



2025 Recycling and Waste Reduction Report

*Information about recycling in Nevada, the 2022 and
2023 statewide recycling rate, and looking forward.*



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Executive summary

Recycling has always been an essential aspect of waste management; however, to further Nevada’s sustainability goals, the Bureau of Sustainable Materials Management (BSMM) must broaden the scope of our planning to include additional materials management actions.

Recycling remains a priority for NDEP as it conserves our natural resources for future generations, saves energy by reprocessing materials instead of producing new ones, and has positive economic impacts on our communities. Additionally, effective recycling programs can lead to job creation, reductions in pollution caused by improper waste handling, and reduced landfill costs to communities. Recognizing the importance of recycling, the Nevada Legislature adopted a recycling goal of 25% in 1991 to meet the demands of waste diversion and to extend the life of many landfills within the state. Since 1991, the Nevada Division of Environmental Protection (NDEP), which oversees BSMM, has tracked the State’s recycling efforts. The 2023 recycling rate for the entire State of Nevada was 20.34%.

To initiate our current planning efforts, the NDEP began Partners for a Sustainable Nevada (PSN) in August 2021. This stakeholder group – made up of government agencies, non-profits, and private organizations – focuses on statewide sustainability issues and opportunities and works to identify and implement innovative solutions. With this progress and additional advancements, the NDEP has an opportunity to integrate PSN’s efforts into improving our recycling systems, decreasing waste generation, and increasing waste diversion across Nevada.

As Nevada transitions from viewing used materials as “waste” to a valuable commodity, our understanding of opportunities for these materials will continue to evolve. All materials, especially recyclable materials, need to be evaluated at all stages of their life cycles to identify new uses. We need to market those materials as beneficial to the state’s economy and environment. We also must embrace other models of thinking to meet our recycling goals, such as the sustainable materials management framework, which is a holistic approach that evaluates more than just the end-of-life management of products and encompasses product design, material use, manufacturing, transportation, and other elements across a product’s life cycle.

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Glossary

Assembly Bill	AB
Bureau of Sustainable Materials Management	BSMM
Construction and Demolition	C&D
High-Density Polyethylene	HDPE
Household Hazardous Waste	HHW
Industrial and Special	I&S
Municipal Solid Waste	MSW
Nevada Division of Environmental Protection	NDEP
Nevada System of Higher Education	NSHE
Partners for a Sustainable Nevada	PSN
Sustainable Materials Management	SMM
Solid Waste Infrastructure for Recycling	SWIFR
United States Environmental Protection Agency	US EPA

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1. List of Amendments to Nevada Revised Statutes (NRS) and Nevada Administrative Codes (NAC) pertinent to Solid Waste and Recycling



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Recycling Legislation

In accordance with Nevada statutes¹, the Director of the Department of Conservation and Natural Resources must submit a biennial report on or before January 31 of each odd-numbered year, detailing the status of current and proposed programs for the recycling and reuse of waste materials.

This report contains information about recycling in Nevada during 2022 and 2023, the statewide recycling rate, and possible directions for recycling in Nevada.

¹ NRS 444A.070 and 444A.110

Legislation Overview

Nevada's recycling program began with the passage of Assembly Bill (AB) 320 in 1991, which established three guiding principles:

- 1. A goal to recycle 25% of the municipal waste generated in Nevada*
- 2. A preferential procurement policy for goods made with recycled materials*
- 3. A directive to NDEP to provide education and technical assistance concerning waste reduction and recycling*

With the principles created by these statutes, the State Environmental Commission adopted regulations² to fulfill the statutory mandate. These regulations have allowed NDEP to establish recycling goals and objectives that help conserve resources and reduce landfill disposal.

Various updates to the statutes and regulations regarding recycling have been made since the initial legislation was passed; these updates are listed in Appendix 1. Changes include requiring Washoe and Clark Counties to develop recycling plans for public buildings and provide recycling information to business license applicants and requiring school districts and the Nevada System of Higher Education (NSHE) to recycle paper products. A legislative attempt was made to require that recycling containers are made available at apartment complexes, the outcome being that construction or renovation permits must incorporate space for recycling containers. This resulted in recycling access being available at a small percentage of complexes, as haulers charge extra for the service, and having recycling bins is not mandatory. The most recent regulation changes were made to allow State agencies to keep the proceeds from the sale of recyclable materials for use in their recycling programs, include e-waste in the definition of recyclable materials, and require some state agencies to report their waste diversion annually.

NDEP has limited authority to enforce the statutes regarding recycling beyond items included in the following sections. Likewise, efforts to provide recycling opportunities and comply with State reporting requirements are primarily voluntary.

Funds collected through the Solid Waste Management Account are the primary source of funding for the State's Solid Waste and Recycling Program at NDEP and a contributing funding source for solid waste management for the Northern Nevada Public Health and Southern Nevada Health Districts.

² NAC Chapter 444A

Recycling Program Requirements

NRS 444A.040 provides mandatory recycling program requirements based on the county population. Many counties provide programs above and beyond their requirements, such as Carson City who included residential curbside yard waste collection in their updated franchise agreement. Table 1 outlines the different levels of recycling services required of counties and municipalities based on population thresholds as of the 2020 U. S. Census.

Table 1: County Recycling Program Requirements

County/Municipality Population Threshold*	Program Components	Applicable Counties
100,000 or more	<p>Shall:</p> <ul style="list-style-type: none"> • Provide curbside recycling from residential premises and public buildings • Establish recycling centers as needed • Provide for collection and disposal of household hazardous wastes • Encourage businesses to reduce solid waste and recycle where possible 	<p>Clark Washoe</p>
45,000 – 100,000	<p>Shall:</p> <ul style="list-style-type: none"> • Establish recycling centers as needed • Provide for collection and disposal of household hazardous wastes <p>May:</p> <ul style="list-style-type: none"> • Provide curbside recycling from residential premises and public buildings 	<p>Carson City Douglas Elko Lyon Nye</p>
Less than 45,000	<p>May:</p> <ul style="list-style-type: none"> • Provide curbside recycling from residential premises and public buildings • Establish recycling centers as needed • Provide for collection and disposal of household hazardous wastes 	<p>Churchill Esmeralda Eureka Humboldt Lander Lincoln Mineral Pershing Storey White Pine</p>

*As of the 2020 U.S. Census



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Recycling Rate Information

All data compiled in this report includes counties that meet population requirements and have a recycling program. This includes Carson City, Clark, Douglas, Elko, Lyon, Nye, and Washoe counties.

Solid Waste Disposal

In Nevada, solid waste is categorized as either Municipal Solid Waste (MSW) or Industrial and Special (I&S) waste. Most of the waste imported to and generated in Nevada is categorized as MSW. MSW is general trash from everyday products such as food waste, furniture, packaging, and clothing. Waste categorized as I&S includes debris from construction and demolition (C&D) projects such as wood, concrete, asphalt, and drywall. Also included are several types of solid waste that have specific management requirements for permitted landfill disposal, including asbestos and biohazard waste. Typically, about 90% of industrial and special waste, by weight, is C&D waste.

Approximately 94% of the waste landfilled in Nevada is composed of two primary categories: MSW, which accounts for 61% of the waste stream, and I&S, which makes up 33%. The remaining 6% of the waste disposed of in the state originates from out-of-state sources. Notably, waste imported from other states is excluded from Nevada's recycling calculations.

While Nevada continues to focus on increasing the volume of waste diversion, reducing the total amount of waste produced will also lead to an increase in the recycling rate.

Table 2: Disposal Tonnages of Required Counties

Category	2022 Tonnage	2023 Tonnage
In-State MSW Disposal	3,526,553	3,593,668
In-state Industrial & Special Waste Disposal	1,881,415	1,892,470

Recycling

The main categories of recycled MSW materials include scrap metal, organic material, paper, plastic, special wastes (e.g., used oil, antifreeze, batteries, and paint), glass, and textiles (Table 3). Three materials make up 85% of the recycled tonnage collected in Nevada in 2023: scrap metal, paper products (including cardboard), and organic materials. Glass, at 2%, and plastics at 1%, comprise a small percentage. The remaining 12% includes special wastes and other wastes.

The collection of recyclable materials is impacted by the trends and changes within the domestic and international commodity markets – i.e., markets for selling primary (virgin) and secondary (scrap and recyclable) materials. Like many other conventional recycling programs across the nation, Nevada's are built around these volatile commodity markets. For example, if the cost to collect, transport, and process a recyclable material is greater than the cost to extract, transport, and process the raw material, then there is little incentive to collect and process that recyclable material. However, if recyclable and scrap materials provide cost, energy, and environmental savings when used instead of raw materials, then manufacturers

perceive these secondary materials as valuable and drive-up demand.³ These recycled commodity values change over time based on supply, demand, and other market factors. Except for high-density polyethylene (HDPE) plastics and glass, there has been a general downward trend in recycled commodity values in the U.S. from 2010-2018.⁴

However, while recycled commodity values for HDPE and glass have increased, HDPE values have been volatile, and glass values remain some of the lowest of the recycled materials.⁵

Due to these changing markets, recycling programs can benefit from policies and programs that help spur demand for recyclables – such as requiring the government procurement of products containing recycled materials. Currently, Nevada has a few legislative requirements to help spur the demand for products with recycled material. Such legislative requirements involve the State procurement of recycled paper and the use of recycled aggregate, recycled bituminous pavement, and recycled rubber from tires in certain Department of Transportation projects (e.g., construction, maintenance, and repair of highways).

Table 3: Recycling Tonnages

Commodity	2022 Tonnage	2023 Tonnage	Average Percentage
Metals	296,175	411,291	37%
Organics	289,910	207,220	26%
Paper	259,376	163,202	22%
Special Waste	45,456	65,477	6%
Glass	21,176	21,146	2%
Plastic	13,906	11,768	1%
Other	60,943	37,608	5%
Textiles	140	336	0.03%
Total*	987,081	918,048	100%

Note: Weights are rounded to the nearest ton

³ Institute of Scrap Recycling Industries. (2020). 2019 Recycling Industry Yearbook. <https://www.isri.org/recycling-commodities-old/recycling-industry-yearbook>

⁴ EPA. (2020). Historical Recycled Commodity Values. https://www.epa.gov/sites/default/files/2020-07/documents/historical_commodity_values_07-07-20_fnl_508.pdf

⁵ EPA. (2020). Historical Recycled Commodity Values. https://www.epa.gov/sites/default/files/2020-07/documents/historical_commodity_values_07-07-20_fnl_508.pdf

2022 and 2023 State Recycling Rate

To assess the counties’ and the State’s overall progress toward the 25% recycling goal, NDEP conducts an annual survey of recyclers and businesses to determine the recycling rate. While all recycling centers are strongly encouraged to participate in this annual survey, only those in counties with population requirements and recycling programs are required to report. Between 2022 and 2023, seven counties met this requirement: Carson City, Clark, Douglas, Elko, Lyon, Nye, and Washoe.

While reporting the quantities of all the recycled materials may seem straightforward, it demands the combined efforts and cooperation of the State and municipal governments, recycling centers, and disposal services to gather, record, and report accurate data.

The recycling rate is the ratio of recycled MSW to total MSW generated, which is composed of recyclables, household waste, and commercially generated waste. It is calculated using the following equation:

$$\text{Recycling Rate} = \frac{\text{MSW Recycled Tonnage}}{\text{MSW Recycled Tonnage} + \text{MSW Disposed Tonnage}}$$

Table 4: Recycling Rate Calculation (6 required counties only)

Category	2022	2023
MSW Recycled (tons)	973,613	906,054
MSW Disposed (tons)	3,183,965	3,301,912
Recycling Rate Percentage	22.76%	20.78%

Nevada’s most recent recycling rate is 20.78% for the six counties required to report. While the recycling rate goal was not met, Nevada has, in the past, met or exceeded the 25% recycling rate for three consecutive years – from 2011 to 2013. The years with the highest recycling rates did not necessarily divert the largest volume of recyclable materials. Instead, total waste generation was lower in the years with the highest recycling rates, suggesting recycling rates improve when less waste is generated.

To resolve these issues, Nevada could improve access to recycling collection, work to reduce contamination of recyclable materials, improve statewide and domestic markets for recyclables, use its purchasing power to procure products made with recycled content, and educate the public on proper recycling and ways to reduce overall waste generation.

County Recycling Rate Information

As depicted in Table 5, the recycling rate for each county varies. This is mainly due to the types of recycling programs that are available to households and the type of waste streams generated in an area. For example, despite not having curbside collection of recyclables, Douglas County has consistently had the highest recycling rate in the state, largely because of the composting programs that operate in the county. It is important to note that as Nevada’s most populated county, Clark County’s diversion and disposal rates significantly affect the State’s recycling rate. Rural counties’ recycling rates are often impacted by when stockpiled materials, often scrap metal, are sold.

Table 5: County Recycling Rates

	2022 Rate	2023 Rate
Carson City	11.89%	9.54%
Clark	21.92%	20.13%
Douglas	54.45%	31.89%*
Elko	6.75%	6.82%
Lyon	18.54%	38.44%
Nye	2.63%	3.03%
Washoe	29.87%	24.91%

* The large drop in Douglas County’s recycling rate is mainly due to one recycling facility that closed in 2024.

State Agency Reporting

State agencies within the executive branch are required to report the tonnages of materials they recycle each year pursuant to passage of AB353 in 2019. As recycling tonnages were not required to be tracked before 2019, many state agencies did not have this data available and used best estimates. Subsequent reports are expected to have better data as agencies are now informed of the reporting requirements. State agencies required to report have provided data in the same categories that are used to calculate the state recycling rate.

Recycling Challenges

Not only has Nevada struggled to reach a 25% recycling rate, but it falls far behind the national average of 32%.⁶ Improving Nevada's recycling rate has been difficult to achieve for many reasons:

Data Collection Method: Although regulations require recycling centers in these counties to report, there are no state enforcement provisions for failure to submit data. 118 facilities reported recycling data in 2022, and only 64 facilities reported in 2023. Often, NDEP does not receive complete and accurate reports on time or at all, thus requiring prompting and follow-up with the recycling centers. The county reporting requirements are outlined in "Recycling Program Requirements" on page 3 of this report. NDEP must also take measures to ensure that double counting of materials is avoided. This happens when a recyclable material generator and the receiving recycling center both report the same material as recycled. However, recycling centers and generators often do not report on destinations for their recycled material, which makes addressing double counting difficult. Additionally, any abnormal or inconsistent numbers are flagged, which then necessitates NDEP staff to contact the reporting facility for additional information or clarification to resolve the discrepancies.

The Southern Nevada Health District has recycling facility permit conditions that allow them to take enforcement action for facilities that fail to report.

Market volatility and low commodity values: As mentioned, if it costs more to collect and process recyclable materials than it does to extract and process raw materials, then the collection and processing of recyclable materials will remain low. Moreover, markets are not always stable or predictable; they respond to local and world events, demand, and supply. However, there is an opportunity to increase demand and develop local demand for certain recyclable materials, such as organics, within the state.

Transportation costs to get materials to market: Especially in rural areas, transporting recyclable materials long distances may not be financially feasible in the current market. One potential solution involves setting up a hub and spoke recycling system. Hubs serve as regional collection and processing centers in the larger communities, while spokes are collection points in smaller communities that deliver their recyclables to these hubs. By implementing the hub and spoke recycling model, Nevada may be able to find innovative ways to make recycling more cost-effective in these rural communities. While some progress has been made in this area, a lack of infrastructure and transportation options has limited widespread expansion or adoption of hub and spoke programs in Nevada. To assess the feasibility of this model, a portion of the Solid Waste for Infrastructure funding has been allocated for a Hub and Spoke Feasibility Study in Nevada. Further details on this study can be found in the "Current Studies" section on page 18.

High contamination rates of recyclable materials: Although single-stream collection increases participation and volume of materials, it can also result in much higher levels of contamination, reaching 25-30% at material recovery facilities. This often occurs when residents, and even visitors to the area, are unsure of what materials can go in their recycling bins.

Lack of programs or policies targeting specific materials with unique opportunities or problems: Since the State has not characterized its MSW, we cannot estimate the tonnage amounts for the main categories of MSW materials. If a waste characterization were

⁶ EPA. (2022, March 22). National Recycling Goal: Recycling Rate Measurement Comment Period. <https://www.epa.gov/recyclingstrategy/national-recycling-goal-recycling-rate-measurement-comment-period>

completed, this study could estimate a general recycling rate for each material type. The recycling rate for each material type would provide insight into which materials could benefit from targeted programs and policies, such as policies that spur demand for these materials or programs that incentivize waste minimization of a particular waste stream.

Lack of emphasis and incentives for waste prevention: Assuming MSW generation stays the same, increasing the collection of recyclable material is just one way to raise the recycling rate. Focusing on programs and policies that reduce the denominator of the recycling rate equation (i.e., total MSW generated) will also improve the recycling rate. This is especially important for materials that have weak end-use markets or have no feasible methods to be recycled.

Lack of collection services for commercial properties, multi-family buildings, and rural communities: As waste haulers charge extra for recycling at multi-family complexes and commercial properties, only a small percentage of these buildings have access to recycling. Additionally, rural communities face some unique obstacles that limit recycling access: lack of infrastructure for collection, basic processing, and storage of materials, long transportation distances to existing recycling centers, and a relatively small volume of materials generated.

Low tipping fee at landfills: When it's cheaper to dispose of a material rather than recycle it, there is less incentive to recycle. For example, one barrier to commercially composting organic material is the cost of the tipping fee. When landfill tipping fees are cheaper than compost facility tipping fees, organic matter is more likely to be landfilled than recycled.



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Recycling Education and Outreach

A comprehensive education and outreach program is vital to improving recycling throughout Nevada.

Outreach to Schools

NDEP conducts ongoing education and outreach in K-12 schools throughout the state upon request. NDEP created a curriculum focused on solid waste and recycling that aligns with the Common Core and Next Generation Science Standards for 5th grade and is adaptable to school grade levels 4-12. The curriculum is updated periodically and is available free online.⁷

Additionally, NDEP staff participated in the 2023 Elko Environmental Education Field Trip for 5th graders where students engaged in learning about waste reduction, reuse, and recycling.

Recycling Grants

NDEP has the authority to provide grants to municipalities, educational institutions, and non-profit organizations to enhance solid waste management systems and promote recycling efforts.⁸ The Nevada Recycles Grant Program was suspended for the 2020, 2021, and 2022 grant cycles due to the COVID-19 pandemic. However, the program resumed in state fiscal year 2024, resulting in two grants being awarded: one to the City of Las Vegas to educate the community about composting and provide free household composting units, and another to the University of Nevada, Las Vegas (UNLV) to enhance the appearance and marketing of the Drive Up and Drop Off community recycling program.

In state fiscal year 2025, two additional grants were awarded: one to UNLV to expand the Rebel Recycling Program to the Carol Harter Classroom Building Complex, and another to the Walker River Paiute Tribe to establish a new recycling program at 14 sites on the Walker River Paiute Reservation, including recycling education and community engagement initiatives.

Recycling Hotline, Website, Listserv, and Social Media

NDEP operates a toll-free Recycling Hotline (1-800-597-5865) to provide information on local recycling services by county. Callers can get information on common materials such as paint, fluorescent light tubes, batteries, and more unusual recyclable items, like electronics, refrigerators, cars, and propane tanks. The hotline receives approximately 30 calls a month.

Nevada Recycles and PSN partnered together to help facilitate the promotion of sustainability-related educational materials and resources. In the fall of 2022, the Nevada Recycles website became the Sustainable Nevada website. The website will continue to be a hub for recycling resources. The Sustainable Nevada website will also act as a centralized clearing house for all sustainability topics, with the main goal of providing resources that will help Nevadans recognize and implement the sustainable use of all resources. A Listserv is also

⁷ <https://ndep.nv.gov/nevada-recycles/education>

⁸ NRS 444A.110

used to send periodic email messages regarding events, notifications for grants, and other pertinent information.

Outreach to Rural Communities

NDEP has been actively promoting the importance of recycling in rural communities. However, there are major obstacles to increasing recycling in these communities:

- Lack of infrastructure for collection
- Basic processing and storage of recycled materials
- Long travel distances to existing recycling centers
- Small volume of recyclable materials generated
- Fluctuating market value of the materials

To offset some of these challenges, NDEP staff have been evaluating a “Hub and Spoke” system, which would allow individual rural recyclers (spokes) to collect larger volumes of recyclable materials in centralized locations (hubs). This type of system will help to decrease transportation costs and create a more reliable volume of materials for buyers. Funding and a timeline for this project is described in the “Current Trends and Looking Forward” section.

Despite these challenges, many rural communities have established basic recycling programs, such as drop-off bins, that are accessible to the public. Rural recycling options exist in Douglas, Churchill, Eureka, Humboldt, Lyon, Nye, Storey, Pershing, and White Pine Counties. Infrastructure and accessibility vary widely from county to county, but most landfills in Nevada currently accept scrap metal (e.g., appliances and cars), automotive batteries, motor oil, and antifreeze for recycling.

Other Community Outreach and Assistance Activities

NDEP recycling staff participate in community events such as Earth Day, America Recycles Day, Reno Aces Education Days, Nevada Day, and Silver Springs Fall Festival and serve on several recycling-oriented organizations across the state.

Earth Day 2023 included an expanded effort to cover audiences in both Northern and Southern Nevada and partnering with the PSN in Las Vegas. NDEP partnered with Sand Harbor State Park for Earth Day 2024 by participating in their Earth Day beach clean up. NDEP staff categorizing the collected litter from the event and then incorporated the litter into a new litter prevention display at the Sand Harbor Visitors Center.

NDEP partnered with the Nevada Day Parade and Waste Management in 2023 to include recycling options for participants and provided recycling education to the public.

Partners for a Sustainable Nevada

NDEP brought together stakeholders from governmental agencies, non-profit organizations, and the private sector to form the Partners for a Sustainable Nevada (PSN). This stakeholder group focuses on statewide sustainability issues and opportunities and works to identify and implement innovative solutions. In 2022, the PSN produced its Menu of Options, suggesting potential ways for pursuing sustainability in the state.⁹ As part of that document, PSN proposed many project and policy ideas to further recycling efforts, including circular economy initiatives, source reduction strategies, organics diversion policies, solutions for improving markets for recyclable materials, and reuse programs. This initiative hopes to benefit future generations by identifying and promoting opportunities to advance and expand sustainability efforts statewide.

The Composting Subgroup published a roadmap¹⁰ for implementing large-scale composting programs in Nevada. The document stemmed from the notion that the creation of large-scale organic materials diversion programs involves the collaborative support of communities, municipalities, public, and private organizations. This document, *Implementing Large-Scale Composting Programs in Nevada: A Guide for Decision Makers*, is the first in a planned series of guides called *A Roadmap to Increase Organic Material Diversion in Nevada*. These guides can assist decision makers who want to implement organics diversion strategies in their communities. The scope of this guide focuses on implementing large-scale composting programs as a key strategy for diverting organic material away from the landfill and facilitating commercially viable operations to move Nevada to a more circular economy. For current NDEP composting regulations, please visit this following link to the NDEP website - <https://ndep.nv.gov/land/waste/solid-waste/forms-guidance>.

Recycling Knowledge and Perception Survey

NDEP conducted its first statewide residential recycling knowledge and perception survey in the summer of 2024 (June 4 - July 10). The purpose of this survey was to identify gaps in the public's knowledge about recycling and understand how Nevada residents perceive recycling in their communities. Additionally, NDEP used the survey results to identify key topic areas and target audiences, and these insights will inform the development of focused education and outreach initiatives. The survey was distributed via email using SurveyMonkey's Audience service and targeted Nevada residents aged 18 and older. A sample of 1,067 Nevada residents was analyzed to create the linked report below. The following list is a high-level summary of the report findings:

⁹ https://ndep.nv.gov/uploads/recycles-docs/PSN_Menu_of_Options.pdf

¹⁰ https://ndep.nv.gov/uploads/recycles-docs/Composting_Roadmap_Final_7-20-2023.pdf

- **Most respondents think recycling is important.** 82% of respondents said that recycling is either “Very” or “Fairly” important. Only 5% said that recycling is either of “Low Importance” or “Not Important at All.”
- **Those who often recycle usually do it for environmental concerns.** 78% of respondents indicated they “Always” or “Usually” recycle. Of the respondents that indicated they “Always” or “Usually” recycle, 74% said that they recycle for environmental concerns.
- **The top reason for not recycling is not having access to services.** 22% of respondents indicated they “Sometimes” or “Never” recycle. When asked why they recycle infrequently, 41% of these respondents cited a lack of access to recycling services.
- **There is an educational opportunity to reduce the contamination of collected recyclable materials.** Keeping non-recyclable items out of the recycling bin improves the efficiency and safety of the recycling process. Among respondents who use curbside recycling, 39% reported placing plastic shopping bags and plastic film in their recycling bins. 34% reported placing plastic straws/utensils in their recycling bins. 12% cited placing batteries in the recycling bins, and 10% included electronics.
- **Respondents often reuse or repurpose plastic shopping bags.** Over half (53%) of respondents said they reuse or repurpose plastic shopping bags.
- **Respondents shared their interests in learning more about recycling.** Respondents indicated an interest in the following:
 - Learning how to recycle properly (e.g., what materials are acceptable to place in the bin)
 - Finding out where to take materials not accepted by curbside recycling services or drop-off locations
 - Understanding how the recycling process works and where materials go after collection
 - Learning about the impacts of recycling (e.g., is it making a difference?)

The entire report can be found at [https://ndep.nv.gov/uploads/recycles-docs/2024_Nevada_Residential_Recycling_Knowledge_and_Perception_Survey_\(Final\).pdf](https://ndep.nv.gov/uploads/recycles-docs/2024_Nevada_Residential_Recycling_Knowledge_and_Perception_Survey_(Final).pdf).



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Current Trends and Looking Forward

Recycling in Nevada has several challenges, as well as several opportunities to improve throughout the state.

Economic Impact

The 2020 US Environmental Protection Agency's (US EPA) Recycling Economic Report found that on average in the United States there are 1.17 jobs, \$65,230 in wages, and \$9,420 in tax revenues attributable for every 1,000 (US) tons of recyclables collected and recycled.¹¹

Nevada recycled 918,048 tons of materials in 2023, which would equate to about 1,074 jobs, \$60 million in wages, and \$8.6 million in taxes.

Extended Producer Responsibility Legislation

Extended producer responsibility (EPR) laws are initiatives to make manufacturers responsible for recycling or safely disposing of their products once consumers are done with them. When manufacturers are responsible for managing their products at end-of-life, they are often motivated to make environmentally beneficial design changes that make products more sustainable throughout the product's lifecycle. Product stewardship can reduce the financial burden on taxpayers and state and local governments for material collection and management.

Many product categories have EPR legislation across the country. Currently, thirty-three states have created producer responsibility laws specific to individual product categories or packaging material. Most laws focus on difficult-to-recycle products like electronic devices, paint, mattresses, or batteries. Model legislation by product category is available for use and modification through the [Product Stewardship Institute](#).

Sustainable Materials Management

The Bureau of Sustainable Materials Management updated its name in 2019 from the Bureau of Waste Management. The BSMM is focusing on broader sustainability issues including systemic changes that encourage materials to be used to a greater extent over their lifetime. Sustainable materials management (SMM) is an approach to using and reusing materials more productively and changing how society thinks about the use of natural resources and environmental protection.

BSMM has transitioned to a Sustainable Materials Management Plan to reflect the direction of the work more accurately being done by the Bureau. Some components of the SMM framework are using materials most productively, with an emphasis on using less, reducing

¹¹ EPA. (2022, Dec 22). Recycling Economic Information (REI) Report. <https://www.epa.gov/smm/recycling-economic-information-rei-report>

the use of toxic chemicals and their environmental impacts throughout the material life cycle, and assuring the efficient use of resources to meet future needs. By looking at a product's entire life cycle from materials extraction to product design, use, repairability, reuse, recyclability, and end-of-life management, we can find new opportunities to minimize environmental impacts, conserve resources, and reduce costs.

Current Studies

In 2023, the Nevada Division of Environmental Protection (NDEP) was awarded funding through the U.S. Environmental Protection Agency's (EPA) Solid Waste Infrastructure for Recycling (SWIFR) grant program. The SWIFR funding is being used to support several key initiatives from the Nevada SMM Plan, including a hub-and-spoke feasibility study and an economic impact and viability analysis of composting facilities.

- **Hub-and-Spoke Feasibility Study** - NDEP has contracted for a Hub-and-Spoke feasibility study to develop practical action items towards implementing a hub and spoke model that will meet the needs of the state's rural and disadvantaged communities. The intended beneficiaries are all counties within Nevada, focusing on the state's rural areas that do not have recycling services. The desired outcomes of this study are to determine the feasibility of such a model and identify barriers and opportunities associated with expanding recycling services into rural regions. By doing so, the state seeks to find ways to reduce transportation costs of recyclable materials from these areas, produce enough volume of materials to make recycling feasible for many of Nevada's rural areas, and ultimately enable widespread recycling practices throughout rural Nevada. This project is scheduled to begin in January 2025.
- **Composting Impact and Analysis Study** - NDEP will contract for a composting impact and analysis study to enhance knowledge regarding composting practices within the state while assessing the financial impact that voluntary and mandated large-scale composting programs can have on municipalities and state agencies. Additionally, a cost analysis will be conducted to determine the expenses associated with large-scale compost processing. Furthermore, the study will outline a roadmap for acquiring the necessary equipment to establish and operate a successful compost facility.

Additionally, a statewide solid waste characterization study is currently underway, with an expected completion date in the summer of 2026. This study will analyze the state's waste streams, providing valuable data on the types and percentages of materials being disposed of in Nevada landfills. The findings will help identify priority areas for waste reduction and inform policy decisions. These efforts aim to establish a foundational understanding of programs that are either absent or underdeveloped in Nevada.



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Conclusions

How to continue moving Nevada towards a more sustainable future.

In 2023, Nevada's annual recycling rate was 20.34% for the entire state, which is a decrease from prior years. Nevada's small population and large geographic area continue to present challenges, especially in the rural areas of the State. Establishing a "Hub and Spoke" system in the rural parts of the state and developing regional partnerships with neighboring states such as Arizona, Utah, and Idaho, could make recycling and access to markets more economically feasible for rural communities.

Waste reduction and market development for recycled materials should be considered top priorities if Nevada is going to meet or exceed the state recycling rate goal of 25%. Investment in recycling infrastructure is needed, along with:

- A statewide public education campaign to reduce contamination and increase participation;
- Consistent and on-going public education/information;
- Standardized labeling;
- Increased processing capabilities;
- Market development for recycled materials; and
- Effective State regulations

With the new reporting requirements for state agencies, and the ability of NDEP to gather statewide recycling and waste diversion data, NDEP is better able to track and monitor trends in the state. With the PSN stakeholder group, NDEP's diverse partnerships continue to expand and improve, helping Nevadans become more aware of recycling and waste reduction issues and opportunities across the state.

To meet our recycling rate goals, the state must look at all factors that affect the recycling rate. Nevada must not only increase our recycled material volumes, but also focus on reducing the volume of waste generated overall. NDEP will continue to support and implement recycling programs in tandem with SMM concepts, utilizing a holistic approach that encompasses and evaluates product design, material use, manufacturing, transportation, and other elements of a product's life cycle. These concepts will play a key role in Nevada's success now and well into the future. The Sustainable Materials Management Initiative will allow us to reduce environmental impacts, conserve resources, and reduce costs. To move toward a future with less waste, Nevada needs to find innovative ways to manage resources sustainably, while working with and educating industry stakeholders, municipalities, academic institutions, non-profits, the public, and others.



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Appendix 1

*Amendments to the Nevada Revised Statutes & Nevada
Administrative Code*

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Legislative Solid Waste History Since 1991

YEAR	BILL #	SUMMARY	NRS #
1991	AB 320	Added \$1 per vehicle tire fee to fund programs for the management of solid waste, established 25% recycling goal, directive to NDEP to provide education and technical assistance concerning waste reduction and recycling, requiring state procurement of certain recycled paper, guidelines for disposal of household hazardous waste.	444A.020 - .110
1991	AB 320	Designate projects that use at least 15 percent by weight recycled asphalt or other recycled products and use equipment used in highway construction that are made from recycled products.	408.281
1995	AB 449	Raised the county population threshold for requirement to offer curbside collection of recyclables from 40,000 to 100,000.	444A.040
1999	AB 564	Clark & Washoe to offer curbside collection of recyclables at public buildings; NDEP to assist State agencies to recycle; school districts to recycle paper.	Various
2001	AB 650	Changed the county population threshold for requirement to offer recycling drop-off centers from 25,000 to 40,000.	444A.040
2001	SB 424	Illegal dumping; authorities, enforcement, penalties. Clark Health District may establish a hearing officer to adjudicate alleged solid waste violations.	444.621-444.640
2005	SB 396	Allows SEC to establish a fee schedule for solid waste disposal sites within areas of NDEP jurisdiction.	444.560
2005	SB 396	Limits the authority of NDEP personnel to conduct an inspection without a search warrant.	444.570
2005	SB 396	Counties of 100,000 or greater must make information on recycling opportunities available to businesses at time of business license application.	444A.040
2005	SB 396	Counties of 40,000 or greater must review/propose changes at least every two (2) years; submit a report to the NDEP by July 30 of each even-numbered year.	444A.050
2005	SB 396	Gives authority to NDEP to award grants to specific entities for projects that enhance solid waste and recycling.	444A.110
2007	SB 331	Requires NDEP to encourage the NV System of Higher Education to research and develop methods for reduction/reclamation/conversion of solid waste.	444A.110
2007	AB 178	A county whose population is over 400,000 shall establish a pilot program for collecting and separating recyclable material with a potential as a source of renewable energy or renewable fuel.	444A.120
2009	AB 426	Requires NDEP to conduct an electronic waste study to include an inventory of existing programs and report the results with recommendations to legislation.	N/A
2009	SB 137	Municipalities with curbside recycling must offer the service to multi-family dwellings (as defined in NRS 444A), and for approval, plans for construction or major renovation of an MFD must provide space for collecting recyclables on the premises. Authorizes the System of Higher Education to use proceeds from recycling programs to support said programs. These moneys must be accounted for separately.	444A, 268, 278

2009	SB 186	Requires solid waste management authorities to permit facilities for the management of waste tires. Said facilities must obtain a permit to operate prior to commencing operations. Once a permit is issued a tire disposal ban is to be implemented in the county where located. Requires penalties for non-compliance and provides for specific exemptions to the disposal ban.	Various
2011	AB 427	Appointed a committee to conduct an interim study concerning the establishment of a program for requiring the payment and refund of deposits on recyclable products sold in this State.	N/A
2011	AB 545	Increased the population threshold for availability of recycling programs. Changed the 40,000 threshold to 45,000.	444A.040
2011	SB 417	Revise the requirement concerning the adoption of regulations by the Commission and the Division for the separation of recyclable material at the source to require those regulations to include provisions for the placement of recycled containers on the premises of apartment complexes and condominiums where those services are provided.	444A.020 & .030
2011	SB 236	Adopt policies for the use of recycled aggregate, bituminous pavement, and rubber from tires in projects for construction, reconstruction, improvement, maintenance, and repair of highways; cannot restrict use of recycled material unless scientific evidence indicates that the material compromises the soundness of the project.	408.201, .313
2013	AB 44	Restricts the authority of an association of a planned community to regulate the storage and trash recycling containers on the premises of attached or detached residential units with curbside trash and recycling collection.	116
2013	SB 449	Increases the penalties for a person who is found guilty of illegally disposing of solid waste, sewage, or certain other materials three or more times from two years to four years and adds involving the illegal disposal of any cesspool or septic tank effluent or solid waste.	444.63
2013	SB 123	Adds remediation and reuse of coal-fired generation sites under the jurisdiction of NDEP.	444.495
2015	SB 110	Requires a municipal solid waste landfill shall accept a recreational vehicle for disposal.	444.559
2019	AB 353	Adds electronic waste, paper and paper products to the term "recyclable material", requires money received for recycling to used to carry out the provisions of recycling; DCNR to deliver biennial report to LCB on the status of current and proposed programs for recycling and reuse of materials.	444A.020, .070, 218F.310

Brief History of Solid Waste Bills That Did Not Pass

YEAR	BILL #	SUMMARY	Reason for not Progressing
2011	SB 183	Requiring communities to allow a unit's owner or tonnage to store a recycling container on the premises of his or her unit	Died in the Senate Committee on Judiciary.
2011	SB 389	Establishes a bottle bill deposit program with a refund value of 5 cents.	Died in the Senate Committee on Natural Resources.
2013	ACR2	Encourages boards of county commissioners to make available programs for single-stream recycling.	N/A, resolution read.
2013	SB 183	Establishes an electronic device recovery and recycling program	Did not pass Senate vote.
2013	AB 269	Increased the Class II disposal site daily tonnage from less than 20 tons per day to less than 100 tons per day on an annual average.	Died in the Assemble Committee on Natural Resources, Agriculture, and Mining.
2013	AB 379	Requires a municipal solid waste landfill shall accept a recreational vehicle for disposal.	Approved by the Senate, Amended and passed by the Assembly, Senate did not concur with amendment, died in Senate.
2013	AB 487	Construction and demolition waste must be disposed of at a materials recycling facility if located within 30 miles of the site of work, increases recycling goal to 40%, requires each county board of county commissioners to report the efforts and progress made by each county to establish single-stream recycling.	Approved by the Assembly, amended and passed by the Senate, died in the Assembly.
2013	SB 316	Construction and demolition waste must be disposed of at a materials recycling facility if located within 30 miles of the site of work.	Approved by the Senate, died in Assembly Committee on Ways and Means.
2015	SB 122	Construction and demolition waste must be disposed of at a materials recycling facility if located within 30 miles of the site of work.	Died in the Senate Committee on Commerce, Labor and Energy
2017	SB 315	Each county whose population is 100,000 or more shall maintain a waste diversion rate of at least 25%, increase the state recycling rate goal to 35%.	Approved in the Senate, died in the Assembly Committee on Ways and Means.
2019	SB 310	Authorizes the creation of pilot programs to recycle beverage containers	Died in Senate Committee on Finance.
2021	SB 349	Allow the governing body of a county or city to allow the use of certain land for community composting and establish an urban composting zone	Approved in the Senate, do pass from the Assembly Committee on Government Affairs, died in the Chief Clerk's desk.

Nevada State Environmental Commission Solid Waste Regulatory Development Milestones

PETITION	LCB #	PETITION SUMMARY	SEC ADOPTED	EFFECTIVE DATE	NAC CHAPTER
N/A	R-183-91	Tire surcharge fee addition	12/5/1991	1/2/1992	444
N/A	R-103-92	Solid Waste landfill regulations for approved Subtitle D program	7/23/1992	9/2/1992	444
N/A	R-168-92	Minimum standards for solid waste reduction and recycling programs	9/30/1992	11/10/1992	444A
93008	R-051-93	Solid Waste landfill permitting program amendments	9/22/1993	11/8/1992	444
9300B	R-043-93	Solid Wastes fees out-of-state	9/22/1996	10/29/1993	444
94001	R-051-93	Solid Waste facilities management deadline extensions	9/22/1993	11/8/1993	444
*	R-208-93	Solid Waste landfill technical amendments to R-051-93	1/20/1994	3/1/1994	444
94018	R-115-94	Addition of "inert waste" definition & standard (withdrawn)	N/A	N/A	N/A
94019	R-116-94	Addition of waste tire recycling regulations	11/9/1994	12/16/1994	444A
95008	R-030-95	Solid Waste Financial Assurance date extension	10/3/1995	11/9/1995	444
95013	R-035-95	Solid Waste Class II landfill two year time extension	10/3/1995	11/9/1995	444
96011	R-071-96	Recycling thresholds & waste tire hauler manifests changes	9/10/1996	10/3/1996	444A
96012	R-072-96	Class II landfill sites exempt from groundwater monitoring	9/10/1996	10/3/1996	444
97001	N/A	Class II landfills (federal "rifle-shot reforms for rural landfills", daily cover, final cover, gas monitoring)	3/6/1997	3/10/1997	444
98003	R-034-98	Transfer station standards and application requirements, 24-hr. landfill operating day, small landfill flexibility, Class III Site revisions	3/25/1998	4/17/1998	444
2000-02	R-173-99	Materials Recovery Facility standards and application requirements	12/16/1999	2/9/2000	444
2001-03	R-038-01	Recycling at public buildings	9/18/2001	10/25/2001	444A
2001-03	R-39-01	Procedures for recycling by State agencies	9/18/2001	10/25/2001	444A
2002-12	R-105-02	Remote open burning of yard waste & extended waste storage, Solid Waste landfill 5-year capacity survey, and compost plant permit requirements	9/11/2002	10/18/2002	444
2005-09	R176-05	Procedures for grants to enhance Solid Waste Management Systems and promote the efficient use of resources	3/8/2006	5/4/2006	444A
2012-02	R123-11	Amends NAC 444.748 to clarify the jurisdictional responsibilities associated with appeals concerning the management and disposition of solid waste by Nevada's three Solid Waste Management Authorities	2/15/2012	5/30/2012	444
N/A	R037-13	Authorizes NDEP to collect solid waste management fees	10/8/2014	10/24/2014	444