

Executive Summary

Per Nevada Revised Statute (NRS) 444.570, the State Environmental Commission (SEC) is required to develop and update a statewide plan for solid waste management in Nevada. Nevada's 2022 Sustainable Materials Management Plan is an update to and expansion of the 2017 State Solid Waste Management Plan.

The 2017 State Solid Waste Management Plan primarily focused on managing waste based on a linear model of materials management where materials are extracted, transformed into products, used, and then disposed of (i.e., the “take-make-waste” model). With this type of approach, landfilling is often the go-to option for the end-of-life management of products and materials. However, in many cases, landfilling as an end-of-life option is not the best and most productive use of materials when considering other important factors – such as environmental, societal, and long-term economic and business factors.

Instead of landfilling being the primary, go-to method of waste management, it should be the last resort. When products and materials are landfilled, their material value is lost. Materials that are not feasibly recycled, composted, or reused become a loss that could have been used in another process. Additionally, the decomposition of waste in landfills poses environmental problems, such as the potential to impact groundwater or the release of methane - a powerful greenhouse gas (GHG) linked to climate change. To move beyond this current reliance on landfilling, Nevada's waste management system needs to evolve and align with a sustainable materials management (SMM) framework. SMM focuses on using and reusing materials and products more productively over their entire lifecycles. This framework promotes a circular system focused on source reduction, reuse, recycling, and composting as opposed to a linear system dependent on landfilling.

This updated Plan seeks to lay the foundation for a more circular and sustainable system. To achieve this overarching vision, the Plan strives to:

- Provide a comprehensive evaluation of the current state of Nevada's solid waste, hazardous waste, and materials management systems
- Identify ways to align waste management efforts with SMM practices by finding the best end-of-life options for materials
- Facilitate the development and adoption of source reduction and diversion solutions based on the solid waste management hierarchy and best science-based practices
- Ensure that the waste that must be disposed of is managed in a safe and environmentally protective manner
- Provide actionable information to the State, counties, municipalities, and SEC to move Nevada towards a more environmentally sound and sustainable management of materials

Additionally, this Plan analyzes and outlines key trends related to the management of solid waste, hazardous waste, and recyclable materials. Noteworthy trends identified in this Plan include:

- Municipal solid waste (MSW) generated per capita has increased over the last decade from 7.31 pounds of MSW generated daily per person in 2012 to 7.98 pounds in 2021.
- With a growing population trend and a high MSW per capita rate, Nevada will continue to see overall increases in the amount of MSW generated each year.
- In 1990, Nevada adopted a recycling rate goal of 25%. However, despite a general increase in the total tonnage of materials recycled, Nevada has struggled to reach its 25% recycling rate goal. This is because the total tonnage of landfilled MSW has also increased.
- Scrap metals, paper, and organic materials make up over 90% of the recycled tonnage collected in Nevada.
- The COVID-19 pandemic appears to have impacted the composition of waste and recycling streams. For example, Nevada experienced a surge in cardboard being recycled, most likely due to an increase in e-commerce activity during the pandemic.
- Hazardous waste generated from businesses and industries more than doubled between 2011 and 2019. Hazardous waste generation increased from approximately 12,500 tons in 2011 to 29,000 tons in 2019. Additionally, hazardous waste imported from other states has increased from about 71,000 tons to 86,000 tons during the same period. Approximately 73% of all hazardous waste treated or disposed of in the State is landfilled with prior treatment and/or stabilization.
- Like many other industries, the hazardous waste management industry was disrupted by the COVID-19 pandemic. Many of the nation's hazardous waste incinerators became unable to accept hazardous waste in mid-2021. This was due to many compounding reasons, including the pandemic and its associated labor shortages and disruptions to transportation as well as planned and unplanned facility shutdowns due to winter storms and maintenance. This situation affected the ability of some generators in Nevada to dispose of their hazardous waste in a timely manner.

Finally, this Plan presents the challenges of improving the current waste management and recycling systems and aligning these systems with SMM practices. Many of these challenges often result from a lack of one or more of the following: coordination and collaboration among stakeholders, education and awareness, data, infrastructure, and funding. To address these challenges and needs, the Plan outlines eight primary objectives as well as multiple supporting strategies and recommended action items to achieve these objectives. The eight primary objectives include the following:

- Improve collaboration and communication between stakeholders
- Improve data collection and reporting for solid waste, recycling, and relevant SMM efforts
- Enhance and expand education and outreach efforts related to topics such as source reduction, recycling, composting, and diversion

- Develop or improve programs for special wastes and emerging problematic wastes
- Improve the effectiveness of and access to recycling programs
- Promote source reduction strategies for both solid waste and hazardous waste
- Update and establish solid waste and recycling regulations to align with SMM practices and to better protect the environment and public health
- Identify and create sustainable, long-term funding opportunities and grants to address solid waste and recycling infrastructure needs, special wastes, illegal dumping, and solid waste and SMM planning

While the Nevada Division of Environmental Protection (NDEP) Bureau of Sustainable Materials Management (BSMM) is leading the effort to accomplish these objectives, the Plan encourages all waste and recycling stakeholders to participate. BSMM also encourages the Health Districts and municipalities to align their solid waste management plans with SMM practices and consider the recommended action items presented in this Plan. Together, we can develop a more sustainable and environmentally sound management of materials and help assure that Nevadans have sufficient resources to meet today's needs as well as the needs of the future.



*Think Outside the Landfill.
Think Sustainably.*

With Nevada's population boom and an increase of waste from neighboring states destined for landfills around Nevada, the time has arrived to place sustainability at the center of materials management, re-imagining landfills as a last resort.