Organics Management Guide Submission

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Select the Primary Entity Type Please identify the category that best represents your project: Other

Other (please specify): Public Deposit Infrastructure Provider

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.**

Washington, D.C.'s organics management program was developed in response to the District's high volume of food waste in the municipal solid waste stream, growing climate commitments, and limited access to curbside organics collection for residents in multifamily housing and dense urban neighborhoods. Food scraps represent a significant portion of disposed waste, contributing to landfill emissions and rising disposal costs, while many residents lacked convenient, equitable options to participate in organics diversion.

The program began in the mid-to-late 2010s as a series of pilot initiatives led by the District Department of Public Works (DPW), initially focused on food scrap drop-off at farmers' markets and community sites. These early pilots demonstrated strong resident interest and highlighted the opportunity to expand diversion through partnerships with local composting organizations rather than building a fully centralized, city-operated system.

Over time, the District evolved the program into a multi-pathway approach that includes curbside residential collection pilots, a citywide network of unstaffed food scrap drop-off locations, and support for community-based composting. The program addresses key challenges including equitable access to organics services, contamination control in unstaffed systems, and the need for scalable infrastructure that can serve diverse housing

types. It also advances District goals related to waste diversion, climate action, and community engagement by shifting food waste away from disposal and toward beneficial reuse through composting.

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

Washington, D.C.'s organics management initiative is a citywide program led by the District Department of Public Works (DPW) that provides residents with multiple pathways to divert food scraps from disposal. Operating across Washington, D.C., the initiative combines residential curbside collection pilots, a network of unstaffed food scrap drop-off locations, and partnerships with local composting organizations and community compost sites.

The primary goals are to reduce the amount of food waste sent to landfill, expand equitable access to organics diversion for residents in all housing types, and support sustainable, locally based composting solutions. Key outcomes include increased resident participation in food waste diversion, reduced disposal of organics in the trash stream, strengthened public–private and community partnerships, and a scalable model for urban organics management that prioritizes access, education, and long-term program viability.

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.**

Based on program reporting and partner estimates, Washington, D.C.'s organics management initiative addresses a meaningful portion of the District's residential food waste stream that would otherwise be disposed of as trash. Food scraps are estimated to comprise roughly 20–25% of the residential waste stream by weight in dense urban jurisdictions such as Washington, D.C.

The District's network of unstaffed smart food scrap drop-off bins alone collects an average of approximately 30 tons of food scraps per month, material that is fully diverted from landfill disposal and processed through composting. In addition to the smart bin network, diversion is achieved through residential curbside collection pilots, farmers' market drop-off, and community composting partnerships.

Collectively, these programs divert thousands of tons of food scraps annually and serve tens of thousands of residents, particularly those living in multifamily housing who historically lacked access to organics diversion. While the program does not yet capture

the majority of the District's total organics stream, it represents a significant and growing share of residential food waste diversion, demonstrating the effectiveness of distributed drop-off infrastructure and public–private partnerships in reducing the amount of organic material entering the municipal waste stream.

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.)**

Washington, D.C.'s organics management program is a distributed, partnership-based system designed to divert food scraps from disposal through multiple complementary pathways rather than a single centralized model. The program is led by the District Department of Public Works (DPW) and implemented through contracts and partnerships with local composting organizations and service providers.

Materials Managed

- Food scraps generated by households, farmers' markets, and community sites
- Limited yard trimmings in select programs
- The program does not focus on surplus food donation or animal feed; composting is the primary management pathway

How Materials Are Managed

- Unstaffed smart food scrap drop-off bins located throughout the city, averaging approximately 30 tons of food scraps collected per month
- Residential curbside collection pilots serving selected neighborhoods
- Farmers' market drop-off programs
- Community composting sites operated by local organizations
- All collected food scraps are transported to permitted composting facilities and processed into finished compost.

Responsible Entities

- District Department of Public Works (DPW): Program oversight, contracting, policy support
- Compost Crew: Residential curbside collection and hauling
- Compost Cab: Collection and servicing of smart bin and drop-off locations
- Community Compost Cooperative Network: Operation of neighborhood-based composting sites
- Additional site hosts (e.g., farmers' markets, community organizations) support access and outreach

Products Generated and Use

- Finished compost is the primary product
- Compost is used in landscaping, community gardens, and soil improvement applications, supporting local beneficial reuse rather than disposal

Funding and Investment Origins

- The program is funded primarily through District municipal budget allocations, supplemented by grant funding at various stages of program development

Investments include:

- Procurement and servicing of smart drop-off bins
- Contracts with local composting service providers

Outreach and education

- Rather than building city-owned composting infrastructure, the District invested in service contracts and partnerships, reducing capital costs and leveraging existing local capacity

Material Generators

- Households, particularly residents in multifamily buildings
- Farmers' markets and community events
- Limited participation from institutions through targeted programs

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.

Washington, D.C.'s organics management program has been strongly influenced by a combination of local legislation, agency policy, and regulatory requirements, with overall positive impacts on program stability and growth.

Enabling Policies and Legislation

- District legislation has played a key role in institutionalizing organics diversion. The Compost Drop-Off Program Act and the Home Composting Incentives Amendment Act established formal authority for the District to operate food scrap drop-off programs and support residential composting. These policies helped move the program beyond pilot status, provided long-term program legitimacy, and justified ongoing municipal budget allocations. They also created a framework for expanding access citywide, particularly in neighborhoods not served by curbside collection.

Operational and Regulatory Influences

Local solid waste regulations and public health requirements shaped how the program was implemented. Regulations related to vector control, nuisance prevention, and site management influenced decisions to:

- Use enclosed, unstaffed smart drop-off bins to reduce odors, pests, and contamination
- Locate drop-off sites in appropriate public spaces with clear servicing standards
- Contract with experienced composting operators to ensure regulatory compliance in collection, hauling, and processing
- Compliance requirements reinforced the importance of regular servicing schedules, contamination controls, and education, particularly for unstaffed systems.

Permitting and Facility Constraints

- Zoning and permitting requirements for composting facilities influenced the District's decision not to develop city-owned composting sites, instead relying on partnerships with permitted regional composting facilities and local operators. This reduced regulatory risk and capital investment but required careful coordination with service providers to meet all operational and reporting standards.

Challenges and Barriers

- Regulatory complexity around siting and permitting composting infrastructure limited the ability to rapidly expand processing capacity within city limits.
- Ensuring compliance across multiple partners required clear contracts and performance expectations.
- Public health and nuisance regulations increased operational costs but also improved program reliability and public acceptance.

Net Effect on Program Design

- Overall, laws and policies shaped a distributed, partnership-based model that emphasizes access, compliance, and scalability. Rather than constraining the program, the regulatory environment encouraged design choices that improved environmental performance, reduced risk, and supported long-term viability.

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

Washington, D.C.'s organics management program has demonstrated steady growth in both material capture and resident participation as it has expanded from pilots to an established, multi-pathway system.

Quantitatively, the District's network of unstaffed smart food scrap drop-off bins now collects an average of approximately 30 tons of food scraps per month, material that is fully diverted from the municipal waste stream and processed through composting. This represents a significant increase from earlier pilot phases, when drop-off collection was limited primarily to staffed farmers' market locations and periodic events.

Qualitatively, growth is evident through:

- Expansion in the number and geographic distribution of drop-off locations, increasing access for residents across diverse neighborhoods
- Transition of residential curbside collection from pilot to ongoing program status for participating households
- Increased utilization of unstaffed drop-off sites, indicating sustained behavior change and resident familiarity with food scrap separation
- Strengthened partnerships with local composting organizations, enabling higher collection volumes without the need for new municipal processing infrastructure

- Reuse outcomes have also scaled alongside collection. All collected food scraps are converted into finished compost, which is returned to beneficial use through landscaping, community gardens, and soil improvement projects, reinforcing a closed-loop system rather than disposal.

Overall, the program shows clear growth in diversion capacity and effectiveness, with infrastructure and partnerships intentionally designed to support continued increases in collection and reuse volumes over time.

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.**

Yes, Washington, D.C.'s organics management initiative resulted in measurable behavior change among participating residents and site users, particularly in food scrap separation and sustained participation in diversion programs.

Evidence of Behavior Change

Behavior change was assessed using a combination of operational data, participation trends, and qualitative observations from program partners:

- Consistent and growing use of unstaffed smart drop-off bins, which now collect an average of approximately 30 tons of food scraps per month, indicates that residents have adopted regular food scrap separation habits without direct supervision or incentives.
- Low contamination rates reported by service providers at smart bin and drop-off locations suggest improved understanding of what materials are accepted.
- Repeat usage patterns at drop-off sites and farmers' markets demonstrate that participation is sustained over time rather than limited to one-time engagement.
- Transition of curbside collection from pilot to ongoing service reflects continued resident demand and willingness to separate food scraps as part of routine household behavior.
- Increased participation in neighborhoods without curbside service, particularly multifamily areas, shows that residents changed disposal habits when convenient, accessible alternatives were provided.

Strategies That Proved Most Effective

Several strategies were critical in driving behavior change:

- Convenience and Access- Locating drop-off sites in highly visible, walkable locations and providing unstaffed, always-available smart bins reduced friction and made food scrap separation part of everyday routines.
- Clear System Design and Infrastructure - Enclosed smart bins with restricted openings and clear labeling minimized confusion and reinforced correct behavior, even in the absence of staff.
- Consistent Servicing and Cleanliness - Regular servicing prevented overflow, odors, and pests—key factors in maintaining public trust and repeat participation.
- Embedded Education and Outreach - Education delivered through community partners, farmers' markets, and site hosts helped normalize food scrap separation and reinforced correct use over time.
- Policy and Program Stability - Formalization of the program through District legislation signaled long-term commitment, encouraging residents to adopt new behaviors with confidence that the service would continue.

Summary The combination of growing diversion volumes, sustained participation, low contamination, and program expansion provides strong evidence that the initiative achieved meaningful and durable behavior change. The District's experience demonstrates that well-designed infrastructure, paired with education and policy support, can successfully shift resident behavior at scale.

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.**

Washington, D.C.'s organics management initiative has generated measurable economic, environmental, and social sustainability benefits, while also presenting operational trade-offs typical of urban organics diversion programs.

Economic Impacts Positive outcomes

- Avoided disposal costs: By diverting food scraps from the municipal waste stream, the program reduces landfill and long-haul disposal costs associated with organic materials. Food scraps represent a significant portion of residential waste by weight, making diversion economically impactful over time.

- Cost-effective program design: The District minimized capital expenditures by contracting with local composting service providers rather than building and operating city-owned composting infrastructure.
- Support for local jobs and businesses: Contracts with regional and community-based composting organizations support green jobs in collection, hauling, processing, education, and outreach.
- Scalable investment model: The smart drop-off network, which collects an average of approximately 30 tons of food scraps per month, demonstrates strong return on infrastructure and servicing investments.

Challenges and trade-offs

- Unstaffed drop-off systems require ongoing servicing and maintenance, creating recurring operating costs.
- Composting services can be more expensive per ton than disposal in the short term, particularly during early program growth, though costs decrease as participation and volume increase.

Environmental Impacts Positive outcomes

- Waste reduction: Thousands of tons of food scraps are diverted annually from landfill disposal, directly reducing the organic fraction of the waste stream.
- Greenhouse gas emissions reduction: Diverting food scraps from landfill avoids methane emissions associated with anaerobic decomposition.
- Resource conservation: Food scraps are transformed into finished compost, returning nutrients to soils and supporting landscaping, community gardens, and soil health rather than being lost through disposal.
- Reduced contamination and nuisance impacts: Enclosed smart bins and consistent servicing reduce odors, pests, and litter, improving environmental conditions at collection sites.

Challenges and trade-offs

- Transportation of organics to regional composting facilities generates emissions, though these are significantly lower than the emissions avoided through landfill diversion.
- Expansion of composting capacity within dense urban environments remains constrained by zoning and siting limitations.

Social Sustainability Impacts Positive outcomes

- Equitable access: The distributed drop-off network expands organics diversion opportunities for residents in multifamily housing and dense neighborhoods that historically lacked curbside access.
- Behavior change and engagement: Sustained participation and low contamination at unstaffed drop-off sites indicate durable behavior change and growing public understanding of food scrap separation.
- Community partnerships: Collaboration with local composters, farmers' markets, and community organizations strengthens trust and shared ownership of the program.
- Public health benefits: Reduced food waste in trash bins helps limit odors, pests, and associated public health concerns in high-density areas.

Challenges and trade-offs

- Participation still varies by neighborhood, requiring continued outreach to ensure benefits are distributed equitably.
- Behavior change relies on ongoing education, particularly as new residents enter the city or new sites are added.

Summary Overall, Washington, D.C.'s organics management initiative delivers strong triple-bottom-line sustainability outcomes. The program reduces waste and emissions, supports local economic activity, and expands equitable access to food waste diversion. While operational costs and regulatory constraints present ongoing challenges, the District's partnership-based, distributed model balances environmental benefits with economic and social realities and provides a replicable framework for other urban communities.

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

Stakeholder Support and Engagement

- Washington, D.C.'s organics management program gained support through a phased, partnership-driven approach that aligned stakeholder priorities, demonstrated early success, and built confidence over time.

Government Agencies

- The District Department of Public Works (DPW) led the initiative, with support from the City Council and other agencies through enabling legislation and budget approvals. Early pilot programs allowed DPW to demonstrate feasibility, resident

demand, and operational reliability before scaling. Formal legislation, including the Compost Drop-Off Program Act, helped institutionalize the program and signaled long-term government commitment, reinforcing internal and cross-agency support.

Local Composting Businesses

- Local composting service providers were engaged early as implementation partners rather than vendors. Contracting with experienced operators such as Compost Crew and Compost Cab reduced operational risk and ensured regulatory compliance. These partnerships built trust by leveraging existing expertise and allowed the program to scale without requiring the District to build new infrastructure.

Residents

- Resident support was earned by prioritizing convenience, accessibility, and reliability. Unstaffed drop-off locations and curbside pilots made participation easy, particularly for residents in multifamily housing. Visible cleanliness, regular servicing, and clear signage helped establish trust. Continued and growing use of drop-off sites—including consistent monthly collection volumes—demonstrated sustained resident buy-in rather than one-time participation.

Nonprofits and Community Organizations

- Community-based organizations and the Community Compost Cooperative Network played a critical role in outreach, education, and site stewardship. Their established relationships with residents helped normalize food scrap separation and address questions or concerns at the neighborhood level. This grassroots involvement strengthened program credibility and community ownership.

Businesses and Institutions

- Farmers' markets and community event hosts supported the program by serving as trusted, visible drop-off locations. Their participation helped introduce food scrap separation in familiar settings and reinforced composting as a normal, community-supported practice.

Key Factors in Building Support

- Pilot-first approach to reduce risk and prove value
- Clear alignment with stakeholder goals, including waste reduction, climate action, and neighborhood cleanliness
- Partnerships with trusted local organizations

- Consistent service quality, reinforcing reliability and legitimacy

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

Washington, D.C.'s organics management initiative required coordination across government agencies, private service providers, nonprofits, and residents, each with differing priorities and constraints. The program's success reflects how these dynamics were actively managed rather than avoided.

Differing Stakeholder Interests

- Government agencies prioritized regulatory compliance, cost control, public health, and program reliability.
- Composting service providers focused on operational feasibility, contamination control, and scalable volumes.
- Community organizations and nonprofits emphasized accessibility, equity, and education.
- Residents prioritized convenience, cleanliness, and confidence that participation would make a difference.
- These differing interests initially created tension around program design, service levels, siting of infrastructure, and cost allocation.

Key Challenges Encountered

- Balancing access with operational risk: Expanding unstaffed drop-off sites increased access but raised concerns about contamination, pests, and servicing frequency.
- Regulatory and siting constraints: Zoning and permitting requirements limited where composting and collection infrastructure could be placed, creating friction between program goals and regulatory realities.
- Cost sensitivity: Municipal budget constraints and differing expectations around service costs required careful prioritization and phased investment.
- Role clarity across partners: With multiple service providers and community partners involved, clear responsibility for education, maintenance, and performance was essential.

How Challenges Were Addressed

- Pilot-based collaboration: The District used pilots to test approaches, gather data, and adjust program design before scaling, reducing risk for all stakeholders.
- Clear contracting and role definition: Contracts clearly defined responsibilities for collection, servicing, education, and compliance, minimizing overlap and confusion.
- Infrastructure-led behavior design: Enclosed smart bins, restricted openings, and consistent servicing addressed concerns from both regulators and service providers while maintaining resident access.
- Ongoing communication and feedback loops: Regular coordination between DPW, service providers, and community partners allowed issues such as contamination or site performance to be addressed quickly.
- Phased expansion and flexibility: The program scaled incrementally, allowing investment levels, service frequency, and site placement to evolve based on performance and stakeholder feedback.

Outcome

- By acknowledging and actively managing differing stakeholder interests, the District built a collaborative, resilient program that balances access, compliance, cost, and performance. The resulting structure reflects shared ownership across partners and provides a model for managing complex, multi-actor organics systems in urban environments.

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

What Worked Well

- Distributed, multi-pathway design: Offering multiple participation options—unstaffed smart drop-off bins, curbside pilots, farmers' market drop-off, and community composting—significantly increased access and participation, particularly for residents in multifamily housing.
- Partnership-based implementation: Contracting with experienced local composting organizations allowed the District to scale quickly while maintaining regulatory compliance and operational reliability, without investing in city-owned processing infrastructure.
- Infrastructure-led behavior change: Enclosed smart bins with clear labeling, restricted openings, and regular servicing helped reduce contamination and

enabled consistent use without on-site staffing. Average collections of approximately 30 tons per month from smart bins demonstrate sustained resident adoption.

- Pilot-first approach: Pilots reduced risk, generated data, and built stakeholder confidence, helping the program move from experimentation to institutionalized service.
- Policy support and permanence: Local legislation provided authority and stability, reinforcing long-term commitment and supporting continued investment.

What Did Not Work as Well

- Uneven participation across neighborhoods: Despite broad access, participation rates varied, highlighting the need for continued, targeted outreach and education. Operational intensity of unstaffed systems: While effective, unstaffed drop-off bins require frequent servicing and monitoring to maintain cleanliness and public trust.
- Limited local processing capacity: Zoning and permitting constraints restricted in-city composting options, increasing reliance on regional facilities and adding transportation complexity.
- Education needs over time: Initial outreach was not sufficient on its own; ongoing reinforcement was necessary as new residents and users joined the system.

Recommendations for Others Seeking to Replicate This Approach

- Design for access first, then optimize operations: Convenience drives participation. Start with accessible locations and adjust servicing and education based on real-world use.
- Leverage partnerships instead of building everything in-house: Local composting organizations bring expertise, flexibility, and credibility that reduce risk and cost.
- Use pilots strategically: Treat pilots as learning tools, not endpoints. Collect data, refine design, and scale what works.
- Invest in infrastructure that guides behavior: Well-designed bins and clear signage can reduce contamination and staffing needs.
- Plan for ongoing outreach and maintenance: Behavior change is not a one-time event. Budget for education, monitoring, and servicing as core program components.
- Align policy early: Legislative and regulatory alignment helps programs survive leadership changes and budget cycles.

Key Takeaway: Washington, D.C.'s experience shows that distributed infrastructure, strong partnerships, and policy-backed commitment can drive durable organics diversion

in dense urban environments—but success depends on continuous learning, maintenance, and engagement rather than one-time implementation.