DAIRY PROCESSOR
WASTE AUDIT GUIDANCE

IN COLLABORATION WITH THE DAIRY PROCESSOR WORKING GROUP WASTE SUBCOMMITTEE

INNOVATION CENTER FOR U.S. DAIRY®
HEALTHY PEOPLE • HEALTHY PRODUCTS • HEALTHY PLANET

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Table of Contents

1 **Purpose of Waste Auditing and Diversion**

2 **Key Term Definitions and Types of Materials**

2 Key Term Definitions

3 Types of Materials

4 **Identify Sources of Materials**

5 **Conducting a Zero Waste Audit**

5 Steps for Conducting a Zero Waste Audit

7 **Moving Beyond Waste**

7 Calculations

8 **Becoming a Sustainability Leader: Pursuing TRUE Certification**

8 Achievable Credit Options for Processors

12 **Resources**

12 Additional Resources

12 References

Introduction

Sustainability is a critical factor in the success of the dairy industry. Investors and consumers are choosing to support businesses that can demonstrate strong commitments to sustainability. The rise of Environmental, Social and Governance (ESG) investing illuminates shifting investor priorities, from pure profits to a more holistic emphasis on economic performance and corporate responsibility. Waste reduction presents an excellent opportunity for dairy processors to demonstrate their commitment to sustainability while also improving operational efficiency.

A zero waste mindset transforms the way we view waste. It reframes waste as valuable resources that can benefit a company's bottom line, increase efficiency, provide jobs, provide social equity, and promote environmental stewardship for our local and global communities. Many companies have embraced sustainable material plans rather than waste management plans. By shifting company culture from a waste mindset to a resource mindset, companies can more reliably meet their environmental and financial goals.

This resource was developed through the Innovation Center's Processor Working Group (PWG) to provide guidance on conducting a waste audit for identifying and managing waste streams, and working towards achieving zero waste.

Purpose of Waste Auditing and Diversion

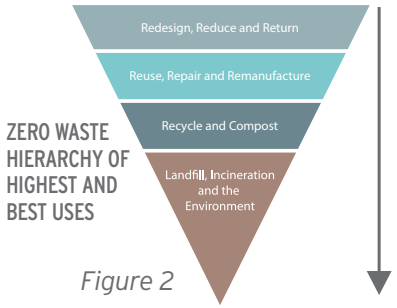
A waste audit is a survey of a facility's waste streams. Once a more detailed analysis of waste streams is understood, processors can reveal opportunities to divert and reduce various sources of waste, ultimately lowering waste hauling costs, and unlocking co-benefits such as reduced waste-related GHG emissions.

There are several benefits of conducting a waste audit to promote environmental stewardship including:

- Identifying inefficiencies in waste handling
- Setting a baseline and measuring improvement over time
- Meeting certification standards (e.g., LEED)
- Decreasing several associated costs:
  - Collection
  - Disposal
  - Operation
- Saving money through identification of new revenue streams and reduced waste hauling costs
- Waste streams can often be processed creatively and transformed from a cost to a revenue stream.
- Obtaining accurate data for sustainability reporting purposes (e.g., CDP, Project Gigaton)
- Waste reduction, accompanied by careful data collection, regardless of whether a processor achieves a zero waste certification, can provide fantastic opportunities for sustainability marketing. Effective sustainability marketing can reach new consumer segments and increase sales.
- Reducing waste is the right thing to do to keep ourselves and our planet healthy.

Figure 1: Common bin sortation to encourage appropriate resource diversion and separation

Key Term Definitions and Types of Materials

Key Term Definitions	
Term	**Description**
Circular Economy	Circular economy is a systematic shift to keep materials, products, and services in use for as long as possible. In a true circular economy, there is no waste, and any potential waste becomes an input for further production. There are three driving principles behind the circular economy: • Eliminate waste and pollution • Circulate products and materials • Regenerate nature An example of a circular economy principle in action is the use of dairy processing waste as an input for an anaerobic digester.
Compostables	Products, packages or materials that will safely decompose, in a composting system, into a humus-like material, that can be safely used as a beneficial soil amendment. When food waste is not suitable for use as animal feed, it should be composted, or used for energy recovery, not landfilled.
Environmentally Preferred Purchasing (EPP)	EPP is the procurement of products and services that have minimized or reduced environmental effects. Implementing a strategy to prioritize purchasing environmentally sound products and services, with an emphasis on durable, reusable, and sustainably produced products, promotes environmental stewardship. Used, refurbished, and remanufactured goods should also be prioritized. For example, buying recycled paper for office use is an easy way to get started with EPP.
Hazardous Waste	Hazardous waste is waste with properties that make it potentially dangerous or harmful to human health or the environment. Hazardous wastes can be liquids, solids, or contained gases. They can be by-products of manufacturing processes, discarded used materials, or discarded unused commercial products, such as cleaning fluids (solvents) or pesticides.
Highest and Best Use	The idea of highest and best use in the zero waste hierarchy is to create and keep materials and products in use as high in the hierarchy as possible, for as long as possible. This is a foundational concept to waste reduction. See figure 2 for the hierarchy of uses. An example of highest and best use being implemented in a food processing plant would be reusing food that does not pass human quality control, but is still edible as animal feed. This practice reduces waste that would otherwise end up in a landfill.  *Figure 2*
Liquid Sludge	The dairy industry generates high volumes of dairy processing sludge (DPS). There are two main types of DPS: • Lime-treated dissolved air floatation sludge • Bio-chemically-treated activated sludge These sludge types may also be converted to STRUBIAS (STRUvite, Blochar, AShes) products which have potential as fertilizers, secondary feedstocks for phosphate fertilizer granules, and soil amendments.
Solid Waste	Any garbage or refuse produced during business or consumer activity. It is important to note that the definition of solid waste is not limited to wastes that are physically solid. Many solid wastes are liquid, semi-solid, or contained gaseous material. If a waste product is accepted in local landfills, it is considered solid. The primary solid waste streams in dairy processing are packaging, cardboard and organics.

Key Term Definitions and Types of Materials

Key Term Definitions	
Term	**Description**
Source Reduction	In essence, waste prevention including: • Reducing the use of non-recyclable materials • Replacing disposable materials and products with reusable materials and products • Reducing and reimagining packaging • Reducing the amount of yard wastes generated • Establishing garbage disposal rate structures with incentives to reduce waste tonnage generated • Increasing the use efficiency of paper, cardboard, glass, metal, plastic, and other materials. An example of how source reduction can be beneficial is by using reusable pallet wraps to transport products. This avoids up to tens of thousands of pounds of waste annually.
Waste Audit	A waste audit is a survey of a facility's waste streams. Audits can be performed by on-site personnel or a third party. Rigorous waste audits require physical separation of waste by commodity to gather detailed and useful waste stream data. Examples of useful data include, but are not limited to: • A list of every item and material found • Volume of items and materials • Weights and percentages of all material types • Weights and percentages of recoverable materials (i.e., recyclables and reusables) in the trash • Possible sources of items and materials After completing a waste audit, look for opportunities to increase diversion, prevent waste, and reduce contamination. Address commodity streams that will save the most money or have the largest impact on diversion.
Waste Diversion	Waste diversion is the process of diverting waste from landfills. It is measured by comparing waste generation before any waste reduction efforts began to the waste generation after waste reduction policies were implemented. A diversion rate of 90 percent is the minimum requirement for TRUE certification.

Types of Materials	
Term	**Description**
Twelve Master Commodities	The twelve master commodities are a breakdown of common waste stream components in an effort to transform waste into tradeable commodities. This breakdown can be useful in analyzing waste streams and calculating total waste diversion. The twelve commodities are: • Ceramics • Chemicals • Glass • Metals • Paper • Plant trimmings • Polymers • Putrescible/food • Reusable goods • Soils • Textiles • Wood
Recyclables	Products that can be collected, processed, and manufactured into new products after they have been used. Products can be traditionally recycled via recycling utilities or recycled more creatively. For example, many processors recycle whey as a by-product from cheese production to make value-added products such as protein powder.

Identify Sources of Materials

Nine areas of generation

The TRUE Rating System specifically identifies nine unique sources of generation. The purpose of identifying the nine areas of generation is to help a facility understand its opportunities for waste stream reduction. A facility may not have all nine areas, and some areas will likely be more important than others. For example, warehouses can make use of balers to maximize cardboard recycling, while an office space may benefit more from a paper recycling program. All nine areas should be considered when addressing waste stream reductions.
Listed below are the common materials that each area produces:

- **Warehousing and distribution**: Produces packaging, cardboard and pallet waste
- **Offices**: Produce paper, office supply and packaging waste
- **Food services**: Produce food and packaging waste
- **Grounds**: Produces organic waste
- **Construction**: Produces wood, metal, concrete and masonry waste
- **Manufacturing**: Highly industry dependent. In the dairy processing industry, manufacturing produces milk, whey, other organic and packaging waste
- **Vehicular maintenance**: Produces metal, plastic, glass and chemical waste
- **Retail**: Produces packaging waste
- **Housing and hospitality**: Produces food, packaging and chemical waste

This list of materials is a guideline, not a rule. There will often be exceptions.

Review purchasing invoices for each department

Another means of identifying waste sources is reviewing purchasing invoices for each department. Go through purchases and look for any that can be eliminated or reduced. Additionally, look for purchases that can be substituted for more sustainable options. Having a thorough understanding of purchases can help streamline the waste reduction process and reveal opportunities to decrease spending.

Developing an Environmentally Preferred Purchasing (EPP) plan is the first step in reducing waste. By carefully evaluating the quality and environmental footprint of purchased items, a small change in purchasing trends can result in a large difference in downstream waste generation. For an effective EPP policy, follow the guidelines below:

- Emphasize reuse of already purchased products, saving money on new purchases and reducing waste downstream.
- Emphasize durable goods, and when possible, purchase products designed for reuse. Single-use products result in more waste and cost more long-term. For example, reusable pallet wraps can reduce waste generated during transportation.
- Emphasize sustainably produced products, especially paper and wood. Considering the environmental impact of purchases before they reach your business is important. Purchase products made from renewable materials rather than plastics.
- Emphasize the purchase of used and/or recycled goods. Buying used and recycled goods supports the circular economy, a key part of waste reduction on a worldwide scale. In the dairy processing industry, due to FDA guidelines, used or recycled goods may be impossible to implement into packaging and processing systems. However, office supplies and goods not directly related to food should be evaluated for opportunities.
- Select vendors who clearly identify designated EPP items. This allows purchasers to quickly and easily purchase items that conform to an EPP policy.
- Train purchasers on EPP best practices, ensuring that purchasers have the knowledge necessary to purchase products that are both effective and environmentally friendly.

Conducting a Zero Waste Audit

A traditional waste audit aims to eliminate waste stream contamination by ensuring materials are disposed of properly. A zero waste audit goes further, with the goal of learning from waste habits and committing to behavior changes that decrease waste. Additionally, a traditional waste audit is limited to initial waste generation and disposal, while a zero waste audit seeks to understand the entire lifecycle of waste.

Traditional waste audits are usually conducted for an entire building on an annual basis. Zero waste audits are more dynamic and can be done visually on a weekly or monthly basis. They also empower employees or service providers to be more proactive in identifying ways to source separately, which can generate commodity income or spur waste reduction and reuse. Zero waste audits provide immediate feedback, allowing actions to be taken to increase efficiency in the present.

Steps for Conducting a Zero Waste Audit

1 Begin audit with a floor plan of all bins, including sizes, inside and outside

Is your trash compactor a black hole? Do you need a trash compactor? Investigate the types of waste getting compacted and find out if there are alternative opportunities for reusing or recycling. Remember, always aim for the highest and best use of any waste.

Include confidential shredding bins in your waste audit

- Often, non-confidential documents end up in the confidential bin unnecessarily.
- Going paperless for office tasks is a great way to reduce paper waste. If going paperless is not possible, consider switching to paper with high recycled content.
- Review the amount of toner or ink used. When you reduce your paper usage, your toner and ink purchases will also significantly decrease. On average, for every $1,000 of paper used there is $3,000 of toner used.

Ensure proper labeling of all disposal containers to help reduce contamination. Your local recycling authority may have graphics available to print and post on containers, informing people where to dispose of their waste.

Zero waste is about less, not more work. While a zero waste audit may require time and money in the short term, it will lead to greater efficiency and less work in the long term. Reducing the number and size of bins requires less janitorial time, fewer trash bags, and increases revenues from waste avoidance.

2 Review service bills, pickup frequency and service levels

The more thorough and accurate a waste audit is, the more effective it will be.

- Investigate contamination levels and how full bins are when picked up.
- Calculate and take credit for past waste reduction initiatives.
- Invest in infrastructure for quick ROI. This can include balers, reusables, compactors, pallets, etc.
- Reduction of bins means a reduction of labor and spending on trash can liners.
- Often, savings from recycling efforts goes to the company's bottom line. By having accurate information, you can justify the purchase of new equipment and staff.

Conducting a Zero Waste Audit

Steps for Conducting a Zero Waste Audit - *continued*

3

Identify areas of contamination

Contamination provides instant feedback on the effectiveness of your program. Are there any materials being put in the wrong bins?

- Convenience is key. If trash, recycling, and composting bins are not clustered and clearly labeled, contamination can occur.
- Provide employee training on what goes where if contamination is significant. Restriction tops for bins can help reduce contamination (i.e., slots for paper, circles for cans, etc.).

4

Employee engagement and training

Provide employee training on zero waste initiatives to educate employees on how and why to reduce waste. Employee engagement is key to a successful waste reduction program and surveys can be used to gauge efficiency of trainings.

- **Observe and interview**: Are waste reduction policies and practices being implemented? If not, it is important to connect with employees to understand why and make appropriate changes.
- **Employee empowerment**: Seek direct feedback and suggestions. Incentivizing employees to participate in zero waste programs can be very effective.

Zero Waste Good Practices

Figure 3: Zero waste good practices help a company understand the entire lifecycle of waste.

Moving Beyond Waste

To achieve high diversion rates, waste should be viewed as an opportunity to make the most of underutilized resources. The following can be used to count existing reduction and reuse as well as calculating diversion rate.

Calculation Guidance

Reduction

Calculation method for reduction

- Measure the weight of the object that was used and disposed of before switching to a new object
- Multiply the weight of that object by the number of objects no longer being purchased
- Subtract the current weight total of the object from the weight total that is no longer being purchased to get the reduction

Examples of reduction

- Making routine office processes, like printing paychecks, paperless which reduces the number of boxes of paper to order each month
- Purchasing items in bulk to reduce the amount of packaging put into the project boundary's material stream

Reuse

Calculation method for reuse

- Measure the weight of the item being reused
- Multiply the weight of the item by the number of items being reused

Examples of reuse

- Durable shipping totes
- Pallets
- Ceramic coffee mugs, washable plates and silverware, microwaveable dishes
- Donating office supplies or furniture to non-profit organizations
- Donating leftover food items to non-profit organizations

Diversion

Calculation method for diversion

- **Diversion Generation =** Reduce **+** Reuse **+** Compost **+** Recycle
  Each section of this equation is the weight of material diverted by each method
- **Total Materials Generation =** Landfill **+** Waste to Energy (WTE) **+** Incineration **+** Reduce **+** Reuse **+** Compost **+** Recycle
  Add all waste stream material weights
- **Diversion Rate =** Diversion Generation**/**Total Generation

Becoming a Sustainability Leader: Pursuing TRUE Certification

TRUE is a zero waste certification program dedicated to measuring, improving, and recognizing zero waste performance. TRUE is one of the certifications offered by Green Business Certification, Inc. (GBCI) which also administers LEED and WELL.

TRUE defines zero waste as the following: "Zero waste is a goal that is ethical, economical, efficient, and visionary, to guide people in changing their lifestyles and practices to emulate sustainable natural cycles, where all discarded materials are designed to become resources for others to use. Zero waste means designing and managing products and processes to systematically avoid and eliminate the volume and toxicity of waste and materials, conserve and recover all resources, and not burn or bury them. Implementing zero waste will eliminate all discharges to land, water or air that are a threat to planetary, human, animal, or plant health."

TRUE certified spaces are environmentally responsible, more resource efficient and help turn waste into savings and additional income streams. By closing the loop, they cut greenhouse gases, manage risk, reduce litter and pollution, reinvest resources locally, create jobs and add more value for their company and community.

TRUE certification is available for any physical facility and helps define, pursue, and achieve zero waste goals. Zero waste certification is an ambitious but achievable goal for dairy processing facilities.

Basic requirements for certification:

- **Must have a zero waste policy in place**. This is the basis for a zero waste certification. You must define the facility pursuing certification and have a policy that supports waste reduction efforts.
- **Project has achieved an average 90 percent or greater overall diversion from landfill, incineration (WTE), and the environment for solid, non-hazardous wastes for the most recent 12 months**. Diverted materials are reduced, reused, recycled, composted and/or recovered for productive use in nature or the economy. This means that waste reduction policies must be implemented to reduce waste when compared to a business-as-usual approach.
- **Project meets all federal, state/provincial and local solid waste and recycling laws and regulations**. Project complies with all air, water, and land discharge permits required for collection, handling or processing of materials.
- **Project has data documenting a base year of waste diversion data, and measurements since the base year that adjust for changes in size, type and nature of business**.
- **Project does not exceed a 10 percent contamination level for any materials that leave the site**.
- **Project submits 12 months of materials diversion data to GBCI annually to keep the certification current**.
- **Company submits a case study of zero waste initiatives**. You must assemble a document outlining highlights of your certification. See resources section for case study examples.
- **Must have achieved at least 31 TRUE zero waste credits**. Credits are actions which will help a processor reduce waste. The TRUE rating system consists of 81 credits organized into 15 categories that reflect all aspects of a successful zero waste program. Completion of at least 31 credits is required for the baseline certification.

The credits outlined below are likely the easiest for dairy processors to implement and achieve TRUE Certification.

Achievable Credit Options for Processors		
	Credits	Description

Complete for the Baseline Certification	Redesign	• **Credit 1**: Right size collection containers and service levels
		  • Evaluate all containers to ensure appropriate size and schedules are in place. Create a strategy for periodic container size review.
		• **Credit 2**: Restructure solid waste collection agreements for zero waste
		  • Review solid waste collection agreements for ALL vendors handling waste and reusable/recyclable materials. Implement modifications to at least one agreement that incentivizes the reduction of waste.
		• **Credit 3**: Review all nine points of generation
		  • Review all applicable points of generation for opportunities to ensure each material meets highest and best use in that area as compared to baseline practices.

Becoming a Sustainability Leader: Pursuing TRUE Certification

Achievable Credit Options for Processors

Complete for the Baseline Certification

Credits	Description

Reduce	• **Credit 3**: Adopt a goal to reduce the overall size/amount of product packaging
	  • Define reduction goals for inbound and outbound packaging. Create and implement a strategy to meet all goals. Gather documentation on baseline size and amount of packaging for both inbound and outbound materials.
	• **Credit 4**: Go paperless for at least one major office function
	  • Identify one or more office functions that currently use paper that would be suitable for a paperless program. Implement the paperless program for at least one office function and estimate the reduction in paper waste.
	• **Credit 5**: Set all printers to duplex print

Reuse	• **Credit 4**: Establish a program to reuse office supplies and materials
	  • Establish a process to collect and redistribute unwanted office supplies and/or materials internally or externally.
	• **Credit 5**: Use reusable/durable food service ware
	  • Provide reusable alternatives to disposable service ware in employee break rooms and common areas, and to customers if applicable. Estimate reduction of waste materials and savings through the program.
	• **Credit 7**: Participate in animal feed programs for inedible food
	  • Identify applicable food products that are safe for animal consumption. Locate organizations within the area that need it for feeding animals and arrange for them to take the food.

Compost	• **Credit 1**: Collect compostables separately from other materials • Separate collection should take place at all points of generation. Compostables must always remain separated.
Recycle	• **Credit 1**: Meet highest and best use for 80 percent of materials by weight • Identify the highest and best use for each material generated at the facility. Demonstrate that 80 percent of materials currently in use, by weight, are meeting the highest and best use.

Zero waste reporting	• **Credit 1**: Document diversion by commodity or waste
	  • Compile 12 months of data for each commodity and waste stream. Ensure commodity and waste data shows an overall annual average diversion from landfill, incineration (WTE), or environment of 90 percent or better. Data must be broken down by month.
	• **Credit 2**: Track financial data for diversion and waste disposal
	  • Document diversion and associated costs and revenue. Calculate actual annual cost and overall net for the program. Calculate at least one year's results including baseline data for each commodity. All financial data must be reported on a monthly and annual basis.

Diversion from landfill, incineration (WTE), and environment	• **Credit 1.1**: Diversion is 90.1 percent - 94.9 percent • Track type and weight of all non-hazardous, solid materials by month for a minimum of 12 months. If estimates are used, provide the methodology and/or source references used to make calculations. Calculate annual average diversion by the weight of materials diverted by the total weight of materials generated.

Becoming a Sustainability Leader: Pursuing TRUE Certification

Achievable Credit Options for Processors

Complete for the Baseline Certification

Credits	Description
Zero waste purchasing	• **Credit 1**: Adopt an Environmentally Preferred Purchasing (EPP) guideline or policy • Implement an EPP guideline or policy that reduces waste or addresses zero waste products, packaging, or services. • **Credit 2**: Include preference for durable goods in EPP guideline or policy • **Credit 3**: Give preference to sustainably produced paper and wood products. Several programs are available to certify the sustainability of products, including Forest Stewardship Council, Sustainable Forestry Initiative (SFI), PEFC International's global certification, and USDA Organic. • **Credit 4**: Identify EPP items in purchasing catalogs • **Credit 5**: Track purchase of environmentally preferred products • **Credit 6**: Give preferences to used, refurbished, and/or remanufactured goods
Leadership	• **Credit 1**: Adopt a zero waste goal at upper management level • Create and adopt a company and/or facility zero waste goal. Goal must be adopted by upper management. Create and implement a plan to achieve the goal. • **Credit 2**: Review monthly diversion activities with upper management

Training	• **Credit 1**: Provide a zero waste goal/policy to all employees
	  • Provide all employees with an established zero waste policy and/or goal in some form, including but not limited to: employee handbook, addendum to handbook, or posted on a bulletin board or website.
	• **Credit 2**: Incorporate zero waste into employee orientation
	  • Incorporate information on zero waste into company orientation for all employees, contractors, vendors, and consultants working in the facility
	• **Credit 3**: Communicate with employees about zero waste activities quarterly
	• **Credit 4**: Clearly label all collection receptacles
	• **Credit 5**: Train purchasing agents
	  • Train purchasing agents on how to identify environmentally preferred products, and to give preference to these items.

Zero waste analysis	• **Credit 1**: Conduct an annual physical waste audit
	  • Complete an annual waste audit conducted by on-site personnel or a third party during the reporting period. This process requires a physical separation of waste by commodity to assess the performance of the zero waste program. Identify weights and percentages of recoverable materials in the trash that could be removed to increase diversion.
	• **Credit 2**: Analyze results of the annual waste audit and implement recommendations
	  • Analyze information from the waste audit in a report format. The report should explain the results and list recommendations.

Upstream management	• **Credit 2**: Give preference to vendors who embrace zero waste goals • Ask vendors about their zero waste goals and their strategy to achieve those goals. If no goal is in place, encourage them to embrace a goal. Establish a policy or standard practice giving preference to vendors that take an active role in pursuing their zero waste goals.

Becoming a Sustainability Leader: Pursuing TRUE Certification

Achievable Credit Options for Processors		
Complete for the Baseline Certification	Credits	Description
	Hazardous waste prevention	• **Credit 1**: Properly handle hazardous materials • **Credit 2**: Save records for at least three years
	Closed loop	• **Credit 1**: Require a minimum of 30 percent post-consumer recycled content for office paper • **Credit 2**: Require a minimum of 20 percent post-consumer recycled content for janitorial paper products
	TRUE Advisor accreditation	• Completing this online on-demand course provides a foundation to expedite your certification and provides an additional credit.
	Completing at least 31 of the 35 credits above is enough to achieve the baseline zero waste certification when also meeting the other minimum requirements. Certification is therefore within reach for all processors. For the full list of credits, see the TRUE Rating System Guide in the Resources section.	

The following is a case study from a dairy processor on their experience achieving TRUE certification:

- **Twelve months of detailed facility waste data is ideal** when starting the TRUE certification process.
- **Save receipts and documentation** as much as possible. Thorough and accurate documentation is critical to achieving credits.
- **Conduct a zero waste audit early** in the certification process.
- **Take pictures of waste streams and disposal methods** to better communicate to colleagues what you are trying to accomplish. Helping people visualize waste is much more effective than just providing numbers when trying to make zero waste a priority.
- **It is crucial to make sure senior leadership is on board** with, and can support the certification process.
- **Certification will cost some money upfront**. While zero waste is all about efficiency, it will take some time to see a return on investment.
- **TRUE is willing to work with companies on achieving certification**. Be sure to take advantage of the resources they provide and approach them with any questions you might have.

Resources

Additional Resources

- Guide to TRUE certification: https://true.gbci.org/sites/default/files/resources/TRUE_RatingSystemGuide_02.10.2021.pdf
- Basic information on reducing and reusing: https://www.epa.gov/recycle/reducing-and-reusing-basics
- Information on environmentally preferred purchasing: https://calrecycle.ca.gov/EPP/
- TRUE certification case study: https://true.gbci.org/straus-family-creamery-marshall-creamery
- TRUE certification case study: https://true.gbci.org/straus-family-creamery-office-and-warehouse
- TRUE certification case study: https://true.gbci.org/natures-path-foods-blaine
- Guidance on how to calculate waste diversion: https://true.gbci.org/sites/default/files/resources/TRUE-Diversion-Data-Technical-Guidance.pdf

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- https://www.epa.gov/hw/criteria-definition-solid-waste-and-solid-and-hazardous-waste-exclusions
- https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview
- https://www.mdpi.com/2079-8954/7/3/43/htm
- TRUE Zero Waste Advisor Certification Trainings: https://true.gbci.org/true-advisor

Notes:

About the Innovation Center for U.S. Dairy®

The Innovation Center for U.S. Dairy® is a forum that brings together the dairy community to address the changing needs and expectations of consumers through a framework of shared best practices and accountability. Initiated in 2008 by dairy farmers through the dairy checkoff, we collaborate on efforts that are important both to us and our valued customers – in areas like animal care, food safety, nutrition and health, the environment and community contributions.

Through the Innovation Center, the U.S. dairy community demonstrates its commitment to continuous improvement from farm to table, striving to ensure a socially responsible and economically viable dairy community. Learn more at www.USDairy.com.

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