

## Introduction to the 2020 TRI National Analysis

Industries and businesses in the United States (U.S.) use many chemicals to make the products we depend on, such as pharmaceuticals, computers, paints, clothing, and automobiles. While most chemicals on the [Toxics Release Inventory \(TRI\) chemical list](#) are managed by these facilities in ways that minimize releases into the environment, releases still occur as part of normal business operations.

It is your right to know what TRI chemicals are being used in your community, how TRI chemical waste is managed—including through environmental releases, and whether these quantities are changing over time.

The TRI tracks how industry manages certain toxic chemicals. Information reported each year to the EPA by facilities covering activities such as manufacturing, metal mining, generation of electric power, and hazardous waste management provides insight over time as to chemical waste management changes. The data reported to EPA are publicly available. For calendar year 2020, more than 21,000 facilities reported to EPA's TRI Program.

Each year, in support of its mission to protect human health and the environment, EPA analyzes the most recent TRI data, conducts comparative analyses with TRI data reported for previous years, and publishes its findings in the TRI National Analysis.

### TRI Reporting

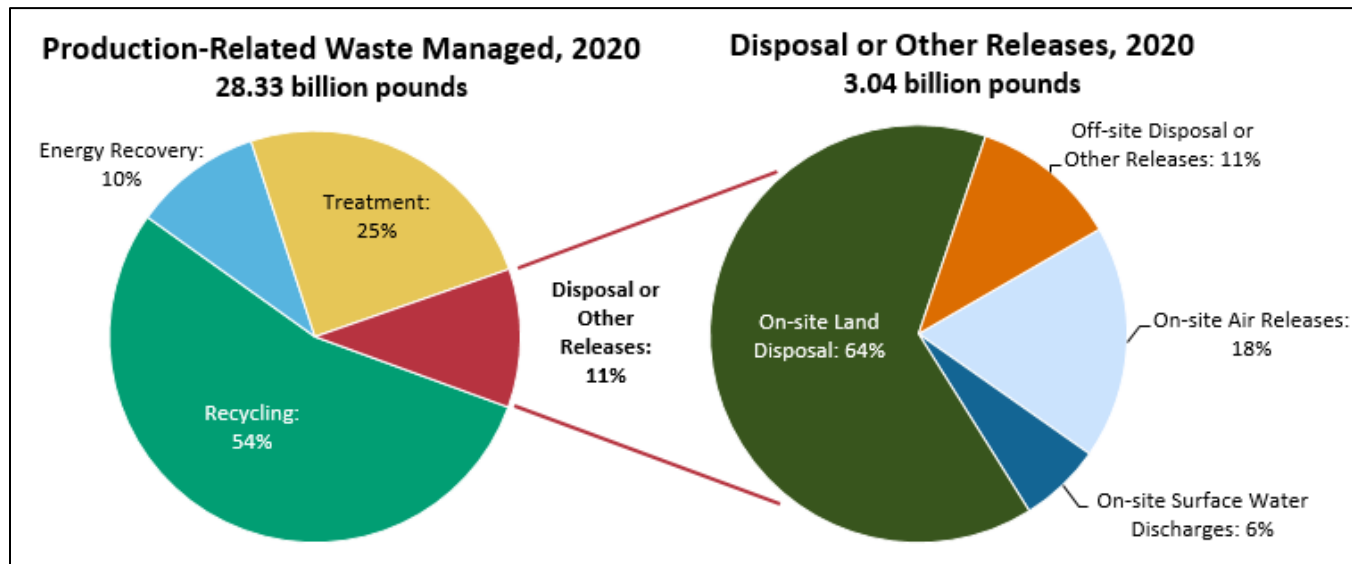
Under the [Emergency Planning and Community Right-to-Know Act \(EPCRA\)](#) and the [Pollution Prevention Act \(PPA\)](#), facilities that meet TRI reporting requirements must report details about their pollution prevention and waste management activities, including releases, of TRI-listed chemicals that occurred during the prior calendar year to EPA's TRI Program by July 1 of each year.



Watch a short video about the TRI Program and your right to know.

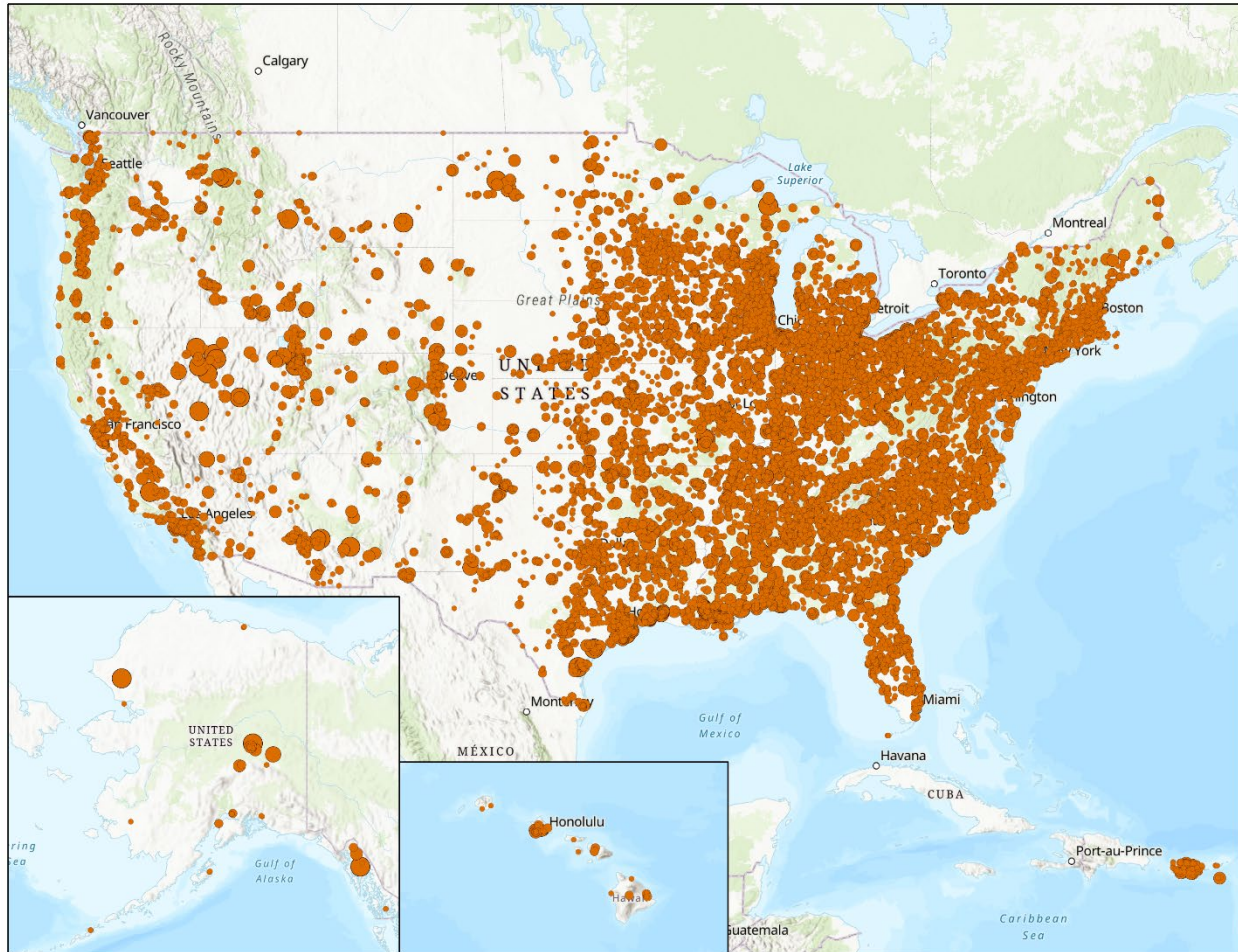
## Overview of the 2020 TRI data

The two pie charts below summarize the most recent TRI data: the chart on the left shows the total amount of production-related waste managed through recycling, energy recovery, treatment, and disposal or other releases. The chart on the right shows the proportions of TRI chemical waste released to air, water, and land.



- Facilities reported managing a total of 28.33 billion pounds of TRI-listed chemicals as production-related waste during 2020. Production-related waste managed is the quantity of TRI chemicals in waste resulting from routine operations at facilities. This includes TRI chemicals in wastes that are recycled, combusted for energy recovery, treated, disposed of, or otherwise released into the environment.
  - Of this total, 89% was recycled, combusted for energy recovery, or treated, while 11% was disposed of or otherwise released into the environment.
- For TRI chemicals in wastes that were disposed of or otherwise released, facilities report the quantities of these releases, and whether the releases were to air, water, or land. Most releases occur on site at facilities, but waste containing TRI chemicals may also be shipped off site for disposal, such as to a landfill. As shown in the pie chart on the right, most TRI chemical waste was disposed of to land, which includes landfills, underground injection, and other land disposal practices.

## Where are the Facilities that Reported to TRI for 2020 Located?



[View Larger Map](#)

## TRI Data Considerations

As with any dataset, there are several factors to consider when reviewing results or using Toxics Release Inventory (TRI) data. Key factors associated with the data presented in the TRI National Analysis are summarized below; for more information see [Factors to Consider When Using Toxics Release Inventory Data](#).

- **Covered chemicals and sectors.** Many industry sectors report information about the management of certain toxic chemicals as waste to TRI. However, TRI does not include information on every chemical, nor does it collect information from all facilities or industry sectors that may manage TRI chemical wastes. A [list of the chemicals reportable to the TRI Program](#) as well as [a list of the sectors covered by the TRI Program](#) is available on the TRI webpage. Facilities in covered sectors that manufacture, process, or otherwise use TRI-listed chemicals above listed threshold quantities and employ at least ten full-time equivalent employees are required to report to the TRI Program. For most TRI chemicals, the threshold quantities are 25,000 pounds of the chemical manufactured or processed, or 10,000 pounds of the chemical otherwise used during a calendar year.
- **TRI trends.** The TRI chemical list has changed over the years. To make sure year-to-year data are optimized for comparison, trend graphs in the TRI National Analysis include only chemicals that were reportable for the entire time period presented. Results which focus only on the year 2020 include all chemicals reportable for 2020. Thus, quantities mentioned in 2020-only analyses may differ slightly from the quantities shown for the year 2020 in multi-year trend analyses.
- **Data quality.** Facilities use their best available data to determine the quantities of chemicals they report to TRI. [Each year, EPA conducts an extensive data quality review](#) that includes contacting facilities about potential errors in reported information. This data quality review process helps ensure that the TRI National Analysis is based on accurate and complete information.

### TRI Reporting is Required

TRI reporting is required for facilities that meet the reporting criteria under Section 313 of the [Emergency Planning and Community Right-to-Know Act \(EPCRA\)](#). EPA investigates cases of EPCRA non-compliance and may issue civil penalties, including monetary fines. Since the TRI Program's creation, EPA has taken more than 3,400 TRI-related enforcement actions. For more information, see the [TRI Compliance and Enforcement](#) webpage.

- **Risk.** TRI data can be a useful starting point to evaluate whether chemical releases may pose potential risks to human health and the environment. However, the quantity of a chemical release alone is not necessarily an indicator of exposure to the chemical, or the potential health or environmental risks posed by the chemical. In particular, note that:
  - TRI-listed chemicals vary in their toxicity; and
  - The extent of exposure to a chemical depends on many factors such as where the chemical is released, how it is released (i.e., to air, water, or land), the chemical's properties, and what happens to the chemical in the environment.

For more information on the use of TRI data in exposure and risk evaluations, see the [TRI and Estimating Potential Risk webpage](#) and [Hazard and Potential Risk of TRI Chemicals](#) in the Releases section.

- **COVID-19.** The most recent TRI data reflect chemical waste management activities, including releases, that occurred during calendar year 2020. The COVID-19 public health emergency began in the U.S. in early 2020 and may have affected industrial operations throughout the year. Facilities may submit comments about their industrial activities, and for 2020, many facilities chose to include information on how COVID-19 impacted their operations. Some descriptions of such comments are provided below.
  - **Impacts on facility-wide operations.** Many facilities noted COVID-19-related shutdowns or reduced operations during 2020.
  - **Impacts on waste management activities.** Facilities commented on how the public health emergency changed their processes. For example, a food manufacturer noted that they used more sanitizing chemical than in the past to meet COVID-related industry requirements. An antibacterial wipe manufacturer reported that increased demand for their product led to an increase in their production and the associated amount of chemical waste generated.
  - **Impacts on pollution prevention activities.** As an example, an abrasive product manufacturer reported that COVID-19 resulted in less capital available to pursue source reduction projects.
- **Late submissions, revisions, and withdrawals.** TRI reporting forms submitted to EPA or revised after the July 1 reporting deadline may not be processed in time to be included in the National Analysis. After EPA's data quality review, the TRI data are frozen in October and this dataset is used to develop the National Analysis. Any revisions or late submissions received after this date, or withdrawals made after this date, may not be reflected in the National Analysis but are incorporated into the TRI dataset during



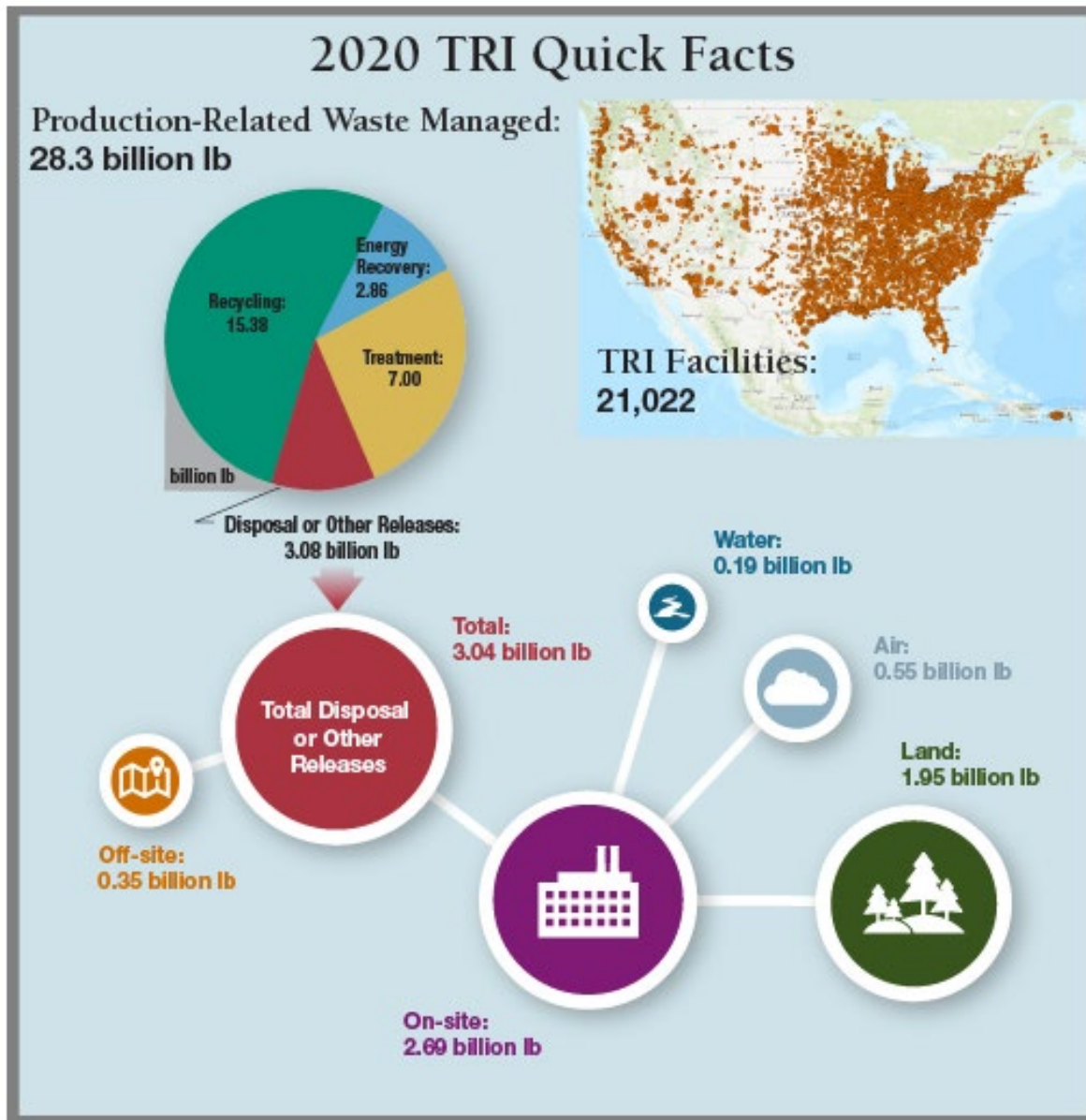
the spring data refresh and will be reflected in next year's National Analysis where the data for that reporting year are referenced.

### **Impact of Late Submissions and Revisions on the National Analysis**

To assess the impact of late submissions and revisions on the TRI National Analysis, the 2019 TRI data available in October 2021 were compared to the data that were available a year earlier, which were used to develop the 2019 TRI National Analysis. The difference between these two datasets is due to facilities that submitted late or revised TRI reporting forms. With the updated data, waste managed quantities are slightly higher and release quantities are slightly lower than originally reported: releases are 0.3% lower and waste managed is 0.2% higher than was shown in the 2019 TRI National Analysis.

## **Quick Facts for 2020**





In this figure, the value for “Disposal or Other Releases” in the production-related waste managed pie chart (3.08 billion lb) is greater than the value for “Total Disposal or Other Releases” (3.04 billion lb). There are several reasons that these quantities differ slightly, including:

- Double counting.** Total disposal or other releases (3.04 billion pound value in the figure) removes "double counting" that occurs when a facility reports transfers of TRI chemicals in waste to another TRI-reporting facility. For example, when Facility A transfers a chemical off site for disposal to Facility B, Facility A reports the chemical as transferred off site for disposal while Facility B reports the same chemical as disposed of on site. In processing the data, the TRI Program recognizes that this is the same quantity of the chemical and

includes it only once in the total disposal or other releases metric. The production-related waste managed metric in TRI, however, considers all instances where the TRI chemical in waste is managed (first as a quantity sent off site for disposal and next as a quantity disposed of on site), and reflects both the off-site transfer and the on-site disposal. Typically, double counting accounts for most of the difference between the two release quantities in the 2020 TRI Quick Facts figure.

- **Non-production related waste.** Non-production-related waste refers to TRI chemical waste that result from one-time events, rather than standard production activities. These events may include remedial actions, catastrophic events, or other events not associated with normal production processes. Non-production-related waste is included in a facility's total disposal or other releases but is not included in its production-related waste managed.

For more information on TRI, the chemicals and industry sectors it covers, the reporting requirements, and to access TRI data, [visit the TRI website](#).