



# Waste Management



CASE STUDY

# How WM's adaption of DQLabs on top of Snowflake led to 10X improvement in data quality and operational efficiency.

Waste Management, Inc. is one of the largest waste management companies in the United States, providing a wide range of waste management services for over 50 years including waste collection, transfer, disposal, and recycling. In order to effectively manage waste, the company must maintain accurate data about the waste streams it collects and processes. However, this can pose challenges for the company in terms of data management and data quality.

Data management challenges for Waste Management, Inc. include handling large amounts of data from multiple sources, including waste collection trucks, transfer stations, and landfills. This data must be collected, stored, and processed in a manner that is both efficient and secure. Additionally, the company must ensure that the data is accessible to the departments that need it, such as operations, customer service, and billing. Data quality challenges for Waste Management, Inc. include ensuring the data's reliability, accuracy, and completeness, as well as addressing potential issues with data integrity and consistency. This can be particularly challenging given the high volume of data generated by the company's operations. Inaccurate or inconsistent data can lead to problems such as incorrect billing, inefficiencies in processes, revenue loss, and reduced customer satisfaction.

## INDUSTRY

Environmental Services

## TECHNOLOGIES



## SOLUTIONS

- Data Observability
- Data Discovery
- Data Quality



**85%** DECREASE IN  
MANUAL DATA QUALITY CHECKS,  
ASSET MAPPING, AND UPKEEPING  
EFFORTS, 10X INCREASE IN OVERALL  
INTERNAL PROCESS AND EFFICIENCY



**50%** REDUCTION IN  
TOTAL COST OF OWNERSHIP AND  
OPERATIONAL COST THAN THE  
TRADITIONAL DQ PLATFORM



# Challenge

As a leading provider of comprehensive waste management services in North America, serving nearly 20 million municipal, commercial, industrial, and residential customers through its vast network of operations. The company has 367 collection operations, 355 transfer stations, 273 active landfill disposal sites, 16 waste-to-energy plants, and 104 recycling plants.

Despite its extensive network and reputation for quality service, Waste Management Inc faced several challenges in monitoring its day-to-day business activities using manual processes and route optimization. There are also no standardized business outcome dashboards and scorecards for their Line of business (LOBs), Market areas, or Business Units (BUs) to monitor the day-to-day business activities.

One of the biggest obstacles was ensuring the quality of the data collected in real-time and used for decision-making and in any company-wide operational initiatives. The vast amount of data collected daily made it difficult for the company to accurately monitor and manage its operations, resulting in a potential threat to its efficiency and productivity. Improving productivity was also a major challenge for Waste Management Inc, as it required a close eye on the data quality and the day-to-day operations of the business. These challenges posed a significant threat to the company's ability to maintain its position as a leader in the waste management industry and effectively manage its operations in a rapidly evolving industry.



“By using DQLabs, We automated the end-to-end business process and were able to continuously monitor the critical data elements with better productivity.”

**PETER KAPUR,**

Head of Data Governance, Data Quality, and MDM - Enterprise Analytics & Data Management at WM

# Solution

To address these challenges, the DQLabs modern data quality platform was deployed and integrated with WM's data environment. Then the structured, unstructured, and streaming data are collected from various data sources and stored in the Snowflake data lake for further processing.

DQLabs used the native Snowflake connector, out-of-the-box automated data catalog, data quality, data observability, and reporting modules to seamlessly ingest, profile, validate, and push down metrics across all departments, market areas, and functions to remediate and resolve issues proactively. DQLabs was able to profile and validate the data with out-of-the-box and custom business rules, which were then refined and fed into the platform to generate actionable insights.

DQLabs observability feature provided real-time visibility into data operations, enabling Waste Management Inc. to identify any missing data, or incomplete data to resolve any gaps in data fill before any consumption happens. Also, through DQLabs' continuous monitoring of the data and drift alerts, data entered manually were flagged for review at the specific business unit managerial level via email and MS Teams alerting to take immediate action.

This solution enabled Waste Management Inc to have a more comprehensive and efficient view of its operations, allowing it to improve productivity, nationwide operation and route planning and continuously monitor the quality of its data in real-time dashboards. These metrics were also made available for consumption across all domain and functional stakeholders via to provide a 360 view of functional reports collectively via CDO dashboard.

Overall, the DQLabs solution allowed the company to understand the impact of data issues on business processes and customer satisfaction.

# Result

The Waste Management team had a significant impact on the data quality by implementing DQLabs which automated their data quality checks on all business processes, the company was able to achieve improved process efficiency and route optimization.

The use of automated data quality checks and continuous monitoring of critical business data elements allowed Waste Management to work with reliable data, resulting in improved data quality reporting. This was further enhanced by the ability to perform real-time issue remediation, thanks to the alerts for immediate attention to data quality issues.

These results not only helped Waste Management achieve its business goals but also provided the team with a more comprehensive view of its operations and data quality, allowing them to make informed decisions based on accurate and reliable data.





# About

DQLabs is the Modern Data Quality platform that enables organizations to observe, measure, and discover the data that matters. With an automation-first approach and self-learning capabilities, the DQLabs platform harnesses the combined power of Data Observability, Data Quality, and Data Discovery to enable data producers, consumers, and leaders to turn data into action faster, easier, and more collaboratively.



## See DQLabs in Action

Let one of our experts show the combined power of Data Observability, Data Quality, and Data Discovery to deliver data relevance.

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🌐 [dqlabs.ai](https://dqlabs.ai)

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