

## Organics Management Guide Submission

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**Select the Primary Entity Type Please identify the category that best represents your project:** Academic Institutions

### Questions:

- 1. Background: Provide context for the program, project, or policy — why it was developed, when it began, and the problem or opportunity it addresses.**

The Rocket® composter initiative at Fort Lewis College was developed to address the environmental, operational, and educational challenges associated with food waste disposal in a higher education setting. Prior to the program's launch on January 6, 2012, food scraps generated by campus dining services were likely disposed of through traditional waste streams, contributing to landfill accumulation and methane emissions. Recognizing that food waste represents both an environmental liability and an untapped resource, the college partnered with Sodexo, its dining services provider and with Food Waste Experts (Food waste Consultants) to implement an onsite composting solution. The initiative was designed not only to divert organic waste from landfill but also to reduce the campus carbon footprint, retain nutrients within the local ecosystem, and create a living laboratory for sustainability education. By reframing food waste as a resource rather than refuse, the college positioned the program as both a waste management strategy and an experiential learning opportunity for students.

- 2. Summary: Briefly describe the initiative, including its goals, location, and primary outcomes.**

The Rocket® composter initiative operates as a closed-loop organics management system fully integrated into campus operations. Food scraps generated by the dining hall are collected and processed through a waste pulper first and then into a Rocket® in-vessel composting system. The waste pulper reduces food waste to a semi-dry pulp, using a

grinding mechanism and a dewatering press, making it ideal for significant volume reduction. The processed pulp is then fed into the Rocket composters, where it is transformed into finished compost in just 14 days.

This rapid and controlled process allows the institution to manage organic waste onsite with minimal odor, vector attraction, or environmental risk. The finished compost is applied to the campus garden and orchard, where it supports the production of up to 1,000 pounds of food annually. That food is then sold back to Sodexo and served in the dining hall, completing a visible nutrient cycle. The garden is managed by the students. Located in Durango, Colorado, the initiative serves as both an operational waste diversion program and a campus-wide educational platform that demonstrates sustainable food systems in action.

**3. Percent of Overall Diverted Material: If available, include data or estimates on the portion of the community or organization's total diverted material no longer associated with the waste stream that this program or policy addresses.**

This initiative diverts 100% of this entire dining hall food scrap stream from landfill disposal, representing a significant structural change in the campus waste system. In institutional waste audits, food waste often constitutes one of the largest components of landfill-bound materials. By permanently rerouting organic waste from landfill to compost production, the program reduces the overall volume of waste requiring disposal and increases the proportion of materials that are recovered and reused onsite.

**4. Key Program Elements or Policy Provisions: Describe the structure and main components of your program or policy. Explain the investments origins (who, how much). Please include as many of the following elements as applicable: What types of materials are being managed? (e.g., surplus recoverable foods, food scraps, wasted food. How are these materials managed? Who is responsible for managing them? (Organizations, agencies, businesses, or other entities) What products are generated, and how are they utilized or managed? (e.g., compost, animal feed, energy products) Who funds the management of these materials? (Funding sources, grants, partnerships) Who generates these materials? (Identify the origin: households, institutions, businesses, etc.)**

The program manages food scraps generated by campus dining operations using an in-vessel Rocket® composting system. Sodexo is responsible for feeding appropriate food

scraps into the composter, ensuring separation from non-compostable contaminants. The Environmental Center oversees compost monitoring, output management, and storage, with two paid student employees dedicating three to four hours per week each to temperature monitoring and system oversight. Compost science principles, including carbon-to-nitrogen ratios, moisture management, and feedstock sizing, guide operational decisions. The primary product generated is nutrient-rich compost used to enhance soil in the campus garden and orchard. This compost supports annual production of up to 1,000 pounds of food, which is reintegrated into campus dining. While exact funding amounts are not available, the initiative operates through institutional support, partnership collaboration, and student employment structures, reflecting shared investment and operational responsibility.

**5. Regulatory Impact: Describe how laws, policies, regulations, and/or code have affected your program or project. This may include positive, negative, or neutral impacts. Consider noting which regulations apply, how they influenced implementation or operations, any challenges or barriers encountered, and how compliance requirements shaped program decisions.**

This initiative operates within the framework of solid waste regulations, public health codes, and food safety standards applicable to composting and agricultural production. The in-vessel design of the Rocket® composter facilitates regulatory compliance by enabling controlled temperature management for pathogen reduction and minimizing odor or runoff concerns. Institutional sustainability policies have positively influenced implementation, as the program aligns with goals related to waste diversion and carbon footprint reduction. Rather than acting as barriers, regulatory considerations appear to have shaped the system's design toward a contained and monitored approach that supports environmental and health standards while maintaining operational feasibility.

**6. Measurable Increase in Supply: Include data or qualitative outcomes showing growth in collection, diversion, or reuse volumes if available.**

Since its implementation in 2012, the initiative has produced sustained increases in the recovery and reuse of organic materials. The consistent fourteen-day composting cycle enables ongoing processing of food scraps that were previously discarded. The campus garden's annual production of up to 1,000 pounds of food represents a measurable reuse outcome directly linked to compost application. Additionally, the program engages approximately 200 students per semester through tours and around 60 students annually

in direct garden participation. While exact diversion weights are not available, the program's structural permanence and continuous operation demonstrate a clear and sustained increase in organics recovery compared to pre-implementation conditions.

**7. Behavior Change: Describe whether the initiative resulted in measurable behavior change and explain how you determined this. If behavior change occurred, outline the strategies that proved most effective. Please include any available data or evidence that supports your findings.**

The initiative has produced measurable operational and cultural behavior change among stakeholders. Dining services staff have incorporated food scrap separation and compost feeding into routine procedures, reflecting institutionalized operational change. Students involved in compost management and garden activities actively engage in resource stewardship, moving beyond passive awareness to applied sustainability practice. Educational tours and hands-on experiences reinforce understanding of compost science, landfill impacts, and nutrient cycling. The visible closed-loop system strengthens behavioral norms around waste reduction and environmental responsibility. Although formal survey data are not available at this time, participation metrics and operational integration strongly indicate sustained behavior change across the campus community.

**8. Benefits and Impacts (Economic, Environmental, and Social): Describe the economic, environmental, and social sustainability impacts of the program, policy, or initiative. This may include both positive and negative outcomes. You may address impacts such as costs or savings, job creation, waste reduction, emissions, resource conservation, community engagement, equity, or public health. Please include data or qualitative observations where available and note any trade-offs or challenges.**

The environmental benefits of the initiative include diversion of food scraps from landfill, reduction of methane emissions, decreased hauling requirements, and improved soil health. Compost enhances soil structure, nutrient retention, and water-holding capacity, supporting resilient food production. Economically, the program reduces landfill tipping fees (P&L) and soil amendment purchases while generating paid student employment opportunities. The internal purchase of garden produce by dining services keeps economic value circulating within the campus system. Socially, the initiative strengthens sustainability literacy, fosters community engagement, and provides experiential learning opportunities. Potential trade-offs include the initial investment in composting technology

and the need for ongoing monitoring and coordination, but these challenges are manageable given the Rocket® composter's minimal upkeep requirements.

This program has impacted many other colleges and universities by inspiring them to pursue similar onsite composting models, creating a ripple effect across higher education institutions. By demonstrating that a closed-loop food system is both feasible and beneficial, the initiative serves as a replicable model that advances sustainable waste management practices nationally. Through this broader influence, the program amplifies its environmental and social impact beyond its immediate campus community.

**9. How Stakeholder Buy-In Was Achieved: Explain how the program gained support from key stakeholders (e.g., government agencies, businesses, residents, nonprofits).**

Stakeholder buy-in was achieved through alignment of mutual interests, clear division of responsibilities, and visible outcomes. Sodexo benefits from reduced waste disposal and enhanced sustainability branding, while the Environmental Center advances its educational and environmental mission. Students gain paid experiential learning opportunities and skill development. Campus administrators benefit from measurable sustainability achievements and positive institutional reputation. The program's low operational burden and tangible results, such as garden food production, likely reinforced confidence among stakeholders. By ensuring that each party received value from participation, the initiative secured long-term support and stability.

**10. Stakeholders' Perspectives and Dynamics at Play: Highlight collaboration dynamics, challenges, or differing stakeholder interests and how they were addressed.**

The success and longevity of the Rocket® composter initiative at Fort Lewis College is deeply rooted in strong stakeholder collaboration, particularly the central role played by the Environmental Center. While the program involves multiple stakeholders including dining services, student employees, and campus administration, the Environmental Center has served as the operational backbone and continuity anchor of the initiative. Its leadership in compost monitoring, student staffing, education, and system oversight has ensured consistent implementation since the program's launch in 2012. Because student populations and institutional leadership naturally change over time, the Environmental Center has provided the stability necessary to sustain program momentum and maintain quality control. Its commitment to sustainability education and operational excellence has

been essential to embedding the Rocket® composter into campus culture rather than allowing it to function as a temporary project.

The collaboration between the Environmental Center and Sodexo reflects a well-structured partnership model with clearly defined roles. Sodexo manages the generation and feeding of food scraps into the composter, while the Environmental Center oversees system performance, compost output, temperature monitoring, and garden integration. This role clarity reduces conflict and aligns operational priorities. However, the durability of the program underscores a broader lesson: it is essential to establish strong partnerships capable of lasting decades. In this case, external expertise has also played a crucial role. Food Waste Experts has been an instrumental part of the project's success, providing ongoing technical support, troubleshooting assistance, and operational guidance when needed. Their involvement has been especially important during periods of transition, such as changes in Environmental Center leadership responsible for managing the Rocket® composter. Institutional turnover can create knowledge gaps, but external expert support has helped preserve system continuity and performance standards.

### **11. Lessons Learned: Share what worked well, what didn't, and recommendations for others seeking to replicate your approach.**

The Rocket® composter initiative at Fort Lewis College offers several important lessons for institutions seeking to replicate a similar model of onsite organics management. One of the most critical lessons is the importance of strong, long-term partnerships built on aligned goals and shared responsibility. The program's durability operating successfully for more than fourteen years demonstrates that sustainability initiatives must be embedded within institutional structures rather than treated as short-term projects. Clear role definition between dining services and the Environmental Center, combined with consistent student staffing and technical oversight, has provided operational stability. Investing in manageable composting technology that minimizes odor, simplifies monitoring, and supports regulatory compliance also contributed to stakeholder confidence and long-term feasibility.

Another essential lesson is the importance of collaboration when challenges arise. No long-running sustainability program operates without occasional setbacks or operational "hiccups." Whether related to staffing transitions, system adjustments, or leadership changes, it is crucial that stakeholders come together to identify shared solutions rather than assign responsibility. Open communication and collective problem-solving strengthen trust and reinforce commitment to the program's mission. The alignment of

stakeholder goals waste diversion, sustainability education, operational efficiency, and community engagement has been instrumental in sustaining the project for over fourteen years. Because each stakeholder benefits from the initiative's success, there is shared motivation to maintain performance and address challenges constructively.

Additionally, institutionalizing paid student roles ensures accountability and continuity despite student turnover, while visible integration of compost into food production strengthens campus buy-in. The direct connection between compost production and food served in the dining hall reinforces the value of the program and fosters long-term cultural change. Ultimately, the most significant lesson is that successful composting initiatives depend as much on relationship management and shared vision as on technology. When stakeholders remain aligned, communicate openly during challenges, and commit to collaborative solutions, sustainability projects can evolve from innovative pilots into enduring institutional systems.