

# MOA Annual Update

September 2024



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# Site Map 2024



Photo 06/2024

# Landfill Airspace

As of 12/31/2023

|                                         |                           |
|-----------------------------------------|---------------------------|
| Projected Airspace Volume Consumed      | 25,258,327.06 Cubic Yards |
| In Place Waste Density (3-Year Average) | 1,584 lb/CY               |
| Remaining Airspace of the Landfill      | 7,391,672.94 Cubic Yards  |

Airspace Consumed  
(Annual Survey Date 1/18/2023 – 1/24/2024)

|                                     |                     |
|-------------------------------------|---------------------|
| - Solid Waste Placed (CY)           | 458,241 Cubic Yards |
| - Tonnage Accepted Between Surveys: |                     |
| MSW                                 | 321,494 Tons        |
| Fire Debris                         | 0 Tons              |
| Total                               | 321,494 Tons        |

## Landfill Site Life

| Density | Remaining Tons | Annual Tons* | Remaining Life |
|---------|----------------|--------------|----------------|
| 1,250   | 4,619,796      | 325,000      | 14.1 years     |
| 1,350   | 4,989,379      | 325,000      | 15.2 years     |
| 1,450   | 5,358,963      | 325,000      | 16.3 years     |
| 1,550   | 5,728,547      | 325,000      | 17.4 years     |

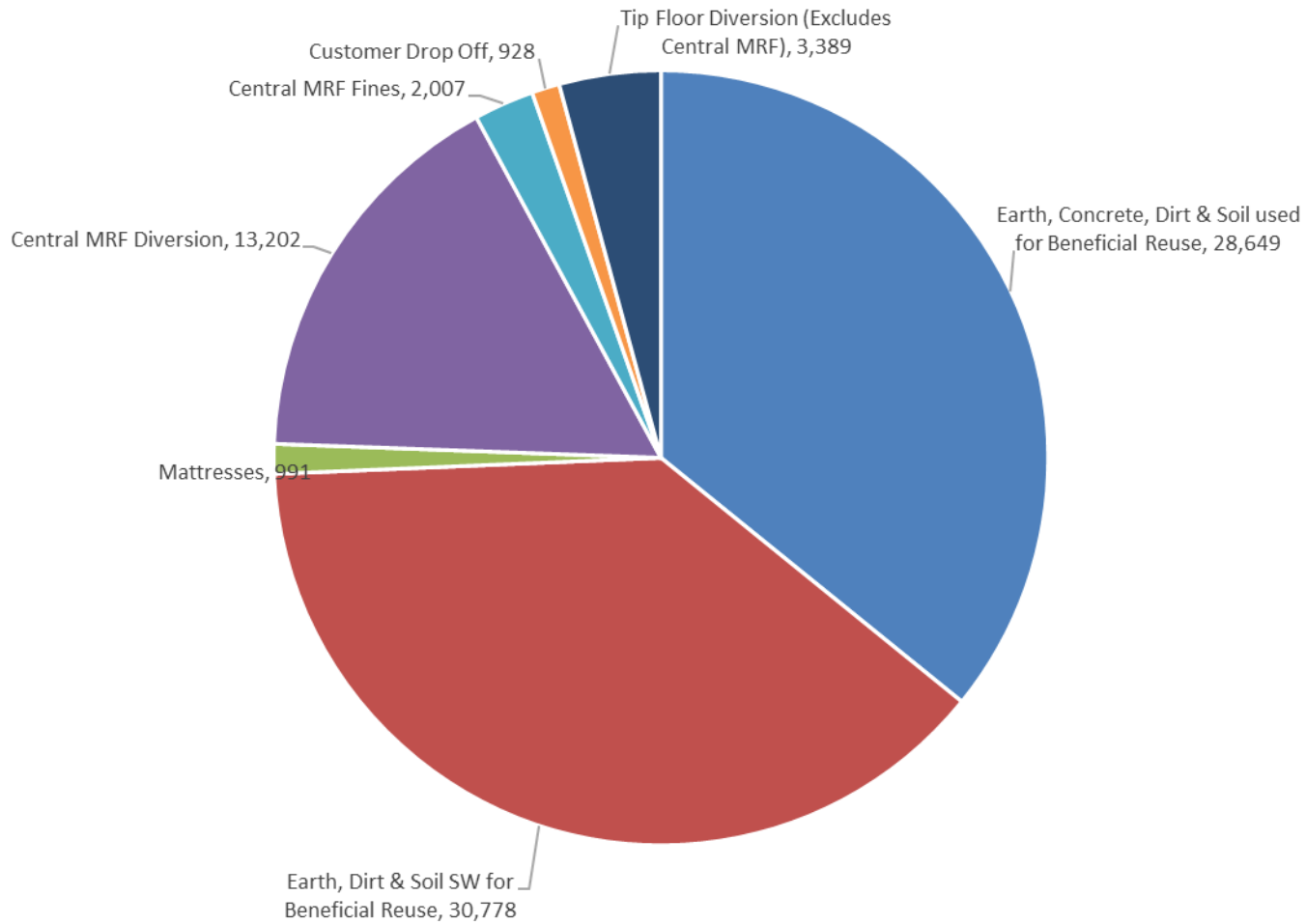
\*Based off of the Joint Technical Documents projection for annual waste tons accepted at the facility.

# Diversion Analysis

**6/2023-5/2024**

|                                                        |               |
|--------------------------------------------------------|---------------|
| Earth, Concrete, Dirt & Soil used for Beneficial Reuse | 28,649        |
| Earth, Dirt & Soil SW for Beneficial Reuse             | 30,778        |
| Mattresses/Carpets                                     | 991           |
| Central MRF Diversion                                  | 13,202        |
| Central MRF Fines                                      | 2,007         |
| Customer Drop Off                                      | 928           |
| Tip Floor Diversion (Excludes Central MRF)             | 3,389         |
| <b>Annual Goal</b>                                     | <b>44,735</b> |
| <b>Total</b>                                           | <b>79,945</b> |

# Diversion Analysis



# Diversion Goals

| <u>Initiative</u>     | <u>Projected</u>          | <u>2023 Totals</u> |
|-----------------------|---------------------------|--------------------|
| Central MRF Diversion | 13,863 Tons (5% Increase) | 13,202 Tons        |
| Tip Floor Diversion   | 3,898 Tons (15% Increase) | 3,389 Tons         |
| *All Others           | 66,521 Tons (5% Increase) | 63,353 Tons        |
| Totals                | 84,281                    | 79,945             |
| **Diversion Goal      | 44,735                    |                    |

\*Includes: Appliances, Soils, E-Waste, Mattresses, Tires, and Treated Wood

\*\*Food waste has been removed from the diversion goal for Republic and included in the contract with Recology

# Green House Gas Update

This GHG inventory represents a snapshot of GHG emissions at Central Landfill from 2019 to 2022. LFG-derived GHG emissions would have occurred because of placement of the waste at any landfill facility in the region.

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.

| Source                   | 2020   | 2021   | 2022   | 2023   |
|--------------------------|--------|--------|--------|--------|
| Landfill Methane         | 72,343 | 68,886 | 62,183 | 51,608 |
| Landfill Equipment       | 1,513  | 1,277  | 1,977  | 2,175  |
| Total GHG Emissions      | 73,856 | 70,163 | 64,160 | 53,783 |
| Biogenic CO <sub>2</sub> | 16,761 | 15,481 | 12,679 | 10,379 |

All emissions in MTCO<sub>2</sub>e

# SB 1383 Organics Program Update

- \$2.5 Million grant received from State of California to install food waste depackaging program. Expected operational date: March 2025
- Food waste generated in County planned to be received at facility.
- SB 1383 sampling is being performed quarterly by Republic at all the transfer station facilities.
- Food waste tonnage numbers by calendar year:
  - 2019 7,148
  - 2020 5,840
  - 2021 8,560
  - 2022 8,658
  - 2023 8,229

# New Developments

## **Central Landfill Improvements 2023**

- Completed construction of Cell R-4
- Installed 10 vertical gas/leachate extraction wells
- Installed 10 clean-outs along leachate pipeline
- Placed 155 automated wellheads on gas extraction wells

## **Transfer Station Improvements 2023**

- Replacing sections of concrete tipping floor at Sonoma TS, Guerneville TS, and Healdsburg TS
- Painted buildings/structures
- Implemented carpet recycling program

## **Current Year Developments**

- Construct Cell R-5
- Construct additional dual leachate/gas extraction wells
- In process of upgrading LFGTE engines with Air Fuel Ratio Devices
- Complete permitting for food waste processing equipment

# Cell R-5 Blasting (May 2024)



# Cell R-4 Construction (January 2023)



## 2023 Gas Construction (October 2023)



# Transfer Station Beautification (2024)



# Landfill Tornado (February 2024)

