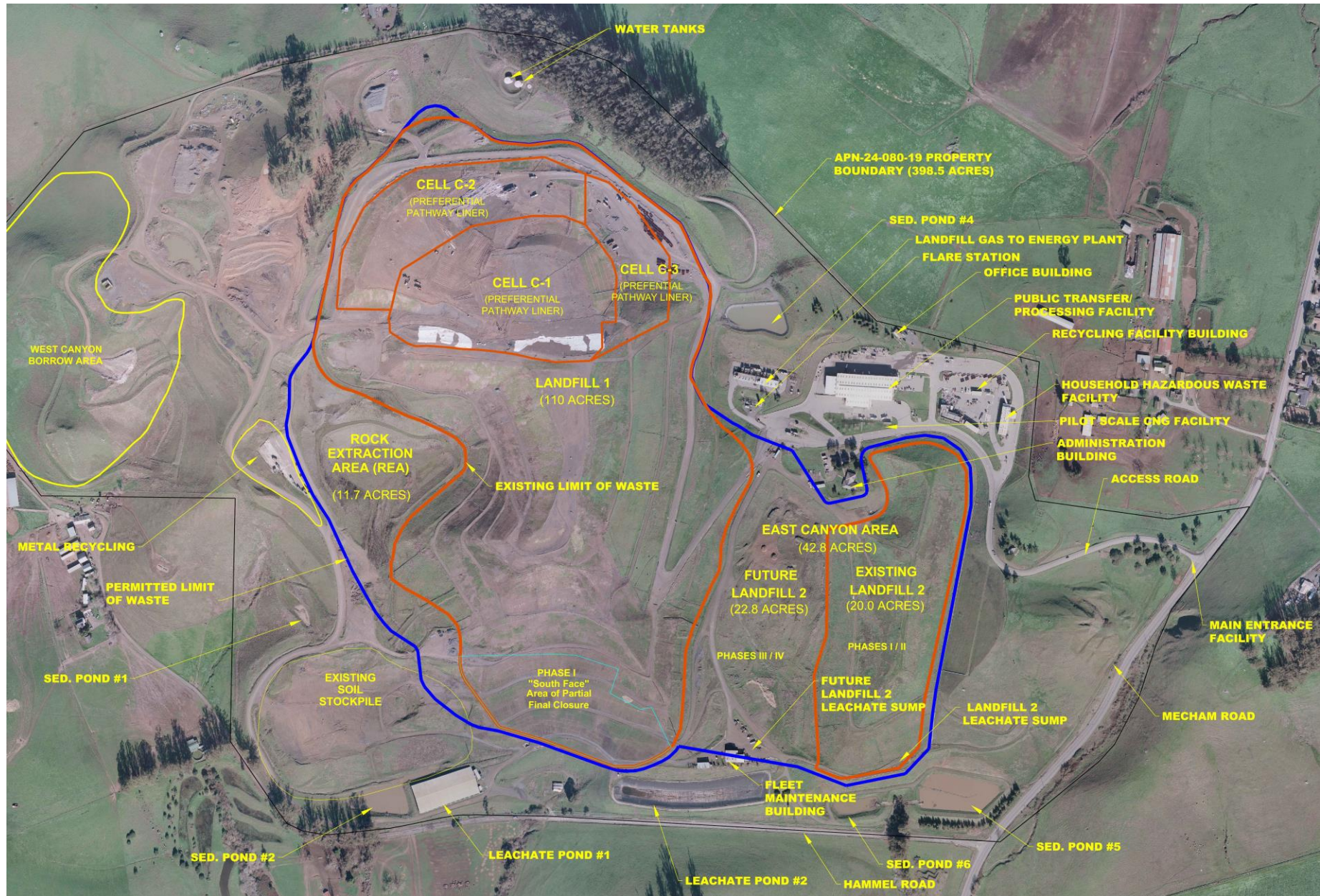


# MOA Annual Presentation

April 2019 – March 2020



# Site Map



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# Summary of Landfill Airspace

As of 12/31/2019

Projected Airspace Volume Consumed		23,764,148 Cubic Yards
Remaining Airspace of the Landfill		8,885,571 Cubic Yards
Remaining Capacity of the Landfill		9,187,688 Tons
Remaining Life of the Landfill		27.0 Years
Change in Airspace	Solid Waste Placed in (1/1/19 to 12/31/19)	962,080 Cubic Yards
	Volume Consumed as of 12/31/2018	22,802,068 Cubic Yards

## Waste Placement by Quarter in 2019 by Material Type (in tons)

2019	<u>MSW</u>	<u>Fire Waste</u>
Jan – Mar	82,027	
Apr – Jun	83,113	
Jul – Sep	84,984	
Oct – Dec	80,099	911
<b>TOTAL</b>	<b>330,223</b>	<b>911</b>



# Annual Tonnage and Fees

	Cloverdale	Cotati	Healdsburg	Rohnert Park	Santa Rosa	Sebastopol	Sonoma	Windsor	County*	Total
<b><u>MSW &amp; Recyclables</u></b>								*County Committed & Self Haul Waste		
Q1	1,347.33	1,891.59	2,295.88	6,569.98	25,047.68	1,493.85	1,731.77	2,993.69	39,741.77	83,113.53
Q2	1,333.11	1,888.68	2,378.43	6,373.80	24,784.53	1,345.19	1,755.23	2,931.67	42,193.05	84,983.68
Q3	1,189.81	1,948.40	2,359.92	6,009.85	23,928.39	1,459.17	1,751.19	2,942.10	38,510.06	80,098.89
Q4	1,045.75	1,866.77	2,305.25	5,513.31	22,249.96	1,211.33	1,593.13	2,784.18	38,464.77	77,034.43
Annual Concession Tonnage	4,916.00	7,595.44	9,339.48	24,466.94	96,010.56	5,509.54	6,831.32	11,651.63	158,909.65	325,230.53
<b><u>GW &amp; Wood</u></b>										
Q1	482.29	294.89	723.98	1,438.96	8,073.67	487.19	49.55	1,392.88	11,500.33	24,443.74
Q2	393.53	256.22	873.42	1,042.89	6,720.41	435.23	60.61	1,165.27	10,666.99	21,614.57
Q3	485.50	234.10	883.22	996.08	8,071.72	464.60	94.42	1,535.13	11,401.74	24,166.51
Q4	425.61	212.34	504.43	909.87	7,037.33	466.09	95.18	1,200.44	10,609.53	21,460.82
Annual Concession Tonnage	1,786.93	997.55	2,985.05	4,387.80	29,903.13	1,853.11	299.76	5,293.72	44,178.59	91,685.64
<b><u>Foodwaste</u></b>										
Q1	-	69.54	170.04	48.78	851.93	84.76	-	66.42	438.33	1,729.81
Q2	-	73.99	180.94	51.91	906.53	90.19	-	70.68	466.42	1,840.66
Q3	-	75.13	183.71	52.70	920.42	91.58	-	71.77	473.57	1,868.88
Q4	-	68.67	167.93	48.17	841.35	83.71	-	65.60	432.89	1,708.33
Annual Concession Tonnage	-	287.34	702.62	201.56	3,520.23	350.24	-	274.47	1,811.22	7,147.68
<b>Total Annual Concession Tonnage</b>	<b>6,702.93</b>	<b>8,880.32</b>	<b>13,027.15</b>	<b>29,056.30</b>	<b>129,433.92</b>	<b>7,712.89</b>	<b>7,131.08</b>	<b>17,219.82</b>	<b>204,899.46</b>	<b>424,063.85</b>
<b>County Concession Payment @ \$8.96</b>	<b>\$60,058.21</b>	<b>\$79,567.68</b>	<b>\$116,723.24</b>	<b>\$260,344.45</b>	<b>\$1,159,727.92</b>	<b>\$69,107.46</b>	<b>\$63,894.43</b>	<b>\$154,289.55</b>	<b>\$1,835,899.15</b>	<b>\$3,799,612.09</b>
<b>Committed Cities Contingent Liability Fund @ \$5.61</b>	<b>\$37,603.41</b>	<b>\$49,818.61</b>	<b>\$73,082.30</b>	<b>\$163,005.84</b>	<b>\$726,124.29</b>	<b>\$43,269.29</b>	<b>\$40,005.33</b>	<b>\$96,603.17</b>	<b>n/a</b>	<b>\$1,229,512.23</b>
<b>Special Concession Payment @ \$1.12</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>\$229,487.39</b>	<b>\$229,487.39</b>
<b>Waste Management Agency Fee @ \$5.40</b>	<b>\$36,195.80</b>	<b>\$47,953.74</b>	<b>\$70,346.60</b>	<b>\$156,904.02</b>	<b>\$698,943.16</b>	<b>\$41,649.59</b>	<b>\$38,507.81</b>	<b>\$92,987.01</b>	<b>\$1,106,457.06</b>	<b>\$2,289,944.78</b>

# Annual Site Tonnage

		Q1		Q2		Q3		Q4		Annual Total
<b>Annapolis TS</b>		<b>804.85</b>		<b>899.82</b>		<b>707.34</b>		<b>636.13</b>		<b>3,048.14</b>
Committed County Waste		186.10		200.92		112.14		92.45		591.61
Committed City Waste		-		-		-		-		-
Non-Committed City		-		-		-		-		-
Self Haul		618.75		698.90		595.20		543.68		2,456.53
										-
<b>Central TS</b>		<b>8,475.95</b>		<b>7,875.27</b>		<b>6,663.87</b>		<b>7,127.60</b>		<b>30,142.69</b>
Committed County Waste		807.71		-		-		-		807.71
Committed City Waste		-		-		-		-		-
Non-Committed City		-		-		-		-		-
Self Haul		7,668.24		7,875.27		6,663.87		7,127.60		29,334.98
										-
<b>Central LF</b>		<b>40,637.33</b>		<b>41,551.38</b>		<b>40,761.23</b>		<b>38,790.15</b>		<b>161,740.09</b>
Committed County Waste		3,128.65		2,627.13		3,455.20		3,825.58		13,036.56
Committed City Waste		30,966.99		30,474.03		30,106.04		27,941.80		119,488.86
Non-Committed City		-		-		-		-		-
Self Haul		6,541.69		8,450.22		7,199.99		7,022.77		29,214.67
										-
<b>Guerneville TS</b>		<b>7,426.19</b>		<b>7,903.49</b>		<b>7,581.09</b>		<b>7,099.06</b>		<b>30,009.83</b>
Committed County Waste		3,614.08		4,152.17		4,199.89		3,827.47		15,793.61
Committed City Waste		834.38		724.49		875.81		813.68		3,248.36
Non-Committed City		-		-		-		-		-
Self Haul		2,977.73		3,026.83		2,505.39		2,457.91		10,967.86

# Annual Site Tonnage cont.

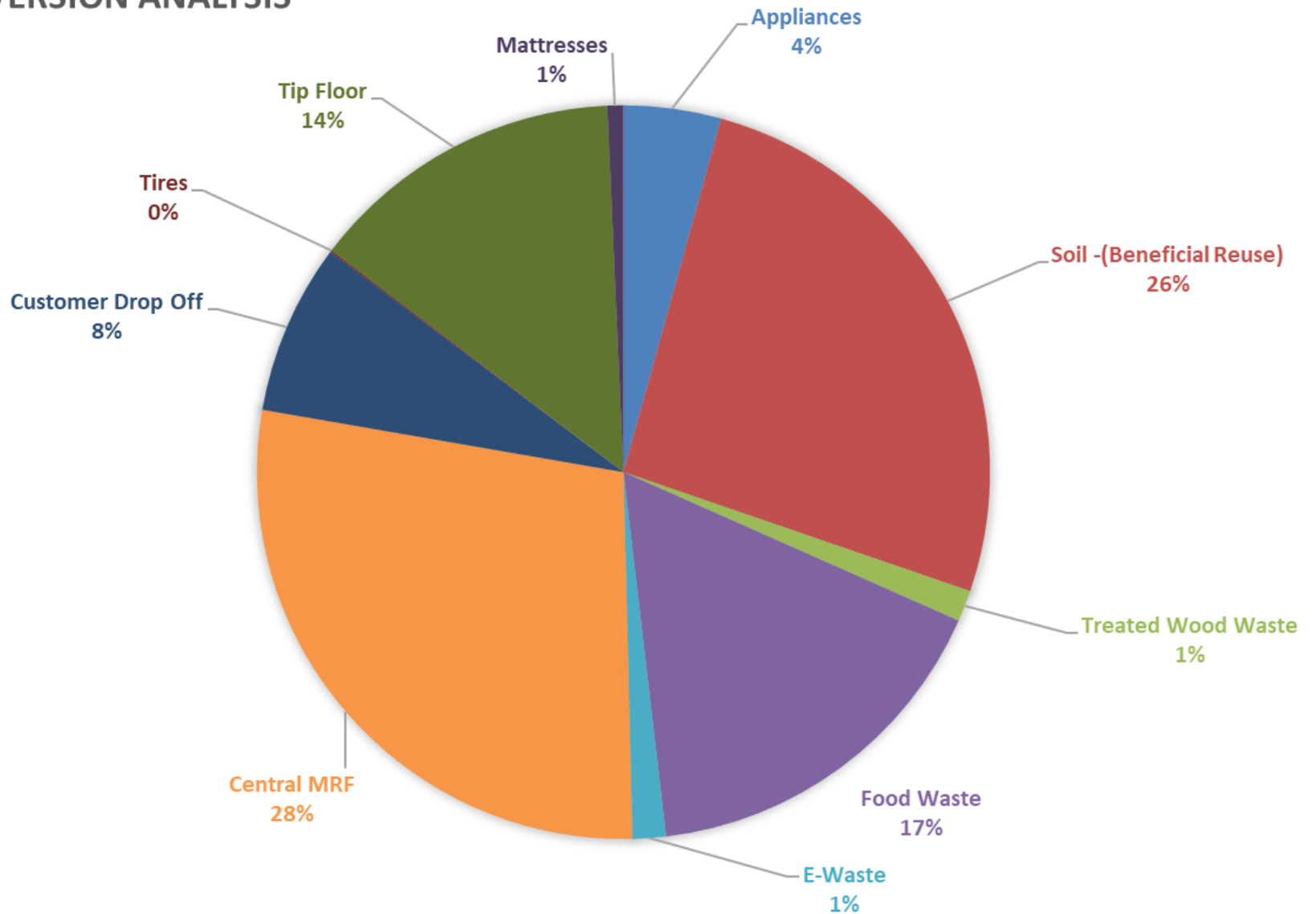
		Q1	Q2	Q3	Q4	Annual Total
						-
<b>Healdsburg TS</b>		<b>29,662.51</b>	<b>29,243.93</b>	<b>28,574.78</b>	<b>26,494.54</b>	<b>113,975.76</b>
Committed County Waste		5,409.35	6,170.41	6,346.26	5,623.80	23,549.82
Committed City Waste		18,824.24	17,810.06	17,852.58	15,842.09	70,328.97
Non-Committed City		-	-	-	-	-
Self Haul		5,428.92	5,263.46	4,375.94	5,028.65	20,096.97
						-
<b>Sonoma TS</b>		<b>20,550.45</b>	<b>19,124.38</b>	<b>19,977.11</b>	<b>18,347.78</b>	<b>77,999.72</b>
Committed County Waste		8,117.09	7,831.52	8,172.07	7,444.65	31,565.33
Committed City Waste		5,689.54	4,729.63	5,519.18	4,823.38	20,761.73
Non-Committed City		-	-	-	-	-
Self Haul		6,743.82	6,563.23	6,285.86	6,079.75	25,672.66
						-
<b>Golden Bear TS (Foodwaste)</b>		<b>1,729.81</b>	<b>1,840.66</b>	<b>1,868.88</b>	<b>1,708.33</b>	<b>7,147.68</b>
Committed County Waste		438.33	466.42	473.57	432.89	1,811.22
Committed City Waste		1,291.48	1,374.24	1,395.31	1,275.44	5,336.46
Non-Committed City		-	-	-	-	-
Self Haul		-	-	-	-	-
						-
<b>Tons of Waste delivered</b>		<b>109,287.09</b>	<b>108,438.93</b>	<b>106,134.30</b>	<b>100,203.59</b>	<b>424,063.91</b>
<b>Total Committed County Waste</b>		<b>21,701.31</b>	<b>21,448.57</b>	<b>22,759.13</b>	<b>21,246.84</b>	<b>87,155.86</b>
<b>Total Committed City Waste</b>		<b>57,606.63</b>	<b>55,112.45</b>	<b>55,748.92</b>	<b>50,696.39</b>	<b>219,164.38</b>
<b>Total Non-Committed City</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total Self Haul</b>		<b>29,979.15</b>	<b>31,877.91</b>	<b>27,626.25</b>	<b>28,260.36</b>	<b>117,743.67</b>

# Diversion Analysis

		2019 - 2020	Prior Year	Variance	
Appliances		1,862	1,992	(130)	
Earth, Dirt, Soil -(Beneficial Reuse)		11,237	23,831	(12,594)	
E-Waste		635	136	499	
Food Waste Program		7,148	5,879	1,269	
Mattresses (Guerneville)		305	145	160	
Central MRF Diversion		12,170	8,579	3,591	
Customer Drop Off - Includes Cardboard, Metal, Glass, Containers, Plastics		3,261	3,585	(324)	
Tip floor diversion - Includes Cardboard, Concrete & Drywall, Fines/ADC, Metal, Mixed Recycling, Porcelain, Wood		6,040	5,420	620	
Tires		37	45	(8)	
Treated Wood Waste		595	476	119	
Annual Goal	67,000	Total	43,289	50,088	(6,799)



## DIVERSION ANALYSIS



# How to achieve Annual Diversion Tonnage

<u>Initiative</u>	<u>Projected</u>	<u>2019 Totals</u>
Food Waste Program	7,862 tons (10% increase) <sup>(a)</sup>	7,148
Customer Drop Off	3,600 (10% increase) <sup>(b)</sup>	3,261
Central MRF Diversion	33,000 (171% increase) <sup>(c)</sup>	12,170
Tip Floor Diversion	8,100 (34% increase) <sup>(d)</sup>	6,040
All Others	14,670 (no change) <sup>(e)</sup>	14,670
<b>Totals</b>	<b>67,232</b>	<b>43,289</b>

(a) Increased compliance with AB1826 and SB1383, though hindered in growth by COVID-19

(b) Recology increasing recycling commodities and capacity at the Transfer Stations

(c) Recology creating a commercial, dry-waste route and allocating additional hauls to the MRF

(d) Recology sorting and recovering more recycling from the waste delivered to the Transfer Stations

(e) Includes: appliances, soils, e-waste, mattresses, tires, and treated wood.

# Green House Gas Update

This GHG inventory represents a snapshot of GHG emissions from the Site in 2017, 2018, and 2019. LFG-derived GHG emissions would have occurred as a result of waste placement of the waste at any landfill facility in the region; however, because of additional waste placement and subsequent LFG generation, GHG emissions from LFG increased from 2018 to 2019.

The Site has implemented several programs and projects that directly or indirectly lead to lowered GHG emissions. Waste diverted from disposal at the MRF results in GHG reductions. Though those reductions will be indirect and offsite, the reductions are attributable to development of the MRF. Improved LFG capture could also achieve GHG emission reductions, which could result from improvements to the GCCS and/or cover management practices.

Landfill Methane	79,600	64,000	76,010
Haul Vehicles	1,534	3,485	1,267
	81,134	67,485	77,277
	28,904	22,485	16,846

## Food Waste Program Update

- Recology implemented compost programs at 386 commercial accounts from May 2019 – April 2020. Implementation at each account requires site audits, service changes, staff training, providing tools such as indoor containers and signage, and follow-up.
- Recology has prioritized schools and food establishments for the compost program prior to COVID-19. In the current pandemic era, working with MFDS (i.e. apartment complexes) is being prioritized, because site audits, service recommendations, and implementation can be done in a safe socially distant manner in most cases.
- AB1826 compliance has risen from 74% to 77% YOY and will continue to rise. Recology is also preparing for SB1383 implementation, which will entail compost service roll-out to nearly all commercial customers by 2022.
- Tonnage numbers by year:

– 2015	3,406
– 2016	4,877
– 2017	4,332
– 2018	5,879
– 2019	7,148
- 21% increase in Food Waste pickup (2018 to 2019)

# New Developments

## Central Landfill Improvements 2019

- Completed cell construction on former Compost Deck (+ 5 acres) C-3
- Four engine overhauls at on-site power plant to improve durability
- Controls upgrades on three units
- Sediment Pond #2 maintenance

## Transfer Station Improvements

- New Metals Storage Canopy at Guerneville Transfer Station
- Site paving at Guerneville Transfer Station
- Accessibility improvements at Guerneville Transfer Station
- Liner installed in water storage tank at Healdsburg Transfer Station

## Current Year Developments at Central Landfill

- Additional cell construction in Rock Extraction Area (2020)
- Rock Extraction Area cell (R-1) will include double-composite liner
- Rock Extraction Area cell (R-1) should provide one additional year of airspace effective September 2020
- Total Rock Extraction Area will accommodate waste for 8+ years

## REA Cell Development





## Cell Material Production



## Cell Material Production





## Guerneville Transfer Station Metals Storage Canopy



## Guerneville Transfer Station Accessibility Improvements

