected through Facebook Insights & Hootsuite



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**561**

## ENGAGEMENT

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

### LIKES



**405**

### COMMENTS



**36**

The net number of comments on our posts.

### SHARES

SHARE



**44**

The net number of times our posts were shared.

### LINK IN POST CLICKS



**186**

The net number of times someone clicked on a link in our posts.



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## 4R PLANET SCHOOL PROGRAM AND TOURS

At MSS, the goal is to educate, equip and empower school districts, staff and students to develop comprehensive waste reduction and recycling plans. The 4R Planet school program is twofold. The first is an on-site program which includes tours of the MSS recycling preprocessing and landfill transfer station facilities and lessons on the 4 R's in the MSS Environmental Classroom. Second is an in-school program which includes hands-on training, waste diversion program assistance, and customized educational lessons. All activities are led by our commercial recycling program coordinators.

The following services are provided to schools at no cost:

- Onsite evaluation of recycling needs.
- Waste audits to help schools know what recyclables are still being thrown in the trash.
- Signage, stickers, and curbside containers to help with source separation.
- Educational lessons and assemblies on the 4R's.
- Source separation trainings.
- Green team guidance on waste reduction planning.
- Educational tours of MSS recycling facilities.
- Lending library of resources: books, DVDs, binders with lesson plans that meet California curriculum standards.
- Online resources: sample letters, lesson ideas, recycling procedures and more.



Emails &  
Phone Calls

75



Recycling Needs  
assessment

5



Waste audit

1



School Green  
Team Meeting

5



Special Events

2



School  
Assembly

5



MSS  
Facility  
Tour

22

MSS partners with Zero Waste Marin on The Zero Waste Schools Program designed to help Marin County schools implement composting and recycling programs in order to comply with new mandatory state laws. The program has enrolled 16 schools in the MSS Service area.



### Commercial and Multifamily Outreach, Education and Monitoring

Outreach efforts extend beyond just compliance of state laws and include customer account management, facility tours, general education, recycling program implementation and involvement in community groups and organizations. The MSS team of outreach professionals are resource recovery experts and are often called upon to share this expertise in the community.

**Table 28: Commercial/Multifamily Outreach by Type January-December, 2022**

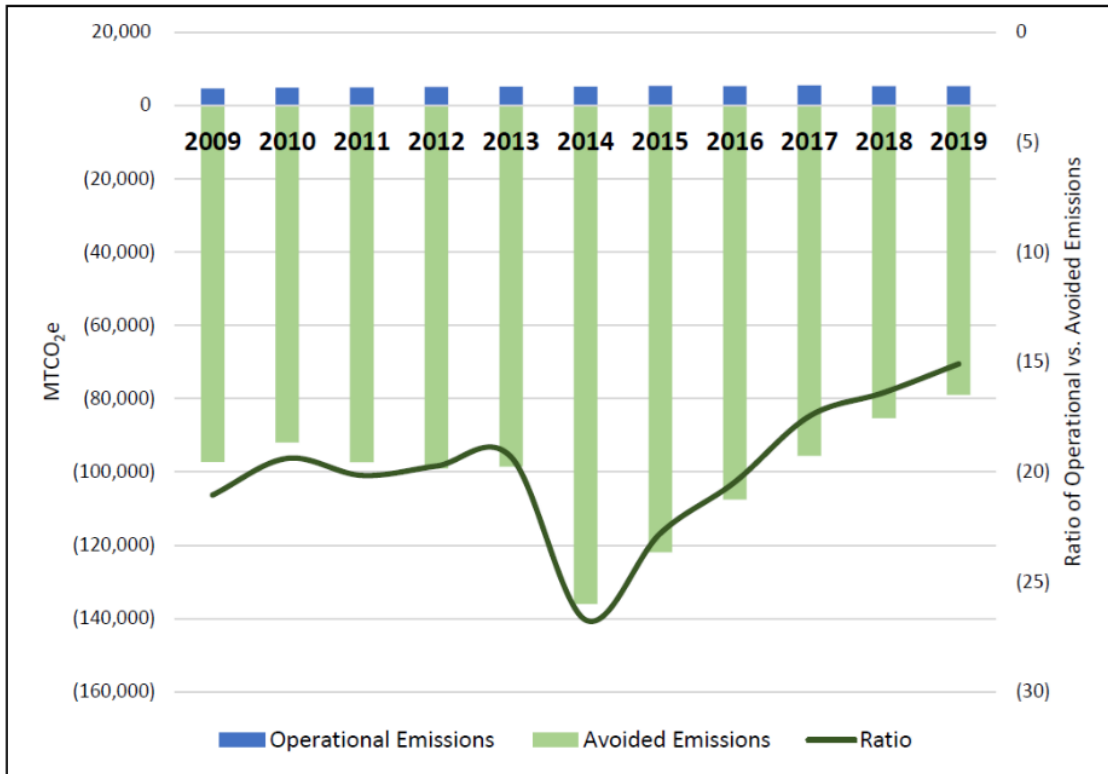
MSS Outreach Activities 2022								
Activity Type	City of San Rafael	Marin County	Las Gallinas Valley Sanitary District	Town of Ross	City of Larkspur	Town of San Anselmo	Town of Fairfax	Grand Total
Email	1,694	120	65	31	385	240	145	2,680
Letter	107	12	8		30	4	4	165
Training	127	12	8	1	43	4	10	205
Site Visit	440	17	12	11	67	41	14	602
Phone Call	354	8	3	7	35	25	10	442
Issue/verify SB 1383 Waiver	182	9	4	1	26	11	3	236
<b>Grand Total</b>	<b>2,904</b>	<b>178</b>	<b>100</b>	<b>52</b>	<b>586</b>	<b>325</b>	<b>186</b>	<b>4,330</b>

# Green House Gas Mitigation

## GREEN HOUSE GAS MITIGATION


MSS has been annually tracking operational emissions since 2006 and avoided emissions since 2009. This reporting has shown MSS has fully offset its direct emissions on average 18 times. This is well beyond Net-Zero. The majority of emissions continues to be from direct mobile combustions including on and off-road vehicles. MSS continues to monitor operational emissions, and is working on updated figures for 2020 through 2022.

Figure 7: Emissions Reporting



## ZERO EMISSION VEHICLES

The state continues to move toward zero emission vehicles through regulations instituted by the California Air Resources Board (CARB). MSS has been compliant with all current emissions requirements and is monitoring and preparing for the zero emission vehicle requirements. CARB is in the process of finalizing its Advanced Clean Fleets requirements that will require



large fleet operators to begin purchasing zero emission vehicles. This continues to be a challenge for the waste industry as electric trucks are not sufficient to do the work required of the waste industry. Currently, hydrogen vehicles are still in development phase.

MSS is currently working on the company's deployment plan for zero emission vehicles. It is anticipated that the company will begin purchasing electric support vehicles in 2024 or 2025. Currently, the company is working with PG&E on infrastructure needs to charge an electric fleet. The company is researching electric collection vehicles, but the costs are almost double that of current vehicle costs and based on other company's experiences in the region, the trucks are not a one-to-one replacement of current collection vehicles.

The company is working through these challenges as it prepares to meet the state's Advanced Clean Fleets requirements.

### **Organics collection program impacts on GHG**

At MSS it is understood that reducing Short-Lived Climate Super Pollutants like methane derived from organic waste in the landfill will have significant impact on the climate crisis. Continued partnerships with Waste Management's Redwood Landfill for composting MSS organic waste at their WM Earth Care composting facility and with Central Marin Sanitation Agency for MSS commercial food waste to generate renewable energy has allowed the company to remain at the forefront of organic waste diversion. MSS jurisdictions have remained ahead of the curve in implementing organics recycling requirements and programs. These efforts have also helped jurisdictions to prepare for and comply with the States organics recycling mandates in AB 1826 and most recently SB 1383.

## Goals accomplished for 2022 and set for 2023

### 2022 GOAL ACCOMPLISHMENTS

#### Operations

*Goal: Expand the commercial organics route to a full route allowing for full impact of new customers from SB 1383 compliance*

- The company continues to expand the route developed to capture new commercial organic customers from SB 1383 roll-out. Currently the route is three days and will be adding an additional three days in 2023. New customers are being added on a weekly basis, but they are not all utilizing the new services at full capacity which has led to a slower expansion than anticipated.

*Goal: Install camera systems on all trucks*

- Cameras were installed on all new trucks ordered in 2022. In addition to the new trucks, cameras were installed on all commercial front-loading trucks. Installation on the remaining trucks is expected to occur in 2023. Cameras installed have helped the company to have greater visibility into incidents on the road and to gain valuable coaching opportunities for drivers. The roll-out to all trucks has been slower than anticipated as glitches are worked out with the cameras. With a large investment as this, the company is working to ensure the best possible outcome from this new technology.

*Goal: Purchase depackaging equipment to enable expansion of the Food2Energy program*

- This equipment has been purchased and was installed in November of 2022.

*Goal: Purchase an optical sorter to expand the current recycling sorting process, ensuring cleaner materials*

- This equipment has been purchased and was installed in January of 2023.

#### Outreach

*Goal: Contact all non-compliant SB 1383 customers*

- All non-compliant customers were contacted in 2022. Many of these customers have implemented organics recovery programs and are now compliant.

*Goal: Hire one additional staff for SB 1383 implementation*

- Rebecca VanHorn was hired in 2022 to help with SB 1383 implementation. In 2022 Rebecca focused on SB 1383 waivers, working with customers who submitted waiver requests, or who MSS outreach staff deemed as possibly exempt. Rebecca reviewed and qualified all waivers and submitted recommendations to each jurisdiction helping to move all jurisdictions toward full compliance.

*Goal: Scrub website to ensure all communication is available in Spanish and to clean up references to AB 1826 and replace all with SB 1383*

- The MSS website has been updated to include Spanish translation. There are some image files imbedded on the website that require additional translation work. All newly developed image files contain both English and Spanish.

### **Contract Compliance**

*Goal: Update all customer-owned can policies to align with container requirements of SB 1383*

- Adjustment to customer-owned can policies were reviewed with each jurisdiction with a roll-out plan scheduled for 2023.

*Goal: Review rate sheets to update with SB 1383 requirements*

- All rate sheets have been updated to meet SB 1383 requirements

## **2023 GOALS**

### **Operations**


- Implement new onboarding and training program for new hires.
- Utilizing the new depackaging technology double the daily tonnage materials from the F2E program sent to CMSA.

### **Outreach**

- Reach full compliance of all jurisdictions by January 1, 2024.

### **Customer Service**





- Improve the customer experience through shorter hold times on the phone.  
Long-range Strategic Plan Development

- Further develop long-range plan including:
  - Improving the employee development program
  - Continuing research in renewable energy technologies from waste
  - Furthering work toward a Zero Emission Vehicle fleet



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