Compost Generation and Use in New Mexico: A study commissioned by the New Mexico Department of Agriculture's Healthy Soil Program

SCS ENGINEERS

01224139.00 | May 23, 2025

4683 Chabot Drive, Suite 200
Pleasanton, CA 94588
925-426-0080

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EXECUTIVE SUMMARY

The New Mexico Department of Agriculture (NMDA) commissioned this study to fulfill its mandate from the Healthy Soil Act. To understand the NMDA's role in the production and use of compost for the benefit of New Mexico's soils, SCS Engineers (SCS) completed a series of tasks to identify the factors that affect the adoption of composting and the use of compost in the State. The goal of this study is to identify ways to increase the production and use of compost to build healthy soils in New Mexico.

The use of compost is essential for sustainable agriculture by improving soil health and cropland productivity. Compost application enhances soil structure, increases soil water holding capacity, and supports myriad beneficial microorganisms, leading to healthier crops and potentially higher yields. Compost reduces the need for chemical fertilizer inputs and promotes soil fertility. The practice of diverting organic waste (i.e. materials of plant or animal origin) away from landfills provides the environmental benefit of reduced greenhouse gas emissions. Our team's research, documented in this report, estimates that over 970,000 tons per year of organic waste is landfilled in New Mexico. When organic waste is landfilled, the low-oxygen conditions cause the organic waste to decompose anaerobically producing methane – a greenhouse gas with 30 times greater warming potential than carbon dioxide over a 100-year period.

At the State level, compost facilities are regulated by the New Mexico Environment Department's (NMED) Solid Waste Bureau (SWB), and operators must submit a registration to the SWB prior to operation. Facilities typically fall into one of two categories: facilities receiving less than 25 tons per day of organic waste; and those receiving greater than 25 tons per day. Facilities accepting special waste, such as meat production offal, have a lower threshold of five tons per day. All facilities, regardless of feedstock type or tonnage, must also submit a notice of intent (NOI) to discharge which is reviewed by the NMED's Groundwater Quality Bureau (GWB).

Compost producers that sell their products and distributors must register each unique product with NMDA in compliance with the Fertilizer Act. Each product type should be registered annually at a cost of five dollars. Compost producers that do not sell their compost are not required to register their products.

The federal Food Safety Modernization Act (FSMA) authorizes the US Food and Drug Administration to mandate protocols for food facilities, safety standards for production and harvesting of fruits and vegetables, and defense against intentional adulteration. Compost falls under the FSMA's term Biological Soil Amendments. FSMA accepts the well-established protocol for composting, the Process to Further Reduce Pathogens (PFRP). Compost originating from animal waste that has met PFRP may be applied to crops covered by FSMA. Additionally, compost produced from animal waste may be reapplied with no minimum application interval.

All state-registered solid waste and recycling facilities, including registered compost facilities, are required to track waste stream tonnage and input. In 2023, the total tonnage of onsite treated waste (landfilled or incinerated) amounted to just over 3,174,564 tons, of which 49 percent (1,542,824 tons) was classified as Municipal Solid Waste (MSW). The total reported composted waste was 284,355 tons, or nine percent of the total managed waste in New Mexico.

Reports from 2022 and 2023 of registered New Mexico facilities highlight an overall decline in received waste, including Municipal Solid Waste (MSW), and green waste feedstock. Of the 33 reporting counties, 12, including high-population areas such as Bernalillo and Santa Fe counties,

reported declines in both onsite and offsite composting. Another 12 counties showed slight increases (less than one percent) in composting activity, while nine counties reported no composting activity at all.

A number of barriers for increased production and use of compost were identified in our research. In urban areas, franchise agreements, local zoning, and municipal budgets all act as barriers for wider implementation of compost production. Meanwhile, barriers in rural areas include high poverty rates, illegal dumping, limited local government resources, high transportation costs, and low market demand for compost.

Our team also researched outreach and education efforts on production and use of compost. We heard from local experts working on outreach and education and their perspectives on opportunities to enhance outreach and education. We contacted individuals at municipalities throughout New Mexico to provide specific details on county-led education and outreach efforts. We also contacted representatives from university extension services and regional utility authorities. Respondents highlighted progress towards local education and outreach efforts but expressed the need for more regional education and outreach combined with comprehensive statewide education and outreach.

A series of case studies were researched by our team to gain perspective on the types of composting models that exist. Our studies included a composting operation at Lescombes Family Vineyards; Reunity Resources, a non-profit organization focusing on organic waste management through food scrap diversion and composting; and Soilutions, a composting operation in Albuquerque's South Valley.

To learn more about other states' progress in the composting sector, our team researched regulations, composting programs, healthy soil programs, and funding mechanisms in Arizona, Colorado, Texas, and Utah. We found that each state has a healthy soil program, although some have less funding available. Additionally, we explored model policies for promoting compost procurement and reviewed policies in California and Washington that establish goals to divert organic waste from landfills. Both state policies include a procurement component requiring jurisdictions to purchase compost, or other products made from recycled organic waste.

Finally, our team investigated federal grant programs to identify potential funding sources that can help incentivize investment in composting infrastructure and the use of compost by land managers. We researched the USDA's Conservation Practice Standard Code 336 and associated codes and programs. Land managers can receive financial assistance for the addition of compost to eligible land. Additionally, we reviewed recent federally administered programs including the United States Environmental Protection Agency (EPA) Solid Waste Infrastructure for Recycling Program (SWIFR) and the United States Department of Agriculture (USDA) Composting and Food Waste Reduction (CFWR) cooperative agreements. These grant programs focus on diversion of organic waste and have provided funding for several projects in New Mexico and neighboring states. The CFWR Program has been awarding funds since 2020. Over five years, 144 projects have been funded, including over two dozen projects in New Mexico or nearby states. Of the projects in this region, awards ranged from $45,196 to $300,000 during federal fiscal years 2020 through 2022, with award amounts increasing over time. The City of Las Cruces and the Upper Gila Watershed Alliance in Silver City each received awards of $400,000.

1.0 INTRODUCTION

The New Mexico Department of Agriculture (NMDA) implements the Healthy Soil Act which directs the department to "identify ways to increase the generation and use of compost to build healthy soils" (*Section 76-25-4 NMSA 1978*). To fulfill this mandate, NMDA contracted with SCS Engineers (SCS) and our team of subcontractors (Reunity Resources and Sunny505) to conduct a comprehensive compost study of the state of New Mexico with the following goals:

- Identify ways to increase the generation of compost in New Mexico.
- Identify ways to increase the use of compost among New Mexico's agricultural producers.

1.1 REPORT TOPICS

This report covers the following topics:

- Legal/Administrative Requirements
- Organic Waste Streams Research
- Assess Current Programs and Operations
- Analyze In-State Education and Outreach
- New Mexico Case Studies
- Identify and Document Other State Models
- Research Federal Grant Programs

2.0 LEGAL AND ADMINISTRATIVE REQUIREMENTS

The following section documents the legal and administrative requirements that apply to compost producers and distributors in New Mexico. We cover state and federal regulations with jurisdiction over compost facilities and the development and/or expansion of existing composting[1] facilities. Our investigation includes research on permitting and reporting requirements, as well as waste management plans and directives at the local level. We also examine compost use regulations that apply to distributors and specific agricultural users. Finally, we look at future regulations or issues that are trending nationally that New Mexico might consider addressing.

2.1 SUMMARY OF REGULATIONS

At the local level, a compost producer must first determine whether their proposed location for compost production is appropriately zoned for the use. In our research, some counties mention composting as a land use, but many do not and are assumed to be covered by terms such as recycling centers, solid waste facilities, or similar. Some counties have no zoning ordinance; instead they have subdivision regulations which describe the conditions for general land-use development.

Compost producers should also become familiar with the state's solid waste rules. The compost producer should determine whether it will be handling only compostable materials generated on-site

[1] Composting is defined in the New Mexico Administrative Code as:

"The process by which biological decomposition of organic material is carried out under controlled conditions. The process stabilizes the organic fraction into a material which can be easily and safely stored, handled and used in an environmentally acceptable manner."

and composting the material on-site, or if the producer will be accepting compostable materials from off-site generators. Exemptions apply for compost producers who process materials that were generated on-site. In typical business models, a compost producer receives materials from off-site generators, making it ineligible for exemption.

There are two types of registrations. A tonnage threshold distinguishes the two registrations. At a minimum, a compost producer must submit the "Compost Facility Registration Application" to the New Mexico Environment Department's (NMED) Solid Waste Bureau (SWB). As discussed below, if a producer plans to accept tonnages over the threshold, they will be required to append their registration application with an advanced registration.

Regardless of inbound tonnage, composting facilities can pose a potential risk to groundwater in the state. Therefore, a notice of intent to discharge (NOI) must be submitted with the registration application. The next level of regulation exists at the federal level under the United States Environmental Protection Agency (EPA) if there are potential impacts to jurisdictional surface waters under the Clean Water Act. There are two permits that may apply: the construction general permit and the multi-sector general permit.

Compost producers selling compost in the state must comply with the New Mexico Fertilizer Act, which requires annual product registration and quarterly tonnage reports. Finally, compost derived from animal wastes or biosolids (treated solids from wastewater treatment) must adhere to Section 40 of the Code of Federal Regulations (40 CFR 503) for use as a biological soil amendment on crops covered by the Food Safety Modernization Act.

Mismanaged composting can lead to the proliferation of harmful pathogens, the release of offensive odors, and the leaching of nutrients into water sources, all of which pose significant health and environmental risks. By maintaining standards for compost production, Regulators can confirm that composting processes are carried out in a controlled and safe manner.

2.1.1 Purpose of Regulations

Composting in New Mexico is regulated by the NMED - SWB. Composting regulations can be found in *Title 20 – Environmental Protection, Chapter 9 – Solid Waste, Part 3 – Solid Waste Facility Permits and Registrations* of the New Mexico Administrative Code (NMAC). Through these regulations the SWB ensures the protection of the public and New Mexico's air, land, and water.

The Association of American Plant Food Control Officials (AAPFCO) concur that compost has several benefits which include increasing soil's water-holding capacity, reducing soil erosion, acting as a source of plant growth nutrients, supporting soil biodiversity, and increasing soil organic carbon.

The process of composting materials that would otherwise be landfilled is also beneficial to the atmosphere by reducing methane emission, a greenhouse gas that is over 20 times more potent than carbon dioxide. Diversion of organic waste has the added benefit of extending the lifespan of the state's landfills by reducing the total tonnage of waste received.

Composting is not without its own potential impacts on the environment, but the practice generates far fewer greenhouse gases than landfilling. The use of best management practices, trained operations staff, and well-designed facilities, many of the impacts can be mitigated. Composting is a biological process requiring aerobic microorganisms to consume organic waste. The respiration of microorganisms as they decompose organic waste along with ancillary composting equipment results

in emissions of carbon dioxide, volatile organic compounds (VOCs), particulate matter, and trace gases (methane, hydrogen sulfide, among others). These air-quality risks can be reduced through active aeration to promote aerobic conditions which reduces trace gas emissions; the use of finished compost as a cover over the composting mixture to reduce VOCs; and watering during turning operations to reduce fugitive dust. Further measures can be taken to reduce diesel emissions by using electric grinding equipment and aerated static pile technology instead of turned windrows.

Water quality can also be impacted by composting operations. Composting operations tend to have large volumes of nutrient-rich compostable materials onsite. Compostable materials may also contain metals, salts, pathogens, and compounds that can deplete dissolved oxygen in water.

Leachate, a liquid that flows out of compostable materials, often has high concentrations of volatile organic compounds that can seep into permeable soils, affecting groundwater. On impermeable surfaces without adequate collection basins, leachate can run off into surface waters, adversely impacting water quality. To protect the waters of the state, facilities are required to? implement design strategies to minimize stormwater run-on and runoff. Facilities should also consider drainage and collection of stormwater and leachate. Many composting operations use lined collection ponds and compacted clay or impervious working surfaces to direct water to an aerated collection basin for reapplication into the composting process.

The use and application of compost can carry risks for human health. These risks are mitigated through a standard time-temperature process that reduces the presence of human pathogens to acceptable limits.

As noted, the act of composting and compost use has many benefits for soils, plants, and the environment. The regulatory framework is designed to protect the public and environment from potential impacts that can arise from compost facilities and from the use of compost.

2.1.2 Compost Producer Requirements

Composting facilities are regulated by the Solid Waste Rules in NMAC section 20.9.3.27. No fee is required with the submission of the registration application. Additional registration requirements could apply depending on daily inbound tonnage or acceptance of special waste, such as killing plant offal, petroleum-contaminated soils, and others found under NMAC 20.9.2.7(S)(13) *Special Waste*.

Owner/operators must submit a completed *Compost Facility Registration Application* at least 30 days prior to conducting operations. The application at the time of this writing is 22 pages and serves as both the application and operations plan. A new registration must be completed every five years. Planned operational changes must be updated on the registration application and submitted to the SWB within 30 days of the change. NMAC sections 20.9.3.27 and 20.9.3.28 can be found in Appendix A.

As noted on the registration application and discussed in further detail below, composting facilities may also be regulated by NMED's Groundwater Quality Bureau (GWB), the EPA's National Pollution Discharge Elimination System (NPDES), NMDA's Fertilizer Act, and the New Mexico State Fire Marshal.

Exceptions to the requirements in section 20.9.2–20.9.10 are detailed in NMAC section 20.9.2.11. Agricultural enterprises, homeowners, tenants or agricultural tenants performing composting of solid waste (in this case, compostable materials) generated on the property is excepted under subsection

A. Thus, composting operations that compost only the material generated onsite are excepted from the requirements in section 20.9.2–20.9.10 NMAC. It is important to note that an exception from these rules does not imply exception from other regulations that may apply, such as the NPDES and New Mexico Fertilizer Act.

2.1.3 Registration and Operator Training

The regulations split composting facility registrations into two categories based on an inbound tonnage threshold and/or based on a tonnage threshold of special waste. Facilities that intend to accept 25 tons per day (TPD) or less of source-separated compostable material must follow the registration requirements set forth in NMAC section 20.9.3.27. Facilities that will accept less than five TPD of special waste must follow the registration requirements set forth in NMAC section 20.9.3.27.

The registration application has two main sections: facility information, and an operations plan. The bulk of the application is related to the operations plan, focusing on details related to:

- Business operations.
- Physical site operations.
- Contingency plans for excess material, equipment downtime, contamination (non-compostable solid waste).
- Staff training of a certified operator through SWB and New Mexico Recycling Coalition (NMRC).
- Equipment used.
- Feedstocks information, record keeping, and reporting.
- Process for managing inbound material.
- Composting technology used and management details (turning, watering, monitoring, curing).
- Compost product markets.
- Prevention of vectors and nuisances (litter, odor, noise).
- Fire prevention and suppression.
- Context map.
- Site plan.
- Proof of compliance/exemption from other permits.

Subsection D of section 20.9.3.27 details the full list of information required for the facility registration process; however, the most user-friendly version is the registration application, which can be downloaded from the SWB's website and found in **Appendix B**.

Certified Operator Training

The certified operator training course is a collaboration of the SWB and NMRC. A three-day training is held annually to cover a wide range of topics encountered in the composting industry, from composting science and techniques to regulations and product specifications. While the training is open to anyone, certification is granted to only those students who have completed one year of experience at a compost facility. Courses are taught by members of NMED, NMRC, and experts brought in to teach specific topics. The training includes a compost facility tour. The certification requires certified operators to maintain professional credit hours. The training itself provides 24

credits. Certified operators have a three-year period to accrue 24 credits and can opt for alternative training opportunities noted on NMED's website.

2.1.4 Advanced Registration

Compost facilities accepting more than 25 TPD of source-separated compostable material or greater than five TPD of special waste must comply with registration requirements outlined in NMAC section 20.9.3.28, in addition to the requirements outlined in section 20.9.3.27.The advanced registration requires the submission of supplemental drawings of the proposed facility, waste composition information, feedstock pre-treatment process, physical and chemical properties of the feedstocks, description of the composting process, intended use of finished compost product, and demonstration that ground water will be protected.

The owner/operator shall submit a nuisance abatement plan detailing how it would comply with an abatement order to clean up and dispose of all compostable material, end products, fugitive trash, solid waste, or other materials.

A financial assurance mechanism must also be submitted to guarantee sufficient funds for nuisance abatement, which must be approved by the secretary (NMED) prior to operation. Allowed mechanisms include trust funds, surety bonds, irrevocable letter of credit, insurance, and others. Owner/operators must keep records sufficient to demonstrate that the amount of compostable material or end product on site does not exceed the estimated amount of product used to calculate the cost of abatement of a nuisance. For example, if an owner/operator used 40,000 cubic yards for its financial assurance estimate, but if in practice the owner/operator has over 40,000 cubic yards on site, the owner/operator would need to rectify this through reduction of material on site or modification to its financial assurance accounting for the additional volume. These inventory records must be readily available if requested by the SWB. The full list of allowable mechanisms is included in Appendix C.

2.1.5 State and Federal Requirements to Protect Water Quality

Composting facilities may also be regulated by other agencies or bureaus such as NMED's Groundwater Quality Bureau (GWB), NMED's Surface Water Quality Bureau, and the EPA.

Groundwater Discharge Permitting

NMED's GWB carries out the state's Water Quality Act. Regulations related to ground and surface water protection can be found in NMAC Title 20, Chapter 6. The SWB requires compost facility registrants to attach one of the following: a GWB notice of intent (NOI), a letter from the GWB documenting no discharge permit is needed, or a GWB discharge permit number.

In discussion with the GWB we found that applicants should submit their *compost facility registration application* and GWB NOI to the SWB and GWB for review. A copy of the NOI can be found in Appendix D. The GWB looks at each NOI on a case-by-case basis, with special interest in the discharge volume of compost leachate and its composition. After reviewing the NOI, the GWB will determine whether the applicant needs a discharge permit. Due to the arid climate, leachate from composting operations is uncommon. In interviews with GWB employees, we learned that the GWB does not track permit holders by the type of operation (such as composting). Employees at GWB use their familiarity with permit holders to know who performs composting. Based on employee knowledge, only three were specifically mentioned as composting operations with groundwater

discharge permits. This suggests many composting operations in New Mexico conserve moisture content in their composting process and prevent leaching of water into the ground.

The review period for an NOI is approximately two weeks. There are no review fees associated with the NOI; however, the NOI must be notarized which will carry a fee. If a discharge permit is required, the permit review process is approximately six months and the associated fees vary.

Surface Water Discharge Permitting

The NPDES was created by the Clean Water Act in 1972. The program is administered by the EPA in the State of New Mexico, and NMED assists by conducting inspections. The applicability of an NPDES permit depends on site-specific factors, such as where the facility will discharge pollutants. If pollutants are discharged to a municipal sanitary sewer, an NPDES permit is not required. For compost facilities, the best practice is to divert and capture all onsite stormwater and process water for reapplication onto actively composting piles, thus eliminating potential discharges to surrounding surface waters.

The EPA maintains a list of NPDES-permitted facilities in New Mexico. At the time of this research, there were no compost facilities with an NPDES permit.

A *Construction General* permit may be required if the construction of the site is greater than one acre, or less than one acre but part of a larger development plan that will ultimately disturb more than one acre. More information can be found on the EPA's website under the NPDES program.

2.1.6 Local Directives

SCS also conducted desktop research of local regulations in a select number of counties and cities related to the production and distribution of compost, as well as the development and expansion of existing composting facilities.

In terms of zoning/land use, Santa Fe County provides a list of eight zones within which composting is permitted as a use by right. An additional five zones require a conditional use permit. Other counties that the SCS team researched included Bernalillo, Doña Ana, McKinley, and San Juan. Of these counties, only one had language mentioning uses similar to composting (recycling), and two had no zoning ordinances.

No other ordinances or legislative actions were found regarding the development and expansion of existing composting facilities in New Mexico.

2.1.7 Fire Plan

The State Fire Marshal adopts the International Fire Code (IFC) regulations. According to section 2808 of the IFC, compost facilities must adhere to pile size requirements, fire lanes between piles, pile temperature monitoring, portable fire extinguishers on all equipment, and an emergency plan for monitoring, controlling, and extinguishing spot fires. The fire plan should be submitted to the State Fire Marshal for review and approval.

2.2 COMPOST USE REGULATIONS

Understanding the regulatory influences surrounding compost use can be beneficial in creating programs that promote the use of compost. Additionally, regulations aid in creating a stable market for compost producers.

2.2.1 New Mexico Fertilizer Act (1978)

The New Mexico Fertilizer Act, passed in 1978, sets guidelines for transparent marketing and labeling of fertilizers and soil conditioners. The act is administered by NMDA. The act requires that fertilizer producers (including compost producers) register products before distributing them in the state and requires compliance with labeling, inspections, ingredient quality, and sampling requirements.

While composts do contain essential elements necessary for plant growth, such as nitrogen, phosphorus, and potassium, compost products in New Mexico are generally considered soil conditioners. This can be both advantageous and challenging for the compost producer as most composts can provide plant nutrients, albeit inconsistently from batch to batch. Fertilizers are guaranteed (through product analysis) to provide set levels of nutrients. For soil conditioners, there are acceptable claims that may be marketed with compost products. These acceptable claims do not bear the same risk of penalty if the product does not meet the claim. Sellers of fertilizers whose products are found to be deficient in a specific nutrient as compared to their claim, must pay a penalty for the deficiency directly to the consumer(s) of the batch/lot that did not meet the claim.

Compost producers that do not sell their compost are not required to register their products. For those compost producers that sell their products, they should register each product type annually at a cost of $5 each. Additionally, products require an inspection fee. If products are sold in quantities of five pounds or less, the inspection fee is $10. If the product is sold in quantities greater than five pounds, a quarterly inspection fee of $0.15/ton must be paid with a quarterly tonnage report.

Quarterly reports must be submitted even if reporting a “0” for no distributed tonnage. Noncompliance can result in a “stop sale” issuance from the department.

Soil conditioners must be accompanied by a legible label with information describing the weight or volume, brand name, statement of composition or purpose, feedstock statement declaring the materials from which the product was derived, and the name and address of the registrant. Product claims allowable for use on bulk soil conditioner labels are listed here and can be found in NMAC section 21.18.2.9.

Claims allowable for use on bulk soil conditioner labeling include:

- Improves soil structure and porosity - creating a better plant root environment.
- Increases moisture infiltration and permeability and reduces bulk density of heavy soil - improving moisture infiltration rates and reducing erosion and runoff.
- Improves the moisture holding capacity of light soil - reducing water loss and nutrient leaching and improving moisture retention.
- Improves the cation exchange capacity of soils.
- Supplies organic matter.
- Aids the proliferation of soil microorganisms.

- Supplies beneficial microorganisms to soils and growing media.
- Encourages vigorous root growth.
- Allows plants to more effectively utilize nutrients while reducing nutrient loss by leaching.
- Enables soils to retain nutrients longer.
- Contains humus - assisting in soil aggregation and making nutrients more available for plant uptake.
- Buffers soil pH.

Fertilizer labeling differs from soil conditioner labeling in several ways. Fertilizers must include guaranteed analysis of total nitrogen, phosphorus, and potassium. Fertilizer labels must also provide directions for use. A copy of the *Application for Registration of Commercial Fertilizer or Soil Conditioner* can be found in **Appendix E**.

2.2.2 Food Safety Modernization Act (2011)

The Food Safety Modernization Act (FSMA) was signed into federal law in 2011. Further information can be found in **Appendix F**. FSMA authorizes the U.S. Food and Drug Administration (FDA) to mandate protocols for food facilities, safety standards for production and harvesting of fruits and vegetables, and defense against intentional adulteration.

Compost falls under FSMA's term Biological Soil Amendments. The term is further defined to specify from what feedstock the biological soil amendment was derived. Title 21, Chapter I, Subchapter B, Part 112, Subpart F *Biological Soil Amendments of Animal Origin and Human Waste* states the conditions that must be met for compost derived from animal wastes and/or human wastes.

Compost derived from animal origin may be used to grow produce covered under FSMA if the compost has been processed according to several acceptable performance requirements. FSMA accepts the well-established protocol for composting:

- Static composting that maintains aerobic (i.e., oxygenated) conditions at a minimum of 131 °F (55°C) for three consecutive days and is followed by adequate curing; and

- Turned composting that maintains aerobic conditions at a minimum of 131 °F (55 °C) for 15 days (which do not have to be consecutive), with a minimum of five turnings, and is followed by adequate curing.

The requirements match those of **Appendix B**, part B of 40 CFR, part 503, subpart D. The composting industry typically refers to this as the Process to Further Reduce Pathogens (PFRP) which can be found in **Appendix G**.

Compost of animal origin that has met PFRP may be applied *in a manner that minimizes the potential for contact with covered produce during and after application.* Additionally, compost of animal origin may be reapplied with no minimum application interval (i.e. reapplication of compost may be done within the same day as the previous compost application). Note: "covered" in this context refers to produce that falls within the scope of FSMA.

Section 112.53 states that sewage sludge biosolids that have met the requirements of 40 CFR part 503, subpart D may be used for growing produce covered under FSMA. Part 503 regulation provides

specific conditions for biosolids to meet pathogen reduction and vector attraction reduction requirements.

2.3 FUTURE REGULATIONS

New Mexico Pollution Discharge Elimination System

In 2023 the U.S. Supreme Court ruling in *Sackett v. Environmental Protection Agency* narrowed the scope of federal jurisdiction under the Clean Water Act, which scaled back federal protection of surface waters in New Mexico. Numerous waters were removed from protection such as ephemeral waters, isolated wetlands, and dry streambeds where water is located underground. NMED is seeking "primacy" to develop a state-run surface water quality permitting program. According to the Surface Water Quality Bureau, the state surface water permitting program is aiming for a 2027 launch. At the time of this writing, it is uncertain whether there will be permitting requirements for compost facilities.

PFAS / "Forever Chemicals"

Per- and polyfluoroalkyl substances, commonly referred to as PFAS or "forever chemicals", are of growing concern in the United States. Some states are developing new requirements to limit the allowable concentration of PFAS in products applied to soil. In September 2024, the Office of the Texas State Chemist proposed to ban the use of biosolids labeled as fertilizers because they contain PFAS. In 2022, the State of Maine banned the beneficial use of biosolids and recycled biosolids (biosolids compost) for soil amendment. According to SaferStates.org, 30 states have adopted a combined 155 policies to protect people from PFAS.

It is anticipated that more states will introduce policies that protect the public and environment from "forever chemicals". The EPA has taken several actions including recommended benchmarks for water quality criteria to help states and Tribes protect aquatic ecosystems, designation of two forever chemicals as hazardous substances under the Superfund Act, and a national drinking water standard.

Air Quality

Another area of potential regulation is that of greenhouse gas emissions from composting operations. The EPA's Clean Air Act (CAA) has no specific mandates for composting, but states have the authority under the CAA to regulate composting if they choose. Some jurisdictions throughout the U.S. have emissions regulations for the equipment used on composting sites but not the compost piles; others have regulations on odor emissions; and a handful have requirements for all emissions – whether from a diesel engine or a compost pile. Our research indicates that New Mexico does not have emissions requirements for composting facilities and associated equipment.

2.4 CONCLUSION

New Mexico regulates composting through NMED's SWB using two categories of registration. Backyard composting and on-farm composting that compost waste generated onsite are exceptions to the regulations. Compost producers receiving compostable materials in amounts less than 25 tons per day, or less than five tons per day of special waste (such as offal), are required to submit a compost facility registration application. Operations accepting greater than 25 tons per day of compostable materials, or greater than five tons per day of special waste must submit the C*ompost*

Facility Registration Application and additional information describing the feedstocks, composting technology, information demonstrating the facility has financial assurance for cleanups, and records documenting onsite volume of material.

An NOI must be submitted to the GWB to determine whether the facility needs a groundwater discharge permit. With regards to the EPA's NPDES program, facilities may be required to obtain a *construction general* permit for the development of a new composting facility that disturbs more than one acre of land.

Based on our findings, NPDES discharge permits in New Mexico are issued primarily to wastewater treatment plants and mines; no existing New Mexico compost facilities are listed on the EPA's database.

If a compost producer intends to sell compost products, each type of product must be registered with NMDA. Further, bulk sales of compost must be reported quarterly along with an associated fee.

Compost is a soil conditioner and may use claims clearly specified in the New Mexico Fertilizer Act. Any nutrient claims made for a compost product would require the product to be registered as a fertilizer, subjecting the product to nutrient guarantees that must be met.

The Food Safety Modernization Act requires composts derived from animal products or biosolids to meet federal standards for pathogen reduction, and records must be kept by the compost producer documenting time, temperature, and turning requirements for each batch of compost. Table 1 below identifies the various regulatory requirements reviewed in this section and the jurisdictional level at which they are overseen.

Table 1. Regulatory Oversight by Jurisdiction

Local	State				Federal	
	NMED Solid Waste Bureau	NMED Ground Water Quality Bureau	NMDA	Fire Mashal	EPA	FDA
Zoning/Land Use Permit	Facility Registration	Notice of Intent to Discharge	Compost Sales under New Mexico Fertilizer Act	Fire Plan	Construction General Permit (NPDES)	Food Safety Modernization Act
Construction Permit	Advanced Registration	Groundwater Discharge Permit (if needed)			Industrial General Permit (NPDES)	

2.4.1 Key Takeaways

- Composting operations must register their facilities if they don't meet the criteria set forth in NMAC 20.9.2.11 Exceptions.
- Advanced registration is required for facilities that receive tonnages of organic waste more than 25 tons per day of organic waste or 5 tons per day of waste that would have otherwise become special waste (such as offal).

- A notice of intent (NOI) to discharge must be submitted at the time of submitting a composting facility registration application.
- Producers must register their compost products with the NMDA as required by the Fertilizer Act.
- The Food Safety Modernization Act sets requirements for composts used on covered crops which are aligned with the U.S. EPA's existing Process to Further Reduce Pathogens.
- Future permitting requirements could be implemented by the New Mexico Pollution Discharge Elimination System.

3.0 WASTE STREAM ANALYSIS

SCS partnered with Reunity Resources to perform an analysis of statewide composting in New Mexico, assessing urban and rural organic waste streams, existing barriers to organic waste collection, and potential opportunities to increase organic waste diversion. Incorporating self-reported data from registered facilities, interviews with operators of small-scale/on-farm composting projects, and conversations with industry leaders throughout the state, we present information on the feasibility of and strategies for enhancing composting infrastructure and increasing composting practices across the state.

Annual reporting is a State requirement for landfills, transfer stations, processing facilities, and registered composting and recycling facilities. Reports are filed via an online portal maintained by the NMED Solid Waste Bureau (SWB). Owners/operators must file their annual report within 45 days of the previous calendar year (December 31). All reporting is done by weight in tons, with standardized conversion factors provided by the SWB in its reporting instructions. Reporting instructions and volume-to-weight conversion factors can be found in Appendix H.

Permitted facilities (landfills, transfer stations, and processing facilities) track biosolids and green waste; however, other organic waste types present in municipal solid waste are not classified within the MSW category. Registered compost facilities report food waste and manure volumes received, but these categories are not classified in the SWB annual reports.

Challenges in Waste Data Collection

Reported tonnages should be looked at across multiple years to understand trends in the waste stream data. However, facilities required to report to the SWB do not consistently report tonnages year to year, despite the annual reporting requirements. Furthermore, New Mexico does not have a statewide waste characterization study to help stakeholders understand the makeup of various categories in the municipal solid waste stream.

Outside of the SWB Annual Report, no coordinated waste recording efforts exist according to conversations with public and private stakeholders, including the U.S. Forest Service, New Mexico State Forestry Division, small farms, and compost processors. This absence of data hinders the ability to reasonably estimate waste stream tonnages that fall outside the scope of the SWB's annual report, such as forestry waste generation and large-scale agricultural operations.

3.1 WASTE TRENDS AS REPORTED TO THE SOLID WASTE BUREAU

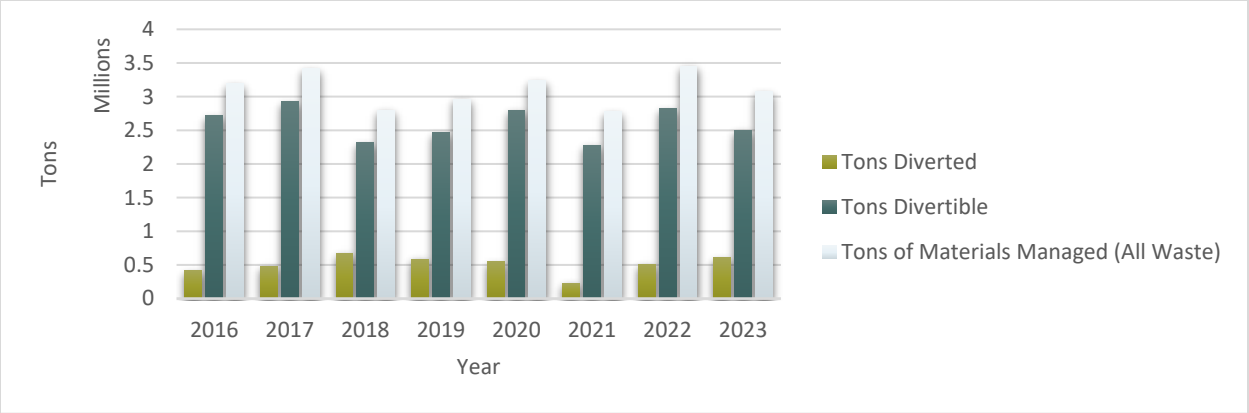
The self-reported data from landfills, transfer stations, processing facilities, and registered composting facilities are aggregated and periodically published on the SWB's website. As seen in Figure 1, the total waste managed in the state has remained relatively unchanged over an 8-year period from 2016 to 2023, averaging 3.1 million tons per year. In comparison with the total waste managed in 2008 and 2009, the state's facilities managed 3.6 million tons and 3.4 million tons, respectively[2].

The tons of total waste considered to be divertible represents roughly 84 percent of all waste managed in the state, however only 16 percent, or an average of 505,000 tons, are diverted

[2] Data retrieved from 2009 and 2010 SWB annual reports.

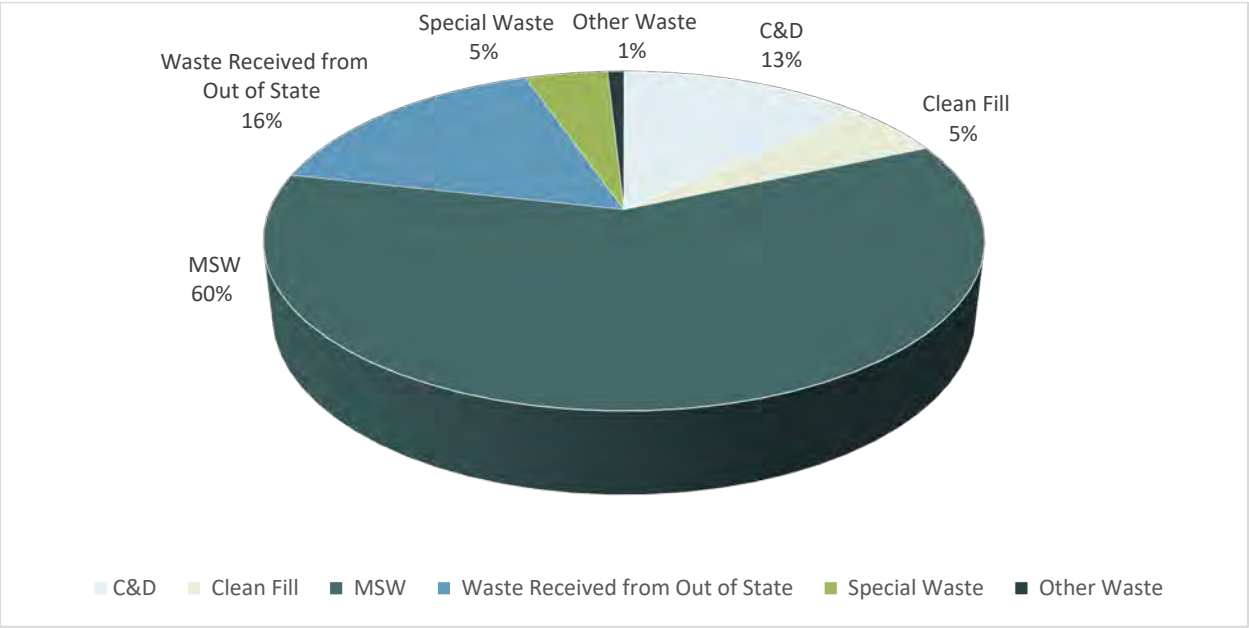
annually. These diversion figures represent an opportunity to increase diversion rates and reduce the amount of organic waste that is currently disposed of in landfills across the state.

Figure 1. Waste Diverted, Divertible, and Total Managed (tons)



Taking a closer look at the data reported to the SWB, municipal solid waste (MSW), which is composed of residential, commercial, and institutional waste, represents 60 percent of all waste managed in the state (Figure 2). On average, the state generates 1.9 million tons of MSW annually. The MSW category of waste is an important sector of the waste stream to focus on as it tends to contain significant volumes of compostable materials.

Figure 2. MSW as a Percentage of Total Waste Managed



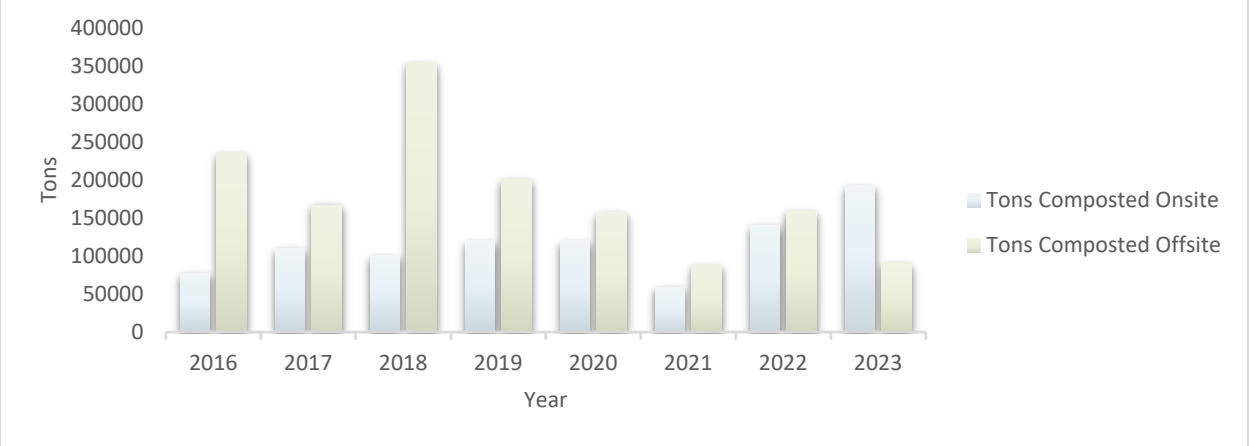
Other waste consists of industrial waste, motor oil, and lead acid batteries.

3.1.1 Organic Waste Data as Reported to NMED Solid Waste Bureau

As noted, record keeping of inbound waste stream tonnage is required of all registered compost facilities. All solid waste facility reporting requirements and regulations can be found in the NMAC *Title 20 - Environmental Protection, Chapter 9 - Solid Waste, Part 5 - Section 16 (20.9.5.16 NMAC).*

Using data provided by the Solid Waste Bureau from 2016 through 2023, the tonnage of composted material onsite has steadily increased from 76,543 tons in 2016 to 192,819 tons in 2023. The tons of material sent for offsite composting has trended lower from 236,000 tons in 2016 to 92,000 tons in 2023. The combined tonnage of onsite and offsite composting is represented in New Mexico's annual report data as part of the state's recycling totals.

Figure 3. Tons Composted Onsite vs. Offsite



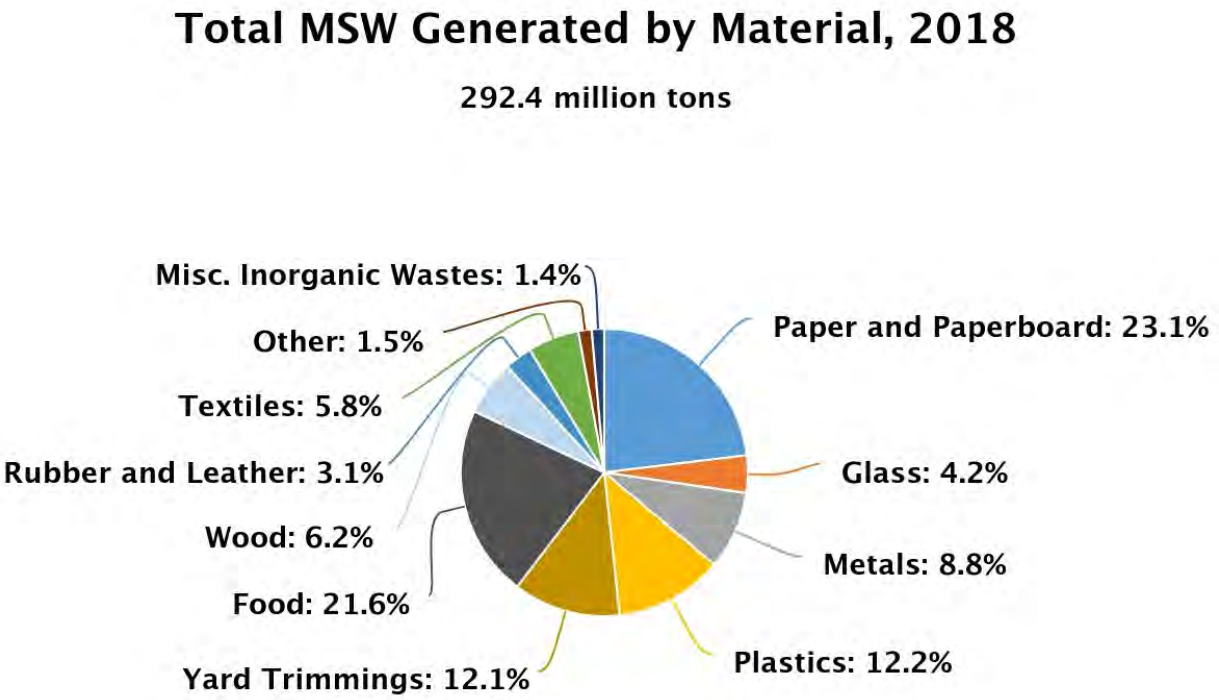
3.2 MUNICIPAL SOLID WASTE COMPOSITION

Understanding the composition of municipal solid waste sheds light on the types of materials typically found in this waste stream. The U.S. EPA's website notes that MSW "comprises items we throw away like packaging, food, grass clippings, sofas, computers, and refrigerators". New Mexico's landfills, transfer stations, and processing facilities do not report on the types of materials that make up MSW. Furthermore, a statewide waste characterization study, which is typically done to learn more about the materials in the MSW stream has yet to be conducted in the state.

Since there is likely a considerable amount of organic waste arriving at the state's landfills, transfer stations, and processing facilities categorized as MSW, we used the U.S. EPA's Municipal Solid

Waste Materials Assessment[3] to estimate the quantity of organic waste in New Mexico. Figure 3 shows the estimated composition of the nation's MSW.

Figure 4. U.S. EPA Municipal Solid Waste Materials Assessment



Source: U.S. EPA (www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/guide-facts-and-figures-report-about)

By applying the percentages in Figure 3 to New Mexico's 2023 total reported MSW tonnage (1.54 million tons) we approximated the quantities of waste, as shown in Table 2. These estimates indicate that a considerable fraction of the total MSW stream is organic waste – a stream that could potentially be diverted for composting.

Table 2. Estimated Material Makeup of New Mexico Municipal Solid Waste

Municipal Waste Category	Weight in Tons
Paper and Paperboard	356,392
Food	333,250
Yard Trimmings	186,682
Wood	95,655

[3] "The breakdown of the 292.4 million tons of U.S. MSW generated in 2018 by product category is as follows: Containers and packaging made up the largest portion of MSW generated at 28.1 percent, or over 82 million tons. Durable goods made up over 19.5 percent (over 57 million tons) while nondurable goods made up about 17.3 percent (over 50 million tons). Food made up 21.6 percent (63.1 million tons), yard trimmings made up 12.1 percent (35.4 million tons) and other wastes made up 1.4 percent (about 4.1 million tons)." EPA MSW 2018

Organic Waste Total	**971,979**
Plastics	188,225
Metals	135,769
Textiles	89,484
Glass	64,799
Rubber and Leather	47,828
Other	23,142
Misc. Inorganic Waste	21,600
Inorganic Waste Total	**570,847**
Actual 2023 MSW Tonnage as Reported to NMED SWB *(Organic + Inorganic Waste Total)*	**1,542,826**

Utilizing national averages to determine New Mexico's MSW waste characteristics shows notable deviations between actual reported categories (brush/green waste) and approximated figures from applying the U.S. EPA's materials assessment to the state's MSW tonnage. The actual tonnage that was self-reported by New Mexico's waste facilities was 57,950 tons in 2023, and 64,000 tons per year on average over the last eight years. By comparison, figures generated by applying percentages from the U.S. EPA's materials assessment suggests that 187,000 tons of brush/green waste (yard trimmings) are generated in New Mexico's MSW. This could indicate that an additional tonnage of brush/green waste goes unreported to the SWB. It also highlights the importance of local statewide waste characterization studies. National trends are likely not representative of New Mexico's specific climate, socioeconomic, cultural, and varying landscape management practices impact the generation of organic waste across the state.

Additionally, in 2023 New Mexico's population density in Bernalillo, Doña Ana, and Santa Fe Counties made up 50.1 percent of the state population and accordingly provided for 52.4 percent of the state's MSW totals and 50.1 percent of the state's green waste totals.

3.3 UNREGISTERED FACILITIES

Our team also researched nine unregistered composting/mulch projects throughout the state to get a sense of unreported diversion. Estimates of their annual tonnage are shown in Table 3.

Table 3. Unreported Diversion Figures

Compost Producer	Estimated Annual Tons
Collins Lake	10
Compost Santo	12
Fort Union Ranch	5
Old Wood Mulch	NA
Polk's Folly Farm	25
Taos Land Trust	2
Twin Willows Ranch	7
Upper Gila Watershed Alliance: New Earth Project	20
Windrush Alpacas	NA
Total	**81**

Note: cubic yards were provided in our discussions, a conversion factor of 500lb./cy was used to estimate tons.

This sampling of unreported data illustrates the patchwork nature of onsite composting projects. This sampling of interviews with unregistered compost producers suggests that diversion is not significantly increased by these types of operations but their value to the composting sector is not solely based on diversion quantities.

3.4 BIOSOLIDS

Wastewater treatment facilities in New Mexico receive and treat human waste to reduce potential harm to the receiving waters of the state and protect human health. A range of options exist for management of this waste, known as biosolids, generated from the treatment process, including landfilling, land application, incineration, and composting. Some treatment facilities employ composting as a final treatment process to reduce pathogens prior to compost distribution.

According to the U.S. EPA's Enforcement and Compliance History Online (ECHO) database, there are 27 wastewater treatment plants in New Mexico. There are several additional facilities that manage biosolids but do not have reporting obligations to the U.S. EPA. For example, treatment plants that do not discharge to the waters of the United States are not required to obtain an NPDES permit[4]. Of the

[4] Estancia Valley Solid Waste Authority Septage Dewatering and Disposal Facility, with an associated NMED SWB registered compost facility, is an example of a treatment works that spreads its water over the local landfill's active cells and does not report to U.S. EPA.

27 facilities reporting to the U.S. EPA, 11 reported composting of biosolids. In 2024, ten of the 11 facilities generated 12,800 metric tons (14,110 tons) of biosolids for composting[5].

We note that the tonnage data submitted to the U.S. EPA and NMED SWB are not tabulated similarly. In the SWB's reporting instructions, biosolids received at facilities that are not being landfilled should be entered as a beneficially used material (a category that includes other material types) as opposed to being entered as biosolids. Some facilities also have storage options, allowing multiple year's worth of biosolids storage prior to disposal or composting, indicating data can show greater swings in tonnages from year-to-year. Additionally, the SWB requires quantities to be reported in U.S. Tons while the U.S. EPA require dry metric tons. In one case, we found an example of a county that reported the same quantity to the U.S. EPA and the SWB, presumably not converting the tonnage appropriately. These examples demonstrate that the reported data may have inaccuracies.

3.5 URBAN AREA ANALYSIS

Commercial organic waste collection in urban areas is managed by private haulers serving both public and private institutions. These haulers often rely on improvised equipment not specifically designed for organic material collection and transportation, including roll-off compactors, open-top roll-off containers, and small collection carts. The equipment used varies depending on the resources and needs of the institutions subscribing to these services.

Residential organic waste collection in New Mexico remains limited, with only two private companies offering services: Little Green Bucket in Albuquerque; and Reunity Resources in Santa Fe. These companies operate on a subscription model, using 4-gallon buckets picked up directly from residences and as well as maintaining drop-off locations for residential organic waste. Infrastructure limitations hinder the expansion of residential collection and drop-off services, necessitating improvements like specialized organics recycling trucks to scale operations. However, municipal franchise agreements with waste haulers limit the scope of collection activities, creating financial risks for infrastructure investment in this sector.

3.6 Agricultural and Forestry Organic Waste Streams

The Agriculture Compliance Section of NMED oversees dairy permitting under the state's Ground and Surface Water Protection Regulations (NMAC 20.6.2). Leaders in New Mexico's dairy industry continue to refine manure management practices to mitigate watershed contamination (NMAC 20.6.6.20.R, NMAC 20.6.6.20.S). A key advancement in this effort is the adoption of manureshed systems, which facilitate the transfer of excess manure from dairy lots to croplands. While New Mexico regulates wastewater discharge and dairy nutrient management plans (NMPs), it does not require tracking of manure volumes that are transported offsite.

While many small farms and agricultural operations maintain compost piles for on-farm use, small-scale compost processors face challenges in expanding operations due to limited access to carbon inputs, such as processed green waste. Practices such as post harvest tillage and leaving crop residues in the fields are commonly used to improve soil organic matter.

[5] One facility had an expired permit; no 2024 reporting information could be found on U.S. EPA's ECHO database.

3.6.1 Manure Management in the Dairy Industry

According to the USDA Natural Resources Conservation Service (NRCS), dairy cows produce an average of 60 to 80 pounds of manure per 1,000 pounds of body weight. In 2005, the American Society of Agricultural and Biological Engineers (ASABE) released standard D384.2 which estimates a dairy cow excretes 150 pounds per day. A 2008 case study published in *The Professional Animal Scientist* that included researchers from the Department of Agricultural Economics and Agricultural Business at New Mexico State University used a model to predict dairy manure excretion of an average dairy cow in New Mexico. The report's model predicts 139 pounds per day, four percent less than the ASABE standard. Using these estimates, the approximately 250,000 dairy cows in New Mexico (NMSU Dairy Extension, 2024), generate between 6.3 to 6.8 million tons of manure annually.

NRCS offers technical guidance on manure handling, storage, and application. However, industry professionals note that the requirement for a comprehensive nutrient management plan (NMP) is a significant barrier to participation. Developing and implementing an NMP involves a detailed acre-by-acre analysis with no guarantee of financial assistance.

Interviews with dairy operators, haulers, and consultants highlight the variability in manure management across New Mexico. Practices differ based on site conditions, manure type (liquid or solid), and seasonal factors. Additional challenges include dairy size, fertilizer market conditions, and demand.

For liquid manure, standard management involves storing wastewater in onsite ponds, where discharge is regulated under state-issued permits. Alternatively, it can be applied to fields according to an NMP that is updated annually and certified by an agronomist, crop analyst, or NRCS planner.

Solid manure management depends on the availability of pasture or cropland owned or leased by the dairy. Since solid manure transported offsite is not subject to NMP requirements, dairies are incentivized to remove it. Interviews with industry stakeholders reveal that dairies often rely on third-party operators, such as Jimenez Custom Harvesters Inc., to coordinate with farmers. Laura Harper of Del Valle Pecans in Mesilla Park noted that her farm arranges manure hauling and spreading directly with haulers. Manure is typically provided at no cost, with recipients covering transportation and application expenses. Tracking manure volumes is inconsistent, and reporting is not standardized. According to dairy professionals and cropland managers, the greatest challenge to expanding manure distribution is the cost of hauling and spreading.

High salinity levels in cow manure present challenges for land application. Additionally concerns about PFAS[6] could complicate manure composting efforts. However, manure's high nitrogen content offers opportunities for innovation. Researchers and farmers continue to explore composting solutions, including studies on combining dairy manure with other agricultural waste products such as pecan orchard waste (high in carbon). In one NMSU study, researchers explored the financial feasibility of composting dairy manure with pecan orchard waste finding that to cost-effectively compost these two wastes they needed to be in proximity to one another.

[6] The New Mexico Environment Department and U.S. Geological Survey tested nearly 80 public water systems as well as several surface waters for PFAS, more information and results can be found on NMED's website. https://www.env.nm.gov/pfas/drinking_water/

3.6.2 Pecan Waste

The pecan industry is a major sector of New Mexico's agriculture, with over 50,000 bearing acres dedicated to pecan production, generating 91 million pounds of in-shell pecans in 2024 (USDA National Agricultural Statistics Service).[7] According to Guide H-654 published by NMSU's Cooperative Extension Service, the authors developed a model orchard to estimate non-saleable byproducts produced on pecan orchards. The guide estimates leaf and husk waste amounts to roughly 163 pounds per tree per year or 8,000 pounds per acre per year. Furthermore, the guide notes that the pecan represents 55 percent of total in-shell pecan mass. Using this average, the 2024 in-shell figure of 91 million pounds indicates roughly 41 million pounds of pecan shells are produced annually. Finally, the report notes that the upper branches of pecan orchards are pruned every two to three years. The authors estimate that a model orchard generates 4,000 pounds of pruned branches per tree per year, however, the authors make a conservative estimate suggesting that perhaps only 1,000 pounds of pruned branches are generated due to nuances in the pruning method. Using these estimates, 50,000 acres of pecan orchards could hypothetically produce about 50 million pounds of pruned branches per year. In total, we estimate the pecan industry generates roughly 250,000 tons of combined leaf, shell, and branch waste per year. The guide points to potential revenues that could be generated from these materials including mulch, potting medium, and biofuels.

According to a 2023 NMSU study on composting dairy manure and pecan waste at an orchard near Roswell, the researchers describe that the standard practice on pecan orchards is to shred orchard trimmings and spread the material on the orchard floor. Alternatively, some pecan growers push the pruning debris out to a pile for open burning, although this practice is becoming less popular.

Interviews with several pecan farmers revealed that most pecan shells are sold directly as landscape mulch, no composting required. Personal interviews with NMSU Cooperative Extension confirm that pecan shells are often marketed as mulch. Much of the purchasing market for pecan shells is in Mexico. Other on-farm biomass is occasionally composted in place. Weights and volumes are not being reported. Farmers spoke about economic efficiencies. They avoid paying to have materials hauled out or in for composting or amending soils when and if possible.

3.6.3 Organic Waste from the Timber Industry

The timber industry also represents a potential source of organic waste. According to a report from the University of Montana Forestry Research Program (Beagles et al., 2024)[8], in 2021, New Mexico's timber mills produced 57,283 bone-dry units (about 69,000 tons) of residues, including sawdust, planer shavings, and bark. These residues are used in energy production, mulch/bedding, and other products. About 6% of the total residue, or 3,864 tons goes unused – potentially a source of material for composting.

3.6.4 Forest Slash and Public Land Vegetation

Forest slash and other vegetation on private and public lands, receiving assistance from agencies such as the New Mexico Energy, Minerals, and Natural Resources Department Forestry Division, the

[7] U.S. Department of Agriculture, National Agricultural Statistics Service. *New Mexico State Agriculture Overview*. Accessed April 15, 2025. https://www.nass.usda.gov/Quick_Stats/Ag_Overview/stateOverview.php?state=NEW%20MEXICO

[8] New Mexico's Forest Products Industry and Timber Harvest, http://www.bber.umt.edu/pubs/forest/fidacs/NM2021Tables.pdf

U.S. Forest Service, and the Bureau of Land Management, also present a potential waste stream. Interviews with national and state forestry agencies indicate that forest slash, though abundant, lack the transportation infrastructure and market value needed to support its collection and distribution. However, interviews with slash pit managers in Catron County and George Ducker, the state Firewise USA Coordinator, revealed that weight or volume data for these materials is not recorded. Firewise USA, a program of the National Fire Protection Association, teaches people how to reduce wildfire risk around their properties and how to prevent human-caused wildfires[9]. Further clarification from Firewise USA representatives is pending, leaving significant data gaps regarding the total volume of forest slash available.

3.7 CONCLUSIONS

Facilities under the Solid Waste Bureau's jurisdiction are required to report annual tonnages of materials handled. Given resource constraints, enforcement and verification of this self-reported data can result in inaccuracies and year-to-year swings in tonnages that do not necessarily reflect what occurred. Using the self-reported data, our team found that there is likely over 970,000 tons of organic waste landfilled each year. Meanwhile, approximately 300,000 tons of organic waste is composted each year.

Agricultural wastes generated on farms and ranches tend to be used on the land for soil enrichment. Data on the amount of waste generated by various agricultural sectors is lacking. To estimate the quantity of waste generated by several key sectors, we reached out to local experts in the dairy and pecan industries. We estimate that roughly 6.3 million tons of dairy manure and 250,000 tons of orchard waste is generated each year.

3.7.1 Key Takeaways

- New Mexico generates an average 3.1 million tons of total waste annually, of which the Solid Waste Bureau annual reports show 84 percent to be materials that could be diverted.
- Actual diversion tonnage has averaged 505,000 tons annually over an eight-year period.
- The municipal solid waste stream represents a large category of commingled waste materials that is estimated to contain over 970,000 tons of organic waste each year.
- There were ten biosolids composting facilities that reported composting roughly 14,000 tons of biosolids in 2024.
- Residential organic waste collection has not been implemented in a coordinated effort, only two registered composting facilities offer organic waste collection services through a subscription model.
- Agriculture in New Mexico generates significant amounts of manure and crop residues. Generators of these wastes use practices such as land application to return this organic matter back into the soil.
- The timber industry generates an estimated 69,000 tons of residue, most of this residue is used for energy production, mulch/bedding, and other products. Six percent of the residue goes unused, representing a potential source of material for composting.

[9] https://www.nfpa.org/en/education-and-research/wildfire/firewise-usa/firewise-usa-resources accessed 4/21/2025.

4.0 CURRENT PROGRAMS AND OPERATIONS

In partnership with Reunity Resources, SCS Engineers researched New Mexico's composting landscape, examining current programs and operations along with their challenges and opportunities. We provide an overview of registered facilities in the state which demonstrates a diverse range of compost producers, including municipal, public-private, and private enterprises. Our research also looked at urban and rural composting dynamics, such as compost production from feedstocks common in urban and rural sectors.

Collection Programs

Organic waste in urban areas is managed through an uncoordinated system of private haulers and solid waste facilities. This approach limits the ability to consistently and efficiently collect and process organic waste streams across municipalities. These facilities have some capacity to take on more organic waste, but face challenges in accepting more material due to constraints, including identifying available streams of uncontaminated feedstocks, transportation inefficiencies, and the availability of affordable land parcels that are properly zoned and appropriately located for transportation efficiency.

New Mexico has numerous registered composting facilities, but only four currently incorporate food waste into their operations: AMF in Farmington; Payne's Organic Soil Yard in Santa Fe County; Reunity Resources in Agua Fria and Soilutions in Albuquerque. These facilities vary significantly in capacity, infrastructure, and operations.

1. AMF
   Located in Farmington, AMF operates a small composting operation that contracts with the local Farmington Municipal Schools to receive 50 tons per year of cafeteria food waste. The operation uses a tub grinder to break down branches and wood waste prior to blending it with food waste. Small windrows are managed with a skid steer to maintain aeration and high temperatures. We estimate that roughly 50 cubic yards of compost can be produced from the food waste/green waste blend.

2. Payne's Organic Soil Yard
   Situated on a seven-acre site at the Caja del Rio Landfill in Santa Fe County, Payne's Organic Soil Yard operates a windrow composting system. The windrows are turned using a front-end loader, and moisture is maintained with a water truck. The facility accepts source-separated organic waste from Whole Foods, shredded green waste from the Buckman Transfer Station, and manure from local haulers.

3. Reunity Resources
   Located on a one-acre site adjacent to their farm in Agua Fria, Reunity Resources utilizes an aerated static pile composting system, supplemented by a front-end loader to manage pile turning. Reunity Resources operates both residential and commercial collection services and sources shredded green waste from the Buckman Transfer Station. The facility is nearing its operational capacity for diverted organic waste due to space and equipment limitations.

4. Soilutions

Located on a 14-acre site in Albuquerque, Soilutions operates a windrow composting system with a mechanical windrow turner. The facility accepts source-separated food waste from commercial

haulers only, minimizing the influx of contamination typically associated with residential organic waste streams. Additionally, it accepts green waste from local residents and landscapers, with restrictions on tree trunk sizes. While Soilutions previously had a robust capacity for waste-diversion processing, recent operational changes have made it unclear whether they can accommodate additional waste streams.

4.1 REGISTERED FACILITIES

New Mexico currently has 56 registered composting facilities operating across 22 counties, a publicly available list of registered facilities can be downloaded from NMED Solid Waste Bureau's website and is provided in Appendix I. These facilities encompass a diverse range of public and private enterprises, including on-farm composting operations, meat processing facilities, and landclearing operations. Among the registered facilities, 21 are municipal wastewater treatment plants or landfill managed composting sites, six are meat processing facilities, 11 are private enterprise facilities, six are private, non enterprise facilities, and 11 are registered but no longer operational. Two facilities were unresponsive to all inquiries regarding their current operational status.

Barriers to success in developing a comprehensive assessment of composting technology, sales, and capacity are highlighted by incorrect or outdated contact information on facility registration renewals, particularly in municipal facility information, as well as inaccurate and inconsistent annual reporting. A secondary barrier to a comprehensive assessment is that collection centers (such as transfer stations) that perform onsite compositing and receive less than 25 tons of material per day are not required to register the compost facility as a separate entity (Appendix J).

4.1.1 Municipal Composting

Municipal composting operations constitute approximately 37 percent of the registered composting facilities in the state. Except for landfill managed composting sites in Rio Rancho and Las Cruces, municipal composting facilities are predominantly wastewater treatment plants that manage biosolids through composting. Compost produced by wastewater treatment facilities is primarily sold in bulk at low cost to residents, commercial enterprises and government agencies. Most of the compost generated is procured by municipalities for landscaping initiatives or by state agencies, such as the New Mexico Department of Transportation, for land reclamation projects.

4.1.2 Public-Private Partnerships

The integration of public-private partnerships within the composting sector has yielded promising outcomes. High Country Meats, for example, operates a small-scale composting facility at the Raton City Landfill, utilizing both meat processing byproducts and community green waste as feedstock. The municipality provides operational land area and carbon rich feedstock, and the composting process is managed by High Country Meats. The finished compost is applied to municipal landscaping and reclamation projects.

Another successful partnership exists between the Santa Fe Solid Waste Management Agency (SFSWMA) and Payne's Organic Soil Yard. Payne's leases 17 acres on the Caja del Rio landfill site for composting activities under the stipulation that they manage the source separated organic waste that SFSWMA receives. This arrangement is mutually beneficial as it provides low cost access to land, reclamation water, and feedstock and in return the SFSWMA can achieve goals set forth in the "Sustainable Santa Fe 25-Year Plan". Payne's produces 6,000-8,000 tons annually at this facility,

and can raise production by 30 percent with capacity increases. The agreement does have drawbacks, however, as the lease structure does not ensure the compost producer confidence to make long term infrastructure and technological investments, from basics such as electricity and water lines to more advanced subsurface aerated pads, which could enhance operational efficiency. The finished compost is an asset of Payne's and is sold on the private market in bulk to landscapers, homeowners, and government agencies.

4.1.3 Private Facilities

Private enterprise facilities comprise 41 percent of the state's registered composting sites, totaling 23 active facilities. Among these, six are meat processors that do not engage in the sale or distribution of compost, while another six are farm based or other processing businesses, such as a pumping service in Albuquerque, which also do not sell or distribute compost.

There are ten clearly identifiable private facilities that manufacture and distribute compost and compost enhanced products. These are listed below:

1. Payne's Organic Soil Yard
2. Reunity Resources
3. Soilutions
4. Barela Landscaping Material, Inc.
5. Western Organics (Gro-Well)
6. Las Acequias Farm Composting (Compost Santo)
7. El Ojito Composting Facility
8. AMF
9. Sierra Vista Wholesale Growers, Inc.
10. Universal Waste Systems

Of the private enterprise facilities that responded to inquiries, Soilutions, El Ojito Compost Facility, and Payne's Organic Soil Yard utilize windrow composting systems, while the remaining operations employ a variable form of static pile methods. Reunity Resources is the sole private facility in the state implementing aerated static pile composting. Universal Waste Systems' Collection and Composting facility in Ruidoso Downs utilizes a modified aerated static pile system to compost ground green waste from municipal waste collections, forest clearing operations, and fire reclamation. Among all the facilities surveyed, Soilutions in Albuquerque is the only operation using industry specific machines such as a windrow turner and food de-packager. The diverse composting techniques highlight systems adaptability to availability of capital and resources.

4.1.4 Capacity Potential, Limitations, and Barriers

A benchmark for the state's composting capacity can be based on the annual reports provided by the NMED's Solid Waste Bureau. As noted in section 3, approximately 300,000 tons of material are composted annually (combined onsite and offsite composting). The Composting Handbook, a 900-page authority on the subject of composting, notes that the mass of composted feedstocks decreases 40 to 50 percent. By approximation, this translates to roughly 150,000 to 180,000 tons after 100 days of composting. Since a percentage of this mass is coarse material that is typically screened out of finished compost products, roughly 30 to 50 percent (50,000 to 90,000 tons) of the composted material is likely fine textured compost products.

Separately, through interviews with registered composting facilities, our team estimated that the private enterprise composting sector in New Mexico is currently producing ~55,000 tons per year of finished compost, with an estimated 30 percent growth potential within the framework of current capacity. Of the responding organizations, Compost Santo was the only facility to express no desire to expand operations. All other respondents expressed a desire to expand operations, but capacity growth was limited by two primary factors: feedstock and capital. The barriers of current composting operations are primarily determined by the diversity in their scope and scale, along with the local population density. Low volume operations, such as El Ojito and Reunity Resources, are limited in scope of growth by physical operating area and associated resource costs, where larger organizations such as Soilutions and Payne's Organic Soil Yard are inhibited by competition for available carbon rich feedstocks.

Of the respondents who are inclined to expand operations, there is little desire to adjust composting technology to increase efficiency. Private enterprise composting operations report low profit margins and high overhead, leaving little or no financial resources for research, development, and investment in technological improvements.

4.1.5 Market, Sales, and Distribution

The majority of compost facilities in New Mexico operate as independent small businesses, and as such there is no single business or sales model. The exceptions are Western Organics, which is a corporation with locations across the United States, whose market focuses on wholesale bagged compost and soil sales, and Universal Waste Systems (UWS), a waste hauler/recycler based in Santa Fe Springs, California. UWS acquired the composting operations in Ruidoso Downs and operations are supported as a value-added enterprise. Due to their semi-remote location and high-volume capacity, UWS acts as a wholesaler of composted green waste and carbon feedstocks for other composting operations.

Mid and small-scale operations in densely populated locations like Santa Fe and Albuquerque sell almost exclusively to landscaping companies and residents. Several manufacturers cannot meet local demand and purchase composted materials to use either as supplemental feedstock or for direct resale. Only the two most remote and small-scale compost manufacturers, Compost Santo and Los Ojitos, attributed small farms as a notable market segment.

Distribution of materials and logistics are one common barrier for expansive market reach. Small operations struggle with vertical integration and rely on contract services for freight and delivery. Distribution is a primary limiting factor for expanding the compost market in rural or agricultural communities, where freight costs may exceed already high materials costs. Larger operations are concentrated in high density urban/suburban areas and the trend is to focus a sales strategy on specific market segments, i.e. landscape development companies or backyard gardeners.

4.2 BARRIERS TO COMPOST PRODUCTION

Numerous barriers hold back the development and expansion of compost production in the state. Regardless of location, urban or rural, New Mexico's dry climate presents challenges for composting, particularly in maintaining sufficient moisture levels necessary for effective decomposition. Without proper moisture management, composting systems can fail to produce high-quality compost or operate efficiently, especially in areas with limited access to water resources.

Limited public knowledge about the benefits of composting and how to participate in composting programs remains a key challenge. Many residents and businesses are unaware of local composting initiatives or how to properly separate organic waste, leading to low participation rates. Effective education campaigns and outreach are often underfunded or nonexistent in urban and rural areas.

The demand for finished compost products in New Mexico is variable. Demand for compost is high among stakeholders in land management, due to the extreme need for soil amendments in the desert landscape. Amending soil with compost is essential for successful agriculture, landscaping and erosion prevention. However, many projects lack resources to pay the true costs of the product and transportation. The New Mexico Healthy Soil Program provides financial assistance funding for healthy soil measures including the purchase of compost and mulch products.

4.2.1 Barriers to Compost Production in Urban Areas

Urban areas in New Mexico have several registered and permitted organic waste haulers and compost facilities that manage urban/suburban manure and green waste. Food waste has garnered national attention over the last decade, and multiple states have implemented laws to divert food waste away from landfill. Several registered facilities in New Mexico compost food waste. As of December 2024, four registered composting facilities focus on composting food waste: AMF in Northwestern New Mexico, Payne's Organic Soil Yard, Reunity Resources, and Soilutions.

Compost producers often face several logistical, regulatory, and financial obstacles. Urban compost producers that provide organic waste collection struggle with route and load inefficiencies. Urban areas have limited curbside collection services and few drop-off locations. Compost producers need access to organic waste, exclusive franchise agreements complicate organic waste diversion through contracts that give a single waste hauler rights to perform all solid waste management services. Specific contract terms can give haulers exclusive rights over the entire waste stream. This exclusivity can include types of collection methods (curbside carts, roll-offs, etc.), residential, and commercial waste management services. These types of agreements act as a barrier to start-up compost producing businesses.

Zoning ordinances and land availability can create barriers to expanding existing operations or siting new composting infrastructure. Typically, zoning ordinances specify the types of land parcels where composting facilities can be located and, in some cases, require a conditional use permit authorized at the discretion of the local planning agency. Often, urban composting starts out of entrepreneurial motivation without a full understanding of the zoning requirements for composting. When startups begin to scale, these operations can run into challenges related to odors, dust, noise, vehicle traffic, and neighborhood resistance.

This leads to another constraint: properly zoned land that allows for composting by right is sought after by competing industries that are looking for similarly zoned parcels. Urban composting initiatives are often non-profits or small businesses with limited financial resources to compete for this land. Zoning challenges can be nuanced, varying significantly throughout a region. As noted previously, some zoning ordinances in New Mexico are clear where composting may be located while other regions have no zoning ordinances – presumably allowing composting to occur by right.

4.2.2 Barriers to Compost Production in Rural Locations

Economic Barriers

High poverty rates in many rural areas of New Mexico present a significant barrier to composting. Additional costs associated with waste drop-off or collection at permitted facilities are often perceived as unaffordable, leading to illegal dumping. Prevention of illegal dumping is an environmental and public health priority statewide. Moreover, facility staff are typically constrained by limited budgets, reducing their capacity to expand composting operations or implement new processes.

Registration Barriers

The registration process for composting facilities is widely viewed as complex and burdensome by both industry professionals and agricultural stakeholders. This discourages individuals and organizations from pursuing proper registrations and permits, leaving many operations out of compliance. The administrative overhead and costs of compliance can outweigh perceived benefits, further hindering growth in composting efforts.

Infrastructure Gaps

The lack of access to industry specific mechanized equipment, such as windrow turners, shredders, and trommel screens, limits the ability of rural operations to scale or improve composting efficiency. Small facilities with limited access to capital rely on manual labor and improvised repurposing of inadequate equipment, which can be time-consuming and insufficient for processing large quantities of organic waste.

Additional Barriers

- Transportation Costs: Rural areas in New Mexico face high transportation costs for hauling organic waste to centralized composting facilities. The long distances and lack of established collection routes make it economically unfeasible for many residents and businesses to participate in composting programs. Studies show that transportation costs account for a significant portion of the total cost of composting operations in rural areas.

- Bear and Wilderness Protection: In rural areas where bears reside, bear-safe waste management is a challenge, even with food waste in trash containers to be hauled to drop-offs regularly. This poses a barrier for on-site composting. Vermejo Park Ranch is a Ted Turner Reserve outside of Raton, New Mexico. As a guest ranch, they generate more food waste on site than family-owned and operated ranches. In 2019, they began researching options for on-site composting for multiple reasons: reduction of hauling waste a significant distance; alignment with conservation values; and potential for use on the ranch itself for soil health benefits and the remediation of a former coal mine. Designated wilderness and conservation on the ranch is a top concern, and while multiple options were presented by the NMRC (emphasizing in-vessel due to the bear/wild animal concerns), no methods have yet been deemed actionable for reasons of cost, operations, and wilderness protection.

4.3 REGULATORY CONSTRAINTS

In interviews with agricultural waste generators, we learned that there are perceived regulatory barriers related to zoning, on-farm composting, and agricultural feedstocks. The perceptions of barriers suggested in these interviews point to a need to address gaps in how agricultural compost producers interpret the solid waste rules and local zoning ordinances. In the project team's recommendations section at the end of this report, we note potential solutions to clarify the regulatory exceptions for farms that perform onsite composting of onsite-generated agricultural waste.

4.4 CONCLUSIONS

New Mexico's composting sector exhibits a diverse range of operations, composting technologies, and market strategies across both public and private enterprises. While the state currently has 56 registered composting facilities, operational challenges such as outdated contact information, inconsistent reporting, and regulatory complexities hinder a comprehensive assessment of composting capacity, sales, and impact on diversion. Despite these barriers, there is significant growth potential; private enterprise composting estimates a 30 percent potential capacity expansion under current conditions.

Municipal composting, largely driven by wastewater treatment plants and landfill-managed sites, plays a crucial role in biosolids management and municipal landscaping efforts. Public-private partnerships, such as those between SFSWMA and Payne's Organic Soil Yard, demonstrate the benefits of collaborative models, although lease structures should be conditioned to allow for mutually beneficial investment for site development.

Private-enterprise composting is a major contributor to compost production in the state, yet these businesses face challenges related to capital investment, feedstock availability, and distribution logistics. Many facilities express interest in expansion but are constrained by financial limitations, market access, and operational inefficiencies. Additionally, the lack of a cohesive market model from compost producers creates further barriers to scalability and distribution, particularly in rural or agricultural communities where freight costs significantly impact financial viability and operational feasibility.

4.4.1 Key Takeaways

- There are 56 registered composting facilities in 22 counties.
- Using annual reports provided by the Solid Waste Bureau, we estimate the state has approximately 300,000 tons of annual processing capacity generating an estimated 50,000 to 90,000 tons per year of compost.
- Interviews with compost producers show a desire to expand composting capacity.
- Windrow composting is most common for compost production, but some facilities have embraced aerated static pile composting.
- Compost producers near residential and commercial centers market their products to consumers for landscaping, agriculture, and transportation infrastructure projects.
- Rural, on-farm composting is rare, as composting is seen as an added cost.
- Variable agricultural markets, low population density in rural areas, and the cost of broadscale consumer education, marketing and distribution have kept the market small in urban and rural locations.

- Without a strong market for compost, there is little financial incentive for municipalities, farmers, ranchers or entrepreneurs to invest in composting infrastructure or processes.

5.0 IN-STATE EDUCATION AND OUTREACH

From early October 2024 to late February 2025, SUNNY505 surveyed the status of statewide education and outreach efforts related to the composting of organic waste and the use of compost. SUNNY505 conducted its survey through two primary means. SUNNY505 analyzed existing publicly available educational resources related to composting on municipal websites and social channels, as well as the websites and social channels of several organizations working in the compost and recycling space. Municipal websites and social media platforms included county solid waste and recycling webpages, as well as composting-specific webpages such as Santa Fe County's Sustainability Department Compost page and Bernalillo County Extension Master Composters website. Other sites and social media platforms included, but were not limited to, sites operated by Reunity Resources, the New Mexico Healthy Soil Working Group, the NMRC, and Soilutions Inc.

Website and social media analysis showed extensive educational information provided by numerous organizations in the state. Our research shows that educational resources focus on engaging members of the public on the impact of composting as well as providing resources to the public on the best practices to source-separate organics for composting at home.

For further research, SUNNY505 contacted individuals at municipalities throughout New Mexico to provide more specific detail on county-led education and outreach efforts. Where county officials were not available, SUNNY505 contacted representatives from several organizations to fill gaps, including New Mexico State University Cooperative Extension Service, non-profit organizations, and regional utility authorities. Contacted individuals were compiled into a list for reference.

To complement the municipal contacts, SUNNY505 contacted leaders at several organizations in New Mexico, including:

- Juliana Ciano and Charles Wolf, Founder/Program Director; and Communications and Marketing Manager, Reunity Resources.
- Sarah Pierpont, Executive Director, NMRC.
- Isabelle Jenniches, Robb Hirsch, and Navona Gallegos, NM Healthy Soil Working Group.

These meetings helped further identify knowledge and logistics gaps in existing educational messaging related to composting and the use of compost in New Mexico. Respondents highlighted meaningful work and progress toward local education and outreach efforts but expressed the need for more regional education and outreach combined with comprehensive statewide education and outreach work.

5.1 EDUCATION AND COMPOST PRODUCTION

Findings from our education and outreach survey show noticeable gaps in educational messaging related to the diversion of organic waste in New Mexico. Additionally, there are discrepancies between messaging through more-populated urban counties and less-populated rural counties. New Mexico lacks centralized public education on composting and a cohesive message to encourage the use of compost.

The urban-rural divide in compost education is hindered by a lack of dedicated staffing for compost services within rural counties. While urban counties, such as Bernalillo County and Santa Fe County, have staff dedicated to sustainability and/or zero waste, rural counties may have solid waste department directors or landfill managers, but their staff do not have expertise or knowledge of

composting best practices or various uses of compost. Sustainability or sustainable material management staff at counties like Bernalillo, Doña Ana, or Santa Fe, however, have deeper knowledge bases with which to inform the public on compost production and its use.

Regional utility authorities fill messaging and service gaps in some counties that do not have their own publicly available resources for compost production and use. For instance, the South-Central Solid Waste Authority covers Doña Ana County and has previously provided messaging and information related to the importance and applicability of composting. The Albuquerque-Bernalillo County Water Utility Authority offers facility tours and classroom-based educational courses for various grade levels on the benefits of composting and how to compost. The Northwest New Mexico Regional Solid Waste Authority, which manages the Red Rock Landfill in Thoreau, covers Cibola and McKinley counties, managing and disposing of solid waste throughout the region.

Alongside regional utility messaging, large cities such as Albuquerque and Las Cruces provide publicly available information on city websites regarding composting programs and facilities. State agencies also offer educational resources, including the SWB's *Backyard Composting Made Easy* brochure produced in 2009.

5.1.1 NMRC Operator Certification and Education

The NMRC facilitates New Mexico's Compost Facility Operators Certification Course twice a year in Albuquerque and Santa Fe in partnership with the NMED SWB. The course is mandatory for NMED's compost facility registration, requiring at least one staff person at a registered facility to be trained and certified. The nonprofit also offers backyard composting educational resources aimed at rural waste reduction, alongside technical assistance for local recycling and waste-diversion programs, according to NMRC's website.

In addition to facilitating the Compost Facility Operators Certification Course, NMRC also hosts a biennial recycling professionals conference jointly with the Solid Waste Association of North America's New Mexico Roadrunner Chapter.

Throughout these various government agencies and private organizations, educational resources typically consist of several key components:

- A general understanding of the concept of composting.
- Explanations on why composting is important. This communication strategy advances beyond a basic overview, aiming to increase participation in composting initiatives.
- Explanations of how to compost. These explanations vary in detail and scope. Some include home composting tips, detailed diagrams, and how to interact with composting facilities operated by the counties or other groups.
- Direction to additional resources. This refers to resources either directly supplied by cities or by active groups and organizations within the county. Santa Fe County exemplifies this by directing the public to Reunity Resources.

Non-profit and private organization's messaging is typically localized. Examples include the following:

- Reunity Resources manages extensive group and individual education programs, including facility tours and direct-to-household outreach, centered in Santa Fe County.

- Bernalillo County Extension Master Composters maintains educational programs and outreach focused in Bernalillo County.

Overall, there are opportunities for New Mexico to create a centralized educational message for organic waste diversion and the use of compost. Composting outreach is typically carried out by a variety of organizations like those referred to above. NMED and NMSU Cooperative Extension, among others, offer education and outreach resources and have collaborated closely with several organizations in New Mexico. However, based on our interviews, there appears to be opportunity for further collaboration as the state looks to build out a more cohesive message around composting.

5.2 EDUCATION AND COMPOST USE

NMDA's education and outreach focuses on healthy soil management, explained in more detail below. NGOs and nonprofits in New Mexico, including the NMRC and the New Mexico Healthy Soil Working Group, provide education and outreach related to composting organic waste and the use of compost.

The NM Healthy Soil Working Group educates and advocates for farmers and ranchers. According to Robb Hirsch, lead legislative liaison, the Working Group provides support for those learning about healthy soil practices on working lands. It was instrumental in helping pass the 2019 Healthy Soil Act, which established the New Mexico Healthy Soil Program at NMDA.

Among the bill's provisions is a clause to "identify ways to increase the generation and use of compost to build healthy soils" in the state (HB204/a, Page 6). To that end, NMDA provides competitive grants to improve soil health through its Healthy Soil Program to eligible entities. The grants promote five soil health principles:

1. Keeping soil covered.
2. Minimizing soil disturbance on cropland and minimizing external inputs.
3. Maximizing biodiversity.
4. Maintaining a living room.
5. Integrating animals into land management, including grazing animals, birds, beneficial insects or keystone species, such as earthworms.

Compost is not explicitly stated in the soil health principles; however, the application of compost is known to provide related benefits. The US Composting Council's (USCC) *Increasing Soil Organic Matter with Compost*[6] document verifies that compost application is used to provide soil cover, improve plant and root growth, minimize external inputs in nutrients, and increase soil biodiversity.

To promote more widespread education surrounding healthy soil practices and principles, NMDA's Healthy Soil Program hosted the first-ever New Mexico Soil Heath and Soil Carbon Conference in the summer of 2024, in partnership with NMSU's Cooperative Extension Service. The conference consisted of talks and tours related to both cropland and rangeland.

To further facilitate healthy soil and conservation practices on working land in New Mexico, the Santa Fe-based Quivira Coalition collaborates with ranchers, farmers, government agencies, and land stewards to "foster resilience on working lands," according to the organization's website. The Coalition runs its own Education and Outreach Program, focused on hosting workshops and training sessions with interested individuals throughout the state. The Coalition has also partnered directly with Reunity Resources to offer technical training to New Mexico ranchers interested in regenerative

land management, in which compost may play a part, according to Juliana Ciano, Reunity Resources program director.

NMSU's Cooperative Extension Service offers education and outreach resources throughout the state, as well as online education resources, like comprehensive publications on backyard composting and vermicomposting benefits and best practices. NMSU also has a student Compost Club.

In addition to NMSU, the University of New Mexico's Sustainability Studies Program offers courses and events focused on composting, alongside collaborations with food- and farming-focused community partners like the Bernalillo County Extension Office and Soilutions Inc. Albuquerque-based Soilutions Inc. dedicates a page on its website to compost and its benefits.

5.3 CHALLENGES

Geographic diversity presents one major challenge to effective statewide composting messaging, both related to the composting of organic waste and the use of compost. Due to significant variations in population size, density, geography, and climate among counties, a cohesive statewide message to communities can be challenging.

This feeds into another messaging challenge—the variety of composting methods in New Mexico. Whereas rural counties may not offer their own programs, residents of those counties may actively compost at home or at their businesses, a McKinley County employee explained. Due to the scarcity of county-led centralized public education and outreach campaigns on composting, individual and business owners are compelled to develop their own composting methods or depend on non-governmental groups' education and outreach. This can make crafting a centralized composting education and outreach campaign difficult, because the public shares a wide variety of experience and/or familiarity levels on composting, while using many different methods.

A broader challenge, if a statewide education and advocacy campaign were to be implemented in New Mexico, is what sort of messaging would resonate most with a wide audience in the state. Sarah Pierpont, NMRC's executive director, offered a bell curve analogy, where on the left end of the curve are New Mexicans whose interest in composting is 0 or near 0, on the right end of the curve are New Mexicans whose interest in composting is 100 or near 100, and in the middle are New Mexicans whose interest in composting is somewhere in between—the largest portion of the population and the most likely people to be convinced to start composting or using compost if exposed to the right education and messaging and if enough resources are available.

The question becomes, what message can make one New Mexican from that middle group begin to compost. Is it environmental benefits? Is it economic benefits? Is it the personal health benefits?

According to the New Mexico Healthy Soil Working Group, it's the multitude of benefits that create the strongest message. Tying composting efforts to food waste has the potential to "cut across" different demographics, said Isabelle Jenniches from the Working Group. Composting also touches on climate resiliency. In fact, Jenniches also added that some municipal climate resiliency plans include composting programs.

New Mexico could look to other states for examples of effective composting education programs. Ohio's "Save More Than Food" initiative, run by the Solid Waste Authority of Central Ohio, provides one example. The initiative combines a multitude of resources, such as educational information

targeted at different sectors like home, school, work, and food businesses, community food waste drop-off sites, and a centralized "Fresh Takes" resource hub to move the needle on reducing food waste in the state. It would be feasible for an entity like the Bernalillo County Solid Waste Program or the South-Central Solid Waste Authority to begin such an initiative in New Mexico, in close collaboration with the state and non-governmental partners enumerated above.

5.4 CONCLUSIONS

Through its survey, SUNNY505 has identified clear gaps in education and outreach messaging related to the composting of organic waste and the use of compost throughout New Mexico. Gaps are primarily driven by a lack of county-level staffing dedicated to sustainability or zero-waste programs, a large urban-rural divide, and differing composting methods used in the state. Where municipalities have logistics gaps in terms of staffing, non-governmental groups fill logistics gaps in a more localized or regionalized fashion. Some public-private partnerships exist in the state to fill additional gaps, but contacts expressed desire for more partnerships and broad-based messaging.

These logistical gaps translate into knowledge gaps around the importance of composting and the environmental, economic, and personal health impacts of composting. SUNNY505 offered several recommendations for crafting a more centralized, dedicated statewide composting education and outreach campaign.

Interviews with stakeholders highlighted low public awareness regarding the benefits of composting and limited community engagement programs to promote participation. Sarah Pierpont of the NMRC emphasized that semi-annual yard-waste collection initiatives could serve as a simple yet effective strategy to increase awareness and engagement. Additionally, Pierpont's advocacy for scalable aerated static-pile composting systems has drawn interest from Pueblos seeking to adopt sustainable waste-management practices. Expanding education and outreach efforts could play a crucial role in increasing composting participation across the state.

5.4.1 Key Takeaways

- New Mexico lacks a centralized and cohesive statewide public education campaign for composting organic waste and promoting the use of compost.
- There is a noticeable urban-rural divide in composting education, largely due to a lack of dedicated staffing for compost services in rural counties.
- While numerous organizations provide educational resources, these efforts are often localized.
- There is a recognized need for more broad-based messaging to increase public awareness and participation in organic waste diversion (compost production) and compost use across the state.

6.0 NEW MEXICO CASE STUDIES

A study of specific operations provides an examination of composting practices within the state, focusing on both individual and institutional approaches of various sizes. These case studies offer valuable insights into the region-specific challenges and successes related to composting. Understanding these case studies can help in identifying the best practices, optimizing resource utilization, and formulating effective composting strategies that are tailored to the unique climatic, geographic, and demographic conditions of New Mexico. Additionally, these analyses contribute to the broader knowledge of composting, enhancing its efficiency and sustainability, and fostering a circular economy.

6.1 LESCOMBES FAMILY VINEYARDS: ON-FARM COMPOSTING

Introduction

This case study examines the composting operations at Lescombes Family Vineyards, a 220-acre vineyard located in Grant County, New Mexico. Since 2008, the vineyard has implemented an on-farm composting program to address declining soil health and combat soil-borne pathogens, including root-knot nematodes and *Phymatotrichopsis* root rot. By producing compost using grape pomace (the residual mash of skins, seeds, and stems left after pressing), manure from a local feedlot, and green waste, Lescombes has enhanced soil productivity, increased vine resistance to pathogens, and reduced reliance on chemical inputs, all while diverting substantial amounts of organic waste from non-beneficial uses.

The composting operation produces approximately 2,000 tons of finished compost annually, with applications ranging from four to eight tons per acre. Lescombes employs traditional windrow composting methods and adheres to a no-till philosophy to preserve soil structure and maximize the benefits of organic matter. Despite these successes, the vineyard faces significant challenges, including limited feedstock availability, high transport costs, and financial barriers to expanding its operations.

This case study demonstrates the potential of on-farm composting to improve soil health and enhance agricultural sustainability, particularly in arid regions. However, the scalability of this model is constrained by logistical and economic factors.

Background

Established in 1981 by Hervé Lescombes, the Lescombes Family Vineyard is now managed by his children, Florent and Emmanuel Lescombes. In 2008, Emmanuel, serving as the vineyard's viticulturist, identified a critical decline in soil health, observing that "we couldn't even grow weeds anymore." This decline contributed to an increase in plant pathogens, including root-knot nematodes (*Meloidogyne* spp.) and *Phymatotrichopsis* root rot (Texas root rot). To address these challenges, Emmanuel attended Elaine Ingham's Soil Food Web School in Oregon, where he learned about regenerative land-management practices, including composting and the role of soil organic matter in sustainable agriculture.

Upon returning to New Mexico, Emmanuel initiated a composting program using grape pomace combined with manure sourced from a local feedlot. In its first year, the operation produced more than 1,800 tons of compost, sufficient to apply eight tons per acre. Initial results included a

noticeable reduction in pathogenic nematode populations, the return of ground cover vegetation, and improvements in harvest yields. Since 2008, Lescombes has maintained an annual composting program as part of its vineyard management strategy.

Composting Operations and Scale

The Lescombes composting program has expanded modestly over the years to meet the specific needs of the vineyard. The composting operation is not intended for commercial purposes; all compost is produced exclusively for on-site use. On average, the vineyard produces approximately 2,000 tons of finished compost annually, applying 4–8 tons per acre.

Feedstock Collection

Lescombes faces significant challenges in sourcing feedstock due to its remote location and limited availability of local materials. While the winery generates small quantities of grape pomace and vineyard clippings, these represent only a fraction of the required feedstock. To supplement, the vineyard employs resource-intensive strategies, including:

- **Mowing and transporting crop residues** from neighboring farms.
- **Maintaining contracts** for collecting roadside vegetation clippings.
- **Procuring and transporting manure** from a local feedlot.

These efforts are costly, reflecting the logistical difficulties of acquiring materials in a rural area. Additionally, the prevalence of plant pathogens such as root-knot nematodes and *Phymatotrichopsis* root rot in the region further limits the collection of crop residues, as compost producers are concerned that these pathogens might survive some composting processes. Variability in composting techniques can result in the composting process not reaching temperatures above 131 degrees Fahrenheit for a sustained duration of 3 to 15 days (depending on composting technology) to effectively destroy some plant pathogens.

Composting Methodology

Lescombes utilizes windrow composting techniques across five acres of its agricultural property. The process begins annually after the grape harvest, with composting feedstock blended using a small tractor. The materials are arranged into windrows approximately four feet high and 100 yards long. A tow-behind windrow turner is used to aerate and mix the materials while ensuring adequate moisture levels. Key steps in the composting process include:

- **Feedstock recipe**: A variable blend with consistent inclusion of 25 percent manure, 25–50 percent grape pomace, and 25–50 percent green waste, achieving a carbon-to-nitrogen ratio of 25:1 to 35:1.
- **Active composting**: Windrows are turned weekly over a 5–6-week period, with water applied as needed to offset evaporative losses in the arid environment. Temperatures often exceed 160°F due to the small volume of material per linear foot, necessitating additional aeration and water applications (600 gallons per ton of compost on average).
- **Field application**: Once the compost stabilizes and internal temperatures drop below 110°F, it is applied at a rate of 6–8 tons per acre using a tow-behind spreader. The vineyard follows a no-till approach, leaving the compost on the soil surface.

Costs

Lescombes estimates the cost of producing and applying compost at $100 per ton, or $400 per acre annually. This is incorporated into an overall vineyard operations budget of $7,000 per acre per year.

Impact and Benefits

The vineyard is estimated to divert approximately 1,250 tons of manure and 1,250–2,500 tons of grape pomace and green waste annually from landfills or non-beneficial use. Notably, many neighboring farms use crop residues for dust suppression.

The impact of compost application is largely anecdotal but significant. Emmanuel Lescombes reports increased vine resistance to soil-borne pathogens, reduced pathogen populations, and improved soil productivity. Additionally, composting has enabled the vineyard to reduce reliance on fertilizers and pesticides, lowering overall input costs.

Challenges and Opportunities

Lescombes' composting operation faces several ongoing challenges:

1. **Feedstock availability:** The remote location and pathogen prevalence limit access to carbon- rich materials.
2. **High logistical costs:** Transporting feedstock adds considerable expense.
3. **Barriers to expansion:** Logistical, and financial constraints hinder potential growth, including the inclusion of food waste.

Efforts to address these challenges include contracts for roadway and acequia mowing, though pathogen pressures have reduced the feasibility of local crop residue collection. Emmanuel Lescombes has expressed interest in incorporating food waste into the program but lacks the resources to manage the associated complexities.

Scalability and Adaptability

Lescombes' composting model demonstrates the potential for on-farm composting in mid-sized agricultural operations. However, its scalability depends on substantial land availability, specialized equipment, and a commitment to resource-intensive practices. Widespread adoption may require financial incentives or other support mechanisms to offset these challenges.

Conclusion

The Lescombes Family Vineyards case study highlights the potential benefits and challenges of implementing on-farm composting as part of a sustainable agricultural strategy. By integrating composting into its vineyard operations, Lescombes has successfully improved soil health, reduced soil-borne pathogens, and decreased reliance on chemical inputs, all while diverting significant quantities of organic waste from non-beneficial uses.

Lescombes demonstrates that with a commitment to regenerative practices, strategic resource allocation, and innovative problem-solving, on-farm composting can play a vital role in improving agricultural resilience and sustainability.

This case study provides valuable insights for policymakers and agricultural stakeholders exploring the feasibility of composting initiatives. To enable broader adoption of similar practices, targeted incentives, technical support, and infrastructure development will be critical to overcoming barriers and scaling the benefits of composting across diverse agricultural contexts.

6.2 REUNITY RESOURCES SOIL YARD AND COMPOST FACILITY

Introduction

Reunity Resources, a non-profit organization located in Agua Fria, New Mexico, has been serving Santa Fe County since 2012, focusing on environmentally sustainable solutions for organic waste management through food scrap diversion and composting. The facility (**Figure 1**) provides comprehensive organic waste diversion services, catering to both residential and commercial clients, while also accepting a variety of organic waste materials for composting.

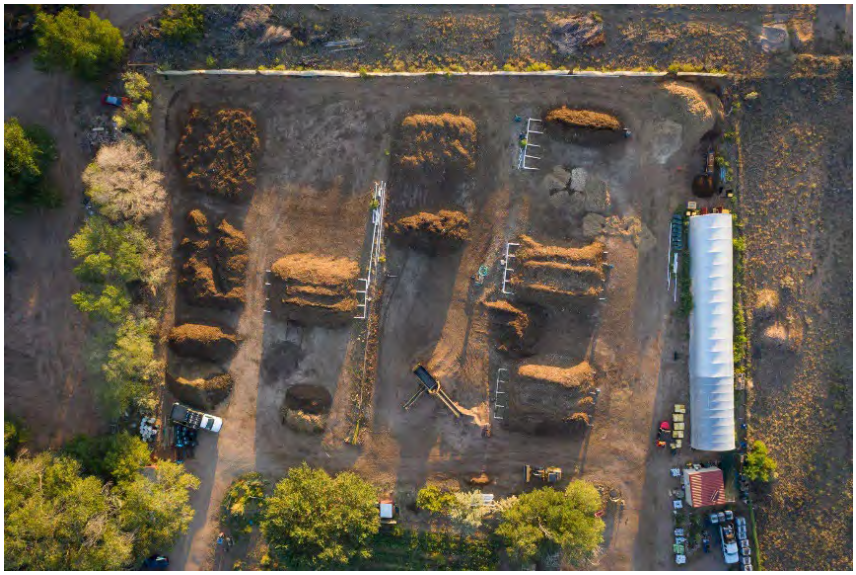


Figure 1. Soil yard overview.
Photo credit: Esha Chiocchio

Reunity Resources uses an Aerated Static Pile system for composting, combining food waste and manure-based materials. The process involves mixing feedstock, active composting with aeration, and curing. After 120 days, compost is screened for sale or on-farm use, contributing to sustainable agricultural practices.

Reunity Resources uses an Aerated Static Pile system for composting, combining food waste and manure-based materials. The process involves mixing feedstock, active composting with aeration, and curing. After 120 days, compost is screened for sale or reuse, contributing to sustainable agricultural practices.

Reunity Resources is currently the only fully integrated private compost facility New Mexico, acting as an organic waste collection, processing, and sales service utilizing a simple, replicable model. In 2024, Reunity diverted 803 tons of food waste, 1,000 tons of green waste, and 370 tons of manure from landfills. The facility plays a critical role in reducing municipal solid waste and promoting environmental stewardship.

Background and Location

Reunity Resources' Soil Yard focuses on food scrap diversion under the leadership of Tejinder Ciano and Trevor Ortiz. The facility serves the city of Santa Fe and neighboring communities, with an emphasis on sustainable waste-management practices. This food-waste collection project began in 2014 as a public-private partnership between Reunity Resources and the City of Santa Fe, with Reunity Resources applying to a city Request for Proposals to begin collecting commercial food waste and share all diversion data and processes with the City Environment Department monthly for the first five years.

Reunity Resources Soil Yard operates on one acre of a five-acre parcel, with composting operations separated from other farm operations. Documented below, Reunity Resources uses a multifaceted, integrated approach to food-waste collection to maximize diversion efforts and maintain a consistent feedstock supply.

Food Waste Collection and Separation

Commercial Collections

Reunity Resources provides collection services for food and organic waste from a variety of commercial clients, including businesses, schools, and non-profit organizations. Collections are made using 64-gallon carts, and the facility employs a tiered, customizable pricing structure to meet each client's needs. The cost of staffing and maintaining equipment and collections operations is fully supported through collection fees. Waste is collected using a flatbed truck with side rails, operated by 1-2 employees who manage collection, waste disposal, and cart cleaning. Customers separate organic waste from non-organic materials at the source.

The Commercial Collections Division serves:

- 41 commercial and non-profit clients.
- 30 public schools.
- A satellite residential drop-off site in El Dorado, which is outside of Santa Fe and serves 66 participants.

Residential Collections

Reunity Resources services 649 households and operates a door-to-door collection service for residential clients, utilizing four-gallon buckets. These buckets are collected on a weekly or bi-weekly basis, with rates determined by service frequency and number of buckets per household. The facility exchanges the full buckets for clean ones, which are emptied and cleaned on-site. As with the commercial service, customers are responsible for separating organic from inorganic waste at the source. All operational costs of the residential collections programs are supported by the subscriber fees.

Residential Drop-Off Locations

- **Free Community Drop-off:** A free collection service is available at the compost facility for community members.
- **Satellite Drop-off:** In the summer of 2023, a low-fee satellite drop-off site was introduced in El Dorado, which currently serves 66 participants as of January 2024. The exact number of residents using the free drop-off service is difficult to quantify.

Additional Feedstock Collection

In addition to food waste, Reunity Resources accepts a variety of organic materials for composting, including manure and chipped wood, with a reasonable tipping fee based on volume. As a mission-driven non-profit, Reunity Resources exercises discretion when it comes to fees and material acceptance from other non-profit organizations such as food banks or homeless shelters.

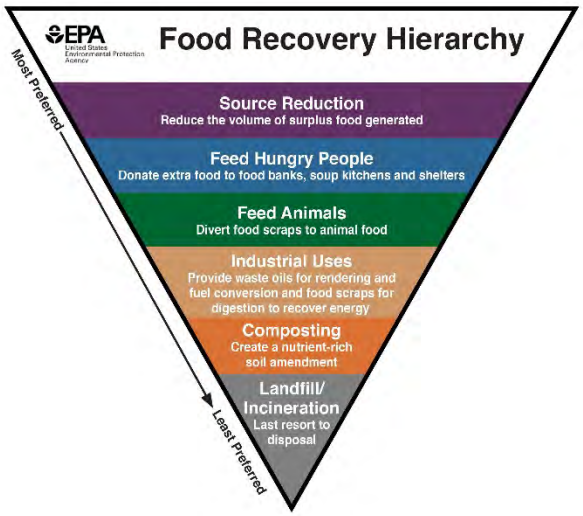


Figure 2. US EPA Food Recovery Hierarchy

Materials are carefully inspected to ensure they are free from contaminants such as plastic, hazardous materials, and gravel. For large volumes of spoiled food, such as materials received from food banks, Reunity Resources uses its food-reclamation system and often diverts edible food to livestock feed where possible. This aligns with the EPA's Food Recovery Hierarchy (Figure 2).

Due to the lack of equipment for grinding or chipping material on-site, most of the carbon inputs required for composting are sourced from the Santa Fe Recycling Center at Buckman Road Recycling and Transfer Station. Ground green waste is purchased by the ton and delivered on an as-needed basis. In 2024 Reunity Resources received 50 tons of mulched green waste from local landscapers, purchased 950 tons of ground green waste, and accepted 370 tons of manure from residents.

Composting Methodology

Reunity Resources produces both manure-based and food waste-based compost using an Aerated Static Pile system for active composting.

Feedstock Mixing

Feedstock materials are mixed daily, or as needed, based on the volume of organic waste collected. The volume is tracked by the number of 64-gallon carts collected, as well as any other diverted waste materials arriving at the facility. A standard volume-to-volume ratio calculation is used to determine the appropriate amount of green waste or carbon material needed for processing.

A front-end loader spreads the green waste into a "tipping pad" where organic materials are manually or mechanically unloaded and mixed. The material is then left in a static pile until the total volume reaches approximately 100 cubic yards.

For manure-based composts, a front-end loader is used to measure, mix, and pile the materials into windrows, depending on feedstock availability.

Active Composting

Once mixed, the organic materials are placed into a static pile and formed into windrows. The pile is aerated using perforated PVC pipes connected to an air pump, which ensures optimal oxygen flow through the material. A layer of ground green waste or composted "overs" is placed over the pipes to prevent compaction and support adequate airflow.

Moisture content is closely monitored using field "squeeze" tests and moisture meters, with water applied as needed to maintain proper moisture levels. Aeration is adjusted seasonally to account for environmental conditions such as humidity and sunlight.

Once a windrow is complete, the pile is allowed to sit for 30 days. After this period, temperatures are checked again, and the pile is transferred to a curing zone for an additional 90 days.

After curing, the compost is trommel-screened into two fractions:

1. Fine compost (½" or smaller) for bulk or retail sales.
2. Compost overs (larger particles) are either reincorporated into the composting process, sold as mulch, or used in soil and potting blends.

Diversion and Impact

In 2024, Reunity Resources diverted from landfills:

- 802.5 tons of food waste
- 1000 Tons of green waste
- 370 tons of manure

Utilizing the EPA's Waste Reduction Model, this diversion prevented 125.4 Metric Tons of Greenhouse Gas Emissions from the landfill, the equivalent of conserving 14,111 gallons of gasoline.

Challenges and Opportunities

Reunity Resources faces several challenges in its operations, including:

1. **Equipment Limitations**: High costs and limited access to specialized composting equipment, such as grinders or chippers.
2. **Space and Capacity Constraints:** The facility's growth is limited by land availability which directly impacts facility capacity.
3. **Municipal Code and Contract Limitations:** Zoning restrictions, current municipal waste collection codes, and contracts prevent the sharing of resources or infrastructure between different waste management services, which impacts efficiency and scalability.

Additionally, like many composting operations, Reunity Resources faces challenges related to contamination, including plastics and persistent chemicals like PFAS, which are increasingly regulated in compost systems nationwide due to concerns about product quality, state and federal regulations, and community health. Presently, in New Mexico, any facility that accepts certified compostable plastics such as bin liners, coffee cups, and forks cannot have its finished composted labeled as "Approved for Use on Certified Organic Farms" but there are not yet other regulations in the state regarding feedstocks and PFAS.

Reunity Resources also illustrates opportunities in compost industry growth including:

1. **Public Education:** Reunity Resources is a showcase for public education, helping people grasp the concept of circularity through free facility tours.
2. **Professional Development/Industry Education:** Reunity also provides direct, detailed tours and training of our composting system on site to municipalities, businesses, ranchers, farmers and backyard compost enthusiasts.

3. **On-Ranch Education + Installations:** Reunity Resources also co-created a technical guide with the Quivira Coalition describing in replicable detail the parts, materials and process of installing an Aerated Static Pile System or backyard vermicompost system in the high desert climates. Coinciding with this technical guide are free on-site installations for qualifying ranchers in the Southwest.

Advancement Opportunities

Continued advancements in composting technology could help increase throughput - if supported with grant/capital improvement funding.

In a partnership model, Reunity could help scale diversion efforts by combining Reunity's expertise in composting with a partner's access to a site that can accommodate the various zoning and other physical land needs.

Scalability

The model implemented by Reunity Resources offers a scalable blueprint for small to mid-sized composting operations. Their fully integrated collection and production system is both compact and efficient, making it well-suited for expansion. With the addition of technological upgrades, such as a subsurface reverse airflow compost pad and advanced windrow turners, Reunity Resources could potentially quadruple their annual compost production without requiring additional land area.

Another option could be mass bed composting with an inclined face turner, which could use both positive and negative aeration. For example, some Engineered Compost Systems facilities only use positive aeration. This scalability ensures that the operation could grow sustainably and increase their diversion rates while minimizing its environmental footprint.

Conclusion

Reunity Resources continues to play a vital role in Santa Fe County's waste-diversion efforts by providing innovative food scrap composting services. Despite facing challenges related to equipment and infrastructure, the facility's commitment to sustainability, community engagement, and environmental stewardship demonstrates the importance of composting as a solution to organic waste management. As the facility works toward expansion and improved efficiency, Reunity Resources remains a model for other composting operations in the region and beyond.

6.3 SOILUTIONS, ALBUQUERQUE, NEW MEXICO

Introduction

This case study examines Soilutions (Figure 3), a composting operation in Albuquerque's South Valley, and its evolution into a leader in food waste diversion and sustainable compost production. Founded in 1996 and originally focused on small-scale composting using a modified aerated static pile system, the business expanded significantly under the ownership of Jim and Karen Brooks. In 2020, the company transitioned to new ownership under Dewey Solutions, LLC, which modernized operations by adopting a high-efficiency windrow composting system.

In 2024, Soilutions produced 8,700 tons of finished compost, diverting 4,683 tons of food waste and 5,100 tons of green waste from landfills. This effort prevented the release of 867 metric tons of greenhouse gas emissions, equivalent to saving 97,558 gallons of gasoline, according to EPA estimates. The company sources feedstocks from homeowners, landscapers, municipalities, and grocers in New Mexico and West Texas, utilizing a streamlined windrow composting process with precise carbon-to-nitrogen ratio management and moisture control.

Despite these achievements, Soilutions faces two primary challenges:

- Access to Carbon Feedstocks: Limited availability of green waste hampers production scalability, exacerbated by the lack of statewide policies incentivizing organic material recycling and low landfill fees that compete with composting operations.
- Regulatory Barriers: Compliance with New Mexico's advanced registration requirements for large-scale composting facilities imposes high costs, particularly for financial assurances related to nuisance abatement plans.

Figure 3. Soilutions compost yard.
Photo credit: Soilutions

Soilutions' case highlights the potential for composting to significantly reduce landfill-bound organic waste and its associated greenhouse gas emissions. However, the challenges faced by Soilutions underscore the need for increased infrastructure investment and targeted incentives to support large-scale composting initiatives in New Mexico and beyond.

Background

Soilutions began as a small composting operation, originally called New Mexico Compost, located on industrial land in Albuquerque's South Valley. In 1996, the company was purchased by Jim and Karen Brooks. Jim, a permaculture design and water management specialist, worked with Steven Glass, an environmental scientist, to develop a modified aerated static pile system tailored to the high-desert climate. Their goal was to produce premium compost using horse manure, food waste, and green waste. Although the system conserved water and required minimal labor, with piles turned and moistened every three months for a total of 24 months, the long revenue cycle posed challenges for the business.

Despite these hurdles, the operation expanded from small, manually managed piles to 70' x 70' x 18' piles managed with front-end loaders. In 2020, Jim and Karen Brooks retired, selling the business to Dewey Solutions, LLC, under the leadership of Dawn and Justin Dewey. The new owners transitioned to a traditional windrow composting system, allowing the company to process higher volumes of food waste with shorter production cycles.

Composting Operations and Scale

Soilutions operates on a 13.9-acre property in Albuquerque's South Valley, zoned for mixed-use light manufacturing and heavy commercial activities. This zoning permits composting operations in Bernalillo County. Until 2024, the company produced two types of compost: one suitable for certified organic farms and another made from food waste, manure, and green waste. In 2024, Soilutions shifted its focus entirely to food waste diversion, discontinuing the use of livestock manure due to concerns surrounding contamination from persistent herbicides and pathogens.

The transition from modified aerated static pile to windrow composting, utilizing a Scarab Model 12 Windrow Turner (**Figure 4**), significantly increased production capacity. In 2024, Soilutions produced 8,700 tons of finished compost, with 4,900 tons derived from feedstocks acquired that year alone.

The facility is split into four main operational zones: feedstock processing, active composting windrows, curing piles/screening area, blending production/final product bins.

There is one concrete pad that is used for expanding coco coir (a potting medium derived from coconut hulls that is delivered in a compressed bale) and blending potting mix. In addition there are some

Figure 4. Scarab Model 12 Windrow Turner.
Photo credit: https://scarabmfg.com/which-scarab-compost-turner-is-right-for-you/

concrete pads in the feedstock receiving zone, however the majority of Soilutions' production occurs on dirt.

The front office team inspects every load of ground and unground green waste to ensure inorganic contamination is less than 5 percent. Any contamination that comes in with the green waste is hand-picked by compost technicians and contained in roll-off dumpsters daily. Soilutions contracts with a tub grinder operator to process the unground green waste to 4" in the feedstock area of the facility. Green waste is accepted from both individuals and landscaping companies; customers unload their own material.

Effective November 2024, Soilutions only accepts dump trucks/trailers bringing food waste as they are required to dump onto a concrete pad in the highest traffic area of the feedstock processing zones. Food waste is processed through a de-packaging machine that automatically removes 95 percent of contamination from inorganic materials. Additional inorganic contamination is removed by hand at various stages of the composting process and final product screening.

Feedstock Acquisitions

Green Waste:

Soilutions accepts unground green waste from homeowners, landscapers, municipalities, and tree care companies. They also source ground green waste from lumber companies throughout New Mexico and occasionally acquire green waste from fire cleanup and forest thinning efforts. Previously, this material was accepted for a fee, however the fee was eliminated in August 2024 as their processing capacity grew and they faced a carbon feedstock shortage. In 2024, Soilutions composted 5,100 tons of green waste.

Food Waste:

Soilutions' model has evolved from small scale community level diversion efforts to focus on large scale food diversion and accepts food waste primarily from food processors and grocers in New Mexico and West Texas. In November 2024 Soilutions modified their processes and, as a result, only accepts materials from carriers that have the ability to mechanically dump or 'tip' loads. The tipping fee is based on contractual agreements and varies by customer and inputs. Soilutions does not accept certified compostable bioplastics. In 2024, they composted 4,683 tons of food waste.

Composting Methodology

Soilutions integrates food waste and green waste using front-end loaders, guided by quarterly lab analyses and the NMRC's composting calculator. The target carbon-to-nitrogen (C:N) ratio is 30:1, and materials are mixed in multiple stages while water is added to achieve 50 percent moisture content.

The mixed feedstocks are formed into windrows measuring 100-150 feet in length, 12-15 feet in width, and 6-7 feet in height. Windrows are turned 1-3 times per week using a Scarab Model 12 Windrow Turner with a water injection system to maintain appropriate moisture levels. Temperatures are monitored 2-3 times weekly using a 4-foot digital probe, ensuring the composting process meets ideal temperatures.

Once the active composting phase concludes (6+ weeks), windrows are moved to curing piles for at least three weeks. The cured compost is screened to ½-inch-minus using an Astec GT145 triple-deck

screener before being distributed. Large materials, or 'overs', are utilized as a value-added component of mulch products, or it is recycled back through the composting process as volume and needs dictate.

Diversion and Impact

In 2024, Soilutions diverted:

- 4,683 tons of food waste
- 5,100 tons of green waste

According to the EPA's Waste Reduction Model, this diversion prevented 867 metric tons of greenhouse gas emissions, equivalent to conserving 97,558 gallons of gasoline.

Challenges and Opportunities

Access to Carbon Feedstocks

Scaling food waste diversion has increased Soilutions' demand for green waste or other carbon inputs. For effective composting, a proper C:N ratio must be maintained. The stated ratio that Soilutions maintains is 30 parts carbon to one part Nitrogen. Carbon sources include green waste, paper, straw, etc., Nitrogen is accumulated through food waste, livestock mortality and manures.

New Mexico policy allows for low landfill fees to combat illegal dumping which puts landfills in direct competition with efforts to secure consistent green waste feedstocks for diversion efforts. Additionally, Soilutions conducts load checks on inbound green waste to limit feedstock contamination (household trash, metal, construction debris, inorganic materials). Landfills that divert green waste for mulch or compost operations also commonly use contaminated green waste as cover material for the landfill and therefore do not have a similar incentive to encourage source separation.

Diverting food waste and green waste from the waste stream to composters like Soilutions is the most effective way to reduce the burden of organic materials in landfills, especially in high density municipalities that have the populations to support both municipal and commercial composting operations. Opportunities exist for shared community education and outreach.

Regulatory Barriers

New Mexico's advanced registration requirements for large composting facilities accepting over 25 tons of feedstock per day present financial and logistical challenges. These regulations mandate the preparation of a *Nuisance Abatement Plan* and financial assurance mechanisms for potential cleanup costs, which can present a startup barrier. Typically, financial assurance mechanisms are calculated on a case-by-case basis to cover the full estimated cost to remove all compostable materials from a site in the event of business closure. Surety bonds, a financial assurance mechanism, can have a premium of 1-10% of the total bond ($50,000 bond could cost $5,000)[10]. Presumably some of these requirements may deter interested parties from pursuing composting, but it should be viewed as a cost to be factored into launching a business – not a preventative barrier.

[10] Surety Bond Costs https://www.embroker.com/blog/surety-bond-cost/

Market

Retail consumers (homeowners) account for approximately 50 percent of Soilutions' sales. The majority of their remaining volume is purchased by landscapers for use at homes, businesses, parks and government facilities, with a small percentage of sales going to small farms and wholesale of packaged materials. Soilutions partners with a local landscape supply company for bulk distribution throughout the Albuquerque metro area and offers bulk material delivery.

Scalability

The model implemented by Soilutions is suitable for increased diversion and volume processing. The large land area and rapid compost time allows for year-over-year processing increases with minimal essential equipment acquisitions. This business has taken decades to grow, under multiple owners and process technologies, which may be challenging to replicate in a shorter time frame. Given the high cost of equipment and land, the Soilutions model may be difficult to repeat for start-ups or small businesses but may be appropriate for municipalities or other well-funded non-government organizations.

Conclusion

Soilutions demonstrates how composting operations can divert significant amounts of organic waste while supporting regional sustainability goals. The company's ability to transition from a labor-intensive Modified Static Aerated Pile system to a high-volume windrow system has enabled it to process thousands of tons of food and green waste annually. However, barriers such as limited access to carbon feedstocks restrict further expansion.

7.0 OTHER STATE MODELS

In this section, we explore various composting strategies adopted in Arizona, Colorado, Texas, and Utah. Understanding these models is integral to identifying best practices, potential pitfalls, and innovative solutions that can be adapted to improve New Mexico's local composting framework. These models offer valuable insights into policy formulation, technology adoption, public participation, and organic waste management strategies. Additionally, these models can assist in comprehending the environmental, economic, and social impacts of different composting practices among regions with similar characteristics.

7.1 COMPOSTING REGULATIONS IN OTHER STATES

Composting regulations vary across the states neighboring New Mexico. Regulatory controls have a direct impact on compost production by creating a business environment that can support and grow compost-related ventures. Regulating agencies also can provide a structure to enforce standards in collection of organic waste to provide reliable feedstocks to producers. In the following section, the regulatory landscape concerning organic waste processing and related activities is detailed. New Mexico's neighboring states have regulatory agencies analogous to NMED SWB, and these agencies place controls on compost production activities. These agencies also aim to protect human health and the environment in balance with compost market accessibility and safety.

7.1.1 Arizona

Arizona compost producers are subject to the regulation of the Arizona Department of Environmental Quality (ADEQ), which requires notification for large-scale operators rather than providing permits in all cases. In addition, composting facilities may be subject to Aquifer Protection Permit requirements issued by ADEQ if there is a potential for discharge of pollutants to the groundwater, as determined through a Determination of Applicability process with ADEQ. Home composting is not directly regulated; however, the state, through ADEQ, provides guidance and encourages established practices.

7.1.2 Colorado

The Colorado Department of Public Health and Environment (CDPHE) regulates composting facilities in Colorado. There are three regulatory tiers for commercial composting facilities and a Conditionally Exempt Small Quantity (CESQ) category. Tiers are differentiated by feedstock types and onsite volume limits as shown in Table 4.

Table 4. Colorado Composting Requirements by Tier

Requirement (Tier)	Feedstock	Volume Limit
Conditionally Exempt Small Quantity	Yard waste, untreated wood, agricultural crop residues (limited amounts of animal waste, food residuals, etc.)	100 cubic yards or less of yard waste and 20 cubic yards or less of animal waste onsite at any given time
Class I	Yard waste, untreated wood, agricultural crop residues	50,000 cubic yards onsite at any given time
Class I (additional feedstocks)	Inclusion of source-separated organics or food residuals with yard waste, untreated	5,000 cubic yards or less onsite at any given time

Requirement (Tier)	Feedstock	Volume Limit
	wood, agricultural crop residues	
Class II	Yard waste, untreated wood, agricultural crop residues, manure	50,000 cubic yards or less onsite at any given time
Class III	Yard waste, untreated wood, agricultural crop residues, animal waste, manure, source-separated organics, food residuals, biosolids, mixed solid waste	No volume limitations

7.1.3 Texas

Composting in Texas is regulated by the Texas Commission of Environmental Quality (TCEQ). TCEQ has specific requirements for compost producers depending on the types of materials it accepts. There are four tiers for compost facilities in Texas: exempt; notification; registration; and permit. Table 5 provides a breakdown of the tiers.

Table 5. Texas Composting Requirements by Tier

Requirement (Tier)	**Feedstock**
Exempt	Vegetative material, clean wood, paper, manure, mulching
Notification	Meat, fish, animal carcasses, dairy materials, source separated vegetable oils and greases
Registration	Sewage sludge, diapers, paper sludge, organics separated from municipal solid waste
Permit	Grease trap waste, municipal solid waste composting

A composting refund of up to 20% is offered to eligible facilities as an incentive to implement a TCEQ-approved composting plan. This is designed as a mechanism to promote the production of quality compost using organic materials diverted from MSW streams. The program allows the composting refund to be applied as a credit against fees required to be collected.

7.1.4 Utah

The Division of Waste Management and Radiation Control within the Utah Department of Environmental Quality (DEQ) regulates composting facilities in Utah under Rule 315-312 of the Utah Administrative Code. Composting facilities are required to submit a general plan of operation before commencing operations. The plan serves as a form of registration and must demonstrate compliance with operational standards specified in the regulations.

DEQ also outlines requirements for composting facilities that manage organic waste such as food waste, biosolids, and animal mortalities. These facilities have additional requirements, including

developing a detailed operational plan and obtaining a permit for operations under specific circumstances associated with exceeding material storage limits or timelines.

7.2 COMPOST PRODUCTION MODELS IN OTHER STATES

Case studies of compost production present viable and pragmatic examples of methods that New Mexico can consider for increasing organic processing.

7.2.1 Arizona

The case studies below present specific composting operations in Arizona. These key examples provide an in-depth look at the various methods employed, funding details, and the successes achieved.

Compost Cats

Compost Cats is a program in the University of Arizona's Office of Sustainability. The program offers a residential organics collection service and a larger scale commercial composting service in partnership with the City of Tucson, as well as education and outreach programming offered at several of the university's gardens and farms. Compost Cats has diverted more than 150 million pounds of organic waste since its inception. The program employs students, offering them opportunities to learn about food security, environmental justice, healthy soils, environmental advocacy, and experiential learning.

The FoodCycle Program is a partnership between Compost Cats and the City of Tucson that provides a service to businesses to divert their organic waste to the Los Reales Composting Facility. The FoodCycle program donates all its finished compost product to public uses. Compost Cats also hosts a compost demonstration site at the Tucson Village Farm to better utilize the green and brown waste produced at that location.

Compost Cats receives funding through a variety of public and private grants, a student-funded "Green Fund" initiative, and sales of the final compost product. Compost Cats received $19,200 in 2023 from USDA for a Composting and Food Waste Reduction Pilot Project Grant. Compost Cats also has received various grants from the Kroger Foundation over many years.

The University of Arizona awards grants to student projects, which are funded by the Sustainability Fee portion of the Student Engagement Fee. This fee was proposed by students and supported by the Associated Students of the University of Arizona.

City of Phoenix – Denali WeCare

The City of Phoenix solicited bids for the design of a 27-acre composting facility in 2014 and commissioned the composting facility in 2017. The City contracted with Denali-WeCare to operate the facility for three years with two optional extensions. The operation launched with a throughput capacity of 55,000 tons per year; it has the capacity to scale to 220,000 tons per year.

The City's "Green Organics Curbside Collection" program offers a curbside cart for a monthly fee of $5 for eligible areas. At the time of this research, the program did not accept food waste.

7.2.2 Colorado

Colorado case studies include organizations such as High Country Conservation Center (HC3) and Compost Queen that are dedicated to creating and promoting composting. The Boulder County Soil Health Initiative is a program aimed at improving soil health and productivity through a variety of investments throughout the county.

Compost Colorado

Compost Colorado is a Denver-based company that provides composting services to households and businesses. They offer a subscription-based collection service. They accept a wide range of compostable materials, including all food waste, yard waste, and even some types of compostable packaging. Through the compost dividend program, Compost Colorado has distributed compost across their service area. Compost Colorado is an employee-owned public benefit company.

High Country Conservation

HC3 is a non-profit organization that promotes practical solutions for waste reduction and resource conservation in the community. Food waste is transported to the Summit County Resource Allocation Park, where it is combined with biosolids and wood chips from beetle-killed pine trees. The organization provides various programs on energy efficiency, waste reduction, water conservation, sustainable food production, and green building.

HC3 has implemented an innovative food-scrap collection and composting program. The collection service operates on a subscription basis, costing $15 per month for residential households and variable rates for businesses, depending on volume. The finished compost is used to enhance soil quality in local community gardens, provide an organic alternative to chemical fertilizers, and support HC3's sustainability initiatives. The final product is the highest grade of compost governed by the EPA and is USCC Seal of Testing Assurance (STA) certified.

Boulder County Soil Health Initiative

Through a *Universal Zero Waste Ordinance*, Boulder requires all businesses and residences to separate compostables from regular trash. The Boulder County Soil Health Initiative has $1 million in grant funding available for local agricultural producers using soil health strategies, including the production of compost.

The 2024 compost production grant awardees included:

- Laughing Coyote Project: $40,000 to purchase infrastructure to increase the creation and application of quality compost.
- Boulder Mushroom: $50,000 to promote sustainable land management practices while creating a sustainable and productive use for the large quantities of unmarketable forestry biomass generated in Boulder County. This project will increase the available organic matter through eight farm partnerships totaling 107 acres.

7.2.3 Texas

West Texas is home to some unique composting operations designed to increase diversion in less-populated areas. Brush sites run by the City of Amarillo increase the convenience of recycling and

allow the capture of more organic materials. Additionally, research projects funded by Texas universities and USDA may provide relevant information to NMDA for composting and soil health.

AgriLife Extension Service

Operating statewide, the Texas A&M AgriLife Extension Service comprises professional educators, trained volunteers, and local county offices. The agency has a long history, spanning over a century, of offering innovative and scientifically sound solutions and education that integrates health, agriculture, and the environment for communities statewide. Texas A&M AgriLife supports agricultural production through a range of services, such as free soil testing. Funding for Texas A&M AgriLife comes from diverse sources, including donations, revenue from services, and grants. Texas A&M AgriLife has received grants from the Texas Department of Agriculture and USDA.

City of Amarillo Brush Sites

The City of Amarillo operates two brush sites for residents to dispose of their tree limbs and brush. The materials at these two locations are processed and transferred to the compost facility at the City of Amarillo Landfill. The compost facility uses brush site material to produce woodchips that are available for residents, demonstrating a novel method to capture organic materials in a rural setting. The two brush sites diverted a total of 3,389 tons of organics from the landfill in 2024.

Composting Support Project

The Composting Support Project[10] in the Bosque and Leon River Watersheds was designed to improve water quality and decrease phosphorus loads in local rivers caused by the local dairy industry. The project effectively subsidized the transport of manure and organic materials from dairy producers to composters, which led to increased compost production and lowered the pollution levels in the watersheds of agricultural areas.

7.2.4 Utah

As a large producer of agricultural organic waste, Utah is home to some unique compost operations that focus on specific aspects of agriculture. Promoting compost innovations that cater to niche organic sources allows for the diversion of more organic waste to the production of compost.

Compost Can – Salt Lake City

Salt Lake City's Compost Program is offered most of the year, except for a short winter season suspension, to divert compostable yard and vegetative waste from the City's landfill-bound waste stream. Compostable material is delivered to the City landfill operation for processing. The compost is tested through the USCC's STA program for quality. The Sustainability Department's Waste & Recycling Division operates as one of the City's enterprise funds, meaning it is sustained solely through service fees.

Agricultural Compost Producers

Oakdell Organic Compost is a unique compost derived from poultry manure and bedding. The use of chicken manure ensures that the compost is high in essential nutrients. Other ingredients include organic straw, wood chips, and shavings. Using a process of dehydration, the company also produces poultry fertilizer pellets that are in high demand among grain producers.

Terra Zest compost utilizes a distinctive manufacturing process that incorporates wool as a key component in the final product. The raw wool contains both macro- and micronutrients that enhance the fertility of the soil. Additionally, wool can absorb and hold water, helping to regulate the moisture content of the soil and decreasing nutrient runoff and water usage. The wool used in the process is a completely organic material and breaks down quickly to return its constituent elements to the earth.

Wasatch Integrated Waste Management District

The Wasatch Integrated Waste Management District is a government entity that manages waste in Davis and Morgan counties. They operate the Green Waste Recycling Facility at the Davis Landfill, which produces wood chips, mulch, and compost. The District has created a successful curbside green waste collection program, which is funded through compost sales and collection-service fees. Davis and Morgan counties are near the population center of Utah and provide proof of concept that organic-collection programs can be funded both through service fees and sales of the end-product.

7.3 COMPOST USE IN NEIGHBORING STATES

Examining different states offers insight into the regulatory and policy factors that influence compost use and market development. Additionally, case studies from each state provide real-world examples of successful composting initiatives and innovative solutions to challenges. Regulations on the sale of compost create market conditions that affect the overall use of compost. Understanding regulations could provide useful information for use in growing the New Mexico compost market.

7.3.1 Arizona

Although ADEQ has regulations related to the production of compost, the sale of compost within the state primarily relies on the Arizona Fertilizer Act. If a compost product makes nutrient content claims, the compost is considered a fertilizer and subject to regulation such as licensing, registration, and tonnage reports of each product.

Arizona Healthy Soils Policy

Arizona's Healthy Soils Policy was enacted in 2021, giving the Natural Resources Conservation Districts the authority to create and administer a Soil Health Program. Unlike neighboring states, Arizona does not have a committee or working group overseeing a Soil Health Program, instead soil health is addressed through the efforts of University of Arizona Cooperative Extension, ADEQ, and NRCS. In 2023, the University of Arizona created the Desert Agriculture Soil Health Initiative to advance soil health in arid and semi-arid agriculture.

7.3.2 Colorado

The Colorado Department of Agriculture (CDA) regulates compost distributed in Colorado. Compost *products* do not have to be registered with the CDA; however, any product labeled as compost must meet minimum standards. Compost manufacturing *facilities* that produce compost distributed without commercial fertilizer, plant amendment, or soil conditioner claims are required to be registered in Colorado.

These facilities are exempt from registration if they are producers of less than 10 tons of compost per calendar year or are regulated under section 14 of part 1 of the Colorado Department of Public Health and Environment regulations pertaining to Solid Waste Sites and Facilities, 6 CCR 1007-2.

Compost is sampled by CDA inspectors and tested by their Biochemistry Laboratory to verify the listed ingredients.

Colorado Soil Health Program

The passage of HB21-1181 (2021) authorized the CDA to run the Colorado Soil Health Program. The legislation also created the Soil Health Advisory Committee (SHAC) to oversee the Soil Health Program. This committee plays a vital role in Colorado's initiatives to assist landowners in improving their soil quality and increasing their resilience to drought. SHAC's role is to guarantee that the CDA is fully aware of a broad range of agricultural interests' views and issues related to the execution of the soil program. The Colorado Soil Health Program utilizes the Saving Tomorrow's Agricultural Resources (STAR) framework. STAR helps farmers and ranchers to evaluate their current production system, identify areas for improved management to increase soil health, document their progress, and share their successes.

State stimulus funding provided through SB21-235 funded the program in 2022. In September 2022, the CDA was selected for funding by the USDA through the Partnerships for Climate-Smart Commodities Project. The $25 million grant was a historic investment in Colorado agriculture that advanced farmer- and rancher-led soil and climate solutions. Grant funding in 2022 and 2023 also came from a Section 319 grant through the Colorado Department of Public Health and Environment, a Water Plan grant from the Colorado Water Conservation Board, a Conservation Partners Program grant from National Fish and Wildlife Foundation, and a Federal Conservation Innovation Grant from USDA NRCS.

Boulder County Soil Health Initiative

The Boulder County Soil Health Initiative discussed earlier also awards grants to local agricultural producers to apply finished compost.

The 2024 grant awardees include:

- MetaCarbon Farm: $38,000 to improve soil health and structure through the implementation of biofertilizers, compost, biochar, and rotational grazing on 40 acres.
- Jacob Springs Farm: $33,389 to transition away from traditional tillage methods and implement a polyculture, low-tillage system that better protects soil. Equipment was purchased to improve manure fertilizer management on 280 acres of private land.
- Artemis Flower Farm: $57,000 to expand compost application to all 17 acres of their flower-growing farm. Equipment will be shared with up to seven neighboring farmers to promote the implementation of soil health practices throughout the community.
- Father Earth Organic Farm: $14,248 to reduce soil compaction and improve soil health through organic amendments including compost and cover cropping.

7.3.3 Texas

Compost facilities in Texas are required to adhere to end-product standards (30 TAC 332.37(11) and 30 TAC 332.45(11)) as defined by TCEQ. Requirements for sampling, analyzing, documenting, and reporting the final product characteristics are detailed in 30 TAC 332.71. All data must be prepared by a TCEQ-accredited laboratory unless an exemption is applicable. The MSW Permits Section has allowed MSW composting facilities to use data prepared by a laboratory certified under the USCC STA Program, using the Test Methods for the Examination of Composting and Compost protocols, to

demonstrate compliance with end-product standards. Testing for heavy metals, including compost end-product testing, may be carried out by laboratories that certify compliance with USCC STA program rules, instead of TCEQ accreditation.

Field of Dreams Project

Following the successful production of compost using dairy manure in the previously discussed Compost Support Project, producers struggled with the excess of compost due to a lack of sustainable commercial markets. To tackle this issue, a project called Field of Dreams[11], was initiated to develop a self-sustaining commercial market that can handle large volumes of compost. The project blended compost and sand for use in topdressing athletic fields.

There are more than 1,000 communities, school districts, and universities/colleges in Texas with athletic fields, making them a potential market for the compost-sand blend. A blend of 50 percent compost and 50 percent sand was analyzed, and the results showed a good balance of nutrients, confirming its viability as an option for topdressing.

The compost-sand blend was identified as an ideal material for the renovation and topdressing of athletic fields, as demonstrated by its successful use in the football field at East Texas Baptist University, which was named the "field of the year" in 2010 by the Texas Turfgrass Association. Several years earlier, the blend's superior performance was evidenced during the dry summer of 2006, when a field treated with the compost-sand topdressing was the only playable one in a particular municipality. Users frequently complimented the appearance of the fields treated with this blend. The Field of Dreams project also contributed to the objectives of the Compost Support Project and the North Bosque River Total Maximum Daily Load Implementation Plan by removing nearly 7,000 cubic yards of manure from the North Bosque River watershed.

7.3.4 Utah

Utah State Law Rule 312: *Recycling and Composting Facility Standards* describes the requirements for composting facilities. All standards apply to the production of compost with the exception of R315-312-3(4)(j): "*The finished compost must not contain any sharp inorganic objects and must be sufficiently stable that it can be stored or applied to land without creating a nuisance, environmental threat, or a hazard to health.*"

The Utah Fertilizer Act is designed to regulate both fertilizer and soil amendments; however, compost is exempt from registration (R68-3-3. Product Registration).

Utah Soil Health Program

The Utah Soil Health Program is a state-led initiative aimed at promoting practices that improve the health and productivity of agricultural soils. The program encourages farmers, ranchers, and forest landowners to adopt soil health management systems that include practices like cover cropping, crop rotation, conservation tillage, and managed grazing. These practices not only improve soil health but also increase agricultural productivity and enhance ecosystem resilience.

The Utah Soil Health Partnership (USHP), a collaborative effort involving the Utah Department of Agriculture and Food (UDAF), USDA Natural Resources Conservation District (NRCS), and local conservation districts, provides technical assistance and land assessments to landowners. As noted

on UDAF's website, through partnership with NRCS, assessments may include development of a soil health plan that recommends specific practices such as amending soils with compost.

A key on-going project under the USHP is the Utah Soil Health Network which received $3.3 million in grants from federal, state, and matching funds to conduct a five-year study on the effects of implementing soil health practices across 16 on-farm demonstration sites. The project is expected to collect data on the agronomic, economic, environmental, and social impacts of using soil health practices[11].

7.4 MODEL PROCUREMENT POLICIES

Procurement policies – such as those encouraging the use of recycled organic products in public projects like landscaping and erosion control -- can be beneficial for the composting industry as they stimulate the end markets for organic waste. By prioritizing compost produced from local organic waste, these policies help reduce carbon footprints and support local economies.

In addition to the market implications, procurement policies also offer an opportunity to provide a structured framework for compost quality to safeguard health concerns and incentivize effective production and use.

NRDC Model Compost Procurement Policy

The NRDC's Model Compost Procurement Policy[12] is a strategic framework designed to encourage the use of compost in public spaces and reduce the amount of organic waste sent to landfills. The NRDC model provides guidelines for the procurement of compost produced from local organic waste, promoting a circular economy and supporting local economies.

The model policy outlines specifications for compost quality, creating standards for safe and effective production and use. This includes testing for contaminants, nutrient content, and maturity. The model policy also emphasizes the importance of education and outreach, encouraging local governments to educate their communities about the benefits of composting and the value of using locally produced compost.

California SB 1383 (2016)

California Senate Bill (SB) 1383 is a law aimed at reducing short-lived climate pollutants, particularly methane. One of its key components is the establishment of a compost procurement policy, which is designed to increase the demand for products made from recovered organic waste. The policy stipulates that jurisdictions must procure a certain quantity of products made from the recovered organic waste generated in their area. These products must meet specific standards to be eligible for procurement under the policy. The amount of products that must be procured is based on the jurisdiction's population (0.08 tons of organic waste per California resident per year). Eligible products include compost, mulch, and renewable natural gas made from recovered organic waste.

[11] Utah Soil Health Network, a project of the Utah Soil Health Partnership, https://utahsoilhealth.org/soil-health/projects/utah-soil-health-network

SB 1383 does not provide direct funding for compost procurement. However, it does require jurisdictions to report on their procurement activities, which could potentially be used to leverage state or federal funding. The law also allows jurisdictions to charge fees to cover the cost of implementing the organic waste reduction and recycling programs required by the law.

Washington HB 1799 (2022)

Washinton State's House Bill (HB) 1799 requires the Department of Ecology to implement a plan to achieve organic waste reduction and diversion. The plan includes strategies to promote organic waste recycling, encourage composting, and support the development of facilities that can process organic waste. It also includes provisions for a Compost Procurement Ordinance (CPO).

A CPO is local legislation that sets forth an agency's plans to comply with the compost procurement requirements and goals. CPOs address the state law requirements for procuring compost for city or county projects. The CPO requirements apply to cities and counties with populations of 25,000 or more, as well as smaller jurisdictions where organic materials collection services are provided.

Affected cities and counties must pass a CPO, which requires local governments to consider and use compost products in applicable projects except when availability, health, quality, safety, or price-competitive criteria are not met. When developing a CPO, cities and counties must consider four specified categories of compost uses, including landscaping projects and soil amendments. Cities and counties with a CPO must also develop strategies to inform residents regarding the jurisdiction's use of compost and the value of compost for residential use.

Local governments must give priority to:

- Purchasing compost products that are produced locally,
- Ensuring purchased products are certified by a nationally recognized organization, and
- Purchasing from providers whose products are derived from municipal solid waste compost programs that meet quality standards.

Local governments may enter into collective purchasing agreements if it is cost-effective to do so. Contracts by governmental units must require the use of compost products to the maximum extent economically feasible to meet local government compost-use requirements. Once a CPO is adopted, a city or county has a great degree of flexibility in its implementation.

7.5 INDUSTRY ORGANIZATIONS

Industry organizations play a vital role in the composting industry. They provide a platform for collaboration, knowledge sharing, and unified representation of the industry's interests. By offering technical training, organizations work to enhance the skills and knowledge base of industry professionals, leading to improved composting practices. They can also drive policy collaboration to influence the regulations and standards that govern the industry. Additionally, industry organizations foster networking opportunities, enabling industry professionals to share insights, learn from each other's experiences, and form partnerships.

Through strong advocacy for the industry, such organizations help to shape public perception and increase the acceptance and use of compost. They also play a key role in research and innovation, helping to advance the industry and address challenges.

Organizations like the Solid Waste Association of North America (SWANA) and USCC play a pivotal role in educating and providing members with technical training, networking and policy collaboration opportunities. They have chapters in various states, including Arizona, Colorado, New Mexico, Texas and Utah. Other organizations serving composters include the Organic Materials Review Institute (OMRI) and the U.S. Composting Infrastructure Coalition.

Industry organizations can be leveraged to increase compost production and use. These organizations, such as the Closed Loop Partners Composting Consortium, facilitate collaboration across the composting and compostable-packaging ecosystem, conduct in-market tests, perform extensive research, and work toward establishing a stronger and more resilient composting economy. They also provide valuable resources, such as the *Municipal Blueprint for Composting Report*[13], which details a clear and actionable framework for municipalities to implement successful composting activities.

Additionally, compost industry organizations can use their collective influence to secure funding and support for conservation efforts, as demonstrated by the Arizona Association of Conservation Districts' successful application for the USDA Climate-Smart Commodities Grant (Code 336). This grant supports a climate-smart practices program in Arizona, incentivizing agricultural producers to adopt practices that improve soil health. Similarly, the Colorado Composting Council and the Texas Composting Council promote composting infrastructure, drive local and state policy, and advocate for standards for compost use, further enhancing compost production and use.

7.6 CONCLUSIONS

The composting strategies of New Mexico's neighboring states reveal a spectrum of approaches to organic waste management. While all four states examined utilize regulation to ensure quality and safety, their specific frameworks vary. This is particularly apparent in regulatory tiers and feedstock handling.

Key differences and commonalities include:

- Similar to New Mexico, Colorado and Utah have soil health programs with dedicated funding, actively incentivizing soil health practices that promote compost use.
- Neighboring states have common successes with public-private partnerships and diverse funding streams.
- They all include a focus on education and outreach to build supply and demand for compost products.

These state examples demonstrate that effective composting systems require a holistic approach, integrating regulation, partnerships across a diverse range of stakeholders, and active promotion of the benefits of compost production and use.

7.6.1 Key Takeaways

- Neighboring states have varying levels of regulation on composting facilities, from minimal, to tiered registrations and permits that correspond to feedstock type and quantity.
- There are a variety of successful composting models in neighboring states, such as Compost Cats in Arizona.

- Model procurement policies in states like California and Washington demonstrate how policymakers can drive demand for compost.

8.0 FEDERAL PROGRAMS

This section provides a summary of federal programs that support compost production and use. There are numerous programs under the EPA and the USDA. Below, we cover the USDA's Code 336 and associated codes and programs. Additionally, we review recent federally administered programs including the EPA Solid Waste Infrastructure for Recycling Program (SWIFR) and the USDA Composting and Food Waste Reduction (CFWR) cooperative agreements.

8.1 NRCS PROGRAMS

NRCS programs share an overarching goal of resource protection or improvement, though the target resource concern or type of land manager may vary by program. A quick summary of NRCS programs in New Mexico is as follows:

- Environmental Quality Incentives Program (EQIP):
  - Funding is based on practice(s) utilized that address a resource concern.
  - Contains specific initiatives for water management and organic farming/transition.

- Conservation Stewardship Program (CSP):
  - Seeks to support land managers who successfully manage certain resource concerns in taking on additional conservation activities.
  - Funding is distributed based on multiple factors:
    - Existing level of stewardship;
    - Specific practices;
    - Land use of the practice location; and
    - Number of land use types receiving a practice.

- Regional Conservation Partnership Program (RCPP):
  - Utilizes public-private partnerships with regional nonprofits to address one or more natural resource priorities.
  - Partner organizations contribute cash and/or in-kind value-added contributions.
    - Applications with greater partner investments get priority consideration.
  - Funding is available for Critical Conservation Areas (CCA) or state/multistate projects.
    - New Mexico contains two CCAs: "Colorado River Basin" and "Prairie Grasslands Region."
  - The Colorado River Basin CCA is concerned with soil quality.
  - Partner organizations must provide outreach to landowners and quantify project outcomes.

Projects are ranked by impact on identified resource concerns in some cases and not all projects are guaranteed funding.

8.2 USDA NRCS CONSERVATION PRACTICE 336

8.2.1 Overview

NRCS Code 336 identifies "Soil Carbon Amendments" as a Conservation Practice Standard. A Conservation Practice Standard ("practice") is a specific activity land managers can undertake that

will address a "resource concern" on that land. These practices are eligible for reimbursement under specific programs. The programs and associated practices offered by the NRCS vary by state.

Programs that include Code 336 provide monetary incentives to improve soil quality. Soil-carbon amendments include compost, biochar, blends of compost/biochar, and other carbon-based materials.

NRCS adoption of this practice is potentially beneficial to compost facilities (public or private) as NRCS programs may reimburse customers for their purchase and application of finished compost, which can stimulate market demand. Compost must meet program standards to be eligible for reimbursement, as described further in this document.

The Soil Carbon Amendment (336) practice is intended to:

- Improve or maintain soil organic matter.
- Sequester carbon and enhance soil carbon (C) concentration.
- Improve soil aggregate stability.
- Improve habitat for soil organisms.

Additionally, NRCS offers financial assistance for other practices that may further support compost market development and/or participation in programs that provide financial assistance for the Soil Carbon Amendment (336) practice, such as:

- Construction of a composting facility (Code 317)
- Waste recycling (Code 633)
- Soil testing (Codes 216, 217, 221).
- Nutrient management planning (Codes 101, 102, 590).
- Conservation planning (Code 138, 199).

Participants may be eligible for financial assistance through multiple programs (EQIP, CSP, RCPP) using a variety of practices; however, to prevent overlapping payment for the same practice, practice codes may only be used once for the land.

8.2.2 Payment Rates

The payment schedules for each program are updated annually. Payment rates vary by state, county, and program, and are higher for Historically Underserved (HU) land managers. See **Appendix K** for the FY25 payment rates for various soil carbon applications available through the following programs: EQIP, CSP and RCPP. These statewide rates represent the average rate across counties within New Mexico.

8.2.3 Eligible Areas

Areas to which this practice applies, if organic carbon amendments will improve soil conditions:

- Cropland.
- Pasture.
- Rangeland.
- Forest.

- Associated Agriculture Lands.
- Developed Land.
- Farmstead.

Landowners or operators are responsible for planning, designing, and implementing carbon-amendment applications, including acquiring all permits or approvals. The application and approval process varies by state and may be subject to local regulations. Applicants may be required to meet an adjusted gross income limitation. Some programs require that the land meets specific requirements for resource conditions such as land erodibility or conservation priority.

For purchases to be reimbursed, soil must be evaluated at the proposed sites per program requirements to confirm that the site needs amending. (As noted in the Overview, landowners may be eligible for reimbursement of planning and testing costs through the program as well.) Some lands will not be suitable for participation, such as:

- Rangeland where there will not be planting activities;
- Lands with a high risk for phosphorus transport (based on the New Mexico Phosphorus Index Risk Assessment);
- Saturated soils;
- Lands with conditions that pose a significant risk of loss due to slope, runoff potential, rainfall, irrigation intensity, or other factors;
- Lands without existing or planned vegetative cover; or
- Areas that may negatively impact air or water resources or nutrient cycling.

In summary, programs will evaluate the planned project locations to confirm application of carbon amendments will provide a resource benefit and sequester carbon.

8.2.4 Steps to Apply

Landowners wishing to participate in NRCS programs must visit a Local USDA Service Center for more information. Application and implementation materials and processes vary based on programs and practices of interest. Applications often involve a site visit by an NRCS conservation planner. Specific criteria for soil carbon amendments can be found in **Appendix K.**

8.3 USDA NRCS COMPOSTING FACILITY (CODE 317)

8.3.1 Overview

Programs that include the Composting Facility Code 317practice provide monetary incentives to obtain materials for and/or construct a composting facility for processing manure and/or other organic material into a final product stable for storage, on-farm use, and application to land as a soil amendment.

NRCS adoption of this practice is potentially beneficial to farmers, landowners, and other private entities who wish to establish a new facility and receive financial assistance for startup costs.

One or more of the following objectives must be met by the project:

- Reduce water pollution potential;

- Conserve energy by reducing mass and improving handling characteristics of organic waste solids;
- Reuse organic waste as animal bedding; and/or
- Transform organic waste into a soil amendment that improves soil health, provides slow-release plant-available nutrients, and suppresses plant disease.

8.3.2 Payment Rates

The payment schedules for each program are updated annually. Payment rates vary by state, county, and program, and are higher for historically underserved (HU) land managers. See Appendix K for the FY25 payment rates for construction of a compost facility available through the following programs: EQIP and RCPP. (New Mexico does not include Composting Facility Code 317 in CSP.) These statewide rates represent the average rate across counties within New Mexico.

8.3.3 Eligible Projects

This practice could apply if one or both of the following are met:

- Organic solid wastes to be composted derive primarily from agricultural production or processing; and/or
- The compost produced can be reused in the operation, utilized for crop production, used to improve soil health, or marketed to the public.

The above conditions would not require an operation to use the compost itself if it can be sold as a product. This practice may also be used for a facility that processes post-consumer or commercial food wastes provided that the compost is utilized for a beneficial use as described above.This practice does not apply to the routine storage and handling of animal manure solids. Further information regarding the criteria for composting facilities can be found in Appendix K.

8.4 USDA NRCS WASTE RECYCLING CODE 633

8.4.1 Overview

Waste Recycling Code 633 provides monetary incentives to obtain by-products of agricultural production or non-agricultural by-products for beneficial use on the land.

NRCS adoption of this practice is potentially beneficial to farmers, landowners, organic waste generators, and other private entities who wish to either sell or otherwise export a by-product or purchase a by-product for beneficial use (including as a compost feedstock or amendment).

One or both of the following purposes must be met by the project:

- Protect or improve the quality of natural resources and the environment; and/or
- Provide or reduce energy use.

In other words, the redistribution of the by-product must allow it to be applied to land such that it will provide an environmental benefit (such as sequestering carbon or improving soil health). Alternatively, the by-product could be used on a productive landscape as a nutrient source or replacement for existing fertilizer use.

8.4.2 Payment Rates

The payment schedules for each program are updated annually. Payment rates vary by state, county, and program, and are higher for historically underserved (HU) applicants. See **Appendix K** for the FY25 payment rates for import, export, and/or use of waste materials available through the following programs: EQIP and RCPP. (New Mexico does not include. Waste Recycling Code 633 in CSP.) These statewide rates represent the average rate across counties within New Mexico.

8.4.3 Eligible Projects

This practice could apply if one or both of the following are met:

- Waste can be processed and recycled to prevent a resource problem or provide a conservation benefit; and/or
- The intended recycling activity is identified in a waste management system plan or an equivalent plan.

The above conditions are often used in conjunction with cooperative agreements to accept biosolids from wastewater processing as a disposal solution and beneficial use but may be suited to solid waste management plans involving food waste management and diversion. This practice may also be used to facilitate the movement of by-products from one producer to another who may have a greater ability to manage the material or a greater need for land application. Specific criteria for Waste Recycling (Code 633) can be found in **Appendix K**.

8.5 OTHER USDA PROGRAMS

This section provides a summary of other grant and loan programs offered by offices within USDA that may provide support to compost producers and/or end users.

8.5.1 Conservation Innovation Grants (CIG)

NRCS oversees CIG, a national competitive grant program "competitions" that supports the development of new approaches to resource-conservation efforts. This program seeks to address water quality, air quality, soil health, and/or wildlife habitat challenges. According to the USDA NRCS websites there are three funding opportunities within the CIG program:

CIG Classic

National competition for projects that support the early-stage development and piloting of new tools, practices and technologies to further natural resource conservation on private lands.

CIG On-Farm Conservation Innovation Trials (On-Farm Trials)

National competition for projects that support more widespread adoption and evaluation of innovative conservation approaches in partnership with agricultural producers. On-Farm Trials Awardees provide technical assistance and incentive payments to producers to help compensate for risks associated with implementation of new conservation practices, systems and approaches. Awardees also evaluate the environmental, financial and social (to the extent possible) impacts of implementing innovative approaches. The Soil Health Demo

Trial is a priority within the On-Farm Trials competition which focuses exclusively on implementation of conservation practices and systems that improve soil health.

State CIG Classic

State-level competitions for projects that support early-stage development and piloting of new tools, practices and technologies to further natural resource conservation on private lands. While the overall goal and approach match those of CIG Classic, CIG state competitions fund projects that target state-identified conservation priorities. Each year, NRCS state offices may elect to administer their own CIG competitions. State CIG competitions are announced separately from national competitions.

For CIG Classic and CIG State Classic, the applicant must provide 50 percent matching funds, or 33 percent matching funds if the project team qualifies as a historically underserved (HU) population. Matching funds may be grant funds if the source is not federal. For CIG On-Farm Trials, the applicant must provide a 20 percent match.

Most projects funded in FY22 and FY23 included a soil focus, such as biochar adoption, vermicompost application, climate-smart fertilization, and reduction of soil carbon loss.

8.5.2 Rural Development

The USDA office of Rural Development offers a variety of grant programs, with several that recur annually. Programs of interest that could support composting infrastructure are described below.

Value-Added Producer Grants

These grants help agricultural producers enter value-added activities to generate new products, create and expand marketing opportunities, and increase producer income. Awards range from $75,000 to $250,000. Matching funds for the grant amount are required.

Rural Cooperative Development Grant Program

These grants help individuals and businesses start, expand, or improve rural cooperatives and other mutually owned businesses through Cooperative Development Centers. This could be used for a local compost-production or marketing cooperative. This grant recurs annually with a maximum award of $200,000. Applicants must provide matching funds of 25% of the total project cost.

8.5.3 Farm Service Agency

The Farm Service Agency (FSA) within USDA offers loan, cost-share, and other financial-assistance programs to producers. Interest rates are generally lower than those for conventional loans. In addition to those described in the following sections, there are also loans for:

- Buying or expanding a farm or ranch.
- Operating/establishing a farm.
- Microloans for small, beginning, non-traditional, or specialty operations.

Some of these options may be relevant for a potential food waste processor.

8.6 EPA Solid Waste Infrastructure for Recycling (SWIFR)

This section provides a summary of the EPA SWIFR Grant Program, which provides funding to support improvements to local post-consumer materials management with an overall goal of reducing greenhouse gas emissions.

8.6.1 Overview

The SWIFR program focuses on implementation of the "National Recycling Strategy" which aims to advance the national recycling system. Of primary interest is the municipal solid waste stream which includes plastics, food, organics, paper, metal, glass, and construction and demolition debris. The term "post-consumer materials management" refers to systems and equipment related to waste management and diversion including source reduction, reuse, collection, transport, and processing (including material recovery, composting, recycling, and industrial uses).

The EPA lists the following three categories of grants within the SWIFR Program:

1) SWIFR Grants for States & Territories.
2) SWIFR Grants for Tribes & Intertribal Consortia.
3) SWIFR Grants for Political Subdivisions.

In the following sections we describe the different intentions of the SWIFR program depending on the grant recipient category.

8.6.2 States and Territories

Eligible activities for States and Territories include:

- Develop or update plans to advance post-consumer materials management. Plans can be for Title 40 of the Code of Federal Regulations Part 256 solid waste management plans or other planning documents (e.g., circular economy plans).
- Develop, strengthen, and/or implement comprehensive data collection efforts that demonstrate progress toward the National Recycling Goal and Food Loss and Waste Reduction Goal. Data collection and measurement efforts should be designed to improve the state's ability to track progress towards national and state recycling and/or circular economy goals. Data collection efforts could include state-wide or other targeted waste characterization studies.
- Support the state-led implementation of plans to advance post-consumer materials management.

These funds may be used by the applicant to hire subcontractors, conduct studies, and potentially establish a grant program or other supportive programming for food waste diversion such as composting if such efforts are part of the State's materials management plan.

8.6.3 Political Subdivisions

The category for "Political Subdivisions" includes "counties, cities, towns, parishes, and similar units of governments that have executive and legislative functions to be political subdivisions of states"[12]. Applicants may submit separate applications for one or more projects.

All applications must achieve one or more of the following objectives:

- Establish, increase, expand, or optimize collection and improve materials management infrastructure.
- Fund the creation and construction of tangible infrastructure, technology, or other improvements to reduce contamination in the recycled materials stream.
- Establish, increase, expand, or optimize capacity for materials management.
- Establish, improve, expand, or optimize end-markets for the use of recycled commodities.
- Demonstrate a significant and measurable increase in the diversion, recycling rate, and quality of materials collected for municipal solid waste.

Applications may include (but are not limited to) projects that fund:

- Programs that provide or increase access to innovative solutions or programs that provide or increase access to prevention, reuse, and recycling in areas that currently do not have access; including development of or upgrades to drop-off and transfer stations (including but not limited to a hub-and-spoke model in rural communities), etc.
- Construction of and/or upgrades to composting facilities or anaerobic digesters to increase capacity for food and organics recycling (including food preprocessing).
- Education and outreach activities as a minor element of larger eligible projects that are funded by the grant.
- Development of or upgrades to curbside collection programs or drop-off stations for organics.
- Other activities that the applicant believes will further the objectives of the program.

An application must declare whether the project is proposed to benefit disadvantaged communities.

8.6.4 Funding

The EPA anticipates providing $58 million in total funding to Political Subdivisions, with the expectation that approximately 40 percent will go to disadvantaged communities (about $23,200,000), leaving about $34.8 million for projects in other communities. Awards will range from $500,000 to $5 million each. The EPA anticipates awarding at least one Political Subdivision per EPA region, with a minimum individual award of $500,000 and maximum individual award of $5,000,000 for the grant period, which is up to three years. The EPA made available $30 million in SWIFR funding in FY23 for States and Territories.

The funding for the SWIFR Grant Program will be in the form of cooperative agreements. A cooperative agreement is an assistance agreement that is used when there is substantial federal involvement throughout the performance of the project. The EPA will negotiate the precise terms and

[12] https://www.epa.gov/system/files/documents/2024-09/24-05_0.pdf

conditions of "substantial involvement" as part of the award process. The anticipated substantial federal involvement for these projects may include:

- Monitoring the applicant's performance to verify the results proposed by the applicant;
- Collaborating during performance of the scope of work;
- Review of proposed procurement;
- Review of Quality Assurance requirements and plans;
- Approving qualifications of key personnel (EPA will not select employees or contractors employed by the award recipient); and
- Reviewing and commenting on reports prepared under the cooperative agreement (the final decision on the content of reports rests with the recipient).

EPA may also partially fund portions or phases of projects and may reimburse pre-award costs. Cost sharing or matching funds is not required. Political Subdivisions that are previous recipients of SWIFR grants are not eligible for funding under this solicitation.

Additional information about the SWIFR program can be found in Appendix L.

8.7 USDA COMPOSTING AND FOOD WASTE REDUCTION (CFWR)

This section provides a summary of the USDA Composting & Food Waste Reduction (CFWR) Grant Program, which assists local and municipal governments with projects that develop and test strategies for planning and implementing municipal compost plans and food waste reduction plans.

8.7.1 Overview

The CFWR Grant is administered by the USDA Office of Urban Agriculture and Innovative Production (OUAIP) which was formed under the 2018 Farm Bill and is led by the USDA's NRCS. Funds for this program largely came from the American Rescue Plan Act of 2021.

Projects can focus on one approach or combine activities from both approaches below:

- Compost-focused projects: Develop infrastructure for composting and organic waste reclamation to provide local residents with alternative waste streams while increasing access to compost for local farms.
- Food waste reduction projects: Develop edible food recovery networks, create education campaigns focused on residents or commercial businesses, or test strategies to conserve food waste as animal feed.

OUAIP will prioritize projects that anticipate or demonstrate economic benefits; incorporate plans to make compost easily accessible to farmers, including community gardeners; integrate other food waste strategies, including food recovery efforts, and collaborate with multiple partners.

8.7.2 Eligible Applicants

- Individual municipalities, counties, and other units of local government.
- Tribes.
- Special district governments such as waste management authorities, soil and water conservation districts, and regional development authorities.

- School districts.

Applicants are encouraged to partner with other entities wherever possible, including entities that are ineligible as primary applicants. Successful applications typically involve multiple partnerships to indicate greater support and scope of the project.

8.7.3 Funding & Matching Requirement

The USDA offers grants of up to $400,000 to CFWR recipients. Grant recipients must provide a matching contribution equal to 25 percent of the federal assistance provided. This requirement can be met through funds, in-kind contributions, and partner contributions which can also be in-kind.

Funded project examples are available in **Appendix M**.

8.8 FUNDING SUMMARY

A summary of the funding opportunities discussed in this section is included in Table 6. The activities are classified by what each program funds in terms of:

- **Planning:** funds upstream activities by political subdivisions or other entities to facilitate or track food waste diversion, including formation/administration of their own grant programs or establishment of partnerships.
- **Production:** funds activities that involve the processing or production of compost, including business formation/training/planning.
- **Use:** funds the purchase and/or application of finished compost or other related soil amendments.

This table also describes whether the funds are in the form of a grant, financial assistance, or loan.

Table 6. Federal Funding Summary Table

Funding Source	Program Name	Fund Type	Match	Applicant Type	Funded Activities	Award Amount
USDA NRCS	EQIP, CSP: Code 336 Soil Carbon Amendment	Financial Assistance	n/a	Individuals	Use	See notes
USDA NRCS	EQIP, RCPP: Composting Facility Code 317	Financial Assistance	n/a	Individuals	Production	See notes
USDA NRCS	EQIP, RCPP: Waste Recyling Code 633	Financial Assistance	n/a	Individuals	Production	See notes
USDA NRCS	CIG Classic	Grant	50% or 0-33% for HU	Non-federal Entities, Individuals	Planning, Production, Use	See notes
USDA NRCS	CIG On-Farm Trials	Grant	20%	Non-federal Entities	Production, Use	$250K to $5MM
USDA RD	Value-Added Producer	Grant	100%	Individuals	Production, Use	$75K to $250K

Funding Source	Program Name	Fund Type	Match	Applicant Type	Funded Activities	Award Amount
	Grants					
USDA RD	Rural Cooperative Development Grant	Grant	25%	Individuals, Partnerships	Production	Up to $200K
EPA	SWIFR	Grant	n/a	States, Tribes, Political Subdivisions	Planning, Production	$500K to $5 MM
USDA OUAIP	CFWR	Grant	25%	Local Governments, Tribes, District Governments, School Districts	Planning, Production, Use	Up to $400K

Notes:

Payment rates for Soil Carbon Amendment (336) varies by amendment type (compost, biochar, blend, other carbon), with rates paid per acre for plots greater than 10,000 sq. ft. and rates paid per thousand sq. ft. for plots less than 10,000 sq. ft.

Payment Rates for Composting Facility (317) varies by facility materials used (compacted dirt, in-vessel composter, concrete bays, etc.) with rates based on sq. ft. for composting pads (concrete, asphalt, dirt, etc.) and cu. ft. for in-vessel composters. For example, a concrete surface for windrows could receive a payment of $7.02/sq.ft. and a 8 cubic yard in-vessel composter could receive a payment of $149.23/cubic foot (27 cu.ft. per cu. yd. equates to ~$32,000 for an 8 cu. yd. in-vessel).

Payment rates for Waste Recycling vary by import vs. export of by-products. Importing for land application or use on farm is paid by tons or cubic feet, respectively. Meanwhile exporting by-products off-farm is paid per export.

Past awards for Conservation Innovation Grants ranged from $250,000 to $2,000,000.

8.9 Proposed Compost Specific Federal Legislation

On February 5th, 2025, S.351 Strategies To Eliminate Waste and Accelerate Recycling Development Act of 2025 (STEWARD) was reported to the U.S. Senate. The bill would "establish a pilot grant program to improve recycling accessibility, to require the Administrator of the Environmental Protection Agency to carry out certain activities to collect and disseminate data on recycling and composting programs in the United States, and for other purposes." A similar bill was introduced in the 2023-2024 session (118th Congress) but did not become law.

Under the 118th Congress, Sen. Cory Booker introduced the COMPOST Act. The bill did not become law, but composting advocates at the US Composting Council have suggested the bill may be reintroduced in the current 119th Congress. The bill proposes designation of composting as a conservation practice and provides grants and loan guarantees for composting facilities and programs. Grants would be capped at $5,000,000 per project, and $200,000,000 would be appropriated each fiscal year through 2032.

8.10 CONCLUSIONS

The landscape of funding opportunities for composting and soil health initiatives in New Mexico is multifaceted, involving programs administered by the USDA's NRCS, Rural Development, and OUAIP, as well as the EPA's SWIFR grant program. A number of programs offer financial and technical assistance for a range of activities, from implementing soil carbon amendments and constructing composting facilities to waste recycling and planning efforts. Proposed federal legislation like the STEWARD Act and the potential reintroduction of the COMPOST Act signal growing interest in supporting recycling and composting infrastructure and practices.

8.10.1 Key Takeaways

- The USDA NRCS offers financial assistance through programs like EQIP, CSP, and RCPP for conservation practices such as soil carbon amendments (Code 336), composting facility construction (Code 317), and waste recycling (Code 633), directly incentivizing compost production and use.
- Grant programs like the U.S. EPA's SWIFR and USDA's CFWR are intended to support planning and infrastructure development for composting and food waste reduction.
- Several USDA programs, such as the Conservation Innovation Grant (CIG), provide grant funding for composting projects.

9.0 KEY FINDINGS AND RECOMMENDATIONS

This study includes an in-depth analysis of the various compost practices and related activities in New Mexico and neighboring states. The objective of the research was to identify ways to increase both production and use of compost within the state of New Mexico. Below, the project team documents key findings and recommendations of our research.

9.1 KEY FINDINGS

Composting is regulated by the New Mexico Environment Department's Solid Waste Bureau, which requires the submission of a registration application prior to commencement of composting operations. Additional registrations or permits may be required by other state and federal agencies, depending on the type of feedstocks received for composting and surface and ground water discharge. Some composting facilities, such as those handling biosolids, must meet stricter requirements around human pathogen reduction and metals concentrations. Finished compost, a product that is considered ready for sale, is considered a soil conditioner by the New Mexico Fertilizer Act and in certain cases requires product registration with the New Mexico Department of Agriculture along with a quarterly tonnage report and associated inspection fee. The Food Safety Modernization Act (FSMA) provides specific requirements on compost producers who intend to sell their compost to growers of crops covered by FSMA. The requirements align with the existing U.S. EPA's Process to Further Reduce Pathogens.

The team conducted research on organic waste streams in the state, largely dependent on available data provided by the NMED Solid Waste Bureau. Our findings indicate that the state's overall generation of waste has remained flat over the last eight years, at roughly 3.1 million tons per year, and diversion has averaged around 505,000 tons per year. More detailed information about the composition of materials categorized as municipal solid waste were approximated to gain a general sense of the type and quantity of organic waste that could be present in the landfill bound municipal solid waste category. Our research also identified that there are data gaps that limit our understanding of the quantity of compostable materials generated in the state.

From an urban perspective, organic waste generation tends to originate at residential and commercial locations in the form of yard trimmings and food waste. Source-separated collection of these organic waste streams tends to be limited – the majority goes to the landfill. In rural and agricultural settings, top agricultural markets such as dairy and pecans tend to generate significant amounts of organic waste. The dairy industry generates an estimated 6.3 to 6.8 million tons of manure while the pecan industry generates approximately 250,000 tons of leaf, shell, and branch waste. Additional streams of organic waste occur in the timber industry and through some forestry related projects on public lands. The timber industry tends to use its wood residue to reduce costs or for sale to other markets, while forestry management projects tends to lack data on the final use of forest slash.

The production of compost is tied to the availability of feedstocks. Feedstocks that are relatively contaminant free and generated within proximity to a composting facility tend factor significantly into the success of a composting operation. Access to consumers of composting products is also a key aspect for compost producers to find success.

Using the Solid Waste Bureau's annual reporting data aggregated over an eight-year period, there is an estimated 300,000 tons of annual compost processing capacity. Factoring in mass reduction due to the

composting process and the screening process which removes coarse materials, an estimated range of 50,000 to 90,000 tons (100,000 to 180,000 cubic yards) of compost is produced each year.

A number of barriers were presented in terms of increasing compost production in the state, and those barriers vary for urban and rural compost producers. Compost producers that service residential and commercial centers must strike a balance between proximity to feedstocks/consumers and siting their operations on land that is properly zoned and distant from potentially resistant neighboring land uses. Rural compost production is impaired by the distances that collection vehicles must travel to capture enough organic waste for efficient compost production.

Education and outreach promotes awareness and understanding of the benefits of composting. As noted in the research, public knowledge can influence both production and use of compost. Survey findings indicate a significant gap in the educational messaging concerning organic waste diversion and composting in New Mexico. The discrepancies are particularly evident between urban and rural counties.

New Mexico faces challenges in promoting composting education statewide due to geographic diversity, variety of composting methods, and limited composting capacity. The lack of city- or county-wide composting programs and the lack of organics disposal bans also pose a challenge. Efforts to increase composting in New Mexico should consider diverse interests and familiarity levels with composting among the population.

A series of case studies highlight current operations in New Mexico, both their successes and challenges. Lescombes Family Vineyards has implemented an on-farm composting program since 2008, enhancing soil productivity and reducing reliance on chemical inputs. Despite its success, the vineyard faces challenges including limited feedstock availability, and high transportation costs. Reunity Resources focuses on sustainable solutions for organic waste management through food scrap diversion and composting. Despite facing challenges related to equipment and infrastructure, the facility's commitment to sustainability, community engagement, and environmental stewardship demonstrates the importance of composting as a solution to organic waste management. Soilutions have had challenges such as limited access to carbon feedstocks. However, this case highlights the potential for composting to significantly reduce landfill bound organic waste while promoting the benefits compost has on soil health and environmental sustainability.

Our research on neighboring states identified some key differences in how compost facilities are regulated. Colorado and Texas both have permitting tiers that consider feedstock type and/or quantity of feedstock received at the facility. Arizona and Utah do not set thresholds for a permitting structure, generally have fewer requirements for compost producers, and typically require that the environmental agency be notified of a composting operation and/or submission of a general plan of operations to serve as a registration.

We also highlighted several successful composting models found in neighboring states, such as the public-private partnership between the City of Phoenix and Denali WeCare, where the partnership manages a 27-acre composting facility processing 55,000 tons of residential and commercial feedstock per year.

Supporting the composting industry can include strategies that promote the procurement of compost through procurement policies. An example procurement policy is discussed along with two states that have implemented compost procurement policies requiring jurisdictions to purchase compost for use in a wide range of acceptable projects.

Financial assistance through federal programs encourages compost production and use in the state. The USDA's Natural Resources Conservation Service provides financial assistance through several programs which can help incentivize production and use of compost. Additionally, the U.S. EPA has made significant investments in the form of grants to increase composting infrastructure in the United States. At the time of this writing, the future of these programs and the availability of their funds is uncertain, given the federal government's focus on reducing spending.

9.2 RECOMMENDATIONS

SCS Engineers and its project team compiled the following recommendations throughout the course of this study.

9.2.1 Funding Strategies

To increase the generation of compost in New Mexico, a multi-faceted approach is needed to build public and private interest in developing source-separation and collection programs for organic waste. Interest already exists in the state in the form of seasonal yard-waste collection programs, private residential source-separated organics-collection programs, and commercial composting facilities.

Increasing the generation of compost relies on both direct and indirect drivers. Public policies and programs can drive residents toward centralized organic waste diversion, which directly increases the tonnage of organics available for composting. Investment in organics processing infrastructure, from collections vehicles to composting facilities, directly increases the capacity and total throughput of organic waste management.

Market demand for compost is also fundamental for the composting industry to grow. From a jurisdictional perspective, this is an area where NMDA has the greatest potential. Driving demand for compost improves the financial strength of the composting industry and brings confidence to investors considering financing composting infrastructure. As we highlighted in this report, there are several federal programs that support the use of compost on New Mexico's agricultural lands. There are also federal bills that, if passed, could inject capital into the composting industry.

One challenge that exists for compost producers is the scale or throughput of their operations. In a report by the Composting Consortium the authors discuss dollar markets and volume markets[13]. Agriculture is a traditional volume market, prices for compost must be low and the volume of compost must be high for agricultural producers to gain value from compost application. Small-scale compost producers, such as those producing less than 40,000 tons per year, rely on dollar markets where the price per cubic yard is high in comparison to prices found in volume markets. Small compost producers may not be able to sustain their businesses by selling to the agricultural market alone.

The project team's recommendation to support the use of compost in additional markets is to invest grant money to support a wide portfolio of compost users (within the context of grant eligibility).

[13] Unleashing the Economic and Environmental Potential for Food Waste Composting in the U.S., Composting Consortium.

Our report noted that barriers may exist for land managers who perceive the process for NRCS financial assistance too cumbersome. Our project team's recommendation is to promote knowledge sharing through continued conservation district workshops, webinars, and technical assistance.

50-Year Water Action Plan

Governor Michelle Lujan Grisham's 50-Year Water Action Plan recommends $10 million for NMDA to fund water-saving practices and support agricultural resilience. The project team recommends advocating compost use toward meeting water conservation goals in the state. The Association of American Plant Food Control Officials (AAPFCO) concur that compost increases soil organic matter (SOM). Higher levels of SOM allow soils to hold additional water. For each percent increase in SOM, Arkansas soil scientists report that soil can hold an additional 16,500 gallons of plant-available water per acre-foot of soil (Sullivan 2002; USDA n.d.; Scott et al. 1986).

Protecting New Mexico's water resources from contamination is also highlighted in Governor Lujan Grisham's plan. Studies have shown that composted mulch, the fraction of woody particles removed from finished compost, can be used in erosion-control waddles to reduce the spread of toxins on fire-ravaged land. Similarly, this coarse fraction of compost is a sought-after ground cover for roadway embankment projects, reducing erosion and promoting water-infiltration claims, which also are approved by AAPFCO. In urban and suburban areas, new development projects can contribute to water resiliency by incorporating compost in soil blends and using compost or composted mulch for ground covers. Some states have adopted ordinances, such as California's Model Water Efficient Landscape Ordinance (MWELO), which requires the use of compost products in new developments. Additionally, some states require jurisdictions to procure a predetermined amount of compost products – a measure that ultimately supports the composting industry.

9.2.2 Improvement of Regulatory Code to Establish Agricultural Exemption

Through the course of the project team's research on regulatory requirements for compost producers and users, we have identified several recommendations that add clarity and promote the use of compost. NMAC Section 20.9.2.2 - SCOPE states that composting falls within the scope of the solid waste rules. Section 20.9.2.11 – EXCEPTIONS acknowledges that the solid waste rules 20.9.2 – 20.9.10 NMAC do not apply to the following:

"A. disposal of solid waste by a homeowner, residential lessee or tenant, or agricultural enterprise, on the property she or he owns, rents or leases, if the waste was generated on that property, and the disposal by the homeowner, residential lessee or tenant, or agricultural enterprise of the solid waste does not harm the environment or endanger the public health, welfare or safety and does not violate any provision of 20.9.2 - 20.9.10 NMAC;

B. on-site disposal of domestic solid waste generated by a person residing and occupying that same property only if that property is located in a place where it is not feasible, as determined by the department, to dispose of the solid waste in a permitted solid waste facility and the disposal of the solid waste does not harm the environment or endanger the public health, welfare or safety and does not violate any provision of 20.9.2 - 20.9.10 NMAC; or

C. disposal of construction and demolition debris or yard refuse by a person in possession of property if the material was generated on the property and if the disposal of the solid waste does not violate any provision of 20.9.2 - 20.9.10 NMAC.

The project team's recommendation is to create a clear exception for composting that meets specific criteria, such as:

On-site composting of organic waste (or compostable material) or agricultural waste by a homeowner, residential lessee or tenant, or agricultural enterprise, on the property she or he owns, rents or leases, if the organic waste (or compostable material) or agricultural waste was generated on that property and the composting of the organic waste (or compostable material) or agricultural waste does not harm the environment or endanger the public health, welfare, or safety and does not violate any provision of 20.9.2 – 20.9.10 NMAC.

Additionally, we noted that compostable materials currently fall into the definition of "recyclable materials", which can cause confusion with non-compostable materials that are considered recyclable but can contaminate a composting mixture. We also recommend the addition of definitions for:

- Agricultural waste
- Yard refuse
- Organic waste; and
- Compostable material.

It should be noted that there is precedence for this level of specificity, as the definition for N.M. Admin. Code § 20.9.2.7 "**(5)** "Recycling facility" means a facility that collects, transfers, or processes recyclable materials for recycling, **but does not include a composting facility**."

We believe the changes noted above will give on-site compost producers, specifically those operating on agricultural land, confidence that their operations are excepted from the solid waste rules provided they meet the criteria set forth in 20.9.2.11 EXCEPTIONS.

9.2.3 Modify Facility Registration Application (NMED SWB)

Currently, only biosolids facilities are required to conform with part B of 40 CFR, part 503, subpart D PFRP. The project team recommends extending this requirement to include facilities that make compost from manure or special wastes (such as meat-production offal). For agricultural producers using compost on crops covered by the FSMA, biological soil amendments produced from animal byproducts must have documentation that shows the composting process met PFRP.

9.2.4 Education and Outreach

From the education and outreach perspective, the ongoing efforts of Quivira Coalition, NM Healthy Soil Working Group, NMRC, NMED SWB, NMSU Cooperative Extension Service, and NMDA are crucial to strengthening the demand for compost and ensuring high-quality compost is available throughout the state.

To stand up an effective statewide education and outreach campaign around composting in New Mexico, SUNNY505 recommends identifying a clear campaign goal. *Is the goal to increase the number of people in the public in the state who compost, whether at home or through their business or other avenues? Is it to inform the public of existing composting resources throughout the state, and gaps that currently exist? Is it to urge counties and municipalities to expand their respective composting programs and messaging efforts?* The goal of the statewide education and outreach campaign will inform its design and implementation.

Part of deciding upon a goal is deciding upon a message. As listed below, tying the messaging to the numerous benefits of composting could be one particularly effective strategy, according to experts interviewed for this survey. Food waste could be an effective problem to tie the messaging to, with greater access to composting providing a clear solution.

Messaging considerations include:

- Using facts and figures to support anecdotal messaging. Entities like the U.S. Environmental Protection Agency and Roadrunner Food Bank provide data on food waste, both at a national and state level.
- Referencing successful established programs to show efficacy. Soilutions and Reunity Resources provide two examples of operations conducting effective localized outreach.
- Appealing to various individual experiences. Most people experience food waste in various settings, whether at home, at work, at school, or at businesses. Crafting messaging to touch on each of those experiences provides clear touchpoints for people's day-to-day lives.

In addition, depending on the goal of the statewide education and outreach campaign, the project team recommends deciding on clear channels through which to promote the campaign. Channels could include earned media coverage at prominent outlets throughout the state, including print, broadcast, and radio media, as well as digital advertising via social media websites and platforms, print advertising, billboard advertising, broadcast advertising, and social media influencer advertising.

Appendix A

20.9.3.27 and 20.9.3.28 NMAC of the New Mexico Solid Waste Rules

Current through Register Vol. 35, No. 21, November 5, 2024

Section 20.9.3.27 - REGISTRATION OF RECYCLING AND COMPOSTING FACILITIES THAT ACCEPT ONLY SOURCE SEPARATED RECYCLABLE OR COMPOSTABLE MATERIALS, COLLECTION CENTERS AND AIR CURTAIN INCINERATORS AND LAW ENFORCEMENT PHARMACEUTICAL INCINERATORS

A. The owner or operator of the following facilities shall file an application for a registration at least 30 days prior to any operations and every five years thereafter. Existing facilities of the type listed below shall apply for a registration at least 30 days prior to the expiration of their existing permit or registration, or within two years after the effective date of these regulations, whichever occurs first. Facilities covered by this section that do not timely file a complete application for registration are hereby deemed unpermitted solid waste facilities, and the owner or operator may be subject to penalties, permit requirements and nuisance abatement orders. Facilities required to register are:

(1) recycling facilities that accept only source separated recyclable materials;

(2) composting facilities that accept only source separated compostable materials;

(3) collection centers;

(4) small animal crematoria;

(5) air curtain incinerators; and

(6) law enforcement pharmaceutical incinerators.

B. Registration is not required for a recycling facility that accepts only source separated recyclable materials and accepts the recyclables for less than seven days in any calendar year.

C. Registration is not required for collection facilities that are part of a commercial hauler operation, that have an operational rate of less than 240 cubic yards per day monthly average, and that do not serve the general public, but such facilities shall be included in the registration of the commercial hauler under Paragraph (10) of Subsection A of 20.9.3.31 NMAC.

D. Any person who is required to register under this section with the department shall provide the following information:

(1) the name, address, and telephone number of the business, owner, operator and contact person;

(2) the anticipated start up date (unless it is an existing operation);

(3) a legal description, and map of the proposed facility site, including land use and zoning of the site and surrounding area, including setbacks;

(4) a description of means that will be used to prevent the facility from becoming a public nuisance, including:

(a) signs to indicate the location of the site, the hours of operation, emergency telephone numbers, delivery instructions, and that fires and scavenging are prohibited;

(b) storage containers that are leak-proof and manufactured of non-biodegradable material;

(c) means to control litter and prevent and extinguish fires;

(d) conducting any recycling operations in a safe and sanitary manner;

(e) storing any recyclable materials in a manner that does not create a nuisance, harbor vectors, or create a public health hazard;

(f) providing sufficient unloading areas to meet peak demands;

(g) for collection centers, providing separate storage areas for bulky wastes, such as brush, white goods, appliances and scrap tires, and removing the bulky wastes at a frequency approved in the registration;

(h) for collection centers, confining unloading of solid waste to as small an area as possible;

(i) for collection centers, removal of solid waste from the center at the end of the operating day unless otherwise approved in the registration; (j) a means of controlling access to the facility;

(k) a means of controlling and mitigating noise and odors;

(l) operating plans for the facility, including, but not limited to, the origin, expected composition and weight or volume of materials to be composted or recycled or incinerated, the process, loading rate, proposed capacity, size and operational rate, and the expected disposition rate of the recyclables, compost, ash or waste from the facility;

(m) for composting facilities that accept sewage sludge, a plan showing testing methods and procedures for compliance with 40 CFR 503 and 20.6.2 NMAC;

(n) for composting facilities, a demonstration that a groundwater discharge permit has been applied for, if applicable;

(o) for air curtain incinerators, a copy of the air quality permit, registration or notice of intent filed with the air quality bureau;

(p) for air curtain incinerators, a designation of the intended recipient of ash waste; and (q) any additional information requested by the secretary.

E. The owner or operator shall comply with the terms of its approved registration.

F. A violation of the terms of an approved registration may be deemed to be a public nuisance or the facility may be deemed to be an unpermitted solid waste facility subject to enforcement orders under the Solid Waste Act.

G. The owner or operator of a facility required to be registered under this section shall update its registration to reflect any material change in its operations.

H. The owner or operator of a recycling facility, composting facility, collection center, small animal crematorium, an air curtain incinerator, or a law enforcement pharmaceutical incinerator shall not create a public nuisance. Failure to comply with the terms of the registration may be deemed a public nuisance. If the secretary determines, based on the information submitted with the registration or based upon any other information that the facility will be or has become a public nuisance, or that a facility covered by this section is in violation of the Solid Waste Act or 20.9.2 - 20.9.10 NMAC, the secretary may deny the registration, issue an order requiring the owner or operator to abate the public nuisance, or may issue any other order pursuant to the Solid Waste Act or 20.9.2 - 20.9.10 NMAC, or any combination thereof. The owner or operator or other affected person may appeal the secretary's order by filing a request for hearing within 30 days of the date of the secretary's order. The appeal shall be conducted in accordance with the procedures in 20.1.5 NMAC, Adjudicatory Procedures- Environment Department.

I. The owner or operator of every recycling facility and composting facility shall have a certified operator or representative present at all times while the facility is being operated.

J. The owner or operator of a recycling facility or composting facility that accepts only source separated recyclable or compostable material shall submit an annual report to the department within 45 days from the end of each calendar year, describing the operations of the past year. The reports must be certified as true and accurate by the owner or operator and shall include:

(1) the type and weight or volume of recyclable material received during the year;

(2) the type and weight or volume of recyclable material sold or otherwise disposed off site during the year;

(3) final disposition of material sold or otherwise disposed off-site; and

(4) any other information requested by the secretary.

K. The owner or operator of a recycling facility, composting facility or collection center that conducts a tire recycling operation shall comply with the applicable operating procedures required by 20.9.20 NMAC.

L. The owners or operators of law enforcement pharmaceutical incinerators shall utilize one of the following types of incinerators:

(1) a high temperature incinerator such as cement kilns (furnaces that operate in the range of 1000° C - 2000° C) used for the destruction of hazardous waste;

(2) a two-chamber incinerator that operates at a minimum temperature of 850° C, with a combustion time of at least two seconds in the second chamber; or

(3) an alternative incinerator at least as protective as any of the incinerators as described in paragraphs (1) and (2) of this subsection and approved by the department.

M. The owners and operators of law enforcement pharmaceutical incinerators shall retain on file incinerator specifications, including an operation and maintenance manual, temperatures reached, controls, retention time, pollution control equipment, maintenance requirements, and process efficiency.

N. The owners and operators of law enforcement pharmaceutical incinerators shall retain on file a plan that addresses the storage, transport, and disposal of the incinerator ash and encapsulated pharmaceutical waste. Owners and operators of law enforcement pharmaceutical incinerators may store ash for up to 12 months before disposal.

O. The design and operation of a law enforcement pharmaceutical incinerator shall conform to all applicable codes and standards including, but not limited to, the American national standards institute, local zoning, and the building code requirements for the city, county or municipality in which the facility is located.

P. Plastic containers, infectious waste, and syringes and needles shall not be burned in a law enforcement pharmaceutical incinerator.

Q. The owners and operators of law enforcement pharmaceutical incinerators shall submit a

summary describing the household pharmaceutical waste collections to the department within 7 calendar days of a limited-duration event or 45 days from the end of each calendar year for an ongoing program. The reports shall include:

(1) the weight or volume of household pharmaceutical wastes received during the limited-duration event or program year;

(2) the weight or volume of household pharmaceutical wastes received during the limited-duration event or program year by disposal method, including incineration or disposal at a permitted landfill, processing facility or hazardous waste facility, and the weight or volume of ash generated and disposed of; and

(3) final disposal destinations of any household pharmaceutical wastes and ash disposed of offsite.

N.M. Admin. Code § 20.9.3.27

20.9.3.27 NMAC - Rp, 20 NMAC 9.1.II.213, 08/02/07; A, 07/30/11

Current through Register Vol. 35, No. 21, November 5, 2024

Section 20.9.3.28 - ADDITIONAL REGISTRATION REQUIREMENTS FOR COMPOSTING FACILITIES THAT ACCEPT GREATER THAN 25 TONS PER DAY COMPOSTABLE MATERIAL OR GREATER THAN 5 TONS PER DAY OF MATERIAL THAT WOULD OTHERWISE BECOME SPECIAL WASTE

A. Any person operating or proposing to operate a composting facility that accepts greater than 25 tons per day annual average compostable material or greater than 5 tons per day annual average of material that would otherwise become special waste (e.g. sludge, offal, petroleum contaminated soils), shall submit the following information in addition to that contained in 20.9.3.27 NMAC:

(1) site plans and cross-sections of the proposed facility, drawn to scale, indicating the location of buildings, access roads, entrances and exits, drainage, material storage and treatment areas, utilities, fences and other site improvements;

(2) the composition of the waste to be received at the facility;

(3) the method to be used to convert the waste into a feedstock for the composting process, including material separation and recovery systems;

(4) a characterization of the feedstock used as the design basis of the facility which describes:

(a) composition by material type;

(b) physical and chemical properties including:

(i) moisture content; and

(ii) percent organic and inorganic matter; and

(iii) process efficiency as measured by conversion of volatile solids;

(5) a description of the composting process to be used, including:

(a) the method of measuring, shredding, and mixing materials;

(b) temperature monitoring equipment and the location of all temperature and any other type of monitoring points, and the frequency of monitoring;

(c) the method of moisture control, including moisture quantity, source, monitoring and frequency of monitoring;

(d) a description of any proposed additive material, including its quantity, quality, and frequency of use;

(e) special precautions or procedures for operation during high wind, heavy rain, snow and freezing conditions;

(f) estimated composting time duration;

(g) for windrow systems, the windrow construction, including width, length, and height;

(h) the method and frequency of aeration; and

(i) for in-vessel composting systems, a process flow diagram of the entire process, including all major equipment and flow streams;

(6) a general description of the ultimate use for the finished compost and method for removal from the site;

(7) for composting facilities accepting sewage sludge, a plan for compliance with 40 CFR Part 503, including, but not limited to, reporting, composting methods and times, and testing methods and frequencies; and

(8) a demonstration that the ground water will be protected and will comply with all applicable ground water protection standards, including those specified in 20.6.2 NMAC.

B. The owner operator of a composting facility that is designed to or does accept more than 5 tons per day annual average of material that would otherwise be special waste or more than 25 tons annual

average of total compostable material per day shall submit a nuisance abatement plan detailing how it will comply with Subsection E of 20.9.3.28 NMAC if so ordered.

C. The owner operator of a composting facility that is designed to or does accept more than 5 tons per day annual average of material that would otherwise be special waste or more than 25 tons annual average of total compostable material per day shall submit a financial assurance mechanism in compliance with 20.9.10.1- 20.9.10.13 NMAC, in order to assure sufficient funds in the event that the secretary requires abatement of a nuisance at the facility. The financial assurance mechanism must be approved by the secretary prior to the operation of the facility.

D. The owner or operator of a composting facility that is designed to or does accept more than 5 tons per day annual average of sludge or more than 25 tons of total compostable material per day annual average shall keep records sufficient to demonstrate that its inventory of compostable material or end product does not exceed the inventory used for purposes of estimating the cost of abatement of a nuisance pursuant to Paragraph (2) of Subsection A of 20.9.10.9 NMAC. If the records are insufficient to make this demonstration, or the records are not produced at the request of the department, storage of the materials are hereby deemed illegal disposal of solid waste and the facility is hereby deemed to be an unpermitted solid waste facility and the owner or operator may be subject to penalties, permitting requirements and nuisance abatement orders.

E. Owners and operators of composting facilities that accept greater than 25 tons per day annual average of compostable material or greater than 5 tons per day of what would otherwise be special waste shall comply with the following requirements when ordered by the secretary for the purpose of abating nuisance:

(1) cleanup and disposal of all compostable material;

(2) cleanup and disposal of all end product from the composting facility; and

(3) cleanup and disposal of all fugitive trash, solid waste, or other materials creating a nuisance at the facility.

N.M. Admin. Code § 20.9.3.28

20.9.3.28 NMAC - N, 08/02/07; A, 07/30/11

Appendix B

Compost Facility Registration Application

NEW MEXICO
ENVIRONMENT DEPARTMENT

Solid Waste Bureau

Harold Runnels Building
1190 Saint Francis Drive, PO Box 5469Santa Fe, NM 87502-5469
Telephone (505) 827-0197
www.env.nm.gov/solid-waste

Compost Facility Registration Application

The New Mexico Solid Waste Rules, 20.9.3.27 NMAC, require the registration of a composting facility with the New Mexico Environment Department.

A "composting facility" means a facility, other than a transformation facility, that is capable of providing biological stabilization of organic material.

The owner or operator of a composting facility must apply for a registration **at least 30 days prior** to any operations and **every five years thereafter**. A composting facility that fails to file a timely and complete application for registration is deemed an unpermitted solid waste facility, subjecting the owner or operator to penalties, permit requirements and nuisance abatement orders.

Registered composting facilities shall accept only source separated compostable materials.

If a composting facility has or plans to increase its operational rate to more than 25 tons per day annual average, it must additionally comply with 20.9.3.28 NMAC. This is called an "Advanced Registration." Please contact the Permit Section Manager of the Solid Waste Bureau for application and financial assurance requirements.

This registration must be updated whenever operations change. Submit the updated registration to the Solid Waste Bureau within 30 days.

No fee is required for compost facility registration.

Instructions

Please complete the following form, which serves as your application and required operations plan. Write "N/A" if a question does not apply to your facility.

Most questions require only a short answer. A short phrase or one or two sentences may be enough to answer the question fully.

The information on this application and operations plan must describe your actual operations. When operations change, please resubmit a revised version of this form within 30 days. If actual operations differ from that described in this application and operations plan, the facility may be issued a violation.

If necessary, further explanation for any question may be given in the space at the end of the form.

Return the completed form with all attachments to:

Permit Section Manager
Solid Waste Bureau
New Mexico Environment Department
1190 St. Francis Dr.
PO Box 5469
Santa Fe, NM 87502-5469

For technical assistance, please contact Genevieve Morgan at (505) 827-0129. For questions regarding registration requirements, please contact John Offersen at (505) 827-2385.

Other Regulatory Requirements

Composting facilities may also be regulated by other agencies in addition to the Solid Waste Bureau. You should be aware of the requirements of the following statutes, programs and agencies. This list is provided for your convenience and is not intended to be comprehensive.

- **Groundwater discharge**: Notice of Intent to Discharge or Groundwater Discharge Permit. Contact NMED Groundwater Quality Bureau, (505) 827-2900, www.env.nm.gov/gwb/
- **Surface runoff**: National Pollutant Discharge Elimination System, 40 CFR Part 121, includes requirements for Stormwater Pollution Prevention Plan (SWPPP). Contact NMED Surface Water Quality Bureau, (505) 827-0187, www.env.nm.gov/swqb/
- **Biosolids and septage**: 40 CFR Part 503 and 20.6.2 NMAC. For more information, www.epa.gov/biosolids/biosolids-laws-and-regulations
- **Compost sales**: NM Fertilizer Act, 76-11-1 to 76-11-20 NMSA, includes requirements for fertilizer / soil conditioner registration. Contact NM Department of Agriculture, (575) 646-3007, www.nmda.nmsu.edu/fsf/fertilizer-and-soil-conditioners/fertilizersoil-conditioner-registration-and-tonnage/
- **Storage of combustible materials**: International Fire Code, Chapter 28 (2018)

  https://codes.iccsafe.org/content/IFC2018/CHAPTER-28-LUMBER-YARDS-AND-AGRO-INDUSTRIAL-SOLID-BIOMASS-AND-WOODWORKING-FACILITIES

Large Composting Facilities

Composting facilities that accept greater than 25 tons per day (annual average) compostable material or greater than 5 tons per day (annual average) of material that would otherwise become a special waste (for example, sludge, offal, petroleum contaminated soils) must complete an **Advanced Registration**, in compliance with 20.9.3.28 NMAC. Please contact the Solid Waste Bureau for application requirements.

Compost Facility Registration Application

Facility Information	
Facility Name	
Facility Owner	
Mailing Address	
City, State, Zip	
Telephone	
E-mail Address	
Contact person	
Facility Operator	
Mailing Address	
City, State, Zip	
Telephone	
E-mail Address	
Contact person	
Emergency Coordinator	
Telephone (24 hours)	
Facility Physical Address	
City, State	
County	

Legal Description of Property (GPS coordinates)	
Land Use and Zoning of Facility	

Please **check one** of the following boxes to indicate whether this is:

☐ Initial application	*Start-up date:*	
OR		
☐ Renewal of existing registration	*Registration number:*	
	Expiration date:	

This registration application is appropriate for facilities that meet **all** the following criteria. Please **check each box** to indicate that this facility meets each criterion:

☐ This facility accepts **only** source-separated compostable materials. "Source separation" means the separation of compostable materials from solid waste at the point of generation by the generator.

If this facility accepts non-source-separated waste, you will need a solid waste facility permit as described in 20.9.3.14 NMAC. Please contact the Solid Waste Bureau for application requirements.

☐ This facility does **not** accept solid waste, except incidental to collection of source-separated compostable materials (that is, contamination).

If this facility accepts solid waste, you will need a solid waste facility permit as described in 20.9.3 NMAC. Please contact the Solid Waste Bureau for application requirements.

☐ This facility accepts **less than** 25 tons per day (annual average) of compostable material including mortality waste.

If more than 25 tons per day, you must address additional requirements. Please contact the Solid Waste Bureau for information.

☐ This facility does not accept or accepts **less than** 5 tons per day (annual average) of material that would become a special waste if not composted (for example, sludge, offal).

If more than 5 tons per day, you must address additional requirements. Please contact the Solid Waste Bureau for information.

Operations Plan

Facility Management

Days / hours of operation	

Please **check the box** to indicate that the following is true:

☐ This facility has a written contingency plan. *(Required)*

Signs

Indicate where signs with the following information are posted at your facility (for example, at the facility entrance). Please add any additional signs you may have in the spaces provided. All signs must be large enough to be easily read and placed in locations where they can be easily read.

Information on sign(s)	Where is the sign with this information posted at your facility (describe location within facility or indicate on site map)?
Required signs	
Site address / location	
Hours of operation	
Emergency telephone numbers	
Delivery instructions	
Fires and scavenging prohibited	
No smoking	

Additional signs	
Source Separated Compostable Materials Only	

Facility Access

1. How is access to the facility controlled? For example, please describe fencing, gates, locks, directional signs, use of gate attendant and/or spotter, and any other means of controlling access.

2. Who typically comes onto the site? Check all that apply.

☐ Municipal haulers ☐ Private haulers ☐ General public	☐ Other (please describe below):

Solid Waste (Contamination)

3. What do you do with any solid waste that may be brought onto the site (for example, as contamination (trash) in the feedstock material)?

4. What size container do you use to hold solid waste (that is, residue, trash, or garbage) until disposal?

5. Who removes the solid waste from the site, and how often?

6. If the compost process does not work or the compost is unusable for any reason, how will you dispose of this waste?

Training

Please **check each box** to indicate that the following are true:

- ☐ A certified operator or representative will be present at all times while the facility is being operated. *(Required)*
- ☐ Photocopies of Compost Facility Operator certificate(s) are attached.
- ☐ Training records are kept on site and available for inspection.

Reporting

Please **check each box** to indicate that the following are true:

- ☐ This facility will complete and submit annual reports to the Solid Waste Bureau within 45 days of the end of each calendar year (that is, due Feb. 14 each year for the previous calendar year). *(Required)*
- ☐ Copies of the annual reports will be kept on site and available for inspection until the post-closure care period has ended. *(Required)*

Equipment

Please list all heavy equipment, tanks, storage containers, monitoring devices, etc. Include a brief description, as appropriate.

Type of equipment	Description	Quantity

Feedstocks

Please **check each box** to indicate that the following are true:

- ☐ This facility accepts only source-separated compostable materials. *(Required)*
- ☐ The feedstock storage areas are indicated on the attached site plan. *(Required)*

Please list all material types generated on site or brought from elsewhere, including liquids, that become feedstocks for the composting operation. List each type separately. Indicate the amount of water anticipated to be used and indicate the source.

Feedstock	Typical quantity	Maximum quantity
Feedstock means the general type of feedstock used in your compost mix. For example: yard trimmings, food scraps, horse manure, etc. **Source** means the type of operation or generator the feedstock comes from. For example: private residents, landscapers, restaurants, municipal collections, dairies, etc. **Description** means a brief description of any notable characteristics of the feedstock. For example: for sludge, indicate whether it has been dewatered and the resulting percent moisture; for food scraps, indicate whether compostable bags, boxes and serveware are present.	**Typical quantity** means the amount of each feedstock the facility normally expects to receive. Approximate amounts are OK. Please indicate units.	**Maximum quantity** means the largest amount of each feedstock the facility would be able to handle. Estimated amounts are OK. Please indicate units.

Feedstock		Typical quantity		Maximum quantity	
Feedstock			☐yd^3 ☐tons		☐yd^3 ☐tons
Source			per ☐day ☐week ☐month ☐year		per ☐day ☐week ☐month ☐year
Description					
Feedstock			☐yd^3 ☐tons		☐yd^3 ☐tons
Source			per ☐day ☐week ☐month ☐year		per ☐day ☐week ☐month ☐year
Description					

Feedstock		Typical quantity		Maximum quantity	
Feedstock			☐yd³ ☐tons		☐yd³ ☐tons
Source			per ☐day ☐week ☐month ☐year		per ☐day ☐week ☐month ☐year
Description					
Feedstock			☐yd³ ☐tons		☐yd³ ☐tons
Source			per ☐day ☐week ☐month ☐year		per ☐day ☐week ☐month ☐year
Description					
Feedstock			☐yd³ ☐tons		☐yd³ ☐tons
Source			per ☐day ☐week ☐month ☐year		per ☐day ☐week ☐month ☐year
Description					
Feedstock	**Water**		gallons per ☐day ☐week ☐month ☐year		
Source					
Data based on:	☐existing operation ☐proposed (estimate)				

For each of the feedstocks listed above, please indicate how it is processed and the maximum amount of time that will elapse between receiving the feedstock and incorporating it into the active composting pile.

Feedstock	How is it processed?	Time	
			☐hrs ☐days ☐weeks
			☐hrs ☐days ☐weeks
			☐hrs ☐days ☐weeks
			☐hrs ☐days ☐weeks
			☐hrs ☐days ☐weeks

Please **check one box** to indicate which of the following is true *(Required)*:

☐ This facility will process food waste, offal, or mortalities on the same working day they are received.
OR:
☐ This facility does not receive food waste, offal, or mortalities.

7. Please describe the steps you will take to ensure that food waste, offal or mortalities are processed within that working day. (Please write "Not applicable" if the facility does not accept these materials.)

8. How will you prevent feedstocks from becoming a fire hazard?

Composting Methods

Please **check all that apply**:	Additional description:
☐ Windrow ☐ Modified windrow (describe at right) ☐ Static pile (describe at right) ☐ Modified static pile (describe at right) ☐ In-Vessel ☐ Vermicomposting ☐ Other (describe at right)	

Please fill in values in the following table. "**Typical**" means the amount that you anticipate under normal operations. "**Maximum**" means the amount that would be the largest amount the facility would be able to handle.

		Typical		Maximum	
Number of active composting piles			piles		piles
Dimensions of active composting piles	Length		feet		feet
	Width		feet		feet
	Height		feet		feet
Time spent in active composting phase			☐ days ☐ weeks ☐ months		☐ days ☐ weeks ☐ months
Dimensions of curing piles	Length		feet		feet
	Width		feet		feet
	Height		feet		feet

Time spent in curing phase		☐ days ☐ weeks ☐ months		☐ days ☐ weeks ☐ months
Total process time (composting and curing)		☐ days ☐ weeks ☐ months		☐ days ☐ weeks ☐ months

Minimum		
Minimum distance between piles		feet

Construction

9. What carbon-to-nitrogen (C:N) ratio will you expect to achieve in your initial mix?

10. Indicate in the following table the quantities or proportions of feedstocks used in initial construction of the composting pile to reach this C:N ratio. Please also indicate the amount of water used in initial construction.

Feedstock	Quantity	
		☐yd^3 ☐tons
		☐yd^3 ☐tons
		☐yd^3 ☐tons
		☐yd^3 ☐tons
		☐yd^3 ☐tons
Water		gallons

11. How is sufficient mixing of feedstock materials ensured during pile construction?

Active Composting

12. How often and when is a typical pile turned?

13. Please describe your monitoring and recording procedure.

14. How will you determine if water needs to be added?

15. How is the water added, if necessary?

16. How do you determine when the composting phase is complete?

Curing

17. When and how do you test for stability or maturity?

Disposition of Finished Compost

18. What are your markets for the finished compost?

19. How is the compost removed from the site (for example, delivery, self-load)?

	Typical quantity		
Amount of compost product removed from the site		☐yd³ ☐tons	per ☐day ☐week ☐month ☐year
Amount of compost product used on site		☐yd³ ☐tons	per ☐day ☐week ☐month ☐year

Nuisance and Hazard Prevention

Litter

20. How is litter prevented and controlled?

21. If litter becomes a problem despite your usual efforts, what will you do?

Odor

22. How are odors controlled and minimized?

23. If odors become a problem despite your usual efforts, what will you do?

Fire

24. How are fires prevented and extinguished?

25. How will you extinguish a fire in a feedstock pile?

26. How will you extinguish a fire in an active pile?

Noise

27. What are the potential sources of noise at the facility?

28. When and for how long do they occur?

29. How is noise prevented and minimized?

30. If noise becomes a problem despite your usual efforts, what will you do?

Vectors

31. How are vectors (rodents, birds, insects and other animals) controlled?

32. If vectors become a problem despite your usual efforts, what will you do?

Solid Waste

33. How do you prevent unauthorized waste from entering your site?

34. If unauthorized waste is received despite your usual efforts to prevent it, what will you do? (For example, if feedstock is very contaminated with solid waste.)

Feedstock

35. If more feedstock than you typically handle is received, what will you do?

Composting process

36. If the compost fails to reach minimum desired temperatures, what will you do?

37. If the moisture content needs to be adjusted, what will you do?

38. If the porosity needs to be adjusted, what will you do?

Equipment

39. If your primary equipment breaks down, will operations cease?

40. If not, how will they continue?

Additional Information

Please use this space to add any comments or further details necessary to fully describe the proposed operations.

Attachments

The application must be accompanied by at least two maps. Applicants may submit additional maps if needed to clearly show each of the required features. Site plans may be hand-drawn if they clearly show each of the required features.

Area Map

Please attach a map of the area showing the facility location. This map should include enough of the surrounding area to show the following elements. Please indicate the following elements on the attached area map by marking it with the corresponding number.

1 North arrow
2 Scale
3 Parcel size
4 Land use and zoning of surrounding area
5 Set backs
6 Nearest drinking water well (or indicate distance)
7 Nearest arroyo (or indicate distance)
8 Nearest water body (or indicate distance)
9 Nearest occupied residence (or indicate distance)

Site Plan

Please attach a site plan of the composting facility. Please indicate each of the elements below with its corresponding number on the attached site plan.

1 North arrow
2 Scale
3 Name of facility
4 Location of facility
5 Adjacent roads or highways
6 Facility boundaries
7 Facility dimensions
8 Fencing, gates, entrances / exits
9 Internal roads and traffic flow patterns
10 Feedstock storage area (location and dimensions)
11 Active composting area (location and dimensions)
12 Curing area (location and dimensions)
13 Areas accessible to the public (if applicable)
14 Loading and unloading areas
15 Location of buildings, structures, and utilities including overhead power lines
16 Location of water source for composting operation and fire suppression
17 Leachate retention pond (if applicable)
18 Prevailing wind direction

Other Required Documents

Please also attach the following documents:

☐ Groundwater Quality Bureau Notice of Intent to Discharge
or ☐ Letter confirming no discharge permit is needed (if applicable)
or ☐ Groundwater Quality Bureau Permit Number (if applicable):

_____

☐ Compliance plan to meet 40 CFR 503 and 20.6.2 NMAC requirements
or ☐ This facility does not accept biosolids or septage

Acknowledgements

	Initials
I am aware that the owner or operator is required to comply with all of the terms of the approved registration.	
I am aware that the owner or operator must update this registration to reflect any material changes in operations, prior to implementing such changes.	

Signature	Date
Printed name	
Title	Phone

Appendix C

20.9.10.13 NMAC of the New Mexico Solid Waste Rules

Current through Register Vol. 35, No. 21, November 5, 2024

Section 20.9.10.13 - ALLOWABLE MECHANISMS

A. The owner or operator shall establish a financial assurance mechanism to ensure that the funds necessary to meet the costs of closure, post-closure care, phase I and phase II assessments, and corrective action for known releases will be available whenever they are needed. The allowed mechanisms are:

(1) trust fund;

(2) surety bond;

(3) irrevocable letter of credit;

(4) insurance;

(5) risk management pool;

(6) local government financial test;

(7) local government guarantee;

(8) local government reserve fund;

(9) corporate financial test; or

(10) multiple mechanisms.

B. Owners or operators shall implement one or more of the financial assurance mechanisms specified in 20.9.10.14 - 20.9.10.23 NMAC. Each selected mechanism shall be made payable to or name the New Mexico governmental entity or entities that own or operate the facility as the beneficiary of the instrument, but if no New Mexico governmental entity or entities own or operate the facility, then the instrument shall be made payable to or name the New Mexico environment department as the beneficiary. N.M. Admin. Code § 20.9.10.13

20.9.10.13 NMAC - Rp, 20 NMAC 9.1.IX.906, 8/2/2007

Appendix D

Notice of Intent to Discharge

New Mexico Environment Department
Ground Water Quality Bureau

Ground Water Quality Bureau
Notice of Intent to Discharge

For Department use Only:

Agency Interest Number_____
PRD Assigned _____

1. **Name and mailing address of person proposing to discharge (Responsible Person):**

_____ **Work Phone:** _____

_____ **Cell/Home Phone:**_____

_____ **Fax:**_____

_____ **Email:**_____

2. **Name and Position of person Completing Form:**

_____ **Work Phone:** _____

_____ **Cell/Home Phone:**_____

_____ **Fax:**_____

_____ **Email:**_____

3. **Name of facility:**

_____

4. **Physical location of the discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):**

_____

_____

_____

5. **Type of operation generating the discharge (e.g., agricultural facility, domestic wastewater discharge, industrial discharge, mining operation, etc.):**

_____

6. **Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed:**

_____

_____

_____

7. **Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available:**

_____

_____

New Mexico Environment Department
Ground Water Quality Bureau

Ground Water Quality Bureau
Notice of Intent to Discharge

For Department use Only:

Agency Interest Number_____
PRD Assigned _____

8. **Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., pre-treatment units, impoundments(s), septic tank/leachfield, etc.). Include sizes, site layout map, plans, and specifications, etc. if available:**

_____

_____

_____

9. **Estimated maximum daily discharge volume in gallons per day. Provide water usage records or system sizing criteria if available:**

_____

10. **Estimated depth to ground water (ft):**_____ **Source of information**_____

11. **Current Total Dissolved Solids Concentration in Groundwater**_____

Signature: _____ **Date:** _____

Printed name: _____ **Title:** _____

Certification by Responsible Person

I, _____**, hereby certify that the information and data submitted in this application are true and accurate as possible, to the best of my knowledge and professional expertise and experience.**

Signed this _____ **day of** _____, _____**, upon my oath or affirmation, before a notary of the State of**

_____

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965

Appendix E

Application for Registration of Commercial Fertilizer or Soil Conditioner

Print

NMDA
New Mexico Department of Agriculture

APPLICATION FOR REGISTRATION OF COMMERCIAL FERTILIZER or SOIL CONDITIONER

Please read before applying for registration

This is not a renewal for products currently registered in the State of New Mexico

Each commercial fertilizer or soil conditioner, shall be registered before being distributed into or within the State of New Mexico. New Mexico registers individual products versus licensing companies. All registrations are valid from the day of approval till December 31 of the same year. Any incomplete application will delay the registration process, please read all directions before applying for registration.

☐ **Application for Registration of Commercial Fertilizer or Soil Conditioner:**

- Company Information: Enter the complete information of the company the products are being registered for (labeling company).
  - Contact Type: Enter if contact is responsible for compliance, registration, tonnage, corporate or other.
- Registrant Information: This information is required only if application is being submitted by someone other than the manufacturer, company will appear as a C/O on all reports.
- Tonnage Information: (if applicable) Enter where tonnage reports are to be sent if different than company information.
- Brand Information: Enter product name and description, list available sizes (see example below). Note- products listed on any other form will not accepted.

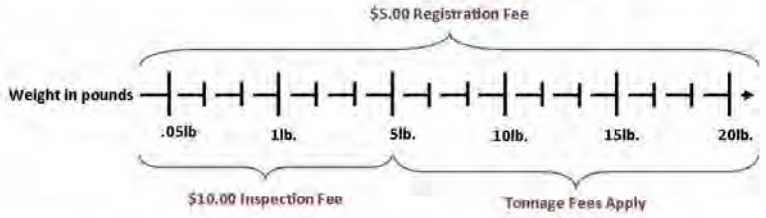
	Brand Information Brand Name and Sizes Available	Package Size Small Package 5lbs or less	Large Package Over 5 lbs	All Package Weights
1	ACME Lawn and Garden Fertilizer 10-10-10 16oz, 2lb, 5lb, 10lb, 20lb and Bulk	☐	☐	■

☐ **Labels:**

- Complete legible labels are required for each product being registered, if product is available in multiple sizes only one label is required however, all sizes available must be listed on application.
- Acceptable formats include:
  - 8.5 x 11or 11 x 17 hard copies.
  - Digital (media file names must match the brand information provided on application).

☐ **Application Fees:**

- Registration Fee: $5.00 per product regardless of weight
- Inspection Fee: An additional $10.00 per product if available in quantities of 5 pounds or less.
- Tonnage Fees: Visit the NMDA web site for more information on tonnage reporting.



Mail Registration Packages To: New Mexico Department of Agriculture
Feed, Seed & Fertilizer Section
P.O. Box 30005; MSC 3150
Las Cruces, NM 88003-8005

Physical Address:
New Mexico Department of Agriculture
Feed, Seed & Fertilizer Section
3190 South Espina
Las Cruces, NM 88003-8005

If you have questions please contact NMDA-FSF Section at (575) 646-3107 or by e-mail fsf@nmda.nmsu.edu

NMDA
New Mexico Department of Agriculture

APPLICATION FOR REGISTRATION OF COMMERCIAL FERTILIZER or SOIL CONDITIONERS

New Mexico Department of Agriculture
Feed, Seed & Fertilizer Section
For Year Ending December 31, 2021

Application is made to register the following commercial fertilizer or soil conditioners as required by the New Mexico State Fertilizer Act, 76-11-1 through 76-11-20, NMSA 1978 and New Mexico Administrative Codes adopted by the Board of Regents, New Mexico State University.

NMDA Company ID# _____ Date: _____

Company Information:

Company Name: _____

Phone Number: _____ Contact: _____

Mailing Address: _____ Contact Type: _____

Mailing Address: _____ Contact Number: _____ Ext: _____

City: _____ State: _____ Zip: _____ E-Mail: _____

Country: _____ Website: _____

Registrant Information (outside party submitting registration):

Registrant Name: _____

Phone Number: _____ Contact: _____

Mailing Address: _____ Contact Type: _____

Mailing Address: _____ Contact Number: _____ Ext: _____

City: _____ State: _____ Zip: _____ E-Mail: _____

Country: _____ Website: _____

Tonnage Information (if applicable): ☐ Same as company information

Company Name: _____

Phone Number: _____ Contact: _____

Mailing Address: _____ Contact Number: _____ Ext: _____

Mailing Address: _____ E-Mail: _____

City: _____ State: _____ Zip: _____ Country: _____

Delivery Method:

The New Mexico Department of Agriculture - Feed, Seed & Fertilizer Section offers electronic delivery of registration certificates, tonnage forms, lab reports and more. If you would prefer electronic delivery of materials a valid e-mail address must be provided.

☐ Yes, I would prefer electronic delivery of NMDA-FSF materials. ☐ No, I would prefer printed copies of NMDA-FSF materials to be mailed to our indicated address.

	Quantity	Application Fees	Amount Due
Registration Fee		$5.00 *per product* regardless of weight.	$ 0.00
Inspection Fee		$10.00 per product, applies to each product that is *available* in quantities of 5 pounds or less.	$ 0.00
		Total Amount Due:	$ 0.00

NMDA Office Use Only		
Date Received	Check Number and Amount	Reviewed By

	Brand Information	Package Size			NMDA Use Only		
	Brand Name and Sizes Available	Small Package 5lbs or less	Large Package Over 5 lbs	All Package Weights	NMDA Product Number	Revisions Needed	Denied
1		☐	☐	☐		☐	☐
2		☐	☐	☐		☐	☐
3		☐	☐	☐		☐	☐
4		☐	☐	☐		☐	☐
5		☐	☐	☐		☐	☐
6		☐	☐	☐		☐	☐
7		☐	☐	☐		☐	☐
8		☐	☐	☐		☐	☐
9		☐	☐	☐		☐	☐
10		☐	☐	☐		☐	☐
11		☐	☐	☐		☐	☐
12		☐	☐	☐		☐	☐
13		☐	☐	☐		☐	☐
14		☐	☐	☐		☐	☐
15		☐	☐	☐		☐	☐
16		☐	☐	☐		☐	☐
17		☐	☐	☐		☐	☐
18		☐	☐	☐		☐	☐
19		☐	☐	☐		☐	☐
20		☐	☐	☐		☐	☐

I hereby certify that the information appearing on the reference labels is true and correct in every respect; that each and every package of the above listed materials and materials listed on the product registration form will be labeled as submitted (including net weight, manufacture's or guarantor's name and address and guaranteed analysis will be shown on the label) that the attached labels are the guarantee of the applicant as to the composition of the products.

Signature **Printed Name**

Appendix F

21 CFR Part 112 Subpart F

Biological Soil Amendments of Animal Origin and Human Waste

Title 21—Food and Drugs
Chapter I—Food and Drug Administration, Department of Health and Human Services
Subchapter B—Food for Human Consumption
Part 112—Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption

Authority: 21 U.S.C. 321, 331, 342, 350h, 371; 42 U.S.C. 243, 264, 271.
Source: 80 FR 74547, Nov. 27, 2015, unless otherwise noted.

Subpart F Biological Soil Amendments of Animal Origin and Human Waste

Editorial Note: Nomenclature changes to part 112 appear at 81 FR 49896, July 29, 2016.

Subpart F—Biological Soil Amendments of Animal Origin and Human Waste

§ 112.51 What requirements apply for determining the status of a biological soil amendment of animal origin?

(a) A biological soil amendment of animal origin is treated if it has been processed to completion to adequately reduce microorganisms of public health significance in accordance with the requirements of § 112.54, or, in the case of an agricultural tea, the biological materials of animal origin used to make the tea have been so processed, the water used to make the tea is not untreated surface water, and the water used to make the tea has no detectable generic *Escherichia coli* (*E. coli*) in 100 milliliters (mL) of water.

(b) A biological soil amendment of animal origin is untreated if it:

(1) Has not been processed to completion in accordance with the requirements of § 112.54, or in the case of an agricultural tea, the biological materials of animal origin used to make the tea have not been so processed, or the water used to make the tea is untreated surface water, or the water used to make the tea has detectable generic *E. coli* in 100 mL of water;

(2) Has become contaminated after treatment;

(3) Has been recombined with an untreated biological soil amendment of animal origin;

(4) Is or contains a component that is untreated waste that you know or have reason to believe is contaminated with a hazard or has been associated with foodborne illness; or

(5) Is an agricultural tea made with biological materials of animal origin that contains an agricultural tea additive.

§ 112.52 How must I handle, convey, and store biological soil amendments of animal origin?

(a) You must handle, convey and store any biological soil amendment of animal origin in a manner and location such that it does not become a potential source of contamination to covered produce, food contact surfaces, areas used for a covered activity, water sources, water distribution systems, and other soil amendments. Agricultural teas that are biological soil amendments of animal origin may be used in water distribution systems provided that all other requirements of this rule are met.

(b) You must handle, convey and store any treated biological soil amendment of animal origin in a manner and location that minimizes the risk of it becoming contaminated by an untreated or in-process biological soil amendment of animal origin.

(c) You must handle, convey, and store any biological soil amendment of animal origin that you know or have reason to believe may have become contaminated as if it was untreated.

§ 112.53 What prohibitions apply regarding use of human waste?

You may not use human waste for growing covered produce, except sewage sludge biosolids used in accordance with the requirements of 40 CFR part 503, subpart D, or equivalent regulatory requirements.

§ 112.54 What treatment processes are acceptable for a biological soil amendment of animal origin that I apply in the growing of covered produce?

Each of the following treatment processes are acceptable for a biological soil amendment of animal origin that you apply in the growing of covered produce, provided that the resulting biological soil amendments are applied in accordance with the applicable requirements of § 112.56:

(a) A scientifically valid controlled physical process (*e.g.*, thermal), chemical process (*e.g.*, high alkaline pH), biological process (*e.g.*, composting), or a combination of scientifically valid controlled physical, chemical and/or biological processes that has been validated to satisfy the microbial standard in § 112.55(a) for *Listeria monocytogenes* (*L. monocytogenes*), *Salmonella* species, and *E. coli* O157:H7; or

(b) A scientifically valid controlled physical, chemical, or biological process, or a combination of scientifically valid controlled physical, chemical, and/or biological processes, that has been validated to satisfy the microbial standard in § 112.55(b) for *Salmonella* species and fecal coliforms. Examples of scientifically valid controlled biological (*e.g.*, composting) processes that meet the microbial standard in § 112.55(b) include:

(1) Static composting that maintains aerobic (*i.e.*, oxygenated) conditions at a minimum of 131 °F (55 °C) for 3 consecutive days and is followed by adequate curing; and

(2) Turned composting that maintains aerobic conditions at a minimum of 131 °F (55 °C) for 15 days (which do not have to be consecutive), with a minimum of five turnings, and is followed by adequate curing.

§ 112.55 What microbial standards apply to the treatment processes in § 112.54?

The following microbial standards apply to the treatment processes in § 112.54 as set forth in that section.

(a) For *L. monocytogenes*, *Salmonella* species, and *E. coli* O157:H7, the relevant standards in the table in this paragraph (a); or

For the microorganism—	The microbial standard is—
(1) *L. monocytogenes*	Not detected using a method that can detect one colony forming unit (CFU) per 5 gram (or milliliter, if liquid is being sampled) analytical portion.
(2) *Salmonella* species	Not detected using a method that can detect three most probable numbers (MPN) per 4 grams (or milliliter, if liquid is being sampled) of total solids.
(3) *E. coli* O157:H7	Not detected using a method that can detect 0.3 MPN per 1 gram (or milliliter, if liquid is being sampled) analytical portion.

(b) ***Salmonella*** species are not detected using a method that can detect three MPN *Salmonella* species per 4 grams (or milliliter, if liquid is being sampled) of total solids; and less than 1,000 MPN fecal coliforms per gram (or milliliter, if liquid is being sampled) of total solids.

[80 FR 74547, Nov. 27, 2015, as amended at 81 FR 26468, May 3, 2016]

§ 112.56 What application requirements and minimum application intervals apply to biological soil amendments of animal origin?

(a) You must apply the biological soil amendments of animal origin specified in the first column of the table in this paragraph (a) in accordance with the application requirements specified in the second column of the table in this paragraph (a) and the minimum application intervals specified in the third column of the table in this paragraph (a).

If the biological soil amendment of animal origin is—	Then the biological soil amendment of animal origin must be applied—	And then the minimum application interval is—
(1)(i) Untreated	In a manner that does not contact covered produce during application and minimizes the potential for contact with covered	[Reserved].

If the biological soil amendment of animal origin is—	Then the biological soil amendment of animal origin must be applied—	And then the minimum application interval is—
	produce after application	
(ii) Untreated	In a manner that does not contact covered produce during or after application	0 days.
(2) Treated by a scientifically valid controlled physical, chemical, or biological process, or combination of scientifically valid controlled physical, chemical, and/or biological processes, in accordance with the requirements of § 112.54(b) to meet the microbial standard in § 112.55(b)	In a manner that minimizes the potential for contact with covered produce during and after application	0 days.
(3) Treated by a scientifically valid controlled physical, chemical, or biological process, or combination of scientifically valid controlled physical, chemical, or biological processes, in accordance with the requirements of § 112.54(a) to meet the microbial standard in § 112.55(a)	In any manner (*i.e.*, no restrictions)	0 days.

(b) [Reserved]

§ 112.60 Under this subpart, what requirements apply regarding records?

(a) You must establish and keep records required under this subpart in accordance with the requirements of subpart O of this part.

(b) For any biological soil amendment of animal origin you use, you must establish and keep the following records:

(1) For a treated biological soil amendment of animal origin you receive from a third party, documentation (such as a Certificate of Conformance) at least annually that:

(i) The process used to treat the biological soil amendment of animal origin is a scientifically valid process that has been carried out with appropriate process monitoring; and

(ii) The biological soil amendment of animal origin has been handled, conveyed and stored in a manner and location to minimize the risk of contamination by an untreated or in process biological soil amendment of animal origin; and

(2) For a treated biological soil amendment of animal origin you produce for your own covered farm(s), documentation that process controls (for example, time, temperature, and turnings) were achieved.

Appendix G

Title 40 – Protection of Environment, Chapter I – Environmental Protection Agency, Subchapter O – Sewage Sludge, Part 503 – Standards for the Use or Disposal of Sewage Sludge, Appendix B to Part 503 – Pathogen Treatment Processes

Title 40 —Protection of Environment
Chapter I —Environmental Protection Agency
Subchapter O —Sewage Sludge
Part 503 —Standards for the Use or Disposal of Sewage Sludge

Appendix B to Part 503—Pathogen Treatment Processes

A. Processes To Significantly Reduce Pathogens (PSRP)

1. Aerobic digestion—Sewage sludge is agitated with air or oxygen to maintain aerobic conditions for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 40 days at 20 degrees Celsius and 60 days at 15 degrees Celsius.
2. Air drying—Sewage sludge is dried on sand beds or on paved or unpaved basins. The sewage sludge dries for a minimum of three months. During two of the three months, the ambient average daily temperature is above zero degrees Celsius.
3. Anaerobic digestion—Sewage sludge is treated in the absence of air for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 15 days at 35 to 55 degrees Celsius and 60 days at 20 degrees Celsius.
4. Composting—Using either the within-vessel, static aerated pile, or windrow composting methods, the temperature of the sewage sludge is raised to 40 degrees Celsius or higher and remains at 40 degrees Celsius or higher for five days. For four hours during the five days, the temperature in the compost pile exceeds 55 degrees Celsius.
5. Lime stabilization—Sufficient lime is added to the sewage sludge to raise the pH of the sewage sludge to 12 after two hours of contact.

B. Processes to Further Reduce Pathogens (PFRP)

1. Composting—Using either the within-vessel composting method or the static aerated pile composting method, the temperature of the sewage sludge is maintained at 55 degrees Celsius or higher for three days.

   Using the windrow composting method, the temperature of the sewage sludge is maintained at 55 degrees or higher for 15 days or longer. During the period when the compost is maintained at 55 degrees or higher, there shall be a minimum of five turnings of the windrow.
2. Heat drying—Sewage sludge is dried by direct or indirect contact with hot gases to reduce the moisture content of the sewage sludge to 10 percent or lower. Either the temperature of the sewage sludge particles exceeds 80 degrees Celsius or the wet bulb temperature of the gas in contact with the sewage sludge as the sewage sludge leaves the dryer exceeds 80 degrees Celsius.
3. Heat treatment—Liquid sewage sludge is heated to a temperature of 180 degrees Celsius or higher for 30 minutes.
4. Thermophilic aerobic digestion—Liquid sewage sludge is agitated with air or oxygen to maintain aerobic conditions and the mean cell residence time of the sewage sludge is 10 days at 55 to 60 degrees Celsius.
5. Beta ray irradiation—Sewage sludge is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (ca. 20 degrees Celsius).

   (6) Gamma ray irradiation—Sewage sludge is irradiated with gamma rays from certain isotopes, such as ^{60}Cobalt and ^{137}Cesium, at dosages of at least 1.0 megarad at room temperature (ca. 20 °Celsius).
7. Pasteurization—The temperature of the sewage sludge is maintained at 70 degrees Celsius or higher for 30 minutes or longer.

[58 FR 9387, Feb. 19, 1993, as amended at 64 FR 42573, Aug. 4, 1999]

Appendix H

New Mexico Environment Department Solid Waste Bureau 2022 Annual Report Instructions

New Mexico Environment Department

Solid Waste Bureau 2022 Annual Report Instructions

Summary

The Solid Waste Bureau is receiving Annual Reports through the online Annual Report database. These step-by-step instructions will guide you through this reporting process.

All open, permitted **landfills, transfer stations**, and **processing facilities** and all open, registered **compost** and **recycling facilities** are required to complete the New Mexico Environment Department Solid Waste Bureau Annual Report, in accordance with the New Mexico Solid Waste Rules (20.9.5.16.D NMAC and 20.9.3.27.J NMAC).

Closed landfills that are required to submit Annual Reports as part of an approved closure plan **do not** need to use the online database but should submit the Annual Reporting Information and Environmental Monitoring Summary supplemental forms (if environmental monitoring is required). Instructions on how to complete these forms are included in this document.

Note: Registered collection centers are **not** required to complete the Annual Report.

Things to Know

- Complete the online Annual Report for calendar year 2022 by **February 14, 2023.**
- The supplemental forms can be found here at: https://www.env.nm.gov/forms/. Complete the required forms and save them to your computer as electronic files. The forms can be located directly on the NMED webpage. From the **NMED home page**, click the **Licenses and Permits**, select the "**All Applications Forms and Guidance**" option. Then click on the **Solid Waste Bureau** tab and the required forms will be listed under the Annual Reporting drop-down list.
- Convert material amounts into **TONS** (see conversion factors in **Appendix D: Conversion Factors** in these Instructions).
- **Note:** All material entered must be accounted for in the outgoing section. Material tons should match across rows. If there are any deviations please provide an explanation in the Annual Reporting Information supplemental form.
- Do not use the back arrow in your browser to move between webpages. Instead, use the **Back to Master Table** or **Back to List** buttons to navigate.

Note: If you have trouble with the check buttons/checkboxes try using Microsoft Edge instead of other internet browsers.

- Save your work as you go. Look for the **Save** button at the bottom of each page you edit.
- Landfill operators should submit their complete Environmental Monitoring Reports, as required by their landfill permits, to the Permit Section Manager throughout the year. This applies to both active permitted landfills and landfills in post-closure care. For more information, contact the Permit Section at 505-827-0197.
- Facilities are required to keep a copy of each Annual Report on site through the completion of post-closure care. Annual Reports can be kept as either electronic files or paper files. After completing your report, you will be able to save and/or print the Annual Report for your facility's records. (See **Section 8: Submit Annual Report** in these instructions).
- Make sure to press the **Submit Annual Report** button to upload your data once you are ready to upload your 2022 information. Your Annual Report is not submitted until you press the **Submit Annual Report** button.
  Note: You will receive a confirmation email when documents are successfully submitted.

How to Log in to the Solid Waste Bureau Annual Report Database

Follow the instructions in **Appendix A: How to Register and Log in to the SWB Annual Report Database** in order to register a User ID and password for your facility. If you had registered for the SWB Annual Report Database in a previous year, use your existing User ID and password to log in. If you have forgotten your User ID, you can contact the Solid Waste Bureau Outreach Section to send to you.

https://sep.net.env.nm.gov/sep/login-form

Once you have logged in as a registered user, you will be able to add additional users from your facility, if you choose (See **Section 7: Contacts** in these instructions).

Facility List (also called Master Table)

When you log in to the Solid Waste Bureau Annual Report you will see the **Facility List** (see image on next page). If you are reporting for a single facility, you will only see that facility listed. If you are reporting for multiple facilities under one username, you will see all facilities that you are responsible for reporting on listed on this page.

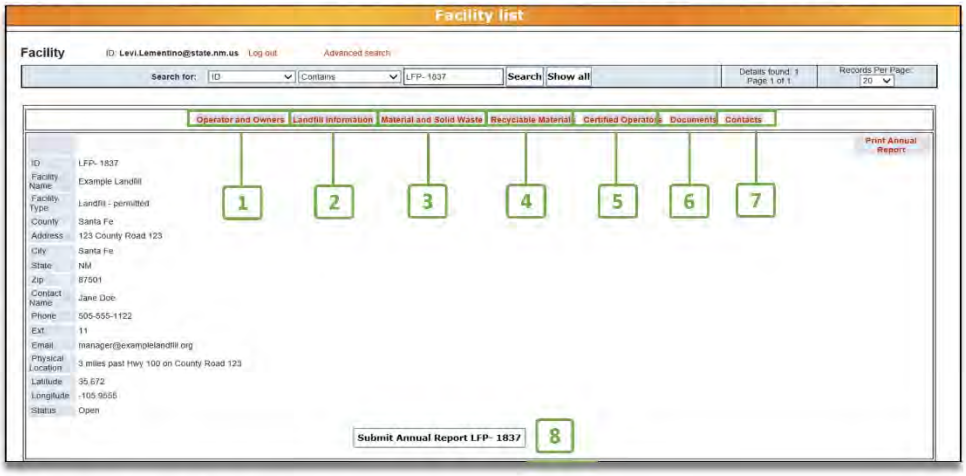
Please review the contact and location information for your facility on this page. If any information needs to be updated, please explain the required changes on the **Annual Reporting Information** supplemental form (See **Section 6: Documents** in these Instructions).

If all information shown here is correct, no action is needed.

As you continue to input data into the Annual Report tabs, you may return to this page by clicking the **Back to Master Table** button.

Instruction Sections

These instructions describe the tabs that make up the Annual Report (shown below). The following numbered sections of the instructions describe in full how to complete each tab:



1. Operator and Owners
2. Landfill Information (available only to active and permitted landfills)
3. Material and Solid Waste
4. Recyclable Materials
5. Certified Operators
6. Documents
7. Contacts
8. Submit the Annual Report

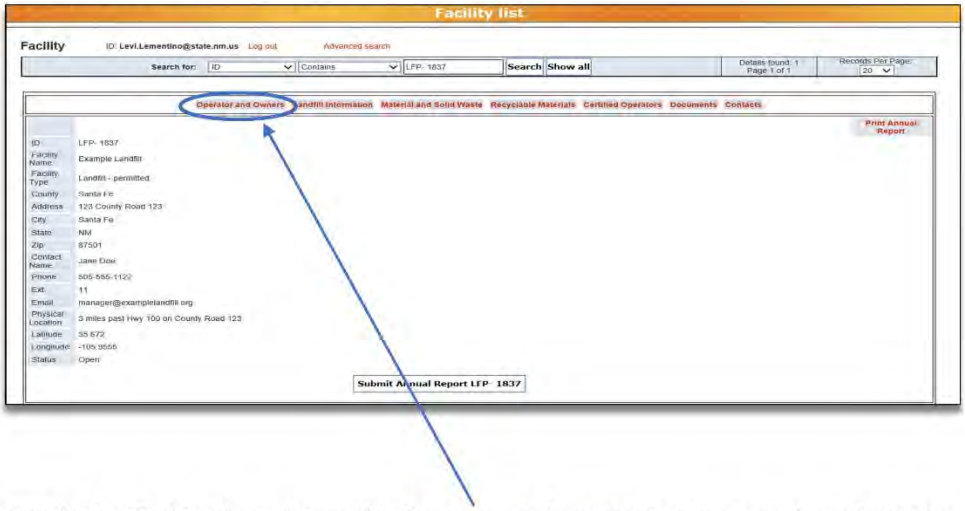
These Instructions also describe the following:

9. Troubleshooting
   Appendices

1. Operator and Owners

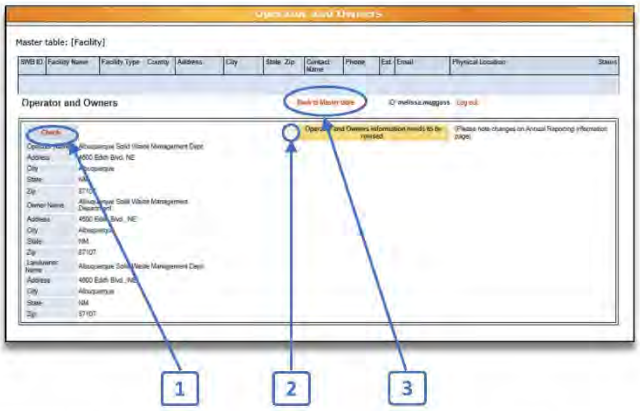
This tab is available to all facilities and lists the facility owner and operator information.

How to get to the Operator and Owners tab



From the **Facility List** view, click on the **Operator and Owners** tab to open window where you will review the operator and owner information.

How to complete the Operator and Owners tab



Review the information about the facility operator, facility owner, and landowner. If any of the information needs to be updated, 1. Check the box by clicking on the **Check** button and a 2. checkmark will appear next to "Operator and Owners information needs to be revised." (Do not click the **Check** button, if no changes are needed.) Please explain the requested changes on the **Annual Reporting Information** supplemental form, which you will attach on the "Document" tab (see **Section 6: Documents** in these Instructions).

> **Note:** once you click the **Check** button, it will change to say **Uncheck.** To uncheck the box, click the **Uncheck** button.

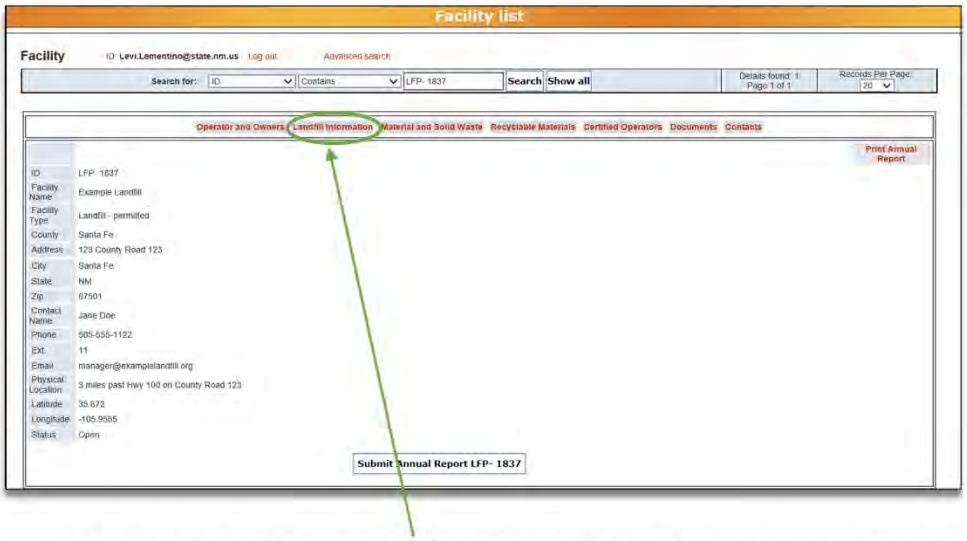
Once you have reviewed the information and checked the box to revise the operator and owner information, return to the Facility List view by 3. clicking the **Back to Master Table** button.

> **Note:** If you have trouble with the check buttons/checkboxes try using Microsoft Edge instead of other internet browsers.

2. Landfill Information

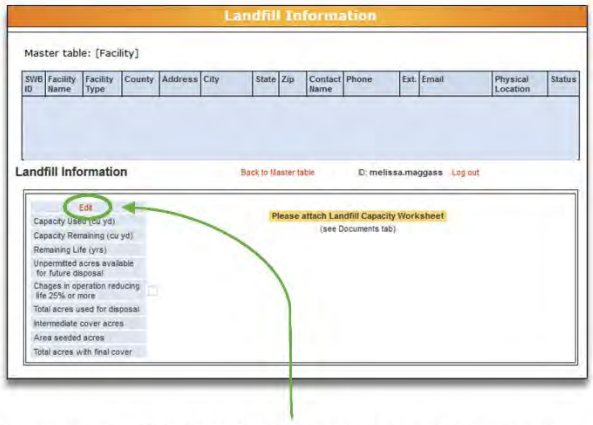
This tab is available only to open and active and permitted landfills and collects data regarding landfill capacity and closures. Some of the data entered under this tab will come from the **Landfill Capacity Worksheet** supplemental form, which can be found on the NMED Solid Waste Bureau's **All Applications Forms and Guidance** webpage under the **Solid Waste Bureau** Annual Reporting drop-down. Link: https://www.env.nm.gov/forms/

How to get to the Landfill Information tab

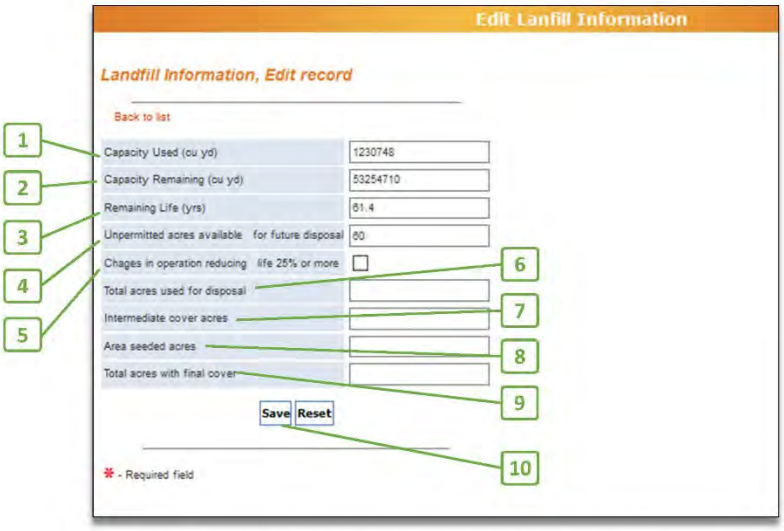


From the Facility List, click on the **Landfill Information** tab to open window where you will enter your data.

How to edit the Landfill Information tab



To enter data about your landfill, click the **Edit** button. In addition to editing the data on this tab, be sure to attach the **Landfill Capacity Worksheet** used to calculate these numbers to the "Documents" tab (see **Section 6: Documents** in these Instructions).



Use this diagram of highlighted numbers to refer to the next two pages.

Landfill Capacity Information

1. Capacity Used (cubic yards)
   Report the landfill capacity used in cubic yards during January 1 – December 31 of the reporting year.

2. Capacity Remaining (cubic yards)
   Report the remaining permitted capacity available for future disposal in cubic yards. This number is calculated on the Landfill Capacity Worksheet. Remaining permitted capacity means the space remaining in the landfill that is available for disposal as of December 31 of the reporting year. Future proposed expansions not included in the approved permit area may not be included in the capacity calculation.

3. Remaining Life (years)
   Report the expected number of years of permitted disposal capacity that is available based on the facility's site-specific operating criteria that is calculated in the Landfill Capacity Worksheet.

4. Unpermitted Acres Available for Future Disposal
   Report the number of acres, not currently permitted, that may be used for future disposal.

5. Changes in Operation Reducing Life 25% or more
   If there have been operational changes during the reporting year that will reduce the active life of the landfill by 25% or more, check the box. In this case, the facility is also required to submit a report to the Permit Section Manager detailing changes per 20.9.5.16.D(7) NMAC.

Landfill Closure Activities

6. Total Acres used for Disposal
   Provide the total number of acres that have been used for solid waste disposal as of December 31 of the reporting year. Include the total number of acres used for disposal from the initial acceptance of solid waste (that is, when the landfill first opened) up to December 31 of this reporting year.

7. Intermediate Cover (Acres)
   Enter the number of acres that have received intermediate cover. (All areas of the landfill that will be or have been inactive for more than 60 days must have an intermediate cover).

8. Area Seeded (Acres)
   Enter the number of acres that have been seeded. (All areas of the landfill that will be or have been inactive for more than 2 years must have an intermediate cover and be seeded to establish vegetative cover).

9. Total Acres with Final Cover

Enter the number of acres that have received final cover and have been closed according to an approved Closure Plan since the initial acceptance of waste through December 31 of this reporting year.

Saving or Resetting Data

10. Save/Reset

When you have entered all the data for your landfill, click the **Save** button to save the data, or click the **Reset** button to delete your entry and start over.

How to know if the data was saved to the database

After clicking the **Save** button, 1. you will see a notification saying, "Record Updated" To return to the Landfill Information tab, 2. click the **Back to List** button.

3. Material and Solid Waste

ALL reporting facilites will enter data under this tab.

In this tab you will report the origin, type, and amount of waste/materials managed. **The amounts managed must be reported in TONS**. If your facility records material amounts as volume (for example, cubic yards or gallons), use the conversion factors in **Appendix D: Conversion Factors** to convert to tons for reporting. Please note changes in material types collected on the Annual Reporting Information supplemental form.

Note: Do not use commas for numbers entered in text fields.

Facility Specific Instructions

Landfills

- Provide the amount in **tons** for every type of material managed. For definitions of material types, see **Appendix B**.

Transfer Stations

- Provide the amount in **tons** for every type of material collected or managed. For definitions of materials types, see **Appendix B**.

Composting Facilities

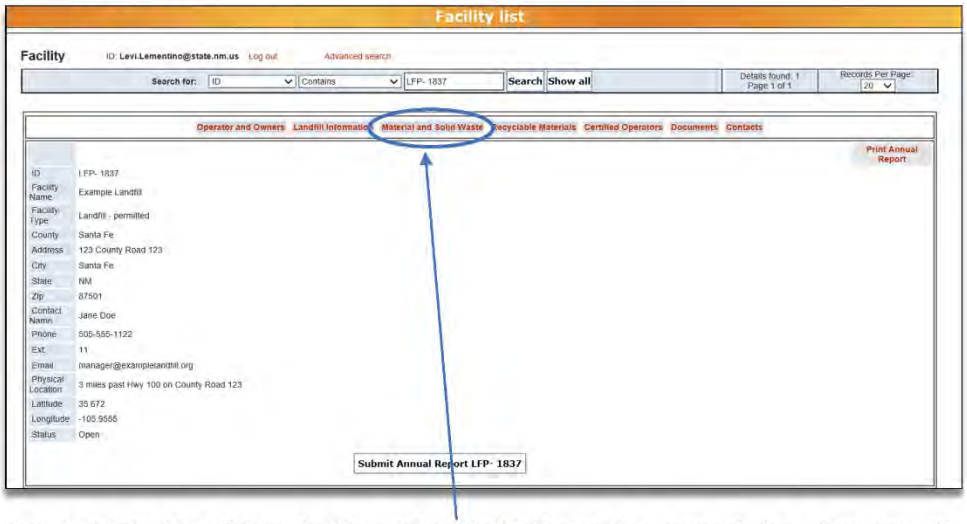
- Finished compost is considered a product and **not a waste** material. Do **not** report the quantities of finished compost produced.
- Provide the amount in **tons** for each type of material diverted from the waste stream and used as feedstock for compost production. For definitions of material types, see **Appendices B** and **C**.
- Additional types of compostable materials managed will be reported under the Recyclable Materials tab.
- For biosolids composting, please note the conversion factors for wet or dry weight of this material.

Recycling Facilities

- Provide the amount in **tons** for each type of material collected at the facility.
- Additional types of recyclable materials managed will be reported in the Recycled Materials tab. For definitions of material types, see **Appendices B** and **C**.

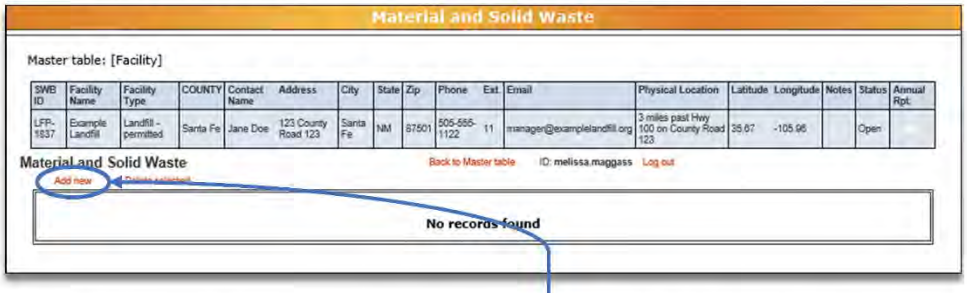
Note: All facilities no longer accepting a material type or experiencing significant changes in the types or amounts of materials managed, please provide an explanation in the Annual Reporting Information supplemental form.

How to get to the Material and Solid Waste tab



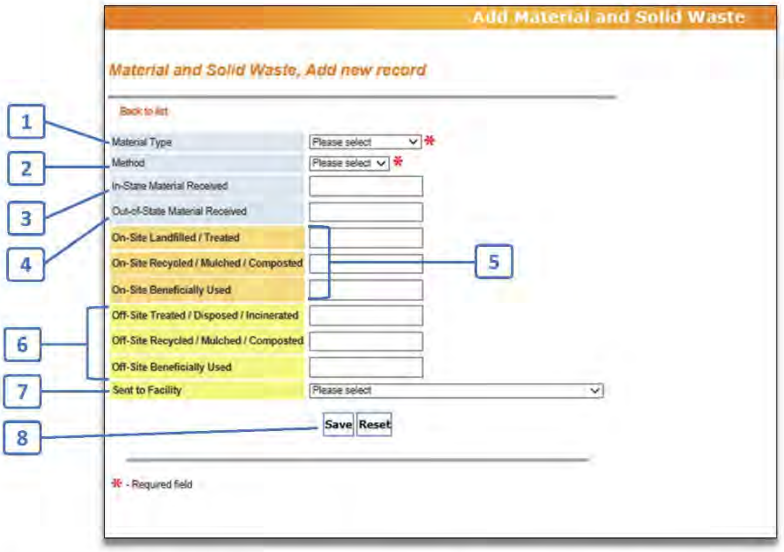
From the Facility List, click on the **Material and Solid Waste** tab to open window where you will enter your data regarding specific materials managed at your facility.

How to add data to the Material and Solid Waste tab



From the Material and Solid Waste tab, click the **Add New** button to enter new data. Clicking the **Add New** button will bring up the screen below.

> **Note:** a separate entry **is required for each material type sent to each facility**. For example, if your facility sent MSW to two locations (Landfill A and Landfill B), you would need to click **Add New** and enter the amount of material sent to Landfill A, and then click **Add New** again to enter the amount of material sent to Landfill B.



A separate entry is required for <u>each</u> material type sent to <u>each</u> facility

1. <u>Material Type</u>
   Use the drop-down arrow to select the material type. For a complete list of material types and their definitions, refer to **Appendix B: Material and Solid Waste**.

   If you need to report a material type that is not specifically included in the drop-down menu, choose "other" or "other or co-mingled."
   Note: Be sure to name the type of waste categorized as "other" on the **Annual Reporting Information** supplemental form.

2. <u>Method</u>
   Use the drop-down arrow to select whether the material amount was weighed or estimated (calculated using conversion factors; see **Appendix D: Conversion Factors**).

3. <u>In-State Material Received</u>
   Enter the **tons** of material received from within New Mexico. (Remember, the amount of materials in must equal the amount of materials out)

4. <u>Out-of-State Material Received</u>
   Enter the **tons** of material received from outside of New Mexico.

5. On-site Landfilled / Treated
   On-Site Recycled / Mulched / Composted
   On-Site Beneficially Used
   If the material was managed or disposed of on-site, identify how many **tons** of the material were managed through each method listed above. For definitions of each type of material management, see **Appendix B: Material and Solid Waste.**

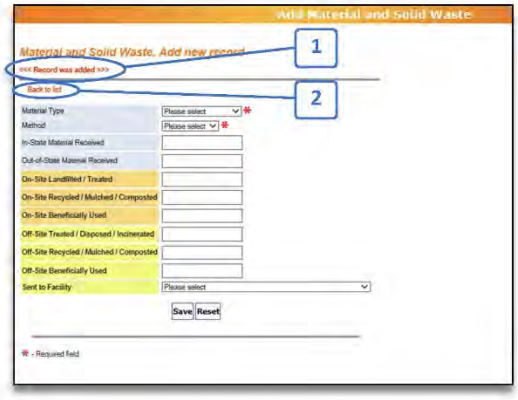
6. Off-Site Treated / Disposed / Incinerated
   Off-Site Recycled / Mulched / Composted
   Off-Site Beneficially Used
   If the material was sent off site, identify how many **tons** of the material were managed through each method. For definitions of each type of material management, see **Appendix B: Material and Solid Waste**.

7. Sent to Facility
   If materials were sent off site, use the drop down list to select the facility the material was sent to. If materials were sent to a facility outside of New Mexico, select "OTHER-OUT OF STATE." If the materials were sent to a facility in New Mexico that is not in the dropdown list, please select "OTHER-IN-STATE" and name the facility in the General Comments section of the **Annual Reporting Information** supplemental form (see **Section 6: Documents** in these Instructions).

   Note: If your facility sent the same type of material off-site to more than one facility (for example, to Landfill A and Landfill B), after saving the data for the material sent to Landfill A, you'll need to click **Add New** again to complete the data for the material sent to Landfill B.

8. Save/Reset
   When you have entered all the data for your material, click the **Save** button to save the data, or click **Reset** to delete your entry.

How to know if the data was saved to the database



After clicking the **Save** button, you will see 1. "Record was added" To return to the **Material and Solid Waste** tab, click the 2. **Back to List button.**

To enter data about other materials for the reporting year, go back to the **Material and Solid Waste** tab**,** click the **Add New** button and repeat these steps.

How to delete data from the Material and Solid Waste tab

If you need to delete data from the **Material and Solid Waste** tab, 1. select the data you want to delete by checking the box next to the material type, and 2. Click the **Delete Selected** button. After clicking the button, you'll be asked "Do you really want to delete these records?" Click **Ok** to delete the selected data or click **Cancel** if you do not wish to delete selected data.

How to edit data from the Material and Solid Waste tab

To edit an existing entry, 1. click the **Edit** button in the row you wish to edit, next to the material type. This will take you to a page to edit your data. When you have completed your edits, click **Save** at the bottom of the page. Then click **Back to List** to return to the **Material and Solid Waste** tab.

How to return to the Facility List

When you have finished entering your Material and Solid Waste data and want to return to the Facility List, 1. click the **Back to Master Table** button.

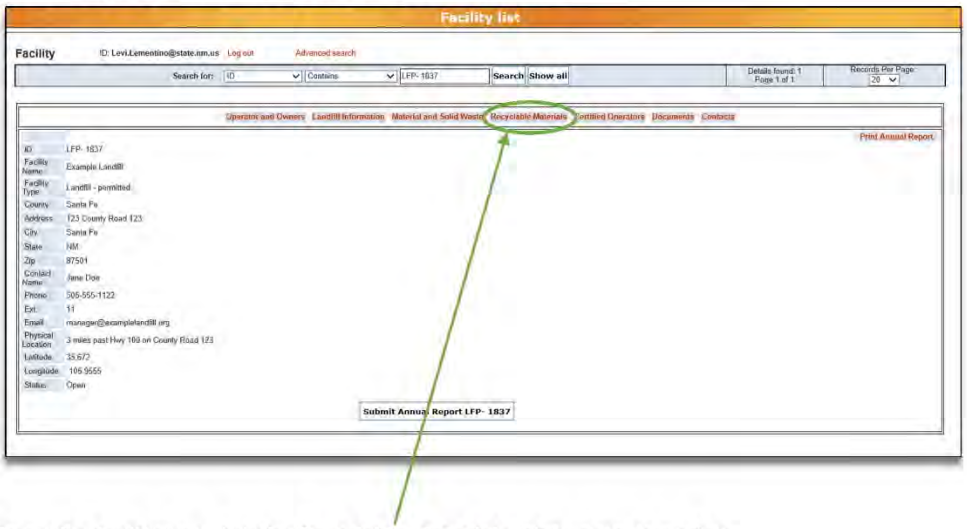
4. Recyclable Materials

Any facility that collects, recycles, composts, processes, or beneficially uses materials listed as a type of recyclable material in **Appendix C: Recyclable Materials** will enter data on this tab. Please see **Appendix C: Recyclable Materials** for definitions and additional details on each type of recyclable material. Note: some material types collected at your facility for reycling may be found under the "Materials and Solid Waste" tab.

This tab reports on t he origin, type, and amount of recyclable materials managed at a facility. **Amounts of materials managed must be reported in TONS.** If your facility records the amount of materials managed as volume (for example, cubic yards), use the conversion factors in **Appendix D: Conversion Factors** to convert to tons.

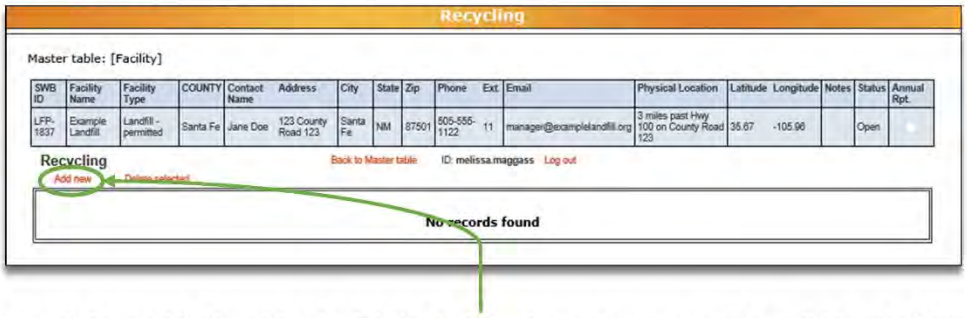
Note: Do not use commas for numbers entered in text fields.

How to get to the Recyclable Materials tab



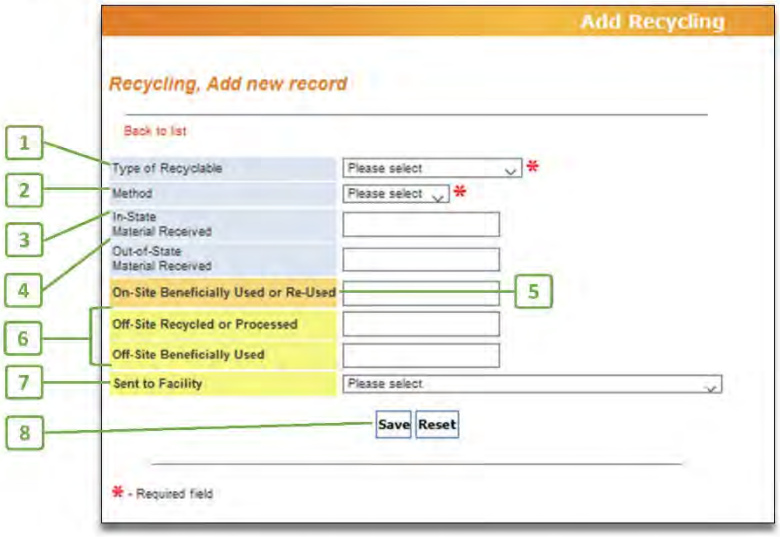
From the Facility List, click the **Recyclable Materials** tab to enter your data.

How to add data to the Recyclable Materials tab



From the Recyclable Materials tab, click the **Add New** button to enter new data. Clicking the **Add New** button will bring up the screen below.

Note: when entering data for your facility, **a separate entry is required for each material type sent to each facility.**For example, if you sent OCC to two locations (Recycling Facility A and Recycling Facility B), you need to click **Add New** and enter data for the OCC sent to Recycling Facility A, and then click **Add New** again and enter data for the OCC sent to Recycling Facility B.



A separate entry is required for each recyclable material type sent to each facility.

1. Type of Recyclable
Use the drop-down arrow to select the type of recyclable material managed. For a list of recyclable materials and their definitions, refer to **Appendix C: Recyclable Materials.**

2. Method
Use the drop-down arrow to select whether the recyclable material amount was **weighed** (example: using a scale) or **estimated** (that is, calculated using the conversion factors in **Appendix D: Conversion Factors**).

3. In-State Material Received
Enter the **tons** of recyclable materials received from within New Mexico.

4. Out-of-State Material Received
Enter the **tons** of recyclable materials received from outside of New Mexico.

5. On-site Beneficially Used or Re-used
If the recyclable material was managed on-site, identify how many **tons** of the material were beneficially used or reused. For definitions of each type of material management, see **Appendix C: Recyclable Materials**.

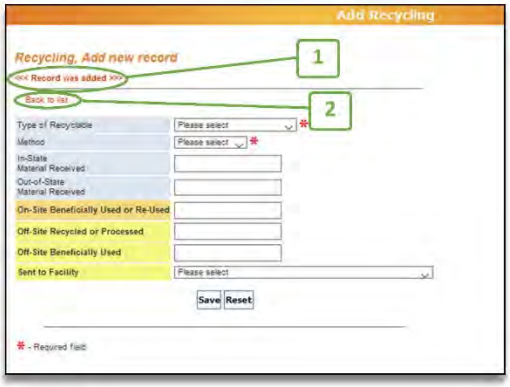
6. Off-Site Recycled or Processed
Off-Site Beneficially Used
If the recyclable material was sent off-site, identify how many **tons** of the material were managed through each method. For definitions of each type of material management, see **Appendix C: Recyclable Materials**.

7. Sent to Facility
If recyclable materials were sent off site, select the facility the material was sent to. If materials were sent to a facility outside of New Mexico, select "OTHER-OUT OF STATE." If the materials were sent to a facility in New Mexico that is not in the drop-down list, please select "OTHER-INSTATE" and name the facility in the General Comments section of the **Annual Reporting Information** supplemental form (for instructions on how to complete the supplemental forms, see **Section 6: Documents** of these Instructions).

If your facility sent the same type of material off-site to more than one facility (for example: Recycling Facility A and Recycling Facility B), after saving the data for the material sent to Recycling Facility A, you'll need to click **Add New** again to enter the data for the material sent to Recycling Facility B.

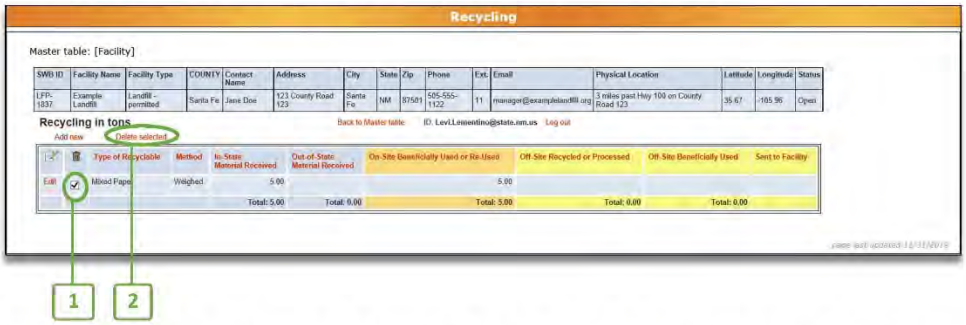
8. Save/Reset
When you have entered all the data for your recyclable materials, click **Save** to save the data, or click **Reset** to delete your entry and start over.

How to know if the data was saved to the database



After clicking the **Save** button, you will see 1. "Record was added." To return to the **Recyclable Materials** tab, 2. click the **Back to List** button.

How to delete data from the Recyclable Materials tab

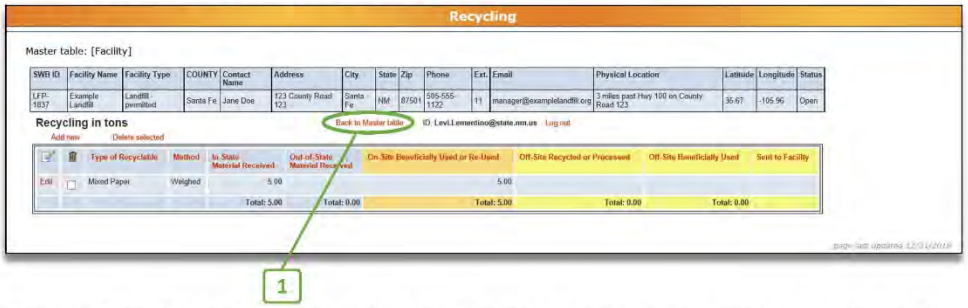


If you need to delete data from the **Recyclable Materials** tab, 1. Select the data you want to delete by checking the box next to recyclable type, and 2. Click the **Delete Selected** button. After clicking the button, you'll be asked "Do you really want to delete these records?" Click **Ok** to delete the selected data or click **Cancel** if you do not wish to delete selected data.

How to edit data from the Recyclable Materials tab

To edit an existing row of data, 1. click the **Edit** button in the row you wish to edit. It will take you to a page to edit your data. When you have completed your edits, click **Save** at the bottom of the page. Then click **Back to List** to return to the **Recyclable Materials** tab.

How to return to the Facility List

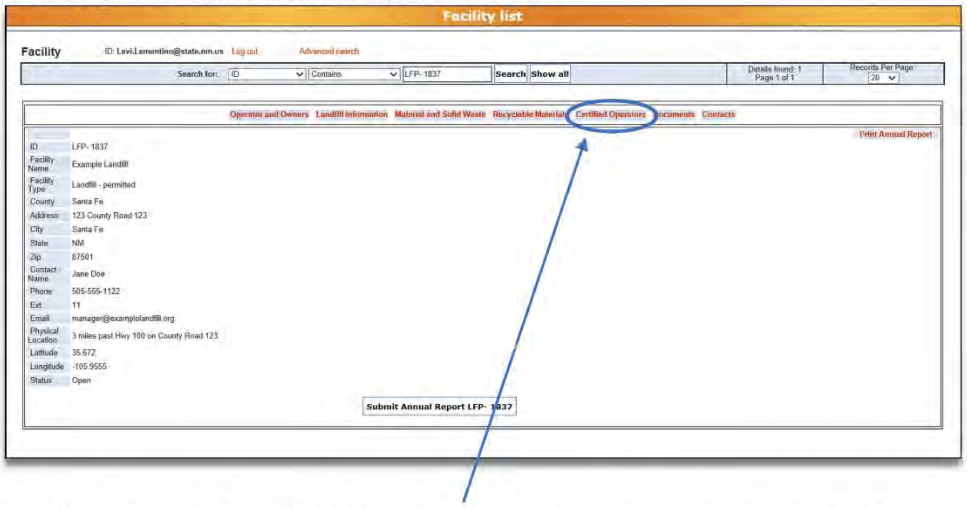


When you have finished reporting Recyclable Materials data and want to return to the Facility List, 1. click the **Back to Master Table** button.

5. Certified Operators

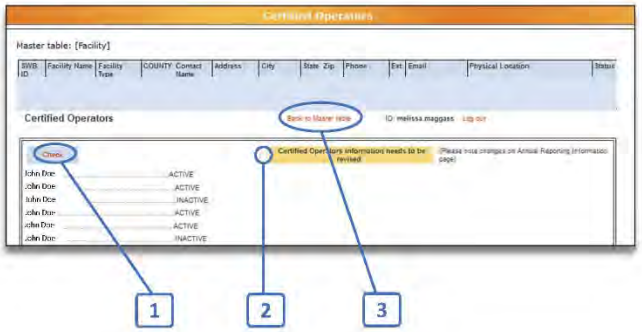
This tab is available to all facilities and lists the Certified Operators working at the facility.

How to get to the Certified Operators tab



From the Facility List, click on the **Certified Operators** tab to review and update the list of Certified Operators at the facility.

How to complete the Certified Operators tab



Review the Certified Operators listed as working at the facility. "Active" means that the operator's certification is currently valid. "Inactive" means the operator's certification has expired.

Note: please list in the Annual Reporting Information supplemental form, any certified operators that you would like to have deleted from your facility if they are no longer working at facility, or any new certified operators you would like to add to your facility. Please add comment in the Annual Reporting Information form for any changes as well.

If any of the information needs to be updated, 1. Check the box by clicking on the **Check** button and a 2. checkmark will appear next to "Certified Operators information needs to be revised." If the information does not need to be updated, do not click the **Check** button. If changes need to be made, explain the necessary changes on the **Annual Reporting Information** supplemental form, which you will attach on the Documents tab (see **Section 6: Documents** in these Instructions). Once you click the **Check** button, it will change to say **Uncheck**. To uncheck the box, click the **Uncheck** button.

Once you have reviewed the information and checked the box if you need to update the list of Certified Operators for your facility, return to the Facility List by 3. clicking the **Back to Master Table** button.

If you or your operators have any questions about operator certification status, please contact Bill Schueler at: william.schueler@env.nm.gov or (505) 827-0197.

Note: If you have trouble with the check buttons/checkboxes try using Microsoft Edge, instead of other internet browsers.

6. Documents

This tab is available to all facilities and is where you attach the supplemental forms to your Annual Report. The supplemental forms can be found on the NMED **All Application Forms and Guidance** website on the **Licences and Permits** tab, under the **Solid Waste Bureau** – "Annual Reporting" drop-down link: https://www.env.nm.gov/forms/
Download the forms required for your facility type and save to your computer prior to attaching them into the Annual Report database.

Documents to Attach

There are 4 supplemental forms you can attach with your Annual Report:

Annual Reporting Information

- **All facilities must attach this form**

This one-page form must be completed by all reporting facilities. Download this form from the Solid Waste Bureau website, complete all required sections, save to your computer, and attach on the **Documents** tab. Report any additional information or comments on this form. **Examples** include certified operators to remove and changes to material type collected or managed. If the Landfill Capacity Worksheet, Environmental Monitoring Summary, or Financial Assurance Estimate Summary are required but you will not be including them with your Annual Report, please provide an explanation as to why they are not provided and the date you will provide them to the Solid Waste Bureau.

Landfill Capacity Worksheet

- **All open landfills must attach this form**

This Excel document must be completed by all open landfills. Download this form from the Solid Waste Bureau website, complete all required sections, save to your computer, and attach on the **Documents** tab. This worksheet is provided for operators of landfills to estimate the remaining capacity of the landfill. It is only an estimate since generic assumptions are made for the ease of calculations. Please follow the instructions on the worksheet and see the example provided.

Financial Assurance Estimate Summary

- **Facilities required to have financial assurance must attach this form**

This Excel document must be completed by facilities that are required to have financial assurance. Permitted landfills, permitted transfer stations and large recycling or composting facilities (accepting more than 25 tons per day total, or more than 5 tons per day of material that would otherwise become special waste (such as offal or sludge) are required to submit an updated Financial Assurance Estimate Summary.

Download this form from the Solid Waste Bureau website, complete all required sections, save to your computer, and attach on the Documents tab. If financial assurance is required but you will not be including an update with the Annual Report, please provide an explanation and a projected date for the submittal of the updated financial assurance information on the **Annual Reporting Information** supplemental form. Financial assurance must be adjusted **annually** during the life of the facility and submitted to the Solid Waste Bureau throughout closure and post-closure care of the facility. Submit only the summary form with your Annual Report.
Note: **Do not attach your full Financial Assurance documentation with your Annual Report.**

Complete Financial Assurance documentation should be submitted to the Solid Waste Bureau separately by email at: swb.inbox@env.nm.gov

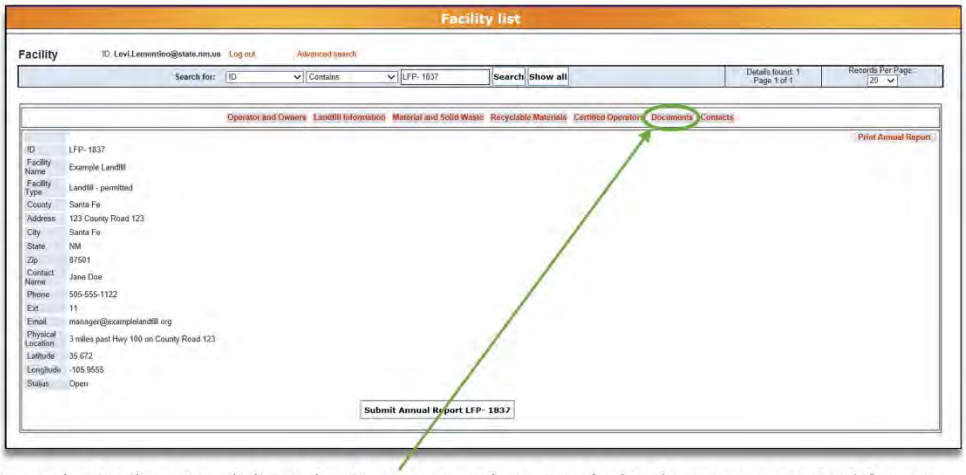
Environmental Monitoring Summary

- **All landfills must submit this form**

This one-page form must be completed by all landfills. Download this form from the Solid Waste Bureau website, complete all required sections, save to your computer, and attach on the Documents tab.
Note: **Do not attach your full Environmental Monitoring Reports with your Annual Report.**
Environmental Monitoring Reports should be submitted throughout the year, in accordance with your landfill permit, to the Permit Section Manager of the Solid Waste Bureau at:

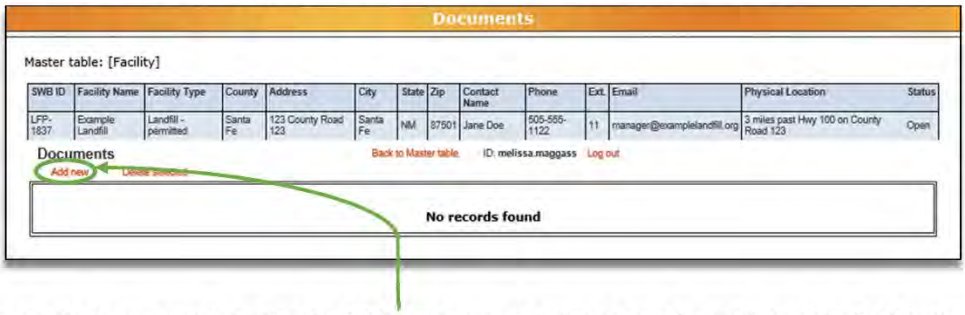
New Mexico Environment Department, Solid Waste Bureau, P.O. Box 5469, Santa Fe, NM 87502.

How to get to the Documents tab



From the Facility List, click on the **Documents** tab to attach the documents required for your facility.

How to attach a supplemental form on the Documents tab



From the **Documents** tab, click the **Add New** button to attach a new form. Clicking the **Add New** button will bring up the screen below.

Note: you can only attach one form at a time, so repeat this process for each form you need to attach.

1. Description

   Use the drop down arrow to select which type of supplemental form you are attaching. The four types, described earlier in this section, are:

   - Annual Reporting Information
   - Landfill Capacity Worksheet
   - Financial Assurance Estimate Summary
   - Environmental Monitoring Summary

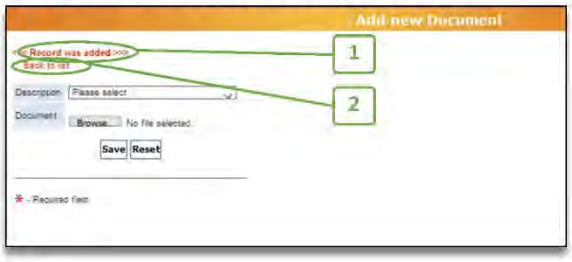
2. Document

   Use the **Browse…** button to search your own computer for the file you want to attach. When you have selected the file, the file name will appear to the right of the **Browse…** button. If you want to change which file you selected, click the **Browse…** button again and choose the correct file.

3. Save/Reset

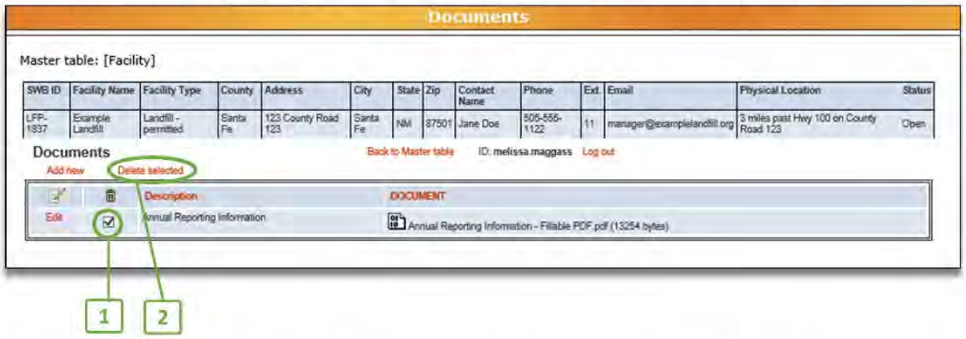
   When you have selected the description and the document, click the **Save** button to attach the file. To erase the description and document, click **Reset**.

How to know if the form was saved to the database



After clicking the **Save** button, 1. you will see this notification saying that the "Record was added." To return to the **Documents** tab, 2. click the **Back to List** button.

How to delete supplemental forms from the Documents tab

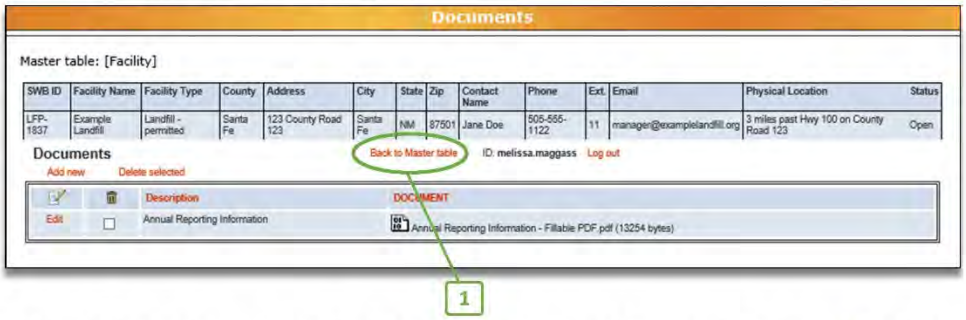


If you need to delete supplemental forms from the **Documents** tab, 1. Select the supplemental form you want to delete by checking the box next to the form description, and 2. Click the **Delete Selected** button. After clicking the button, you'll be asked "Do you really want to delete these records?" Click **Ok** to delete the selected supplemental form or click **Cancel** if you do not want to delete the form.

How to edit a supplemental form on the Documents tab

To make changes to a supplemental form that you have attached, 1. click the **Edit** button in the row you wish to edit. This will take you to a page to choose a different description or attach a different document. When you have completed your edits, click the **Save** button at the bottom of the page. Then click **Back to List** to return to the **Documents** tab.

How to return to the Facility List



To return to the Facility List after you have finished attaching supplemental forms, 1. click the **Back to Master Table** button.

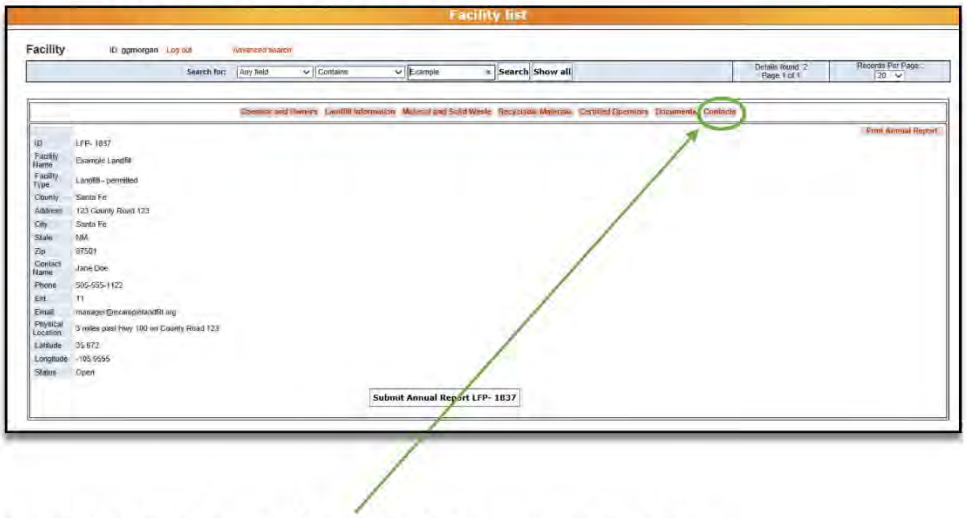
7. Contacts

This tab is available to all facilities and its use is optional. Contact information for additional Annual Report users may be added under this tab so that these individuals will be able to register with NMED for access to the Annual Report database.

> **Note**: Not listing a contact may cause issues with accessing the Annual Report database if that person is trying to submit the annual report.
>
> By entering contact information here, **facilities are authorizing these individuals to access, enter data, and submit the Annual Report by using the authorized user's username and password or by registering separately for access.**

A facility may add any individual they choose to authorize to access the Annual Report. Once new users are added, those individuals may register for database access as described in **Appendix A**.

How to get to the Contacts tab



From the Facility List, click the **Contacts** tab to enter your information.

How to add information to the Contacts tab

From the **Contacts** tab, click the **Add new** button to enter new information. Clicking the **Add new** button will bring up the screen below.

Note: when entering new contacts for your facility, a separate entry is required for each person authorized to enter or edit Annual Report data.

1. Name

   Enter the full name of the individual you wish to add as an authorized user of the Annual Report database.

2. Phone

   Enter a number at the facility the individual can be reached at (not a personal number).

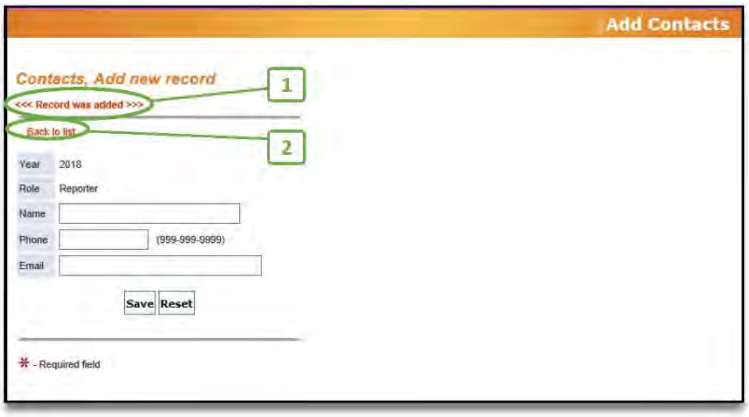
3. Email

   Enter the email address associated with this individual for the facility (not a personal email).

4. Save/Reset

   When you have entered all the information for the individual, click **Save** to save the information, or click **Reset** to delete your entry.

How to know if the information was saved to the database



After clicking the **Save** button, you will see 1. "Record was Added." To return to the **Contacts** tab, 2. Click the **Back to List** button.

Click **Add New** to enter information for each additional authorized user.

How to delete information from the Contacts tab

If you need to delete information from the **Contacts** tab, 1. Select the information you want to delete by checking the box next to the Year, and 2. Click the **Delete Selected** button. After clicking the button, you'll be asked "Do you really want to delete these records?" Click **Ok** to delete the selected information or click **Cancel** if you do not wish to delete selected information.

How to edit information from the Contacts tab

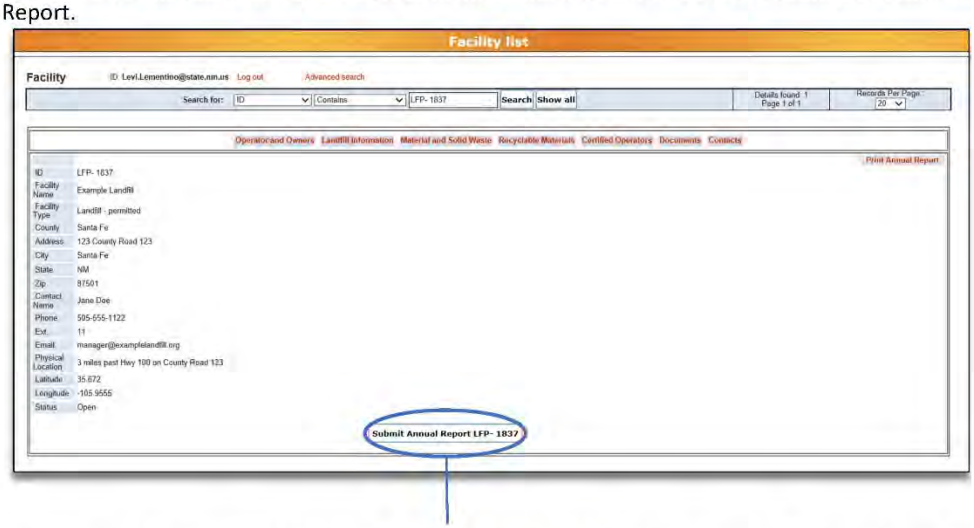
To edit an existing row of information, 1. Click the **Edit** button in the row you wish to edit. It will take you to a page to edit your information. When you have completed you edits, click **Save** at the bottom of the page. Then click **Back to List** to return to the **Contacts** tab.

How to return to the Facility List

When you have finished entering Contact information and want to return to the Facility List, 1. Click the **Back to Master Table** button.

8. Submitting the Annual Report

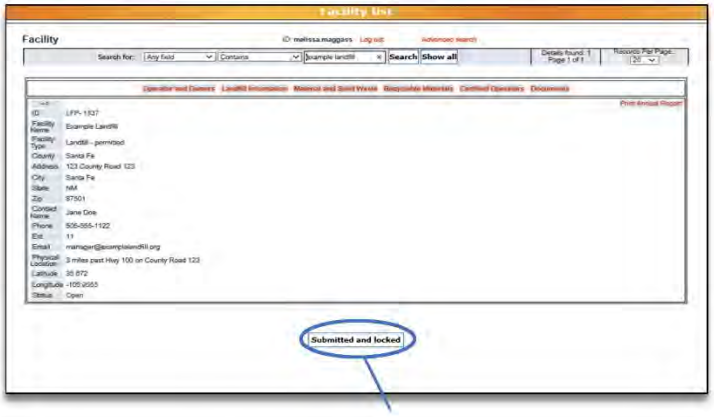
After you have input and saved the facility data for the reporting year into all the required tabs and you have attached all required supplemental forms, you are ready to submit your Annual Report.



To submit the Annual Report, click the **Submit Annual Report** button directly below that facility's information on the Facility List view.

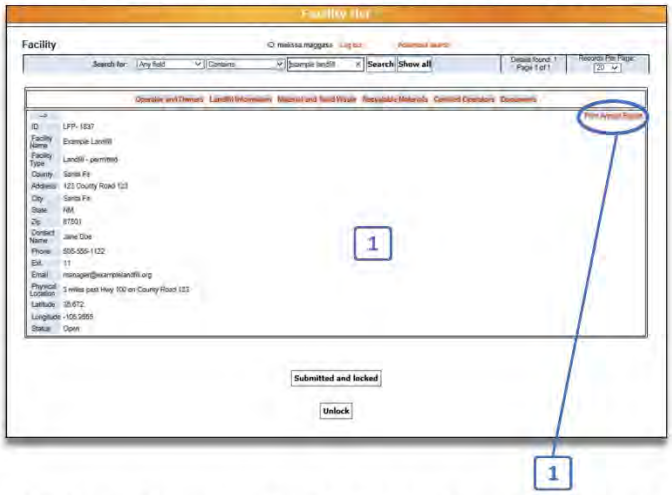
> **Note**: Your Annual Report is not submitted until you press the **Submit Annual Report** button. You will receive a confirmation email after the Annual Report was successfully submitted.

How to know the Annual Report has been submitted

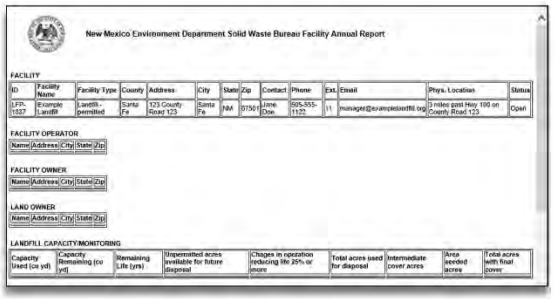


When the Annual Report has been successfully submitted, 1. a "Submitted and Locked" notification will appear.

How to print and save the Annual Report for facility records



After submitting the Annual Report, you need to print and/or save the Annual Report for your facility's records. To print the report, 1. click the **Print Annual Report** button. Clicking this button opens a new tab in your internet browser with all the content for the Annual Report on a single webpage (pictured below).



From this webpage, follow your internet browser's instructions to print a copy of the report. Additionally, **the Solid Waste Bureau recommends that from this webpage you save the Annual Report as a PDF** to your electronic files for your facility records.

9. Troubleshooting

Problem:	Try this:
Data is not saved	Use the **Back to Master Table** or **Back to list** buttons, not your browser's back button. Click the **Save** button (at the bottom of the page) before leaving the page.
A facility you sent material to is not on the "Sent to Facility" dropdown list	If the facility was in New Mexico: Choose "OTHER-INSTATE" and then list the facility's name on the **Annual Reporting Information** form (supplemental form; attach on the **Documents** tab). If the facility was not in New Mexico: Choose "OTHER OUT-OF-STATE."
You sent one type of material to more than one facility	Click **Add New** to enter the amount of material you sent to one facility, and then click **Add New** again to enter the amount of material you sent to another facility.
Your data is not in tons	Use the conversion factor table in **Appendix D: Conversion Factors** of these Instructions to find a conversion factor for your material and convert the amount into tons.
Checkbox cannot be checked/unchecked	Click on the **Check** or **Uncheck** button to the left of the checkbox, not the checkbox itself.
Check or **Uncheck** button does not work	Use Microsoft Edge instead of other internet browsers.
No Records Found *Partial amounts of material staying on site	On **Material and Solid Waste** or **Recyclable Materials** tabs, click **Add New** button (on the left side) to add data. On **Documents** tab, click **Add New** button (on the left side) to attach a supplemental form.

Problems Attaching Supplemental Forms	Please attach only these four supplemental forms: 1. Annual Reporting Information 2. Landfill Capacity Worksheet 3. Financial Assurance Estimate Summary (the Excel file only, not the full reports) 4. Environmental Monitoring Summary (the 1-page summary only, not the full reports) The supplemental forms are available at: https://www.env.nm.gov/forms/ Click on the Solid Waste Bureau drop-down tab on the **"All Application Forms and Guidance"** page then the **"Annual Reporting"** drop-down tab to locate the supplemental forms.
Other problems	Use Microsoft Edge instead of other internet browsers.

Questions about:	Contact:
Annual Report System (registration, login, or problems with database functionality)	**Levi Lementino:** Levi.Lementino@env.nm.gov (505) 827-0197
Certified Operators	**Bill Schueler:** William.Schueler@env.nm.gov (505) 827-0197
Environmental Monitoring and Financial Assurance	**Permit Section:** Erica.Gordan@env.nm.gov (505) 827-0197
Other Questions about the Annual Report	**Outreach Section** swb.inbox@env.nm.gov (505) 827-0197 **Sonia Suazo:** Sonia.Suazo1@env.nm.gov **Levi Lementino:** Levi.Lementino@env.nm.gov

Appendices

Appendix A. How to Register and Log in to the SWB Annual Report Database
Appendix B. Material and Solid Waste (Types and Definitions)
Appendix C. Recyclable Materials (Types and Definitions)
Appendix D. Conversion Factors

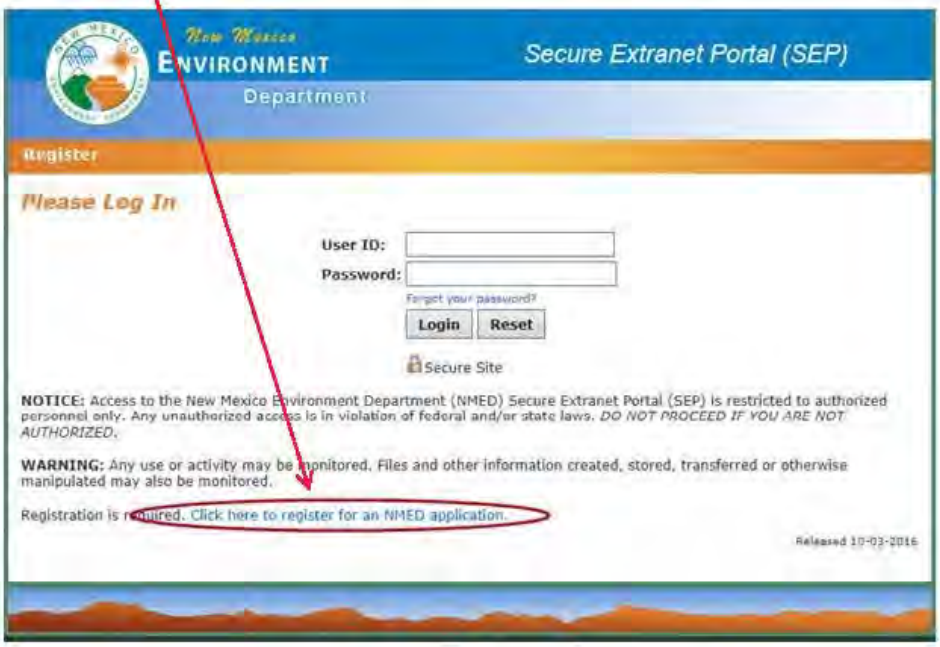
Appendix A: How to Register and Login to SWB Annual Report Database

Follow the instructions in this appendix for how to register as a User of the SWB Annual Report Database through the Environment Department's Secure Extranet Portal (SEP). Once registered as a User, you can login to the Annual Report Database to complete your online SWB Annual Report.

Appendix A: How to Register and Log in to the SWB Annual Report Database

1) Go to https://sep.net.env.nm.gov/sep/login-form .

2) If you have previously registered for access to NMED databases, enter you User ID and password. If not, to register for the SWB Annual Report Database within NMED's Secure Extranet Portal (SEP), click on the link that says **Click here to register for an NMED application.**

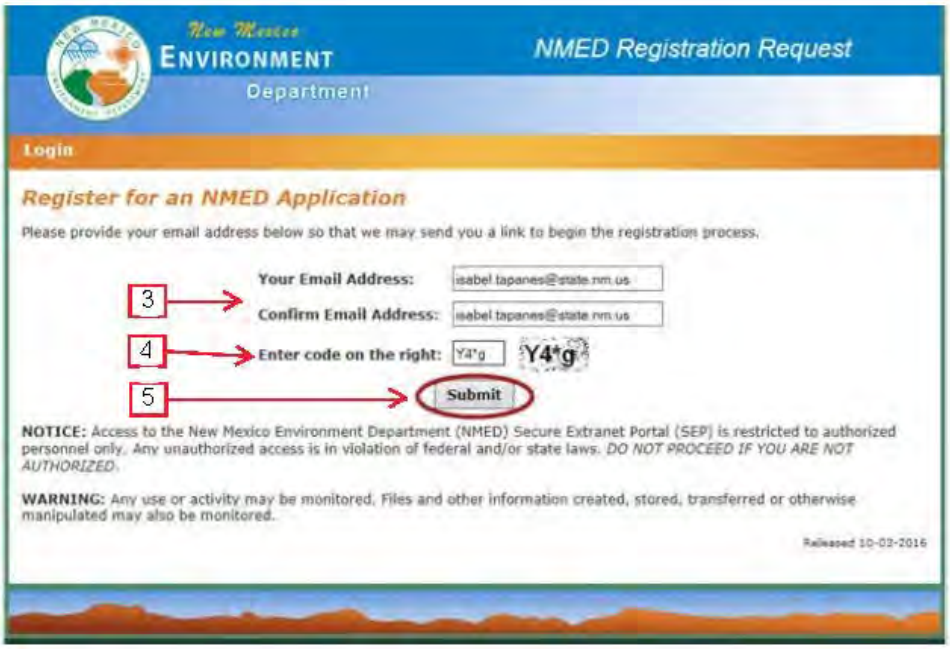


3) Fill in your email address twice. **Use the email address the Solid Waste Bureau has on file as the contact email for your facility.** This will allow you to access the information for your facility.

4) Enter the Captcha code.

5) Click **Submit**.

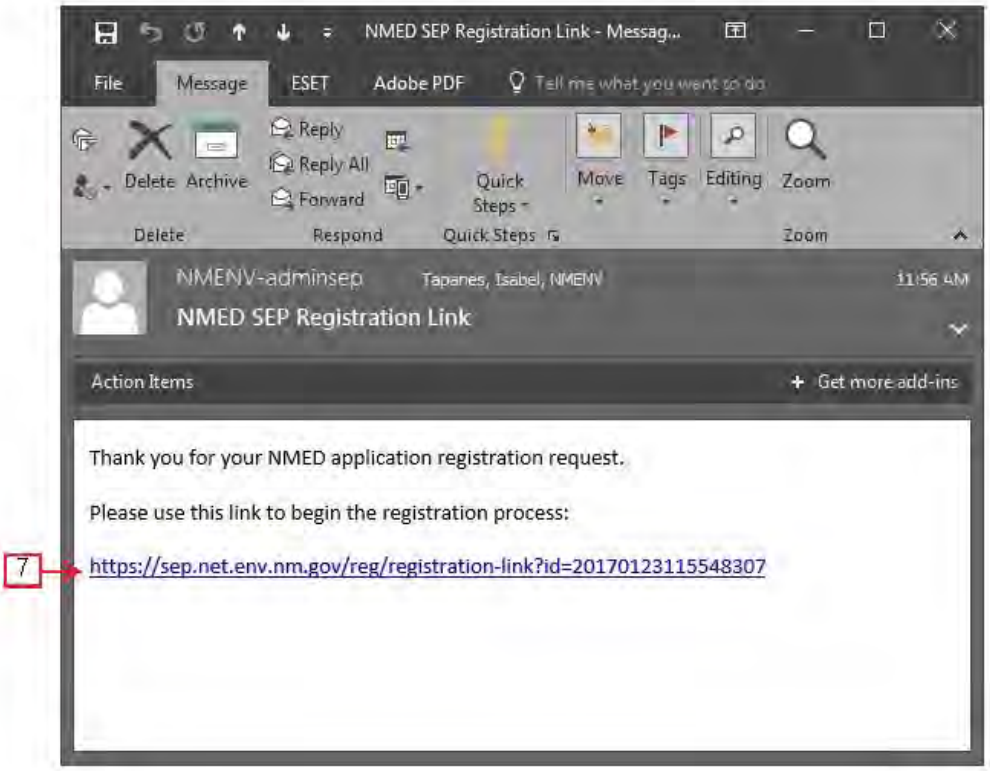
NOTE: Check email after submitting. You are not registered till you fill out user profile from link sent to your email.



You will receive the confirmation screen below:

Appendix A: How to Register and Log in to the SWB Annual Report Database

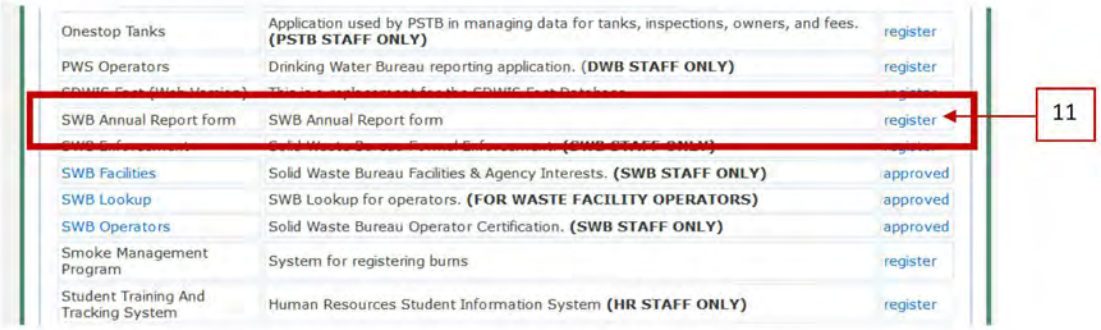
6) Open your email and retrieve the SEP Registration Link.
7) Click on the link to take you to the User Profile page



8) Fill in the fields.
9) Create a User ID in the following format: firstname.lastname
10)Click Create User Profile

Appendix A: How to Register and Log in to the SWB Annual Report Database

11) Scroll down to find **SWB Annual Report Form** application, click the "register" link to the right.



Appendix A: How to Register and Log in to the SWB Annual Report Database

A window like the window below will appear.

You will be contacted by NMED IT via email or phone once the application is approved for your use. You may then log in to the SWB Annual Report database with in the User ID you created in Step 9 to complete your Annual Report.

Appendix B: Material and Solid Waste

Definitions contained in this appendix are provided to assist facilities with completing the Materials and Solid Waste portion of the Annual Report.

Specific definitions can be found in the New Mexico Solid Waste Rules 20.9.2.7.

Material Type Definitions	
Antifreeze	A liquid used as a coolant in many types of motor vehicles and generally contains ethylene glycol.
Ash (Special Waste)	Ash that results from the incineration or transformation of solid waste and includes both fly ash and bottom ash, and ash from the incineration of densified-refuse-derived fuel and refuse-derived fuel (this does not include fireplace or household ash).
Bio-Solids (Treated Sewage Sludge) (Special Waste)	Any solid, semi-solid or liquid residue generated during the treatment of domestic sewage in a treatment works. If Bio-Solids are NOT being landfilled but used as a source material for compost, report this amount in the "On-Site Beneficially Used" row or "Off-Site Beneficially Used" row.
Brush/Green Waste	Vegetative waste and yard waste. These wastes must be recorded cumulatively.
Vegetative Waste	Decomposable materials generated by yard and lawn care or land clearing activities and includes, but is not limited to, leaves, grass trimmings, woody wastes such as shrub and tree prunings, bark, limbs, and roots.
Yard Waste	The fraction of municipal solid waste that consists of grass clippings, leaves, brush, and tree prunings arising from general landscape maintenance.
Clean Fill	Materials such as broken concrete, brick, rock, stone, glass, reclaimed asphalt pavement or uncontaminated soil generated from construction and demolition activities. Must be free of other solid waste or hazardous waste.
C & D (Construction/ Demolition / Debris)	Construction waste, demolition waste, and debris waste. These wastes must be recorded cumulatively (see definitions below for description of Construction, Demotion, and Debris waste).
Construction Waste	Solid waste which is produced or generated during construction, remodeling, or repair of pavements, houses, commercial buildings, and other structures. Construction wastes include, but are not limited to lumber, wire, sheetrock, broken brick, shingles, glass, pipes, concrete, paving materials, and metal and plastics if the metal or plastics are a part of the materials of construction or empty containers for such materials. Paints, coatings, solvents, Asbestos, any liquid compressed gases or semi-liquids and garbage are not construction wastes.
Debris Waste	Wastes resulting from land clearing operations. Debris wastes include, but are not limited to wood, brush, leaves, soil, and road spoils.
Demolition Waste	Solid waste which is produced by the destruction of structures and their foundations and includes the same materials as construction wastes.
HHW - Household Hazardous Wastes	Wastes from products purchased by the general public for household use that, because of their quantity, concentration, or physical, chemical characteristics, may pose a substantial known or potential hazard to human health, or the environment, if improperly treated, disposed, or otherwise managed. Examples are cleaning solvents, sprays, insecticides, herbicides, pharmaceuticals, etc.

Appendix B: Material and Solid Waste

Industrial Waste (Special Waste)	Any solid waste generated by manufacturing or industrial process that is not a regulated hazardous waste. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas wastes.
Infectious Waste (Special Waste)	Solid waste that carries a probable risk of transmitting disease to humans or animals. Infectious waste that is sent off-site for treatment is reported in the "Off-Site Treated / Disposed / Incinerated" row. Infectious waste that is treated on-site is reported in the "On-Site Landfilled / Treated" row. Infectious waste that has been treated and rendered non-infectious is municipal solid waste. Note: Infectious waste that has not been rendered non-infectious may not be disposed in a landfill.
Lead Acid Batteries	A battery with a core of elemental lead and a capacity of six or more volts. Lead acid batteries may not be disposed in a solid waste landfill. Lead acid batteries must be sent off-site to be recycled.
Motor Oil	Any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of such use is contaminated by physical or chemical impurities. Used oil may not be disposed in a landfill. It must be recycled (or may be burned for energy recovery if the oil does not exceed the allowable level of arsenic, cadmium, lead, flash point and total halogens listed in Table I of 40 CFR 279.11).
Municipal Solid Waste (MSW)	Waste which is normally composed of residential, commercial, and institutional solid waste that is not a special waste. Do not include the amounts of recyclable materials itemized on the Recyclable Materials Tab.
Offal (Special Waste)	Waste parts of butchered animals. If offal is NOT being landfilled but used as a feed stock for compost, report this amount in the "On-Site Beneficially Used" row or the "Off-Site Beneficially Used" row.
Other Sludges (Special Waste)	Any solid, semi-solid or liquid waste generated by a municipal, commercial or industrial waste water treatment plant, water supply treatment plant or air pollution control facility, but does not include treated effluent (sewage) from a waste water treatment plant.
Other Special Wastes	Other special wastes that are not specifically identified (examples: Treated Formerly Characteristic Hazardous Waste (TFCH); Spill of a Chemical Substance or Commercial Products).
Other Wastes	Any wastes that do not meet the previously listed waste types. Please total all *other wastes* and provide that number in this material type. (Example: Non-domestic oil and gas waste allowed to be disposed in Municipal Landfill as Listed in 19.15.9.712 NMAC—Oil Conservation Division.)

Appendix B: Material and Solid Waste

PCS - Petroleum Contaminated Soil (Special Waste)	Soil that, as a result of a release or human usage, has absorbed or adsorbed only petroleum or petroleum by-products at concentrations above those consistent with nearby undisturbed soil or natural earth materials. Petroleum and petroleum by-products include, but are not limited to diesel fuels, kerosene, gasoline, hydraulic fluids, jet engine fuel, and motor oil.
Regulated Asbestos (Regulated Asbestos Containing Material [RACM]- Special Waste)	Any waste material containing more than 1% asbestos as determined using the polarized light microscopy methods specified in 40 CFR Part 763, Subpart F, Appendix A, Section 1, that, when dry, is capable of being crumbled, pulverized or reduced to powder by hand pressure; Or material that is a Category I or Category II non-friable material the is or is likely to be handled in such a manner that would cause the material to become friable.
Scrap Tires	A tire, including a baled tire that is no longer suitable for its originally intended purpose because of wear, damage, defect or obsolescence. Baling of tires is not considered recycling. Transfer Stations and Landfill accepting tires and baling on-site, report amounts in the "On-Site Beneficially Used" row. Transfer Stations and Landfills accepting tires and sending off-site for baling, report amounts in the Off-Site Beneficially Used" row. Transfer Stations and Landfill accepting tires and sending off-site to be made into crumb rubber, report amounts in the "Off-Site Recycled / Mulched / Composted" row.
Waste Origin	
In-State Material Received	All materials generated in-state that were received by the facility during the Annual Reporting Period must be reported in this row.
Out-of-State Material Received	All materials generated out-of-state that were received by the facility during the Annual Reporting Period must be reported in this row.
Waste Management Methods	
On-site Landfilled / Treated	Waste that was landfilled or treated on-site must be reported in this row. Waste received at a facility that was later sent off-site for management through landfilling or treatment must not be reported in this row. Instead it must be reported in the "Off-Site Treated / Disposed / Incinerated" row. Infectious waste that was treated and rendered non-infectious on-site must be reported in this row. Once infectious waste is treated, do not report the same tonnage as "Off-Site Treated / Disposed / Incinerated". Report this quantity only once (Infectious waste that has not been treated nor rendered non-infectious can not be landfilled. Do not report untreated infectious waste in this row).
On-Site Recycled / Mulched / Composted	Waste that was stabilized on-site through a controlled aerobic decomposition process must be reported in this row. Record the materials used in the making of compost. Finished composted material is considered a product and not a waste. Do not report the quantities of finished compost produced on this Tab. Record waste that was mulched on-site in this row.

Appendix B: Material and Solid Waste

On-Site Beneficially Used	Material/waste that was beneficially used or reused on-site must be reported in this row (Examples: Crushed concrete or ground asphalt used for road building on a landfill site; Clean fill used as alternative daily cover (if approved by the department); Scrap tires or tire bales used in engineering projects on-site).
Off-Site Treated / Disposed / Incinerated	Waste that was not treated, disposed, or incinerated at the receiving facility but was instead sent off-site to another facility for management must be reported in this row. (Examples: Waste received at a transfer station that was later sent off-site to a landfill for disposal; an infectious waste sent off-site to an incinerator to be rendered non-infectious.)
Off-Site Recycled / Mulched / Composted	Material that was removed from the incoming waste stream or collected, sorted or baled and sent off-site to be recycled, mulched or composted must be reported on this row (Examples: Lead acid batteries segregated from the waste stream and sent off-site to a recycling facility for recycling; Vegetative waste sent to an off-site composting facility to be composted or mulched; Scrap tires sent off-site to be made into crumb rubber).
Off-Site Beneficially Used	Material/waste that was sent off-site to be beneficially used or reused must be reported in this row (Examples: Crushed concrete or ground asphalt used for road building off-site; Scrap tires collected on-site but sent off-site to be baled, retreaded or reused).
Sent To	If material was sent off-site please select the facility that received the material from the drop-down menu

Appendix B: Material and Solid Waste

Appendix C: Recyclable Materials

Definitions contained in this appendix are provided to assist facilities with completing the Recyclable Materials portion of the Annual Report.

Specific definitions can be found in the New Mexico Solid Waste Rules 20.9.2.7.

Material Type Definitions	
Mixed Paper	Refers to a mixture, unsegregated by color or quality, of at least two of the following paper wastes: newspaper, corrugated cardboard, office paper, computer paper, white paper, coated paper stock, or other paper waste. Mixed paper definitions vary by receiving mills.
Old Corrugated Cardboard (OCC)	Corrugated containers recovered and marketed to mills for use in manufacturing new corrugated containers. Identified by a wavy inner layer.
Old Newspaper (ONP)	Includes all reading material printed on "groundwood" paper, such as newspapers, newspaper inserts, advertising mailings, many catalogs and magazines, and many government publications and forms. Groundwood is produced by mechanical grinding to break down lignin fibers when pulping the wood. It is identified by sight, touch, or application of a test chemical. Many glossy publications like magazines are groundwood coated with clay for better color and photographic reproduction. Modern de-inking processes can reclaim newspaper and glossy stock for manufacture of new newsprint or other paper products such as brown paper towels, egg cartons, or cereal boxes that are gray on the inside surface.
Office Paper	Office bond paper, white ledger paper, laser printer paper, file stock and photocopy paper with presentation quality fiber content and consistency.
Phone Books	Telephone books distributed by companies such a Qwest, Dex etc.
Chip Board	Cereal, cracker, shoe, and gift boxes, etc. Also known as box board or liner board. It does not have a wavy center layer.
Plastic	Plastic containers used to hold consumer products, such as milk, juice, water, shampoo, or detergent.
Aluminum	Aluminum containers used to hold consumer products, such as milk, juice, water, shampoo, or detergent.
Steel Cans	Steel containers used to hold consumer products, such as milk, juice, water, shampoo, or detergent.
Glass	Glass containers used to hold consumer products, such as milk, juice, water, shampoo, or detergent.
Scrap Metal/White Goods	Miscellaneous scrap metal and major household appliances that have been separated for recycling such as washing machines and dryers. (Does not include car bodies, industrial equipment, etc.).
Carpet Padding	Carpet cushion, also known as carpet underlay.
Pallets	A portable wooden platform used for storing or moving cargo or freight.
Electronic Scrap	Also called E-Waste or E-Scrap; this term refers to discarded computers, CRTs, TVs, VCRs, faxes, cell phones, and similar electronic products.
Plastic Film	Highly flexible sheetings of various thicknesses that do not hold their shape against the pull of gravity (as opposed to rigid plastics). Most common resins, including PET, HDPE, LDPE, PP, and PVC, can be formed into film. Plastic film is used for agricultural coverings, greenhouse roofing, grocery bags, food industry wraps, dry cleaning bags, trash bags, etc. Film can be opaque or clear, and has a very low weight to volume ratio.

Appendix C: Recyclable Materials

Other Plastics	This category includes non-container, high-end, durable and engineering plastics, and multi-resin or multi-material combinations. Examples include plastic refuse carts or nursery plant containers.
Household Items	Furniture, books, small appliances, building materials, etc. that were diverted from the waste stream and can be reused.
Textiles/Clothing	Clothing, towels, bedding, curtains, etc. that were diverted from the waste stream and are able to be reused.
Other or Commingled	Any material, not listed above, that was diverted from the waste stream and is able to be reused or recycled; or single-stream, commingled recycled materials that are not separated before shipment.
Waste Origin	
In-State Material Received	All materials generated in-state that were received by the facility during the Annual Reporting Period must be reported in this row.
Out-of-State Material Received	All materials generated out-of-state that were received by the facility during the Annual Reporting Period must be reported in this row.
Management Methods	
Beneficially Used (On-Site)	Material that was removed from the incoming waste stream or collected that could be beneficially used or reused on-site must be reported in this row
Beneficially Used (Off-Site)	Material that was removed from the incoming waste stream or collected and sent off-site to be beneficially used or reused must be reported in this row. (Examples: Electronic equipment collected and sent to electronic reverberators for repair and resale or reuse.)
Off-Site Beneficially Used	Material/waste that was sent off-site to be beneficially used or reused must be reported in this row. (Examples: Crushed concrete or ground asphalt used for road building off-site; Scrap tires collected on-site but sent off-site to be baled, retreaded or reused.)
Sent To	If material was sent off-site please select the facility that received the material from the drop-down menu

Appendix C: Recyclable Materials

Appendix D: Conversion Factors

Use this Appendix as a guide for volume-to-weight conversion factors for various material types managed by your solid waste facility.

VOLUME-TO-WEIGHT CONVERSION FACTORS

Materials:	Volume *	Weight in Pounds *
PAPER:		
Mixed Paper Grades/Junk Mail, loose	One cubic yard	363.5
Corrugated Cardboard (OCC), baled	One cubic yard	1,100
Corrugated Cardboard (OCC), baled	30" x 60" x 48"	900
Corrugated Cardboard (OCC), compacted	One cubic yard	500
Corrugated Cardboard (OCC), flattened, loose	40 cubic yard roll-off	2000
Newsprint (ONP), loose	One cubic yard	600
Newsprint (ONP), compacted	One cubic yard	875
Newsprint (ONP)	12" stack	35
Office paper	40" x 48" x 40"	650
Office paper	One cubic yard	400
Phone Books	12" stack	25
CONTAINERS:		
Mixed PET, dairy, whole loose	One cubic yard	30 (Average)
Mixed PET, dairy & other rigid, whole, loose	One cubic yard	40 (Average)
PET (soda bottles), whole, loose	One cubic yard	35
PET (soda bottles), whole, loose	Gaylord	45
PET (soda bottles), whole, baled	30" x 48" x 60"	600
HDPE (dairy only), baled	30" x 48" x 60"	650
HDPE (mixed), baled	30" x 48" x 60"	750
HDPE (whole) uncompacted	One cubic yard	24
HDPE (whole) compacted	One cubic yard	270
Aluminum Containers, whole	One cubic yard	62
Aluminum Containers, flattened	One cubic yard	250
Steel Cans, whole	One cubic yard	150
Steel Cans, flattened	One cubic yard	850
Glass Whole Containers	One cubic yard	1,000
Glass Whole Container	Full grocery bag	15
OTHER MATERIALS		
Scrap Metal	One cubic yard	850
Scrap Metal--Used Major Appliances (average of all types and brands)	One appliance (average)	150
Pallets	One, average size	40
Pallets	Five cubic yards	2000
Electronic Scrap	CRT (Computer Monitor)	50
Electronic Scrap	TV	90
Plastic Film, baled	30" x 42" x 48"	1,100
Plastic Film, baled	semi-trailer load	44,000
Other Plastics:		
Mixed rigid, no film, granulated	Gaylord	750
Mixed rigid and densified by mixed plastic mold technology	One cubic foot	average 60
PS, granulated or peanuts	One cubic yard	9
Household Hazardous Waste	One gallon	10
Latex Paint	One gallon	10.9
Mixed Textiles, loose	One cubic yard	225
Mixed Textiles, baled	One cubic yard	540
Mixed Textiles, baled	31" x 45" x 60"	885
Carpet Padding	One cubic yard	84
*** Formula for converting cubic yards to tons:** **# of cubic yards x weight in pounds ÷ 2000 pounds = tons**		

Appendix D: Conversion Factors

VOLUME-TO-WEIGHT CONVERSION FACTORS

Materials:	Volume *	Weight in Pounds *
MIXED MUNICIPAL SOLID WASTE (MSW)		
MSW, (uncompacted)	One cubic yard	150-300 (200 Average)
MSW, (compacted in truck)	One cubic yard	500-1,000
MSW, compacted in packer truck	3.3 cubic yards	2000 (Average)
C & D—Mixed (Per Florida Department of Environmental Protection - FDWP)	One cubic yard	484
Concrete	One cubic yard	1,855
Asphalt Paving	One cubic yard	1944
Brick, Ceramic, Porcelain	One cubic yard	3,024
Asphalt/tar Roofing	One cubic yard	2,919
Wood scrap	One cubic yard	330
SPECIAL WASTE		
Industrial Waste (Similar to MSW and C & D categories)		
Friable Asbestos/other Regulated Asbestos (Similar different type of C & D)	One cubic yard	Varies
Infectious Waste (Similar to MSW categories)		
Ash	One cubic yard	945-1080
PCS (Petroleum Contaminated Soils)	One cubic yard	1900
Offal (animal and fish scraps)	One cubic yard	1350
Sewage Sludge dry	One cubic yard	945
Sewage Sludge wet	One cubic yard	1215
Other Sludges (dry-wet)	One cubic yard	945-1215
Other Materials		
Vegetative--Food Waste	One cubic yard	1,070
Yard Waste, raw, mulched (either for composting or land application)	One cubic yard	350
Yard Waste, finished compost	One cubic yard	1,400
Brush, loose	One cubic yard	300
Scrap Tire-Passenger**	One passenger	22.5
Scrap Tire-Truck**	One truck tire	110
Used Motor Oil***	One gallon	8
Antifreeze***	One gallon	8
Lead Acid Batteries****	One vehicle battery	40

*** Formula for converting cubic yards to tons:**
# of cubic yards x weight in pounds ÷ 2000 pounds = tons

****Formula for converting tires to tons:**
# of tires x weight in pounds ÷ 2000 pounds = tons

*****Formula for converting gallons to tons:**
# of gallons x weight in pounds ÷ 2000 pounds = tons

******Formula for converting # of Lead Acid Batteries to tons:**
# of batteries x weight in pounds ÷ 2000 pounds = tons

Gaylord size most commonly used in 40" x 48" x 36"; weight of empty Gaylord approx. 45 pounds
One cubic foot = 7.5 gallons or 1728 cubic inches
One cubic yard = 36" x 36" x 36" or 46,656 cubic inches
One cubic yard = 202 gallons or 27 cubic feet
18 bushel hamper = 0.83 cubic yards
SOURCES: National Recycling Coalition Measurement Standards and Reporting Guidelines; EPA; FDEP, FEECO and CIWMB 2006

Appendix D: Conversion Factors

Appendix I

Open Registered Compost Facility List

County	Facility Name	Facility Type	Physical Location	Address	City	State	Zip	Contact Name	Phone	Status
Bernalillo	Albuquerque Academy Composting	Compost Facility - registered	6400 Wyoming Blvd. NE ABQ	6400 Wyoming Blvd NE	Albuquerque	NM	87109	Jonathan Tomlinson	505-720-2381	Open
Bernalillo	Atlas Pumping Compost	Compost Facility - registered	4124 Broadway SE, #E Albuquerque, NM 87105	P.O. Box 10421	Albuquerque	NM	87184	Jo Fanelli	505-980-7977	Open
Bernalillo	Barela Landscaping Materials, Inc.	Compost Facility - other	7713 Bates Road SE	7713 Bates Road SE	Albuquerque	NM	87105	Caroline Barela	505-877-8522	Open
Bernalillo	Dewey Solutions LLC (formerly Soilutions, Inc)	Compost Facility - registered	9008 Bates RD SE, Albuquerque NM	PO Box 1479	Tijeras	NM	87059	Walter Dods	505-877-0220	Open
Bernalillo	Soils Amendment Facility (ABCWUA)	Compost Facility - registered	7401 Access Road NW, Albuquerque (1 mile west of Double Eagle Airport)	4201 Second St SW	Albuquerque	NM	87105	Joe Bailey	505-205-5721	Open
Bernalillo	Western Organics, Inc.	Compost Facility - registered	9000 Bates Road SE, Albuquerque, New Mexico	9000 Bates Road SE	Albuquerque	NM	87105	David Hanchett, Division Manager	505-877-8672	Open
Colfax	High Country Meats @ Raton Landfill	Compost Facility - registered	County Road A22, 1 mile east of Raton (Armstrong Lane)	340 Colfax	Raton	NM	87740	Lee Dixon	575-445-2449	Open
Colfax	High Country Meats @ Raton(Owned by City Raton)	Compost Facility - registered	County Road 22 Armstrong Lane, Raton, New Mexico 87740	340 Colfax Ave.	Raton	NM	87740	Lee Dixon	575-445-2449	Open
Colfax	High Country Meats @ Raton(Owned by City Raton)	Compost Facility - registered	County Road 22 Armstrong Lane, Raton, New Mexico	340 Colfax Ave.	Raton	NM	87740	Lee Dixon	515-445-2449	Open
Curry	AGPower Composting Facility	Compost Facility - registered	385 CR 21, Texico, NM 75207	121 Payne St.	Dallas	TX	75207	Dewey Vaughn	575-303-0054	Open
Curry	Clovis WWTP-Composting Facility	Compost Facility - registered	879 CR 7, Clovis	801 South Norris; P.O. Box 760	Clovis	NM	88101	Durwood Billington	575-769-7865	Open
Dona Ana	El Ojito Composting Facility	Compost Facility - registered	120 West Ojito de Madrid, Anthony, NM 88021	P.O. Box 299	Canutillo	TX	79835	Edward Schneider	915-494-8527	Open
Dona Ana	Las Cruces Foothills Landfill Composting Facility	Compost Facility - registered	555 S. Sonoma Ranch Blvd., Las Cruces NM 88011 (at closed Foothills Landfill).	PO Box 20000	Las Cruces	NM	88004	Robin Lawrence	575-528-3700	Open
Dona Ana	Los Nogales Composting Facility	Compost Facility - registered	905 Ranch Road	PO Box 2075	Canutillo	TX	79835	Francisco Rubio	575-589-0098	Open

County	Facility Name	Facility Type	Physical Location	Address	City	State	Zip	Contact Name	Phone	Status
Dona Ana	R Qubed Energy Mesquite	Compost Facility - registered	13085 Stern Dr., Mesquite, NM	1131 Montana Ave.	El Paso	TX	79902	John Davis	915-593-7025	Open
Dona Ana	The Sierra Vista Wholesale Growers , Inc.	Compost Facility - registered	420 W. Afton Road, La Mesa, NM 88044	PO Box 225	Chamberino	NM	88027	William Kent Halla	575-589-2933	Open
Dona Ana	West Mesa Compost Facility (Las Cruces)	Compost Facility - registered	1000 South Crawford Blvd., Las Cruces, NM	P.O. Box 20000	Las Cruces	NM	88004	Joshua Rosenblatt	575-528-3704	Open
Eddy	Artesia Wastewater Treatment Plant (Composting)	Compost Facility - registered	2507 N. Pecos Artesia NM 88210	1702 N. Haldeman Road (WWTP)	Artesia	NM	88211	Jerry Whitehead	575-748-0260	Open
Eddy	Carlsbad WWTP Compost Facility	Compost Facility - registered	45 Tell Tale Rd, Carlsbad, NM	P.O. Box 1569	Carlsbad	NM	88221	Joe Harvey	575-887-5412	Open
Lea	Lovington (City of) Compost Facility at WWTP	Compost Facility - registered	920 East Avenue K, Lovington	214 S. Love Street; P.O. 1268	Lovington	NM	88260	Barry Ferguson	575-704-9212	Open
Lincoln	Lincoln County Compost	Compost Facility - registered	Ruidoso Downs, Lincoln, 120C Forest Road	26536 Hwy. 70, Box 1531	Ruidoso Downs	NM	88346	Harlan or Rhonda Vincent	575-937-1474	Open
Los Alamos	Los Alamos County Compost Facility	Compost Facility - registered	3500 Pueblo Canyon Road, Los Alamos	1000 Central Ave. Suite 130	Los Alamos	NM	87544	Jennifer Baca	505-662-8269	Open
Los Alamos	Los Alamos National Laboratory (WWTP)	Compost Facility - registered	LANL, Technical Area 46 (TA46) Building 333 - See Enclsure 2	PO Box 1663, Mail Stop J972	Los Alamos	NM	87545	Randy Vigil	505-606-2160	Open
McKinley	Compost Gallup	Compost Facility - registered	JDC 109 Hasler Valley Road, Gallup	100 East Aztec Avenue	Gallup	NM	87301	Tom Kaczmarek	5058631400	Open
Otero	All American Ruidoso Downs Composting Facility	Compost Facility - registered	County Road B028, Three Rivers, Otero County, NM	P.O. Box 449	Ruidoso Downs	NM	88346	Jeff True	575-378-4431	Open
Quay	Tucumcari (City of) Compost Facility	Compost Facility - other	Next to the WWTP; 1700 North Rock Island	Box 1188	Tucumcari	NM	88401	Jared Langeneger	575-461-4542	Open
Rio Arriba	EVOP Harvest Club	Compost Facility - registered	2198 Highway 68; Embudo (Offal composting)	P.O. Box 44	Embudo	NM	87531	John McMullin	575-579-4147	Open
Rio Arriba	Naturally New Mexico Foods, Inc.	Compost Facility - other		P.O. Box 52	El Rito	NM	87530	Donald Martinez	505-469-1350	Open
Roosevelt	Portales (City of) WWTP	Compost Facility - registered	683 S. Roosevelt Rd., Q 1/2, Portales, NM 88130	100 W. First St.	Portales	NM	88130	John DeSha	575-760-5497	Open
San Juan	Farmington WWTP Composting Facility	Compost Facility - registered	1395 South Lake Street, Farmington, NM	805 Municipal Drive	Farmington	NM	87401	Jeff Smaka	505-327-7701	Open

County	Facility Name	Facility Type	Physical Location	Address	City	State	Zip	Contact Name	Phone	Status
San Juan	Four Corners Compost and Mulch	Compost Facility - registered	805 HWY 170, Farmington, New Mexico 87401	785 HWY 170	Farmington	NM	87401	Arin Fishburn	505-326-5865	Open
San Juan	Hunt's Meat Company	Compost Facility - other	3658 Highway 64, Waterflow	P.O. Box 65	Waterflow	NM	87421	R.G. Hunt, Jr.	5055986050	Open
San Juan	MGS Custom Cutting	Compost Facility - registered	#24 CR 6339 Kirtland, NM	#24 CR 6339	Kirtland	NM	87417	S. Gale Smith	5755985254	Open
Sandoval	Desert Rock	Compost Facility - other		2600 Idalia Rd.	Rio Rancho	NM	87124	Steve Espinosa		Open
Santa Fe	Arroyo Seco Custom Meats	Compost Facility - registered	37 Boneyard Road; Espanola	37 Boneyard Road	Espanola	NM	87532	Mike Padilla	505-753-6338	Open
Santa Fe	City of Santa Fe Municipal Biosolids Composting Facility	Compost Facility - registered	73 Paseo Real; Santa Fe, NM	P.O. Box 909; 73 Paseo Real	Santa Fe	NM	87507	Efren Morales	505-955-4615	Open
Santa Fe	Glorieta Camps Composting Facility	Compost Facility - registered	11 State Road 50, Glorieta, NM 87535	P.O. Box 8	Glorieta	NM	87535	Jon Malvig	505-757-6161	Open
Santa Fe	Las Acequias Farm Composting Facility	Compost Facility - registered	22A Rancho Las Acequias Santa Fe, NM 87506	PO Box 1116	Santa Fe	NM	87504	Meade P. Martin	505-455-2562	Open
Santa Fe	Payne's Organic Soil Yard (POSY)	Compost Facility - registered	6037 Agua Fria St. Santa Fe	P.O. Box 4817	Santa Fe	NM	87502	Sam McCarthy	505-424-0336	Open
Santa Fe	Reunity Resources Composting Facility	Compost Facility - registered	1829 San Isidro Crossing Santa Fe	1000 Cordova Place #650	Santa Fe	NM	87505	(Michael) Tejinder Ciano	505-393-1196	Open
Sierra	Old Fashion Meat Market	Compost Facility - registered	50622 Pinkneyln; Arrey	P.O. Box 309	Arrey	NM	87930	Paul and Patty Green	575-267-8809	Open
Socorro	Desert Valley Meat Processing	Compost Facility - registered	75 San Lorenzo Road, Veguita, NM	75 San Lorenzo Road	Veguita	NM	87062	Jeffrey Miller	505-980-2585	Open
Socorro	Pollo Real	Compost Facility - registered	108 Hope Farms Road, 20 acre site	108 Hope Farms Road	Socorro	NM	87801	Tom Delehanty	505-550-3123	Open
Torrance	EVSWA Septage Composting Facility	Compost Facility - registered	249 Sidewinder Road, Moriarty, NM	P.O. Box 736	Estancia	NM	87016	Martin Lucero	505-384-4270	Open

Appendix J

New Mexico Collection Center Registration Form

MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

COLLECTION CENTER REGISTRATION FORM

Notice to Registrant: The New Mexico Solid Waste Rules (SWR), 20.9.3.27 NMAC, requires the registration of a collection center with the New Mexico Environment Department. A collection center serves the general public, has an operational rate of less than 240 cubic yards of solid waste per day monthly average and does not accept special waste. The owner or operator of a collection center must apply for a registration at least 30 days prior to any operations and every five years thereafter. Existing collection centers shall apply for a registration at least 30 days prior to the expiration of their existing permit or registration, or within two years after the effective date of these regulations (August 2, 2007), whichever occurs first. A collection center that fails to file a timely and complete application for registration is deemed an unpermitted solid waste facility, subjecting the owner or operator to potential civil penalties, permit requirements and nuisance abatement orders.

!!!! NOTE : If a collection center that serves the general public increases its operational rate to more than 240 cubic yards of solid waste per day on a monthly average or accepts any special waste, the facility constitutes a "transfer station" which will require a permit in accordance with the SWR, 20.9.3.8 NMAC.

This form is provided to assist you in completing the registration process. Return the completed form with all attachments to: saralouise.martinez@env.nm.gov or c/o Manager, Permitting Section, Solid Waste Bureau, New Mexico Environment Department, 1190 St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico 87502-5469.

I. GENERAL INFORMATION (Please type or print)

Facility Name: _____

Facility Owner: _____

Mailing Address: _____ Email: _____

Telephone: _____ Contact Person: _____

Facility Operator: _____

Mailing Address: _____ Email: _____

Telephone: _____ Contact Person: _____

Physical Address of Facility: _____

Legal Description of Property (GPS coordinates and/or section, township & range, county and state): _____

_____

Land Use and Zoning of Facility: _____

II. FACILITY LAYOUT

Attach a Map of the Facility Location, Indicating the Land Use and Zoning of the Surrounding Area, Parcel Size, Set Backs and Locations of All Watercourses or Wetlands Within 200 Feet of the Facility

Attach a Site Map of the Facility Identifying:

- North arrow, name and location of facility including adjacent roads or highways
- Facility boundary dimensions, fencing, gates, entrances and exits
- All solid waste and recyclable or compostable storage, loading, and unloading areas including yard waste, scrap tires or white goods
- Traffic flow pattern
- Location of all buildings, structures and utilities – including overhead electrical lines
- Location of any household hazardous waste storage area(s)

III. OPERATIONS

Anticipated Start Up Date (For new facilities): _____

Days/Hours of Operation: _____

On-Site Equipment and Storage Containers (Attach additional sheet, if necessary):

Type: _____ Number: _____ Size: _____
Type: _____ Number: _____ Size: _____
Type: _____ Number: _____ Size: _____
Type: _____ Number: _____ Size: _____
Type: _____ Number: _____ Size: _____
Type: _____ Number: _____ Size: _____
Type: _____ Number: _____ Size: _____
Type: _____ Number: _____ Size: _____
Type: _____ Number: _____ Size: _____
Type: _____ Number: _____ Size: _____

WASTE STREAM:

Origin (Indicate from where solid waste will be accepted, by country state, county and/or municipality): _____

_____

Type/Composition (e.g., municipal solid waste, construction and demolition debris): _____

_____

Operational Rate (Estimated volume of solid waste to be accepted at the facility each day): _____

_____

Recycling Component (List the types of recyclable materials to be accepted): _____

_____

OPERATIONS PLAN:

Attach an Operations Plan describing procedures for solid waste and recyclables acceptance, storage, processing and removal. The plan shall address the following items:

- Use of signs indicating location of the site, hours of operation, emergency telephone numbers, delivery instructions and to state that fires and scavenging are prohibited
- Means of controlling access to the facility (through use of fencing, gates, locks or other means)
- Use of leak-proof storage containers
- Means to control litter and prevent and extinguish fires
- Sufficient unloading areas to meet peak demands, confined to as small an area as possible
- Use of separate storage areas for bulky wastes (e.g., brush, white goods, scrap tires) and removal of the bulky wastes in a timely manner, as indicated in the registration
- Conducting safe and sanitary waste disposal and recycling/composting operations
- Storage of recyclable materials to preclude nuisances, hazards or vector harborage
- Compliance with applicable provisions of the Recycling, Illegal Dumping and Scrap Tire Management Regulations (RIDSTMR), 20.9.20 NMAC, if scrap tires are accepted [This is primarily a reminder that scrap tires must be transported under a manifest.]
- Frequency of recyclables removal
- Frequency of solid waste removal, which shall be by the end of the operating day, unless otherwise approved in the registration
- Disposition of solid waste and recyclable materials (removal from the facility), including names, telephone numbers, addresses, and NMED permit numbers of all utilized commercial haulers and solid waste or recycling facilities
- Procedures to be taken if unauthorized waste is received
- Procedures in response to emergency situations and equipment break down to ensure that stored waste and recyclables will be removed in a timely manner to avoid nuisances or hazards
- Record keeping requirements
  - (1)the type and weight or volume of waste received during the year;
  - (2)the type and weight or volume of recyclable material sold or otherwise disposed of off-site during the year;
  - (3)final disposition of material sold or otherwise disposed of off-site; and
  - (4)any other information as requested by the Secretary.
- Facility personnel requirements and duties (certified operator)
- Personnel training requirements (safety, operations, etc.)
- Update the registration if there are any significant changes in operation or of ownership
- Any additional information required by the Secretary

COMPOSTING IF PERFORMED ON SITE:

On site composting operations may be authorized under this registration with the following conditions:

1. Compostable materials (feedstock) utilized must be source separated;
2. Compostable materials (feedstock) utilized must not include any special waste (e.g., municipal waste water treatment plant sludge);
3. No more than 25 tons per day annual average of compostable materials (feedstock) shall be accepted at the facility;
4. The Facility Map and Site Map submitted under this registration shall include information regarding the location of the composting operations and related storage areas;

5. The Operations Plan submitted under this registration shall address the composting operations, to include origin, expected composition and weight or volume of materials to be composted and stored on-site pending composting, the process, loading rate, proposed capacity, size and operational rate (for the composting operations), the methods to ensure proper composting – such as the use of temperature probes and turning of windrows, and the anticipated disposition of the finished compost.

NOTE: If a composting operation is proposed for a separate location, utilizes any special waste or accepts more than 25 tons of compostable material (feedstock) per day annual average, it shall be registered separately using the Solid Waste Bureau's Composting Facility Registration Form found at NMED's web page, All Application Forms and Guidance (nm.gov).

IV. ACKNOWLEDGEMENTS

A. I AM AWARE THAT THE OWNER OR OPERATOR IS REQUIRED TO COMPLY WITH ALL OF THE TERMS OF THE APPROVED REGISTRATION _____ INITIALS

B. I AM AWARE THAT THE OWNER OR OPERATOR MUST UPDATE THIS REGISTRATION TO REFLECT ANY MATERIAL CHANGES IN OPERATIONS (PRIOR TO IMPLEMENTING SUCH CHANGES)_____ INITIALS

The undersigned attests the information provided is true and accurate.

Signature and Title	Date	Telephone
_____	_____	_____

Appendix K

USDA NRCS Payment Rates for Various Practices

Table 7. Soil Carbon Amendment Code 336 Payment Schedule – New Mexico FY25

Component	Unit	EQIP & RCPP Unit Cost*	CSP** Unit Cost
100% Biochar	Ac	$1,300.65	$173.42
HU-100% Biochar	Ac	$1,560.78	-
20% Biochar/80% Compost	Ac	$655.00	$87.33
HU-Biochar/Compost	Ac	$786.00	-
Compost	Ac	$216.61	$28.88
HU-Compost	Ac	$259.93	-
Compost and Biochar, < 10 Acres	kSqFt	$54.24	$7.23
HU-Compost and Biochar, < 10 Acres	kSqFt	$65.09	-
Compost, Biochar	Ac	$582.86	$77.71
HU-Compost, Biochar	Ac	$699.43	-
Compost – < 10,000 sqft	kSqFt	$45.86	$6.11
HU-Compost – < 10,000 sqft	kSqFt	$55.03	-
Compost – On-site	Ac	$257.31	$34.31
HU-Compost – On-site	Ac	$308.77	-
Other Carbon Amendment	Ac	$127.89	$17.05
HU-Other Carbon Amendment	Ac	$153.46	-
Other Carbon Amendment, <10,000 sqft	kSqFt	$51.55	$6.87
HU-Other Carbon Amendment, <10,000 sqft	kSqFt	$61.86	-

HU = "Historically Underserved" Farmers and Ranchers
kSqft = kilo (1,000) square feet; Ac = acres

*EQIP and RCPP provide financial assistance based on acres of practice area.

CSP per-acre practice rates appear lower by comparison to EQIP/RCPP, but landowners in CSP receive two other types of financial assistance. In addition to practice rates, participants receive "base rates" that include a per-acre rate (for **all acres, not just those under the practice code) and one or more flat unit rate payments (ranging from $1,800-$3,000 each); amounts for both are based on land use and overall property condition, and an increased rate for HU applicants are reflected in those rates rather than the practice rates. CSP has a minimum contract award of $4,000 per year.

Criteria for Soil Carbon Amendments

In addition to soil analysis at the site, the carbon amendments proposed for purchase and use must be analyzed, as described below in **Table 8**, and fit the needs of the site per program requirements to qualify for financial assistance.

Soil carbon amendments must not be:

- Produced from crop residues that would otherwise provide soil protection and improve soil health;

- Produced from woody residue that is necessary to sustain forest health and support wildlife habitat; or
- Raw manure or biosolids.

Additional requirements for compost and biochar are detailed in the following sections.

Soil Carbon Amendment Code 336 Compost Requirements:

1. Document the origin of the compost.
2. Report and meet conditions for All Carbon Amendments in **Table 8** (see below).
3. Report and meet conditions for Compost Amendments in **Table 9** (see below).

Compost should be produced by the controlled, aerobic, biological decomposition of biodegradable feedstocks and should have the USCC's STA or meet the criteria in Table 8 and Table 9, below. Compost can be combined with other regionally appropriate soil carbon amendments, such as biochar, wood chips, sawdust, or pulverized paper, to meet the specific needs of the soil. Any soil amendments must be tested as necessary to identify contaminants. Contaminants such as glass, metal fragments, film plastic, hard plastic, and sharps (needles, glass, etc.) should be removed prior to compost application.

Table 8. Parameters for Soil Carbon Amendments

Parameter	Range	Unit
Feedstock	Report[1]	Type by %
pH	Report	pH units
Electrical Conductivity (EC)	Report	dS/m
Moisture	Report	%
Organic Matter/Carbon	Report	% DW[2]
Total Nitrogen	Report	% DW
Particle Size	Report	% per size class
Phosphorus	Report	mg/kg[4] DW
Potassium	Report	mg/kg DW
Calcium	Report	mg/kg DW
Magnesium	Report	mg/kg DW
Arsenic[3]	<41	mg/kg DW
Cadmium	<39	mg/kg DW
Copper	<1500	mg/kg DW
Lead	<300	mg/kg DW
Mercury	<17	mg/kg DW
Nickel	<420	mg/kg DW
Selenium	<100	mg/kg DW
Zinc	<2800	mg/kg DW

[1]Report results, also see criteria under amendment type.

[2]DW = Dry weight.

[3]Pollutant concentration limit values from US EPA Title 40 Part 503 STANDARDS FOR THE USE OR DISPOSAL OF SEWAGE SLUDGE. Follow State and local laws and regulations.

[4]milligrams per kilogram (mg/kg) = parts per million (ppm) = grams per ton (g t^{-1})

Table 9. Parameters for Compost

Parameter	Range	Unit
C:N	Report[1]	unitless
Organic matter	Report	% DW
Fecal coliform	<1000	MPN[2] per g dry compost
Salmonella spp.	<3	MPN per 4 g dry compost

[1]Report = Required results only, no threshold or range needs to be met.

[2]MPN = Most Probable Number.

Soil Carbon Amendment Code 336 Biochar Requirements:

1. Document the origin and production method.

2. Report and meet conditions for All Carbon Amendments in **Table 9**.
3. Report and meet conditions for Biochar Amendments in **Table 10** (see below).

Biochar should be produced by heating biomass to a temperature in excess of 350 °C under conditions of controlled and limited oxygen concentrations to prevent combustion (i.e., pyrolysis or gasification) and should have the International Biochar Initiative Certified biochar seal or meet the criteria in **Table 10**.

Table 10. Parameters for Biochar

Parameter	Range	Unit
Total Ash	Report[1]	% of total mass, dry basis
Liming equivalent	Report	% $CaCO_3$
Organic Carbon (C_{org})	>10	% DW
H:C_{org}	<0.7	Molar ratio
Chromium	<1200	mg per kg DW

[1]Report = Required results only, no threshold or range needs to be met

Table 11. Composting Facility Code 317 Payment Schedule – New Mexico FY25

Component	Unit	EQIP & RCPP Unit Cost
Bins with Wood or Concrete Walls and Slab	SqFt	$10.56
HU-Bins with Wood or Concrete Walls and Slab	SqFt	$12.67
Concrete Bins and Floor or Wood	SqFt	$13.77
HU-Concrete Bins and Floor or Wood	SqFt	$16.52
Farm Pad and Bins	SqFt	$55.64
HU-Farm Pad and Bins	SqFt	$66.76
In-Vessel, 8 to 16 Cubic Yards	Cu-Ft	$124.36
HU-In-Vessel, 8 to 16 Cubic Yards	Cu-Ft	$149.23
In-Vessel, Less Than 8 Cubic Yards	Cu-Ft	$170.50
HU-In-Vessel, Less Than 8 Cubic Yards	Cu-Ft	$204.60
Windrow with Compacted Earthen Floor	SqFt	$0.32
HU-Windrow with Compacted Earthen Floor	SqFt	$0.38
Windrow, All Weather Surface	SqFt	$1.11
HU-Windrow, All Weather Surface	SqFt	$1.33
Windrow, Compacted Earthen Floor	SqFt	$0.27
HU-Windrow, Compacted Earthen Floor	SqFt	$0.32
Windrow, Concrete Surface	SqFt	$5.85
HU-Windrow, Concrete Surface	SqFt	$7.02
Windrow, Gravel Surface	SqFt	$1.13
HU-Windrow, Gravel Surface	SqFt	$1.35

HU = "Historically Underserved" Farmers and Ranchers
SqFt = square feet; Cu-Ft = cubic feet

Criteria for Composting Facilities

There are a number of guidelines for the planning, design, and construction of a composting facility within this practice that the applicant must consider including:

- Siting (location, floodplain, etc.);
- Capacity;
- Moisture management;
- Roofs and roof runoff;
- Foundation and structure;
- Power supply (if applicable);
- Wastewater (if applicable);
- Safety; and
- Monitoring strategies.

There are design standards that the applicant must follow in the resources listed below:

- NRCS National Engineering Handbook;
- NRCS Agricultural Waste Management Field Handbook;
- NMSU recommendations; and
- Other applicable practice codes (for example, development of a nutrient management plan under Code 590 if compost will be applied at the site of the facility).

Additionally, the applicant must develop an operation and maintenance plan for a 15-year design life of the facility.

Table 12. Waste Recycling Code 633 Payment Schedule – New Mexico FY25

Component	Unit	EQIP & RCPP Unit Cost
Export Ag Waste By-products Recycled for Use Off Farm	No*	$413.14
HU-Export Ag Waste By-products Recycled for Use Off Farm	No	$495.77
Import Non-Ag Waste By-products, Compost with Manure for Use On Farm	Cu-Ft	$3.22
HU-Import Non-Ag Waste By-products, Compost with Manure for Use On Farm	Cu-Ft	$3.87
Import Non-Agricultural By-Products, Land Applied	Ton	$20.66
HU-Import Non-Agricultural By-Products, Land Applied	Ton	$24.79

HU = "Historically Underserved" Farmers and Ranchers
Cu-Ft = cubic feet

*Where the unit for financial assistance is listed as “No” or “number of units”, applicants may be reimbursed by the unit rate per type of waste that is exported.

Criteria for Waste Recycling

Waste must be chemically analyzed prior to its use (at least once per year for wastes spread daily) and use of the waste must be based on this analysis. At minimum, the analysis should identify nutrients (nitrogen, phosphorus, and potassium) and specific ions (salts). Depending on the waste, the applicant may also need to analyze metal concentrations. A laboratory certified by a State-recognized program must be used to assure accuracy of the testing results. Use of the material may require the landowner develop at Nutrient Management Plan in accordance with Code 590 to receive financial assistance.

Records must be kept for at least five years and include:

- The dates and quantities of waste imported to or exported from the agricultural production system;
- Analysis of critical waste characteristics; and
- A description of how the waste is recycled and the conservation benefit achieved.

Where waste is to be spread on land not owned or controlled by the generator, the waste management plan should document who will be responsible for the environmentally acceptable use of the waste. Additionally, the applicant should create an operation and maintenance plan for equipment and facilities used for recycling the waste(s).

Appendix L

EPA SWIFR Grants

Steps to Apply

1. Must have an active System for Award Management registration in SAM.gov to apply.
    a. Must obtain a Unique Entity Identifier (UEI).
2. Register in Grant.gov once SAM.gov account is active.
3. Submit a NOI to Participate to EPA Headquarters.
4. Submit workplan and application materials through Grants.gov.

Timeline

For grants to Political Subdivisions, EPA requested submittal of a NOI to Apply by November 15, 2024. Applications had to be submitted no later than December 20, 2024. Notification of funding selection is estimated to occur in July 2025, with awards in December 2025.

Example Grant Recipients – Political Subdivisions

The following Political Subdivisions within EPA Region 6 and nearby regions to New Mexico (EPA Region 8 and 9) received previous SWIFR funding specifically for food waste-related projects or for expenses that could be similar to those for food waste-related projects.

City of Logan, UT

EPA Region: 8
Funding received: $4 million

The City of Logan, UT will use SWIFR funding to construct the Logan Regional Green Waste Facility, which will expand the city's ability to compost biosolids from a regional wastewater treatment facility and from yard waste received. This project will reduce greenhouse gas emissions by diverting landfilling biosolids and yard waste, protecting neighboring vulnerable communities, and allows for Logan to adjust management pathways for food and organic waste in the future. This project will divert 12,000 tons of biosolids and 11,500 tons of yard waste from entering landfills annually. Additionally, this project will create three acres of community gardens serving up to 150 residents depending on plot size.

City of Ontario, CA

EPA Region: 9
Funding received: $3.57 million

The City of Ontario will establish new recycling collection routes and optimize materials management infrastructure through the purchase of recycling equipment such as electric trucks, electric vehicle charging stations, bins and carts, a power steam wash machine, and software to enhance zero waste strategies. The project will also create a digital food donation marketplace for businesses and nearby nonprofits and expand source separation of organic food waste and mixed recyclables by distributing

carts and bins to residents and businesses in the city. The proposed project facilitates the city's compliance with California Senate Bill 1383.

Chaffee County, CO

EPA Region: 8
Funding received: $4 million

Chaffee County, CO will design and construct a regional transfer station for recyclables and a materials recovery facility on its landfill site outside of Salida, Colorado. The transfer station and facility will measurably increase local waste diversion and reduce process-related greenhouse gas emissions by providing drop-off options for recycling for county residents that report they cannot receive or afford commercial curbside recycling services. The construction of the MRF and transfer station is anticipated to result in ~90,000 tons of material processed per year, with at least 50 percent of material diverted from the landfill.

City of Austin, TX

EPA Region: 6
Funding received: $4 million

The City of Austin, TX has a surplus of valuable goods that are going to a landfill due to space constraints and limited reuse outlets Austin Resource Recovery intends to use EPA grant funds to permanently fill the resource gap by constructing and opening a new Austin Reuse Warehouse. The new Warehouse will accept and redistribute gently used furniture at no cost to nonprofits and their clients, with a focus on furnishing the homes of those transitioning out of homelessness. The Warehouse will eventually expand to also accept building materials. An on-site "Innovation Lab" will provide space and infrastructure for innovative programming, including a workforce program in which people with barriers to employment will learn how to upcycle obsolete furniture into new pieces. The project will reduce the amount of furniture and building materials sent to landfills annually.

Example Grant Recipients - States

New Mexico and the following nearby states received SWIFR funding for activities related to food waste diversion and composting, such as administration of cooperative agreements, grant programs, and tracking progress towards the National Food Loss and Waste Reduction Goal.

New Mexico

EPA Region: 6
Recipient: New Mexico Environment Department
Project outcomes funded:

- Improve post-consumer materials management in the state through planning, data collection, and the implementation of an updated Solid Waste Management Plan.
- Perform program management and supervision, cooperative agreement administration, fiscal and contract management, program enhancement, and the strengthening of comprehensive data collection efforts that demonstrate progress toward the National Recycling Goal and the Food Loss and Waste Reduction Goal.
- Conduct a baseline waste characterization study to assess the existing effectiveness of waste management programs.

- Develop a plan to advance post-consumer materials management and strengthen existing data collection efforts by updating the state solid waste management plan. This update will be informed by the gaps identified within the waste characterization study.
- Facilitate statewide implementation and awareness of the plan by conducting outreach with partners to help implement the plan and anticipated deliverables.

Texas

EPA Region: 6
Recipient: Commission on Environmental Quality
Project outcomes funded:

- Assist councils of governments in supporting the creation or improvement of recycling.
- collection and management, organics collection and management, and/or landfill diversion programs.
- Projects will support councils of governments in their processing, transportation services, and municipal solid waste collection events.
- Prioritize analysis and development of recycling, reuse, source reduction and landfill diversion plans.
- Provide funding for education and outreach initiatives to support these plans.

Arizona

EPA Region: 9
Recipient: Department of Environmental Quality
Project outcomes funded:

- Develop a new Solid Waste and Materials Management plan that will serve as a long-term framework for circular economy and materials management planning. The plan will:
  - Be centered on actionable statutory and regulatory solid waste planning.
  - Summarize and assess current post-consumer materials management efforts, review Arizona's current tracking system, and identify ways to facilitate collaboration.
  - Identify broad objectives and policies that support recycling, address environmental hazards, increase educational and economic opportunities, and coordinate guided post-consumer materials management efforts across Arizona.

Utah

EPA Region: 8
Recipient: Department of Resources
Project outcomes funded:

- Conduct its first ever waste characterization study to help it set policy and plan for
- future sustainable materials management practices in Utah, including in underserved areas of the state, which also will inform revisions to the Solid Waste Management Plan.
- Offer to state and local policymakers a presentation on the revised plan, along with strategies and recommendations for greater sustainable materials management.
- Improve its electronic data collection interface to reflect the materials management strategy and track data relevant to the National Recycling Goal and Food Loss and Waste Reduction Goal. Utah will make these data available to the public.

California

EPA Region: 9
Recipient: Department of Resources
Project outcomes funded:

- Incorporate rural needs into California's zero waste plan.
- Examine current waste management practices and local government resources, engaging communities to better understand needs specific to their local economies, geography, and demographics.
- Analyze data to gather materials flow data from transfer, processing, and disposal facilities in rural counties and engage with local governments.
- Assess opportunities to implement zero waste strategies in rural counties and stimulate job creation in the circular economy through enhanced recycling, composting, material diversion, and reuse/refill infrastructure.

Develop methods to measure the progress and success of such a plan in those counties.

Appendix M

EPA CFWR Grants

Example Grant Recipients

The CFWR Program has been awarding funds since 2020. Over these five years, 144 projects have been funded: 13 in 2020, 23 in 2021, 44 in 2022, 38 in 2023, and 26 in 2024. In FY23, the average award per project was $294,074. In FY24, the estimated funding floor was $75,000 and estimated ceiling was $400,000 per agreement. In FY24, about 26 percent of applications accepted for review were funded.

Over this period, 28 of these projects have been located in New Mexico or nearby states (CA, AZ, UT, CO, OK, or TX). Of the projects in this region, funding awards have ranged from $45,196 to $300,000 during FY20 through FY22 with award amounts increasing over time. Awards for FY23 included several at the ceiling of $400,000, as noted below. Award amounts for FY24 have not yet been posted.

The projects below are examples of funding awards in New Mexico or the southwest region in the past three years. Funds from this source are often awarded to upstream management activities that develop quantity and/or quality of food waste feedstock, such as community education/training or pilot projects that focus on large generators like schools or restaurants. However, funds are also awarded for site acquisition, equipment, drop sites, or collection elements, especially at the inception of a municipal program. Funds also have been awarded for projects that stimulate compost end markets, improve compost quality, or facilitate compost distribution and use.

City of Moab, UT

Funding received: TBA
Award Year: 2024

Project synopsis: This project will minimize food waste produced and harness anything remaining as a valuable resource to bolster local food production and security while connecting farmers and residents with affordable, local compost and guidance to use it.

City of Tucson, AZ

Funding received: TBA
Award Year: 2024

Project synopsis: This project will empower Tucson to adopt sustainable waste management practices that prevent and divert food and solid waste, reduce greenhouse gas emissions, and increase food security.

City of Monrovia, CA

Funding received: TBA
Award Year: 2024

Project synopsis: The San Gabriel Valley Council of Governments will enhance the capacity of food recovery hubs while improving composting systems to significantly reduce food waste in San Gabriel Valley by recovering 320 tons of food and diverting it from landfills.

City of Las Cruces, NM

Funding received: $400,000
Award Year: 2023

Project synopsis: This project will assist the City of Las Cruces create a waste diversion plan to reduce waste by implementing food waste collection in the city limits. It will focus on reducing residential, multifamily, and commercial waste by collecting food waste. A detailed survey on the best way to achieve maximum 'set outs' of food waste will be used to select the proper collection bins and methods. Food waste collected through the program will be collected and managed at the City's existing green yard waste composting operation at Foothills Landfill Composting Facility. The food waste will be mixed with the bulk yard waste to create a richer more beneficial compost for use by residents, local businesses, and other City Departments.

City of Albuquerque, NM

Funding received: $127,232
Award Year: 2023

Project synopsis: This regional-scale project will support two collaborative composting pilot case studies, a community compost co-op and a farm compost hub, at locations that typically cannot access existing private composting services available in the area. Each pilot is developed based on (1) taking lessons from existing relevant programs, (2) making compost easily accessible to consumers and agricultural producers, (3) integrating food waste prevention strategies, and (4) making the pilot self-sustaining and easily replicable. Each pilot will test and refine food waste reduction and composting strategies and systems, including understanding and optimizing economic benefits. The project will be managed by the Ciudad Soil and Water Conservation District.

Town of Silver City, NM

Funding received: $400,000
Award Year: 2023

Project synopsis: This project seeks to fully transition Upper Gila Watershed Alliance's (UGWA) innovative climate change mitigation initiative, the New Earth Project, from its success as a proof-of-concept pilot project into a self-sustaining, community-scale climate solution at a permanent, dedicated site. The centerpiece of the project is an innovative technology: Johnson-Su composting, implemented in tandem with a grade school curriculum and youth employment plan.

City of Plano, TX

Funding received: $162,800
Award Year: 2023

Project synopsis: Through this project, the City of Plano will expand its existing food scrap composting program, develop educational programming on food waste reduction strategies, and create a learning module addressing consumer behaviors including food purchasing, preparation, storage,

and preservation. The goal of the program is to divert food waste from landfills, educate on waste reduction, and composting, reduce greenhouse gas emissions and cultivate community norms food waste reduction and composting.

Oklahoma City, OK

Funding received: $400,000
Award Year: 2023

Project synopsis: This project will pilot a free, citywide compost collection program in Oklahoma City with 20 easily accessible community drop off sites, 40 percent benefiting disadvantaged communities. Association of Central Oklahoma Governments (ACOG) will provide monitoring, evaluation, and documentation of insights and solutions to obstacles encountered during the project, and data collected will help inform future residential composting services. ACOG will engage community partnerships to serve as residential compost drop sites for widespread program reach including: the Oklahoma City Zoo, Oklahoma State University Extension, the Metropolitan Library System. Project, and data collected will help inform future residential composting services.

City of Telluride, CO

Funding received: $243,497
Award Year: 2022

Project synopsis: San Miguel County seeks funding to: 1) establish and enhance the physical and social infrastructure for regional composting and food waste reduction; 2) enhance and expand a sustainable economic framework to facilitate agricultural compost use; and 3) create a replicable model that addresses specific barriers encountered by rural and mountain towns and beyond.

City of Santa Rosa, CA

Funding received: $298,500
Award Year: 2022

Project synopsis: Zero Waste Sonoma will expand existing collaborations with Zero Foodprint to scale, coordinate, and optimize scaling carbon sequestration projects in coordination with SB 1383 implementation strategy, including the expected increase of 10,000 tons of compost created per year. Increase access to compost for agricultural producers, reduce reliance on fertilizer, improve soil quality, increase rainwater absorption, reduce municipal food waste, decrease food insecurity, and engage businesses in zero waste and circular economy.