Ohio

Statewide Organic Materials Management Plan:

Advancing a Circular Approach to Organics, Food Rescue, and Beneficial Use Byproducts









OCTOBER
2026

Ohio Environmental Protection Agency

SCS ENGINEERS



Table of Contents

Page #

ii Publication Information

iii Acknowledgements

1 Executive Summary

4 Section 1 | How to Navigate this Plan

7 Section 2 | Setting the Stage for Ohio's Plan

12 Section 3 | Understanding Ohio's Organics and Byproducts System

20 Section 4 | What the Planning Process Revealed

25 Section 5 | Goals for Ohio's Organics & Byproducts

27 Section 6 | Priorities for Moving Ohio's Materials System Forward

35 Section 7 | Turning Priorities into Action

Appendix A | Stakeholder Event Participants

Appendix B | Roles for Organizations

Appendix C | Strategy Sequencing and Implementation Notes

Public Information

Edition & Publishing History

Adopted: September 24, 2026 (first published online).
Updated: October 8, 2026 (updated title, cover, acknowledgements, and Appendix A. Made minor editorial corrections).
Current edition: Edition 1.1 — October 8, 2026.

Title and Agency

Ohio Statewide Organic Materials Management Plan: Advancing a Circular Approach to Organics, Food Rescue, and Beneficial Use Byproducts
Ohio Environmental Protection Agency — Division of Materials and Waste Management

How to cite and where to find the latest version

Ohio EPA (DMWM). Ohio Statewide Organic Materials Management Plan: Advancing a Circular Approach to Organics, Food Rescue, and Byproducts. Edition 1.1 (October 8, 2026).
Latest version: Ohio EPA | Division of Materials and Waste Management

Contact

Division of Materials and Waste Management, Ohio EPA
Phone: 614.644.2621 • Media inquiries: media@epa.ohio.gov • Public comments: PUBLICCOMMENT@epa.ohio.gov
Physical: Lazarus Government Center, 50 W. Town St., Suite 700, Columbus, Ohio 43215
Mailing: Ohio EPA — DMWM, P.O. Box 1049, Columbus, Ohio 43216-1049
Website: epa.ohio.gov

Accessibility & Nondiscrimination

This document complies with current Americans with Disabilities Act (ADA) accessibility standards. If you require more assistance or have questions, contact Naquetta V. Porter, ADA Coordinator, 440-975-6801 (text capable) or naquetta.porter@epa.ohio.gov.

Social Media

Follow Ohio EPA: Instagram • Facebook • LinkedIn • YouTube
Accessible hashtags: #OhioOrganics #OhioFoodRescue #OhioComposting #OhioBeneficialUse #OhioBiosolids #OhioOrganicsProcessing #OhioFoodDonation #OhioCircularEconomy #OrganicsInfrastructureOH #OhioSoilAmendments #OhioManureManagement #OhioRendering #OhioFOGs

Acknowledgements

This plan was made possible through the collaboration and subject-matter expertise of the core team, consultant, contributing state agencies, and stakeholder participants, with guidance from U.S. EPA Region 5.

Plan Development Core Team

The core team collaborated throughout the planning process, providing coordination, technical expertise, and overall guidance.

Ohio EPA, Division of Materials and Waste Management (Project Management)

Ángel Arroyo-Rodríguez, PhD, AICP, REHS - Lead Environmental Specialist
Lindsey Grimm - Environmental Specialist

Ohio EPA, Division of Surface Water

Kristen M. Diesburg - Environmental Specialist
Betsy Sheerin, PE - Environmental Engineer
Vanessa Steigerwald-Dick, PhD - Lead Environmental Specialist

Ohio Department of Health, Bureau of Health Improvement and Wellness

Casey Slive, MPH - Food Access Coordinator

SCS Engineers (Project Consultants)

Stacey Demers - Project Director
Lisa K. McDaniel - Project Manager

Leadership and Management

Leadership from the former Office of Environmental Innovation and, later, the Division of Materials and Waste Management provided direction and support throughout plan development.

Ohio EPA, Division of Materials and Waste Management

Russell Brown - Assistant Chief
Jeremy Carroll, REHS - Acting Assistant Chief
Chet Chaney - Section Manager
Joseph Goicochea, REHS - Chief
Holly Hillyer, REHS - Former Supervisor (Retired)
Pete Whitehouse - Former Assistant Chief (Retired)

Ohio EPA, Former Office of Environmental Innovation

Nichole Lemin, REHS - Former Chief
Alison Shockley, REHS - Former Section Manager (Retired)

Supporting Staff

Supporting staff contributed valuable assistance across financial coordination, early-stage project outreach and research, and content review.

Ohio EPA, Division of Materials and Waste Management

Anthony Blevins
Curtis DeLong
Sean Kessler
Michelle Mountjoy
Ernest Stall
Megan Ujvari

Ohio EPA, Division of Surface Water
Tyler Liston
Ohio EPA Interns
Isabel Hyman (Summer 2025)
Elaina Massaro (Winter 2025)
Cade McCallen (Summer 2025)
Ohio EPA, Office of Environmental Education
Rachael Dininger
Carl Mussenden
Ohio EPA, Office of Fiscal Administration
Amy Haller

Other Contributing State Agencies

Other contributing state agencies played a significant role in developing the technical assessments and refining the plan's final strategies.

Ohio Department of Agriculture, Division of Meat Inspection
Allyssa Hedges - Training Specialist
Nelson Weaver, DVM - Division Chief
Ohio Department of Agriculture, Division of Livestock Environmental Permitting
Samuel Mullins - Division Chief
Ohio Department of Agriculture, Division of Animal Health
Heidi Allen - Program Administrator
Ohio Department of Agriculture, Division of Soil and Water Conservation
Peter McDonough - Watershed Manager
Ohio Department of Natural Resources, Division of Parks and Watercraft
Tracey Coe - Clean Marinas Coordinator
Natalie Foos - Land and Water Resources Manager
Michael Pucak - State Park Manager
Ohio Department of Natural Resources, Division of Wildlife
Michael Wilkerson - Fish Management Supervisor
Ohio Department of Health, Residential Water and Sewage Program
Zuzana Bohrer - Health Planning Administrator
Ohio Department of Rehabilitation and Correction
Robert Nauman - Energy Conservation and Sustainability Coordinator
Emily Stahl - Energy Conservation and Sustainability Administrator

U.S. EPA Region 5 Advisers

U.S. EPA Region 5 advisers supported us through the grant application process and provided guidance and technical assistance throughout plan development and project implementation.

Land, Chemicals, and Redevelopment Division
Antionette Hall - Project Officer
Julie Schilf - Environmental Scientist
Susan Vescovi - Environmental Scientist

Contributing Organizations

See Appendix A for a list of participants that contributed to the plan during the stakeholder engagement sessions. In addition to their participation in stakeholder sessions, many contributors provided substantial support throughout the development of this plan, including assistance with research, data gathering, technical reviews, subject-matter guidance, and outreach. We sincerely appreciate their time, insight, and commitment to strengthening this plan.

Funding

This project has been funded wholly or in part by the U.S. Environmental Protection Agency under assistance agreement 4Z00E03484-0 to Ohio EPA. The contents of this document do not necessarily reflect the views and policies of the EPA, nor does the EPA endorse trade names or recommend the use of commercial products mentioned in this document, as well as any images, video, text, or other content created by generative artificial intelligence tools, nor does any such content necessarily reflect the views and policies of the EPA.



Executive Summary

The Ohio Statewide Organic Materials Management Plan (OMMP or Plan) provides a statewide framework for reducing the generation and disposal of organic materials, increasing recovery and beneficial use, and strengthening the systems needed to manage these materials as resources. Organic materials refer to anything derived from plants or animals that can naturally break down, such as food, yard trimmings, and compostable paper. Beneficial use byproducts refer to materials that historically have been managed as wastes but have proven characteristics that allow them to be managed for beneficial purposes. These materials are generated across Ohio's households, farms, food businesses, wastewater systems, public spaces, institutions, wood and forestry operations, and industrial activities. This Plan also integrates beneficial use byproducts—specifically drinking water treatment materials and Lake Erie dredge material—into the same statewide framework for data, infrastructure, market development, standards, and procurement that applies to organics-derived products. When these materials are prevented, recovered, recycled, or beneficially used, they can provide broad public benefits by supporting food security, soil health, local economies, infrastructure resilience, and more circular material systems. When they are discarded or managed without coordination, Ohio loses opportunities to reduce waste, recover value, and build on the programs, facilities, and partnerships already working with organic materials across the state.

The Plan was developed to provide a focused framework that supports the organics-related goals of the Ohio State Solid Waste Management Plan and advances statewide beneficial use opportunities for select byproducts. It recognizes that organic materials and beneficial use byproducts are diverse and that no single program, agency, facility, or policy can

address every need. Progress will require coordinated action by state agencies, local governments, solid waste management districts, food recovery organizations, agricultural partners, wastewater utilities, processors, haulers, institutions, businesses, nonprofit organizations, economic development partners, and communities.

The planning process combined technical assessment with statewide stakeholder engagement. The project team evaluated major organic materials and beneficial use byproducts streams and reviewed available waste characterization and management data. It used a structured Strengths, Opportunities, Aspirations, and Results (SOAR) strategic planning process to gather input on current conditions, strengths, gaps, opportunities, aspirations, and desired results. Stakeholders emphasized that Ohio already has important assets to build from, but also faces uneven infrastructure access, inconsistent data, funding limitations, regulatory complexity, contamination concerns, market constraints, and the need for stronger education, coordination, and technical assistance.

Goals

The OMMP organizes these findings into four statewide goals that describe the direction Ohio wants to work towards and that provide the foundation for statewide priorities and strategy recommendations:

1. Reduce the generation and disposal of organic materials
2. Increase recovery, recycling, and beneficial use of organic materials and byproducts
3. Strengthen Ohio's organics and beneficial use byproducts management system
4. Support a more circular economy for organics and beneficial use byproducts.

Priorities

Recurring stakeholder themes into the conditions and strategic solutions needed for progress resulted in seven statewide priorities that help focus future strategic efforts. The list of priorities is not intended to rank issues by importance or order of implementation; they are all equally important, and the related strategies can be implemented concurrently. The priorities provide a shared framework that organizations can use to identify where they can contribute to Ohio's efforts.

1. Improve Data, Measurement, and Decision Making
2. Expand Infrastructure and Processing Capacity
3. Increase Funding and Incentives
4. Strengthen Education, Outreach, and Technical Assistance
5. Enhance Coordination, Collaboration, and Partnerships
6. Support Market Development and Beneficial Use
7. Improve Regulatory Clarity and Consistency

Strategies

Stakeholders suggested strategies to improve the overall materials management system and for thirteen organic materials and beneficial use byproducts streams. The strategy set begins with fifteen overarching actions that strengthen the statewide system. Material-specific strategies then address the distinct needs of animal mortalities from panzootic events, animal manures and ancillary wastes, biosolids, compostable paper products, drinking water treatment materials, edible food recovery, fats, oils and grease (FOG), food scraps, Lake Erie dredge material, raw rendering material and routine mortalities, septage, wood and forestry waste, and yard waste.

The strategy recommendations provide practical opportunities for action that contribute to achieving the priorities and goals. Implementation is intentionally shared. Some strategies may be led by state agencies. In contrast, others are better suited for local governments, solid waste management districts, utilities, food recovery organizations, processors, haulers, farms, universities, economic development partners, industry groups, or private businesses. The OMMP is designed to help each organization identify where its role, authority, expertise, resources, relationships, or local knowledge can support progress. Collectively, these aligned actions can help Ohio move from isolated programs and material-specific efforts toward a more coordinated and resilient organics, food rescue, and beneficial use byproducts management system.



1. How to Navigate this Plan

This section serves as a user's guide for understanding how the Ohio Statewide Organic Materials Management Plan (OMMP or Plan) is organized and how to interpret the information it contains. Its purpose is to help readers move through the plan efficiently, understand where key information can be found, and apply the recommended strategies in a clear and consistent way. This section also explains how to interpret the roles of the recommended convening organizations and collaborating organizations, which are included to support coordination but do not assign obligations.

How the Plan Is Organized

The OMMP is structured to build understanding from foundational context to actionable strategies. Readers may use the sections in the following way:

Section 2 – Setting the Stage for Ohio's Plan
Explains why the OMMP was developed and how it relates to the State Solid Waste Management Plan. This section also summarizes the planning process and stakeholder engagement. Readers can use Section 2 to understand the origin and purpose of this planning effort and how it aligns with statewide and national goals.

Section 3 – Understanding Ohio's Organic Materials System
Summarizes the statewide data and findings from the 2025 Landfill Waste Characterization Study and other technical assessments. This section identifies the organic materials and beneficial use byproduct streams included in the plan and provides a planning-level overview of what is known and what is not known about current generation, recovery,

recycling, and beneficial use. Readers can use Section 3 as the baseline context for evaluating priorities and strategies.

Section 4 – What the Planning Process Revealed
Summarizes input gathered through stakeholder engagement, including meetings, forms, and direct correspondence. Findings are organized using the SOAR framework. Readers can use Section 4 to understand the recurrent themes that shaped the statewide priorities and strategies.

Section 5 – Goals for Ohio's Organics Future
States the OMMP's statewide goals and explains how they align with the State Solid Waste Management Plan, statutory requirements, and national efforts such as the U.S. EPA Solid Waste Infrastructure for Recycling program. Readers can use Section 5 to understand the long-term direction guiding the plan.

Section 6 – Priorities for Moving Ohio's Organics System Forward
Defines seven priorities derived from stakeholder themes regarding needed conditions and desired outcomes. These priorities form the foundation for all recommended strategies. Readers can use Section 6 to identify which priorities align with their interests or responsibilities.

Section 7 – Turning Priorities into Action
Presents all selected stakeholder-recommended strategies, first the overarching system-building strategies, then the material-specific strategies. Readers can use Section 7 to identify strategies they may wish to participate in, support, or explore further.

Interpreting the Strategy Framework

Every strategy in Section 7 follows a consistent format to support clarity and ease of use. The components below explain how each part should be interpreted.

Title
States the focus of the strategy and the primary mechanism for action.

Issues addressed
Describes the problem, gap, or barrier the strategy aims to resolve. Identifies who experiences the issue and why the issue matters (operational, economic, environmental, regulatory, or logistical impacts).

Strategy statement
Begins with a clear verb describing the intended action. Describes the core mechanism of the strategy, such as guidance development, mapping, coordinated outreach, pilot

projects, or technical assistance. Recommended conveners may be listed, but the strategy does not assign obligations.

Expected outcomes
Describes the anticipated results of the strategy. Outcomes focus on what will improve or change, not the activities conducted.

Recommended convening organizations
Identifies broad types of organizations that are likely well-positioned to initiate early discussions, host coordination, or assemble partners. Examples include state agencies, regional planning bodies, universities, industry groups, or other qualified conveners. These organizations are not obligated to initiate or lead strategy development. The list is not exhaustive, and conveners may also participate as collaborators.

Some strategies refer to "technical or neutral convening organizations." This term refers to entities that can facilitate coordination without advocating for a particular policy position, such as universities, research institutions, or regional planning organizations, providing expertise and neutrality when convening multi-sector partners.

Collaborating organizations
Includes specific agencies, divisions, operators, industry groups, community partners, and subject-matter experts who may contribute knowledge, participate in working groups, or support implementation as they choose. Collaboration is voluntary. This list is not exhaustive, and collaborators may serve as conveners even if not listed as Recommended Convening Organizations.

These categories are intentionally structured to preserve flexibility, support inclusivity, and avoid implying commitments or mandates. They help readers understand who may be well-positioned to participate without assigning responsibility.

Planning Assumptions and Limitations

The information, estimates, and recommendations in the OMMP rely on data available at the time of the planning process, including material assessments, waste characterization studies, stakeholder input, existing reports, and information from public and private organizations. Because infrastructure, markets, technologies, regulations, funding opportunities, and local conditions change over time, all planning-level information should be interpreted as reflective of conditions understood during development.

The OMMP supports planning and evaluation but does not replace project-specific analysis. Organizations interested in implementing a strategy should assess technical,

financial, regulatory, environmental, operational, and local considerations specific to their proposed activity.

Estimated quantities and other planning-level information should be interpreted alongside the assumptions and limitations described in the underlying assessments and technical documents. Readers seeking more detailed or current information should consult those supporting documents or updated data sources available at the time a program, project, or investment is being considered.



2. Setting the Stage for Ohio's Plan

Organic materials and beneficial use byproducts are part of Ohio's communities, farms, food systems, wastewater systems, industries, landscapes, natural resources, and overall economy. Organic materials refer to materials derived from plants or animals that can naturally break down, such as food, yard trimmings, and compostable paper products. Beneficial use byproducts refer to materials that historically have been managed as wastes but have proven characteristics that allow them to be managed for beneficial purposes, such as Lake Erie dredge material. When these materials are prevented, recovered, recycled, or beneficially used, they can support food security, soil health, local and regional markets, infrastructure resilience, and more circular material systems. When they are discarded or managed without coordination, Ohio loses opportunities to reduce waste, recover value, and build on the programs, facilities, and partnerships already working with organic materials across the state.

This section explains why the OMMP was developed, how it relates to the Ohio State Solid Waste Management Plan, and how the planning process was conducted. Together, these elements establish the foundation for the goals, statewide priorities, and strategy recommendations that follow.

Why the OMMP Was Developed

The OMMP was developed to provide a focused framework for advancing the organic materials-related goals of the Ohio State Solid Waste Management Plan that addresses waste prevention, reduction, recycling and development of markets for recycled materials, and to advance statewide beneficial use opportunities for select byproducts. It recognizes that organic materials and beneficial use byproducts are generated across many sectors

and regulated, measured, and managed through many different pathways involving various local, state and federal regulatory entities, industries, intermediaries and end users. Making compelling progress with organic materials requires Ohio to have a planning framework that recognizes both statewide opportunities and material-specific realities, and the many actors that have a role in the organic materials management system.

The OMMP provides a statewide framework for understanding organic materials, rescued edible food, and beneficial use byproduct streams, identifying shared goals and priorities, and connecting those priorities to strategies that many different organizations can advance. It recognizes that progress will not depend on one agency, program, facility, or policy alone. Instead, progress will come from coordinated efforts by public, private, nonprofit, institutional, agricultural, utility, and community partners working in ways that reflect their roles, resources, and local conditions. The OMMP was developed to help Ohio move from opportunity to action.

Relationship with Ohio's State Solid Waste Management Plan

Section 3734.50 of the Ohio Revised Code requires the Director of Environmental Protection, with the advice of the Materials Management Advisory Council, to prepare a State Solid Waste Management Plan (State Plan). The State Plan establishes statewide direction for solid waste reduction, recycling, reuse, minimization, disposal, and related materials management activities. Several of the statutory requirements are directly relevant to organic materials and beneficial use by products, including reducing reliance on landfilling, establishing waste reduction and recycling objectives, and promoting markets for products containing recycled materials. The statute also recognizes that objectives and management approaches may vary across Ohio based on local conditions (e.g. urban, suburban, rural) and implementation feasibility.

Ohio EPA is not statutorily required to prepare a separate statewide plan for organic materials and beneficial use byproducts. However, the U.S. Environmental Protection Agency's Solid Waste Infrastructure for Recycling (SWIFR) Grant Program presented a unique opportunity to develop an organic materials management plan with statewide applicability. The Plan comprehensively includes organic materials that are more prevalent and challenging in Ohio. It also incorporates compatible byproducts that can be beneficially used by inclusion in organics derived products, such as Lake Erie dredge material and drinking water treatment materials. Taken together, these factors made the SWIFR-supported planning effort an opportunity for Ohio to manage organics and compatible byproducts more holistically while complementing the goals of the State Plan.

How the Plan Was Developed

Development of the OMMP started with early stakeholder engagement to determine the materials (organics and beneficial use byproducts) that would be included in the Plan. The planning process continued with the preparation of individual materials assessments followed by a structured stakeholder engagement process. The project team used the Strengths, Opportunities, Aspirations, and Results (SOAR) strategic planning framework to guide discussions and gather input on current conditions, strengths, gaps, opportunities, aspirations, and desired results.

Figure 1. Plan Development Process
This sequence shows how the OMMP moved from early planning expectations and technical assessment to goals, priorities, and strategy recommendations shaped by stakeholder input.



Using SOAR to Guide the Conversation

SOAR (Strengths, Opportunities, Aspirations, and Results) is a strategic planning framework that focuses on what is working well, what is possible, and what stakeholders want to achieve. Unlike approaches that emphasize weaknesses and threats, SOAR uses an appreciative, forward-looking approach to identify existing strengths, opportunities for improvement, a desired future state, and results that can demonstrate progress.

The four elements of SOAR are:

- **Strengths** – Existing assets, capabilities, programs, partnerships, or conditions that provide a foundation for future progress.
- **Opportunities** – Areas where changes, investments, partnerships, or new approaches could improve organics management.
- **Aspirations** – Stakeholders' vision for what a successful organics management system could look like in the future.
- **Results** – Desired outcomes or indicators that can demonstrate progress toward those aspirations.

The SOAR framework helped structure stakeholder discussions and to translate input into statewide priorities, strategies, and desired outcomes for organics management in Ohio.

Engaging Stakeholders Across Ohio

Stakeholder engagement was conducted through three statewide virtual sessions, each focused on a different stage of the planning process. The sessions moved from current conditions and opportunities to future aspirations and, finally, draft strategies and implementation considerations. The stakeholder snapshot in Table 1 below summarizes the purpose and participation for each session. Additional detail is provided in the individual stakeholder meeting summaries available by contacting Ohio EPA.

Table 1. Stakeholder Snapshot: Statewide engagement sessions conducted during plan development

Session	Purpose	Approx. Attendance	Organizations Represented
Session 1 – Understanding Ohio's Organics System: Current Conditions, Strengths, and Opportunities May 15, 2026	Validate current conditions and identify strengths, gaps, barriers, and opportunities across Ohio's organics management system.	135	98
Session 2 – Defining Ohio's Future Organics System May 29, 2026	Define long-term aspirations, identify pathways built on existing strengths and opportunities, and describe desired results.	108	103

Session	Purpose	Approx. Attendance	Organizations Represented
Session 3 – Priorities for Action July 10, 2026	Review priorities, refine promising actionable strategies, identify implementation considerations and missing ideas.	100	76
Session 4 – First Plan Draft Presentation August 28, 2026	Review plan organization and first draft of developed strategies	67	52

Invitations were sent via email to more than 800 individual stakeholders and organizations, including state agencies, nonprofit organizations, private businesses, industry associations, educational and research institutions, food rescue organizations, agricultural and food production entities, composting and waste management organizations, wastewater and drinking water utilities, environmental groups, parks and recreation entities, solid waste management districts, and local health departments, among others. Outreach was designed to capture diverse perspectives related to organics and select beneficial use byproducts management in general, food waste reduction, material-specific recovery, recycling, end uses and market development.

A list of stakeholder entities that participated in any of the meetings is provided in **Appendix A**. The appendix only identifies stakeholder participants based on the level of attribution each participant authorized. Participants could choose to have their name and affiliation listed, have only their affiliation listed, or remain anonymous. Only information participants authorized for disclosure is included. Input from participants who chose to remain anonymous was reviewed and considered along with all other stakeholder input received.



3. Understanding Ohio's Organic and Byproducts System

Organic materials and beneficial use byproducts are generated across nearly every part of Ohio's economy and community life, including households, farms, food businesses, wastewater systems, parks and public spaces, forestry and wood-products operations, industrial and institutional activities. These materials include food scraps and surplus edible food, yard waste, manure, biosolids, septage, wood and forestry byproducts, animal byproducts, fats, oils and grease, and Lake Erie dredge material among others. Together, they represent a significant portion of the materials Ohio manages each year and present both challenges and opportunities for waste reduction, recovery, beneficial use, market development, and system coordination.

This section provides a planning-level overview of the current state of organic materials and select beneficial use byproducts in Ohio. It summarizes the major material streams evaluated for the OMMP, describes the types of information considered in the supporting assessments, and presents available statewide estimates of generation, recovery, recycling, and beneficial use where data are available. Because the material streams differ substantially in how they are generated, regulated, measured, and managed, the estimates presented in this section should be used to understand relative scale, data availability, and system conditions rather than as a complete statewide accounting of all materials.

The information presented below highlights several common themes across Ohio's organics and beneficial use byproducts management system: substantial quantities of materials are already being managed through recycling and beneficial use pathways; additional recovery potential exists for several material streams; and consistent statewide data are not available for every material or management pathway. These findings provide

important context for the stakeholder findings, statewide goals, priorities, and strategy recommendations presented in later sections of the OMMP.

What Ohio's Waste Characterization Study Shows

Ohio's 2025 waste characterization study provides an updated look at the organic materials that continue to be disposed of in landfills. Compostable organic materials accounted for approximately 22.9 percent of the waste studied by weight, confirming that organics remain one of the largest opportunities for waste reduction and diversion. Food waste represented the largest share at 16.2 percent, followed by compostable paper products at 6.5 percent, and yard waste at 5.4 percent.



As part of the study, workers sorted waste from across Ohio to better understand what materials are still being discarded. The results show that organic materials, particularly food waste and yard waste, remain a substantial part of Ohio's landfilled waste.

Food waste was the most significant compostable material identified. Most of the food waste observed was unpackaged, which is an important distinction because unpackaged food is often better suited for prevention, recovery, or management through strategies such as animal feed where appropriate, composting (including backyard composting), and anaerobic digestion.

Compostable paper products refer to paper and carboard that are not consistently recycled due to food contamination, fiber degradation, or incompatible coatings, but that are technically biodegradable and suitable for composting or similar processing, such as napkins, paper towels, uncoated paper plates and cups, and wax-lined cardboard. Compostable paper products are generated across residential, commercial and industrial sectors and present opportunities for co-collection with food scraps and other compatible organic materials. Yard waste also remains present in Ohio's disposed waste stream. It represented approximately 5.4 percent of the waste studied, compared with approximately 4 percent in Ohio's 2004 characterization study. This category includes grass, leaves, brush, and other vegetative materials.

The findings also reflect how Ohio's waste stream has changed over time. In earlier studies, paper represented a much larger share of disposed waste, reflecting greater use and disposal of newspapers, printed materials, and other paper products. As paper use has

declined and recycling programs have become more established, food scraps, compostable paper products, yard waste, and other organic materials are now more prominent among the materials still being disposed.

For the OMMP, these findings help frame the opportunity ahead. Reducing wasted food, recovering edible food, and expanding options such as composting and anaerobic digestion can help conserve resources, reduce disposal, and put organic materials to higher value uses.

Organic Material Streams Evaluated for the Plan

The OMMP evaluated a diverse range of organic materials and beneficial use byproducts streams that differ substantially in how they are generated, managed, regulated, and beneficially used. Separate material assessments were prepared to establish a planning-level understanding of each stream. In general, the assessments examined material definitions and sources, available generation or management data, current management pathways, infrastructure and service conditions, key challenges and barriers, and opportunities for improved recovery, processing, beneficial use, or system coordination. Table 2 below summarizes the materials assessed and the primary focus of each assessment. Additional detail is provided in the supporting material assessment documents available by contacting Ohio EPA.

Table 2. Planning Snapshot: Materials assessed

Material Assessed	General Description	Assessment Focus
Animal Mortalities from Panzootic Events	Large quantities of livestock or poultry mortalities and associated materials generated during disease outbreaks, depopulation events, or other emergency responses.	Event-based generation, emergency management options, capacity, biosecurity, and preparedness.
Animal Waste (Manures and Ancillary Wastes)	Manure and related materials such as bedding, litter, spoiled feed, and washwater solids generated by livestock and poultry operations.	Generation, land application, off-farm movement, digestion and composting opportunities, and regional nutrient management considerations.
Biosolids	Treated sewage sludge generated at wastewater treatment plants and managed through land application or other beneficial use and disposal pathways.	Generation, treatment, land application, processing capacity, storage, transportation, contaminants, and future management options.

Material Assessed	General Description	Assessment Focus
Compostable Paper Products	Food-soiled and other non-recyclable paper products that may be suitable for composting.	Disposal quantities, collection and processing potential, contamination, acceptance standards, and diversion opportunities.
Edible Food Recovery	Surplus food that remains safe and suitable for human consumption and can be redistributed rather than discarded.	Recovery networks, transportation, cold storage, logistics, donor participation, measurement, and expansion opportunities.
Fats, Oils, and Grease	Used cooking oils and grease generated by food service, food processing, and related activities.	Collection, recycling and processing pathways, wastewater receiving, co-digestion potential, and data gaps.
Food Scraps	Edible and inedible discarded food generated throughout the food system.	Prevention, rescue, collection, composting, anaerobic digestion, contamination, infrastructure, and diversion potential.
Lake Erie Dredge and Drinking Water Treatment Materials	Lake Erie dredge sediments and drinking water treatment materials that may have beneficial use applications in soils, restoration, or organics-related systems.	Material characteristics, current management, beneficial use potential, market development, and project-specific constraints.
Raw Rendering Material and Routine Mortalities	Animal byproducts and routine animal mortalities generated by slaughter, meat processing, livestock operations, and related sources.	Rendering capacity, collection and transportation, routine mortality management, service gaps, and system resilience.
Septage	Liquid and semi-solid material pumped from septic tanks, holding tanks, cesspools, and portable sanitation systems.	Generation, hauling, receiving capacity, treatment and land application options, and regional service gaps.
Wood and Forestry Waste	Woody byproducts from forestry, wood manufacturing, land clearing, storm response, urban tree maintenance, and construction activities.	Sources, material quality, processing capacity, contamination, transportation, and end markets.

Material Assessed	General Description	Assessment Focus
Yard Waste	Vegetative material such as leaves, grass, brush, branches, and small stumps generated through landscaping and grounds maintenance.	Collection, composting, recycling, seasonal capacity, contamination, access, and market development.

What the Available Data Tell Us About Generation and Management

Available data does not support a single, consistently measured generation and recovery estimate for every material stream evaluated in the OMMP. Reporting requirements, units of measure, material definitions, and management systems vary considerably among materials. Some quantities are based on regulatory or facility reporting, while others rely on waste characterization data, modeled estimates, industry factors, or planning-level assumptions. Accordingly, Table 3 below summarizes the best available statewide estimates and known recovery or beneficial use quantities while identifying important limitations affecting comparability. Values should be interpreted as indicators of relative scale rather than as a complete statewide material balance.

Table 3. Planning Snapshot: Material generation and management amount estimates

Material	Estimated Generation	Known Recycled / Beneficially Used	Key Data Limitation
Animal Mortalities from Panzootic Events	Planning scenarios estimate approximately 1–5% of susceptible populations for moderate events and 5–15% for severe events; actual quantities are event-specific.	No representative annual quantity; management varies by event and may include composting, rendering, landfilling, burial, or other approved methods.	Episodic and highly variable by disease, species, affected facilities, and depopulation requirements. Total material requiring management may equal approximately 1.7–3.5 times carcass mass when associated materials and composting amendments are included.

Material	Estimated Generation	Known Recycled / Beneficially Used	Key Data Limitation
Animal Waste (Manures and Ancillary Wastes)	~31.5 million tons/year, wet weight, for major livestock categories	No comprehensive statewide beneficial use total; land application is the dominant management pathway	Total generation is planning-level; off-farm movement is not centrally tracked. An estimated 10–20% (~3–6 million tons/year) may be managed off-farm.
Biosolids	292,600 dry tons in 2025.	106,015 dry tons reported land applied in 2025. This includes 35,811 dry tons of sludge that were processed through anaerobic digestion (AD) and 507 dry tons of sludge that were composted.	Other beneficial use pathways are not consistently quantified in the available summary data; annual reports may reflect material leaving a facility rather than total material generated and stored.
Compostable Paper Products	~860,000 tons/year disposed, used as a proxy for generation	Limited; not separately quantified	Compostable paper is not reported as a distinct composting feedstock and may be included with food scraps or bulking agents. The 860,000-ton estimate represents disposed material, not measured generation.
Drinking Water Treatment Materials	~150,000–250,000 dry tons/year	Limited/project-specific; statewide quantity not available	No centralized statewide generation or beneficial use reporting system; estimate is factor-based.

Material	Estimated Generation	Known Recycled / Beneficially Used	Key Data Limitation
Edible Food Recovery	~1.0–1.5 million tons/year estimated edible surplus	~250,000–350,000 tons/year recovered for human consumption	Both are planning-level estimates; informal/direct donations are not consistently tracked, and the edible surplus estimate represents an upper bound on theoretical rescue potential.
Fats, Oils, and Grease (FOG)	Screening estimate for restaurant-related FOG: ~8,000–176,000 tons/year; approximately 100,000 tons/year used as an order-of-magnitude indicator	No reliable statewide quantity; a substantial portion of yellow grease is known to enter rendering and biodiesel markets	Statewide generation and diversion are recognized data gaps; brown and yellow grease have substantially different management pathways.
Food Scraps	More than 2 million tons/year of surplus food estimated by ReFED; other datasets produce different ranges	29,979 tons accepted at Ohio composting facilities in 2025	Generation is modeled rather than directly measured. Composting data does not capture food rescue, animal feed, anaerobic digestion, or other diversion pathways.
Lake Erie Dredge Material	~1.5 million cubic yards/year, equivalent to ~1.0–1.2 million wet tons/year	Beneficial use occurs, but no single statewide annual beneficial use quantity established in the assessment	Volumes fluctuate by harbor and year; wet-ton conversion is planning-level.

Material	Estimated Generation	Known Recycled / Beneficially Used	Key Data Limitation
Raw Rendering Material and Routine Mortalities	~478,000 tons/year from routine slaughter and poultry processing; total routine generation may be somewhat higher	Rendering is the dominant pathway, but statewide tonnage by pathway is not available	Farm mortalities and several smaller sources are incompletely quantified; renderer/hauler data may be proprietary.
Septage	~200–500 million gallons/year residential estimate (~830,000–2.085 million tons/year)	No comprehensive statewide beneficial use quantity	Estimate covers residential septage only; commercial, institutional, and portable sanitation sources increase the total.
Wood and Forestry Waste	~2.5–3.5 million tons/year	Significant quantities, especially mill residues, are already beneficially used, but no statewide total is available	Multiple overlapping sources and inconsistent tracking; generation and end-use values are planning-level ranges.
Yard Waste	At least ~1.656 million tons/year formally managed in 2024	~811,000 tons/year received at permitted composting facilities	Generation is derived from disposal plus composting and excludes backyard composting, grasscycling, and informal wood recycling; therefore, total generation is higher.

Section takeaway: Ohio's organic material streams vary widely in scale, data quality, management pathways, and recovery potential, reinforcing the need for planning approaches that are flexible, material-specific, and grounded in improved measurement over time.



4. What the Planning Process Revealed

Cross-Cutting Findings

The technical assessments and stakeholder engagement process reinforced several broader conclusions about Ohio's organics and beneficial use byproducts management system. Ohio has strong assets to build upon, including existing facilities, programs, partnerships, expertise, and local leadership. At the same time, those assets are not evenly distributed across the state, and communities vary in their access to infrastructure, processing capacity, service options, and end-use markets.

A recurring lesson from the planning process is that better information can support better decisions. Stakeholders emphasized the need for more consistent data on material generation, movement, management practices, infrastructure capacity, diversion activity, and beneficial uses. This information is needed to support planning, investment, program development, performance measurement, and future updates to the plan.

The process also showed that no single solution will meet every need. Ohio's organics and beneficial use byproducts management system will require a portfolio of approaches that may include source reduction, food recovery, composting, anaerobic digestion, land application, beneficial use, local processing systems, regional infrastructure investments, and market development efforts. The most appropriate approach will vary by material stream, geography, available infrastructure, economics, regulatory considerations, and partner capacity.

Finally, stakeholders consistently emphasized that successful implementation would depend on collaboration and synergistic approaches. Many opportunities identified

through the planning process require coordination among state agencies, local governments, solid waste management districts, wastewater utilities, agricultural partners, processors, food recovery organizations, businesses, universities, and community organizations.

What Stakeholders Emphasized

Stakeholder engagement was designed to move from an understanding of current conditions, strengths, and opportunities toward a clearer vision of the future and the strategies needed to advance organics and beneficial use byproducts management in Ohio. Although perspectives varied by material stream, region, and organizational role, participants consistently emphasized the importance of building on existing programs, infrastructure, partnerships, and expertise while addressing practical barriers to implementation.

The discussions also demonstrated that opportunities and constraints differ substantially among material streams. Food recovery, processing feedstocks, yard and wood waste, agricultural materials, animal mortalities, septage, biosolids, and other materials each present different infrastructure, market, regulatory, logistical, and technical considerations. The following sections summarize the principal opportunities, gaps, barriers, aspirations, and desired results identified through the stakeholder engagement process.

Opportunities, Gaps, and Barriers

Stakeholders identified barriers and opportunities for strengthening existing systems at the system wide and material-specific levels. The findings in Table 4 below summarize the issues most consistently raised during the engagement process; they are not intended to represent a ranking of barriers or a comprehensive list of every issue discussed.

Table 4. Stakeholder Snapshot: Identified gaps, barriers, and opportunities

Material / Topic	Key Gaps and Barriers	Opportunities Identified
Edible Food Recovery	Uneven access to recovery services, particularly in rural areas; limited cold storage, transportation, cross-docking, staffing, and recipient capacity; inconsistent donor participation and uncertainty regarding food safety and liability.	Expand regional recovery networks and hub-and-spoke approaches; improve cold-chain and transportation capacity; strengthen partnerships among generators, food banks, schools, institutions, and community organizations; improve guidance and coordination.

Material / Topic	Key Gaps and Barriers	Opportunities Identified
Food Scraps, FOG, and Compostable Paper Products	Uneven access to collection and processing; contamination; limited local processing options; inconsistent acceptance criteria; transportation costs; weak or uncertain end markets.	Expand appropriately scaled composting and digestion capacity; increase drop-off and collection options; improve education and technical assistance; strengthen compost and soil product markets and procurement.
Yard Waste, Wood, and Animal Waste	Seasonal and geographically dispersed generation; transportation costs; varying material quality; inconsistent processing access; market limitations; material-specific regulatory and operational constraints.	Build on existing composting, grinding, agricultural, and local-use systems; improve regional coordination and material-specific planning; expand markets and beneficial use outlets.
Raw Rendering Material, Animal Mortalities, and Septage	Limited receiving and surge capacity; long haul distances; biosecurity and specialized handling requirements; limited information about available facilities and services; regulatory uncertainty; rural service gaps.	Improve facility and service inventories, decision tools, regional coordination, emergency preparedness, receiving capacity, and practical guidance for generators and service providers.
Biosolids, Lake Erie Dredge Material, and Drinking Water Treatment Materials	Contaminant concerns, public acceptance, inconsistent markets, transportation costs, regulatory uncertainty, limited beneficial use outlets, and uneven stakeholder confidence.	Expand beneficial use demonstrations, research, technical guidance, end-user partnerships, market development, and communication based on credible science.
Overarching / System Wide	Incomplete and inconsistent data; uneven infrastructure; limited funding; regulatory complexity; weak or developing markets; inconsistent access to education and technical assistance; regional differences in capacity and service availability.	Improve data and measurement; strengthen funding and incentives; expand infrastructure; improve education and technical assistance; strengthen coordination; develop markets; clarify regulatory pathways; build from successful existing programs and partnerships.

Aspirations and Results

Stakeholders were also asked to describe what a stronger organics and beneficial use byproducts management system could look like and the results that could demonstrate progress. The aspirations and desired results summarized in Table 5 below reflect the major themes that emerged from those discussions.

Table 5. Stakeholder Snapshot: Aspirations and desired results

Material / Topic	Stakeholder Aspirations	Desired Results
Edible Food Recovery	Make food donation and recovery a routine, dependable part of Ohio's food system, supported by stronger infrastructure, coordination, and equitable access.	More edible food recovered; reduced food insecurity; more consistent statewide access to recovery services; stronger donor and recipient networks.
Food Scraps, FOG, and Compostable Paper Products	Provide practical collection, drop-off, and processing options across Ohio and treat organic materials as resources rather than wastes.	Increased participation and diversion; lower contamination; improved compost quality; stronger end markets; better understanding of infrastructure and service gaps.
Yard Waste, Wood, and Animal Waste	Create flexible local and regional systems that make productive use of materials while recognizing differences among streams and regions.	More beneficial use; stronger local and regional outlets; improved coordination; more reliable markets and processing options.
Raw Rendering Material, Animal Mortalities, and Septage	Develop dependable, practical management systems for materials that require specialized handling, regulation, or infrastructure.	Better access to appropriate facilities and services; clearer decision making tools and guidance; improved emergency and regional capacity; reduced reliance on disposal where feasible.
Biosolids, Lake Erie Dredge Material, and Drinking Water Treatment Materials	Increase confidence in beneficial use through clear standards, credible science, stronger markets, and coordinated partnerships.	Wider use of appropriate beneficial use practices; clearer guidance; stronger public and stakeholder understanding; more stable regional partnerships and markets.

Material / Topic	Stakeholder Aspirations	Desired Results
Overarching / System Wide	Build a coordinated statewide organics system that expands on successful existing programs while remaining flexible enough to reflect local and material-specific conditions.	Better data and performance measurement; expanded infrastructure and access; stronger funding and markets; clearer policies; improved technical assistance; stronger cross-sector partnerships.

While the specific findings varied by material stream, several needs appeared repeatedly across the stakeholder discussions, including improved data and measurement, expanded infrastructure, funding, education and technical assistance, coordination, market development, and regulatory clarity. These recurring themes informed the statewide priorities presented in Section 6.

Section takeaway: Stakeholders consistently identified seven cross-cutting needs—data, infrastructure, funding, education, coordination, markets, and regulatory clarity—that shape the statewide priorities and strategy framework.



5. Goals for Ohio's Organics & Byproducts

Ohio has an opportunity to rethink how organic materials and some beneficial use byproducts are understood and managed. For decades, materials such as food scraps, yard trimmings, manure, biosolids, and Lake Erie dredge material have largely been treated as wastes requiring disposal. This Plan begins from a different premise: these materials are valuable resources that, when prevented, recovered, recycled, or beneficially used, can contribute to stronger food systems, healthier soils, more resilient infrastructure, local economic activity, and a more circular economy.

The goals in this section describe the future the OMMP is intended to help Ohio move toward. Because Ohio's organics and beneficial use byproducts management system is diverse, progress will vary across the different roles involved in managing organic materials—from generation and collection to processing, use, and end-market development. Even with these varied roles and responsibilities, organizations across the system can collectively contribute to shared statewide outcomes: less disposal, more recovery, stronger markets, better information, and clearer pathways for returning organic materials and byproducts to productive use.

The OMMP aligns with the organics-related goals of the Ohio State Solid Waste Management Plan and with the objectives of the U.S. EPA Solid Waste Infrastructure for Recycling program and related national strategies focused on food loss and waste reduction, recycling, and circular materials management. The statewide goals below provide overall direction for the Plan and establish the foundation for the priorities and strategies presented in later sections.

These goals are numbered for ease of reference; numbering does not indicate priority or hierarchy.

Statewide Goals

1. **Reduce the generation and disposal of organic materials.**
   Advance prevention, source reduction, food recovery, reuse, recycling, and other management approaches that lessen the amount of organic material requiring disposal.

2. **Increase recovery, recycling, and beneficial use of organic materials and byproducts.**
   Expand opportunities to return organic materials to productive use through composting, anaerobic digestion, land application, food recovery, manufacturing, and other appropriate beneficial use pathways.

3. **Strengthen Ohio's organics and beneficial use byproducts management system.**
   Improve the data, infrastructure, markets, partnerships, technical capacity, funding, and regulatory clarity needed to support effective and sustainable organic materials management across the state.

4. **Support a more circular economy for organics and beneficial use byproducts.**
   Retain materials currently destined for disposal within the economy by returning them as food, feedstocks, soil amendments, energy resources, agricultural inputs, or other useful products.

Together, these goals provide a shared direction for organizations across Ohio without requiring every community or material stream to follow the same path. They outline a statewide vision that can guide planning, investment, market development, education, and program decisions. To move toward this vision, Ohio needs clear priorities that translate the goals into the conditions required for progress across materials, regions, and organization types. The next section outlines those statewide priorities and establishes the foundation for the strategies presented in Section 7.



6. Priorities for Moving Ohio's Materials System Forward

Ohio's seven statewide priorities translate recurring stakeholder themes into the conditions needed to advance organics and beneficial use byproducts management across materials, regions, and organization types. Developed through technical assessments, SOAR discussions, and other engagement efforts, these priorities reflect consistent cross-cutting needs: improved data, expanded infrastructure, funding and incentives, education and technical assistance, coordination and partnerships, market development, and regulatory clarity.

The priorities offer a practical framework for linking statewide goals to strategy recommendations and for helping stakeholders across Ohio identify where they can contribute.

Statewide Priorities

Each priority highlights a broad area of focus, explains why it matters, and identifies the statewide goals it supports, along with desired outcomes and potential indicators for tracking progress over time.

Priority 1: Improve Data, Measurement, and Decision Making

Goals Supported

Goal 1, Goal 2, Goal 3, Goal 4: Better data underpins prevention and reduction (Goal 1), informs recovery and beneficial use strategies (Goal 2), strengthens system infrastructure and planning (Goal 3), and helps identify opportunities to retain materials in the economy (Goal 4).

Why This Priority Matters

Stakeholders consistently identified data gaps as a barrier to planning, investment, and implementation. They emphasized the importance of understanding where materials are generated, how much material is available, where processing capacity exists, where infrastructure gaps remain, and how progress should be measured over time. Discussions referenced generator inventories, facility mapping, resource-shed planning, capacity assessments, market information, reporting systems, and statewide metrics. Stakeholders generally viewed improved data and measurement as foundational to many other priorities.

Desired Outcomes

- Better statewide understanding of organics and beneficial use byproducts generation, movement, processing capacity, markets, and end uses.
- More consistent and useful information to support planning, investment, funding, and program decisions.
- Improved ability to measure progress and identify remaining gaps and opportunities.

Potential Indicators

- Increase in the number of organic material streams with statewide or regional generation and management estimates.
- Increase in the number of material streams for which diversion, recovery, processing, or beneficial use quantities can be tracked over time.
- Establishment and periodic reporting of a consistent set of statewide organics and beneficial use byproducts performance measures.

Priority 2: Expand Infrastructure and Processing Capacity

Goals Supported

Goal 1, Goal 2, Goal 3, Goal 4: Infrastructure expands practical options for prevention, diversion, recycling, and beneficial use (Goals 1 & 2), improves the resilience, accessibility, and capability of Ohio's organics system (Goal 3), and enables materials to be transformed into useful products and economic inputs (Goal 4).

Why This Priority Matters

Infrastructure needs were identified across every breakout room. Stakeholders noted that successful organics and beneficial use byproducts management depends on adequate collection, storage, transportation, transfer, processing, treatment, and beneficial use capacity. Infrastructure needs varied by material stream and geographic region, suggesting that Ohio will require a diverse mix of solutions ranging from local and community scale facilities to larger regional systems.

Desired Outcomes

- Greater access to collection, transfer, processing, treatment, and beneficial use options across Ohio.
- Infrastructure and services that better reflect local, regional, and material-specific needs.
- Reduced geographic and material-specific gaps in organics and beneficial use byproducts management capacity.

Potential Indicators

- Increase in processing or receiving capacity for priority organics and beneficial use byproducts streams.
- Reduction in identified geographic or material-specific service gaps.
- Increase in the number of communities, generators, or regions with access to practical organics collection, processing, or beneficial use options.

Priority 3: Increase Funding and Incentives

Goals Supported

Goal 1, Goal 2, Goal 3, Goal 4: Funding alleviates barriers to prevention and diversion programs (Goal 1), supports recovery and beneficial use infrastructure (Goal 2), strengthens system performance and statewide implementation capacity (Goal 3), and encourages investments that foster circular economic opportunities (Goal 4).

Why This Priority Matters

Stakeholders repeatedly identified funding limitations as one of the most significant barriers to implementation. Discussions included capital costs, operational costs, staffing, market development, pilot projects, and startup challenges. Stakeholders consistently expressed support for grants, cost share programs, and other approaches that improve economic feasibility and reduce implementation risk.

Desired Outcomes

- Increased access to funding for planning, programs, infrastructure, staffing, and market development.
- Reduced financial barriers that limit implementation of organics and beneficial use byproducts management projects.
- Greater ability to advance pilot projects, innovation, and long-term system improvements.

Potential Indicators

- Increase in public and private funding directed to organics-related planning, programs, infrastructure, and market development.
- Increase in the amount of outside funding leveraged by state, local, regional, and private investment.
- Increase in the number of funded pilot projects that progress to continued or expanded implementation.

Priority 4: Strengthen Education, Outreach, and Technical Assistance

Goals Supported

Goal 1, Goal 2, Goal 3, Goal 4: Education improves prevention behaviors and participation (Goal 1), enhances understanding and adoption of recovery and beneficial use practices (Goal 2), builds technical capacity and consistent implementation statewide (Goal 3), and increases confidence and participation in circular systems (Goal 4).

Why This Priority Matters

Stakeholders consistently described education as a critical enabler of successful implementation. Discussions highlighted the need for training, outreach, and technical assistance for a wide range of audiences, including food generators, farmers, composting operators, schools, businesses, health departments, utilities, and residents. Stakeholders frequently noted that practical, accessible information may be just as important as infrastructure and funding.

Desired Outcomes

- Clearer and more accessible information for organizations and individuals involved in organics and beneficial use byproducts management.
- Increased access to training, technical assistance, and practical implementation guidance.
- Improved participation, decision making, and program performance through greater knowledge and confidence.

Potential Indicators

- Increase in the availability and use of organics and beneficial use byproducts related guidance, training, technical assistance, and educational resources.
- Increase in participation in organics- and beneficial use byproducts-related training and technical assistance programs.
- Increase in the number of organizations implementing or improving organics and beneficial use byproducts programs following technical assistance or training.

Priority 5: Enhance Coordination, Collaboration, and Partnerships

Goals Supported

Goal 1, Goal 2, Goal 3, Goal 4: Collaboration helps align prevention and diversion efforts (Goal 1), supports cross-sector recovery and beneficial use actions (Goal 2), strengthens the overall statewide system, partnerships, and shared approaches (Goal 3), and improves integration across sectors to support circular economic pathways (Goal 4).

Why This Priority Matters

Stakeholders repeatedly highlighted the need for coordination among agencies, solid waste districts, local governments, food recovery organizations, agricultural partners, wastewater utilities, private operators, educational institutions, and community organizations. Many of the proposed strategies depend on collaboration across sectors and jurisdictions. Stakeholders emphasized that no single entity can successfully implement many of these actions alone.

Desired Outcomes

- Stronger collaboration among public, private, nonprofit, institutional, and community partners.
- Better coordination of information, resources, investments, and implementation efforts.
- Increased use of regional, cross-sector, and shared approaches where collaboration can improve outcomes.

Potential Indicators

- Increase in the number of active local, regional, statewide, or cross-sector organics and/or beneficial use byproducts partnerships.
- Increase in collaborative projects involving multiple organizations, jurisdictions, or sectors.
- Increase in shared-service, regional, or public-private approaches to organics and beneficial use byproducts management.

Priority 6: Support Market Development and Beneficial Use

Goals Supported

Goal 2, Goal 3, Goal 4: Market development directly advances recycling and beneficial use opportunities (Goal 2), supports creation of stable end markets and economic drivers needed for system strength (Goal 3), and is central to building a circular economy where materials become new products, soil amendments, feedstocks, or energy resources (Goal 4).

Why This Priority Matters

Stakeholders consistently emphasized that recovered materials need economically viable and publicly accepted end uses. Market development discussions included compost, biochar, manure derived products, recovered food, biosolids products, Lake Erie dredge materials, digestate, and drinking water treatment materials. Stakeholders viewed market development as a critical component of long-term sustainability.

Desired Outcomes

- Increased recycling and beneficial use of recovered organic materials and beneficial use byproducts.
- Stronger and more reliable markets for compost, digestate, biochar, recovered food, and derived products and materials.
- Greater end-user confidence in product quality, performance, and appropriate uses.

Potential Indicators

- Increase in the quantity of organics and beneficial use byproducts directed to recycling and beneficial use rather than disposal.
- Increase in procurement or use of compost, digestate, biochar, recovered food, and derived products and materials.
- Increase in the number of successful demonstrations, pilots, or commercial applications that establish or expand markets.

Priority 7: Improve Regulatory Clarity and Consistency

Goals Supported

Goal 2, Goal 3, Goal 4: Clear regulations reduce uncertainty that hinders recovery, recycling and beneficial use activities (Goal 2), improve system reliability and stakeholder confidence (Goal 3), and enable more predictable and scalable pathways for turning materials into valuable economic inputs (Goal 4).

Why This Priority Matters

Stakeholders frequently requested clearer terminology and regulatory definitions, guidance, and implementation expectations. Conversations included food recovery terminology, compostable product labeling, manure management, septage guidance, beneficial use standards, and emerging contaminant issues. Stakeholders generally sought clearer and more consistent interpretation of existing frameworks rather than broad new regulatory programs.

Desired Outcomes

- Clearer understanding of regulatory requirements, terminology, and available management pathways.
- More consistent guidance and interpretation across organics and beneficial use byproducts streams.
- Reduced uncertainty that can delay or discourage appropriate organics and byproducts management, recycling, and beneficial use activities.

Potential Indicators

- Increase in the number of priority regulatory or guidance issues for which clarification is developed and communicated.
- Increase in the availability of plain language guidance, decision tools, or other resources explaining applicable requirements and management pathways.
- Increase in the number of projects or beneficial use applications able to proceed using clearly understood regulatory pathways.



7. Turning Priorities into Action

Ohio's organics and beneficial use byproducts future will be shaped by many organizations working in different ways across the state. The goals and priorities in earlier sections describe where Ohio wants to go and the conditions needed to support progress. This section turns that foundation into action by presenting the OMMP's recommended strategies—practical steps to strengthen food recovery, expand infrastructure, improve material quality, build markets, clarify regulatory pathways, enhance data, and foster partnerships.

No organization is expected to pursue every strategy. Instead, readers can use this section to identify where their roles, responsibilities, and resources align with the opportunities described. Some organizations may convene partners or lead initiatives, while others may support pilots, share data, coordinate regionally, improve operations, or help connect materials to beneficial use markets. Progress will come from many aligned efforts tailored to local needs and capacities.

Section 7 includes 87 strategies. One set, the Overarching Strategies, addresses system-wide needs and issues that cut across multiple organic material streams and select beneficial use byproducts. The remaining thirteen sets are material-specific strategies, each focused on a particular organic or beneficial use byproduct material stream or management pathway. To help readers navigate the full strategy set, the table below summarizes the number of strategies in each group and identifies the page where each set begins.

Strategy group	Total Strategies	Begins on page
Overarching Strategies	15	37
Animal Mortalities from Panzootic Events	4	69
Animal Waste (Manures and Ancillary Wastes)	4	78
Biosolids	5	87
Compostable Paper Products	2	98
Drinking Water Treatment Materials	6	103
Edible Food Recovery	10	116
Fats, Oils, and Grease (FOG)	8	137
Food Scraps	5	154
Lake Erie Dredge Material	2	165
Raw Rendering Material and Routine Mortalities	10	170
Septage	6	192
Wood and Forestry Waste	8	205
Yard Waste	3	222

Finding Your Place in Ohio's Organics and Byproducts Future

If you're looking for suggestions tailored to your organization's role, whether you work in a state agency, a solid waste district, a local government, a processing facility, a food recovery organization, or another partner, you can find a simple, role-based guide in Appendix B. It offers easy starting points to help different types of organizations see how their work connects with the OMMP strategies.

Strategies for Building Ohio's Organics Future

The strategies begin with the Overarching Strategies, which address system-wide needs that affect many organics and beneficial use byproducts streams. These actions help build the shared foundations that support progress across the entire organics system. After the overarching strategies, the section continues with strategy sets for each material stream.

Detailed notes on suggested implementation sequence for both the overarching and material-specific strategies are provided in Appendix C, where implementers can review recommended ordering and interdependencies across the strategy sets.

Overarching Strategies



The Overarching Strategies are cross-cutting, statewide actions that help strengthen the foundational conditions needed for Ohio's organics and beneficial use byproducts management system to grow over time. Because they address issues that appear across many organics and beneficial use byproducts streams, these strategies focus on broader system needs—such as clearer guidance, better data and planning tools, expanded infrastructure, improved access to funding, contamination control, market development, public procurement, rural and small community support, collaboration, and long-term policy or incentive approaches.

Together, the Overarching Strategies are intended to help move organics and beneficial use byproducts management from isolated, local, or material-specific efforts toward a more coordinated statewide system with clearer direction, stronger implementation support, and more reliable end markets.
The table below lists all overarching strategies by their strategy ID and title, providing a quick reference for readers before moving into the detailed strategy profiles that follow.

Strategy ID	Strategy Title
OS-01	Develop a Statewide Zoning Guidance and Training
OS-02	Develop Multi-Agency Permitting Guidance for Organics Processing
OS-03	Position Organics Diversion as an Economic Development Driver
OS-04	Increase Public Procurement of Ohio Organics Derived Products
OS-05	Develop a Statewide Organics Resource-Shed Planning System
OS-06	Coordinate Public-Private Partnerships to Expand Organics Infrastructure
OS-07	Develop Economic and Environmental Comparison Tools

Strategy ID	Strategy Title
OS-08	Characterize Composting Leachate and Wastewater Streams
OS-09	Develop Cost-Avoidance Education and Planning Tools for Local Decision Makers
OS-10	Develop GIS-Enabled Organics Processing Facility Siting Platform
OS-11	Develop Performance-Based Blended Soil Product Guidance
OS-12	Establish Uniform Testing, Labeling, and Product Standards for Beneficial Use Byproducts and Organics-derived Materials
OS-13	Establish Regional Management Partnerships for Beneficial Use Byproducts
OS-14	Develop an Industry-Led Liability Assurance Framework for Beneficial Use Byproducts
OS-15	Develop a Statewide Inventory and Matching System for Beneficial Use Byproducts

OS-01. Develop a Statewide Zoning Guidance and Training

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Local zoning officials and project developers often lack clear, activity-specific knowledge about how composting, transfer, and other organics processing facilities should be sited and permitted. Although model zoning language already exists, it remains underutilized, and many stakeholders are unaware of the distinct standards that apply to different facility types. Confusion about zoning expectations can lead to inconsistent interpretations, unpredictable permitting outcomes, and delays in project development. These challenges hinder siting feasibility, reduce local confidence in organics processing projects, and contribute to missed opportunities for expanding infrastructure capacity. A unified guidance and training initiative is needed to help zoning officials and planners interpret, adapt, and apply existing zoning models appropriately.

Strategy statement: Develop a statewide zoning guidance and training initiative that equips zoning officials and planners with activity-specific information for interpreting and adopting zoning provisions that support siting of community-scale and commercial composting and related organics processing facilities. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop guidance materials, model zoning resources, and training modules drawing from existing templates and publicly available toolkits. The effort will clarify distinctions among facility types, outline common zoning considerations, and provide general permitting expectation information that supports predictable local review processes. The resulting guidance and training resources will promote consistent interpretations, strengthen practitioner confidence, and reduce siting related delays without creating new regulatory obligations.

Expected outcomes:

1. Increased consistency and predictability in zoning reviews for organics processing facilities across Ohio.
2. Greater adoption and use of existing model zoning language and toolkits by local jurisdictions.
3. Better informed zoning officials and project sponsors, reducing delays tied to siting uncertainty.

OS-01. Develop a Statewide Zoning Guidance and Training

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Planning and zoning officials
- Urban planning and law academia

Collaborating organizations:

- American Planning Association, Ohio Chapter
- Ohio Organics Council
- U.S. Composting Council
- Natural Resources Defense Council
- Institute for Local Self-Reliance
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Composting and other organics processing facility operators
- Haulers and logistics partners
- Municipal zoning and planning departments
- Community scale composting organizations
- Ohio Farm Bureau Federation

OS-02. Develop Multi-Agency Permitting Guidance for Organics Processing

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: Permitting requirements for organics processing facilities vary across multiple state agencies and local jurisdictions, creating a fragmented landscape that is difficult for project sponsors to navigate. Facilities may require solid waste, water, air, agricultural, energy-related, or public health permits, plus local zoning and building approvals, and current processes often lack cross-agency consistency and clear decision pathways. This complexity results in uncertainty for applicants, inconsistent permitting expectations across regions, and delays during facility development. Without a unified resource that clarifies how different facility types fit within existing regulatory frameworks, project sponsors, local governments, and permitting agencies may struggle to coordinate effectively. A centralized guidance effort is needed to help stakeholders understand applicable requirements, thresholds, exemptions, and roles.

Strategy statement: Develop multi-agency permitting guidance for organics processing facilities. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop a unified reference that describes how organics processing activities align with applicable state-level programs and local permitting or zoning considerations. The coordinated effort will outline general concepts that help applicants understand permitting touchpoints, key thresholds, and the types of facilities commonly encountered across the organics sector, while reflecting perspectives from composting, anaerobic digestion, transfer operations, community scale systems, and on-farm activities. Participating organizations may contribute practical insight on agency roles and coordination points, so the resulting guidance remains clear, neutral, and adaptable across diverse project types and jurisdictions.

Expected outcomes:

1. A unified, easy to navigate permitting guide that reduces confusion, clarifies agency roles, and supports consistent statewide implementation.
2. Stronger cross-agency coordination that aligns permitting expectations and enhances predictability for project sponsors.
3. Reduced permitting delays and clearer development pathways for all types of organics infrastructure.

OS-02. Develop Multi-Agency Permitting Guidance for Organics Processing

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio Department of Agriculture, Divisions of Livestock Environmental Permitting
- Ohio Department of Agriculture Division of Soil and Water Conservation
- Ohio Department of Agriculture Division of Meat Inspection
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Health, Sewage Treatment Systems Program
- Ohio Organics Council
- Ohio Ecological Food and Farm Association
- Ohio Farm Bureau Federation
- Solid waste management districts
- Municipal zoning and planning departments
- Composting and other organics processing facility operators
- Consultants

OS-03. Position Organics Diversion as an Economic Development Driver

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 3: Increase Funding and Incentives

Issues addressed: Organics diversion, including collection, hauling, composting, transfer, processing, product development, and end market activity, creates jobs and stimulates local and regional economic growth, but these benefits remain underrecognized in statewide messaging. At the same time, organics sector businesses often fall outside eligibility criteria used by economic development programs, limiting access to workforce resources, site selection assistance, innovation hubs, financing tools, and small business supports. Organics-derived products also face challenges competing with conventional materials without targeted incentives, rebates, or cost share programs. These gaps constrain business sector growth, limit market adoption, and reduce the competitiveness of organics-derived products. A coordinated statewide effort is needed to frame organics diversion as a viable economic development sector and clarify pathways for accessing existing programs and resources.

Strategy statement: Develop a statewide Organics Economic Development Coalition that strengthens understanding of organics diversion as a driver of jobs, investment, and market growth. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to create unified statewide messaging, clarify how organics enterprises can access existing workforce and financing programs, and outline practical pathways for connecting organics businesses to economic development tools and support resources. The coalition will develop a single guidance resource detailing eligibility criteria, available funding streams, market development mechanisms, and opportunities for organics-derived product promotion. By aligning organics diversion with established economic development systems, the strategy enhances predictability for project sponsors, improves business viability, and supports widespread market adoption of Ohio-generated organics-derived products.

Expected outcomes:

1. Consistent, statewide economic messaging that clearly communicates the job creation, market growth, and economic value of organics diversion.
2. Expanded access for organics businesses to existing workforce, financing, and economic development programs, improving project viability across scales.
3. Increased market adoption and competitiveness of organics derived products through clearer pathways for utilizing economic development incentives and support resources.

OS-03. Position Organics Diversion as an Economic Development Driver

Recommended convening organizations:

- Applicable state agencies
- Economic development agencies
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations

Collaborating organizations:

- Chambers of commerce and local business development organizations
- Municipal and county economic development offices
- Solid waste management districts
- Composting and other organics processing facility operators
- Haulers and logistics partners
- Industry organizations and trade associations participating in market development
- Regional growth partnerships and local development corporations
- Ohio Department of Development
- JobsOhio
- Ohio Farm Bureau Federation
- U.S. EPA Region 5
- Natural Resources Defense Council
- Institute for Local Self-Reliance
- Ohio Green Industry Association
- Ohio Manufacturers Association

OS-04. Increase Public Procurement of Ohio Organics Derived Products

Statewide priorities supported: Priority 6: Support Market Development and Beneficial Use

Issues addressed: Public agencies, including municipalities, transportation departments, parks systems, schools, and other public-sector buyers, regularly manage projects where compost, soil amendments, manufactured soils, and other beneficial use materials can improve performance and environmental outcomes. However, procurement specifications frequently default to conventional materials, and many buyers are unfamiliar with Ohio-generated organics- and beneficial use byproducts-derived products or how they meet project needs. Inconsistent specifications, limited buyer awareness, and lack of standardized purchasing guidance suppress demand, inhibit market growth, and reduce the viability of existing and emerging organics processing firms. These gaps affect public works staff, procurement officers, landscape managers, and producers of organics- and beneficial use byproducts-derived materials, creating missed opportunities for improved project performance and stronger end markets.

Strategy statement: Strengthen statewide public procurement of organics-derived materials by developing unified procurement guidance and training resources that support consistent purchasing of Ohio produced compost, soil amendments, manufactured soils, EQ biosolids derived products, and Lake Erie dredge derived materials. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop model procurement policies, standardized product specifications, quality and performance considerations, and buyer education materials. The coordinated effort will help procurement officials understand when organics-derived products meet project requirements, how these materials can be incorporated into public works, parks, stormwater, landscaping, and construction projects, and how to align purchasing with facility acceptance and statewide standards. The training component will support implementation and encourage consistent adoption across jurisdictions, strengthening market demand without creating new regulatory mandates.

Expected outcomes:

1. Clear, standardized procurement specifications that increase consistency and confidence in purchasing organics- and beneficial use byproducts-derived products.
2. Expanded public sector use of compost and beneficial use materials in infrastructure, landscaping, parks, and stormwater projects.

OS-04. Increase Public Procurement of Ohio Organics Derived Products
3. More stable and predictable market demand that supports growth and competitiveness of organics- and beneficial use byproducts-derived product manufacturers.
Recommended convening organizations: • Applicable state agencies • Relevant industry associations • Universities and extension programs • Technical or neutral convening organizations **Collaborating organizations:** • Ohio Department of Administrative Services (DAS) Procurement Division • Ohio EPA Division of Materials and Waste Management • Ohio Department of Transportation • Municipal and county procurement offices • Public works departments, parks systems, and school facility managers • Solid waste management districts • Ohio Organics Council and other compost/soil industry organizations • Ohio Green Industry Association • Ohio Manufacturers Association • Composting and other organics processing facility operators • Engineering firms, landscape architects, and stormwater professionals

OS-05. Develop a Statewide Organics Resource-Shed Planning System

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 5: Enhance Coordination, Collaboration, and Partnerships; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Ohio lacks a coordinated system for identifying where organic materials are generated, where processing capacity exists, and how to efficiently connect generators to processors. This gap leads to long hauling distances, underutilized facilities, and limited-service options for rural or small solid waste management districts. Without consolidated data and mapping tools, planners, haulers, processors, and local governments face challenges in recognizing infrastructure gaps, designing efficient collection networks, and coordinating regional solutions. These limitations create operational inefficiencies, increase costs, and restrict the development of a scalable organics management system that works across diverse geographies and generator types.

Strategy statement: Develop a statewide organics resource-shed planning system that consolidates generator data, feedstock characteristics, processing capacity, service areas, hauling and transfer routes, and infrastructure gaps into a unified GIS-enabled planning platform. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to design the platform, identify essential data layers, and develop planning guidance that allows stakeholders to interpret, evaluate, and apply the statewide information effectively. The coordinated effort will integrate consistent data formats, improve visibility across regional systems, and create standardized tools for evaluating processing capacity and identifying underserved areas. By providing accessible and uniform resource-shed information, the strategy enables planners, haulers, processors, and local governments to evaluate options more efficiently, reduce transportation burdens, and strengthen regional collaboration.

Expected outcomes:

1. More efficient matching of generators to processors, reducing transportation burdens and increasing feedstock flow.
2. Clear identification of infrastructure gaps that support targeted investment and regional collaboration.
3. Improved coordination across districts, processors, haulers, and state partners through consistent, statewide planning data.

OS-05. Develop a Statewide Organics Resource-Shed Planning System

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations

Collaborating organizations:

- Data architects
- Composting and other organics processing facility operators
- Haulers and logistics partners
- Large generators, including manufacturers, institutions, and retailers
- GIS experts
- Economic development organizations
- Consultants
- Regional planning organizations
- Ohio Organics Council
- Ohio Green Industry Association
- Ohio Manufacturers Association

OS-06. Coordinate Public-Private Partnerships to Expand Organics Infrastructure

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 3: Increase Funding and Incentives; Priority 5: Enhance Coordination, Collaboration, and Partnerships; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Many regions in Ohio lack reliable and affordable access to organics collection, transfer, and processing services, particularly rural communities and small solid waste management districts. Private haulers and processors often face financial, logistical, or market barriers to expanding capacity, while public entities may lack the tools needed to identify partnership opportunities or navigate funding pathways. Existing economic development programs are not always aligned with organics-focused projects, leaving potential financial support underutilized. These gaps contribute to inconsistent service availability, limited infrastructure growth, and challenges for generators seeking access to organics recycling options. A statewide facilitation effort is needed to strengthen collaboration, improve access to funding, and support development of scalable, regionally appropriate organics infrastructure.

Strategy statement: Coordinate public-private partnerships that support expansion of organics collection, transfer, and processing infrastructure by establishing a statewide facilitation and partnership support initiative. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify regional needs, clarify partnership opportunities, and develop communication and planning tools that help public and private entities align their efforts. The coordinated approach will highlight how existing grant, loan, and economic development programs can support organics infrastructure projects and provide practical guidance for entities exploring co-development of facilities, shared-service models, or regional collaboration. By focusing on facilitation rather than new regulatory requirements, the strategy strengthens cross-sector coordination, improves access to financial and technical resources, and supports development of scalable, locally appropriate solutions.

Expected outcomes:

1. Stronger coordination among public and private partners developing organics collection, transfer, and processing solutions.
2. Increased access to existing funding and economic development programs for organics infrastructure projects.

OS-06. Coordinate Public-Private Partnerships to Expand Organics Infrastructure

3. Improved geographic coverage and service availability, especially in rural and underserved regions.

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Composting and other organics processing facility operators
- Haulers and logistics partners
- Municipal and county governments
- JobsOhio
- Ohio Department of Development
- Chambers of commerce and regional business development organizations
- Economic development organizations
- Regional planning organizations
- Universities and extension programs
- Ohio Water Development Authority
- Ohio Organics Council
- Ohio Green Industry Association
- Ohio Manufacturers Association

OS-07. Develop Economic and Environmental Comparison Tools

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Ohio communities vary widely in feedstock volumes, geography, infrastructure availability, and operational capacity, making it difficult to determine which organics processing scale, community-based, farm-based, institutional, mid-size, commercial, or large regional, is most appropriate for local conditions. Project sponsors often lack standardized tools to compare the economic and environmental tradeoffs across different processing configurations, including transportation considerations, land use needs, greenhouse gas impacts, and long-term affordability. Without clear comparison models, stakeholders may misjudge costs, underestimate risks, or pursue systems that are not well aligned with regional characteristics. This gap slows informed planning, complicates feasibility evaluations, and contributes to inconsistent decision making across the state. A unified, data driven comparison resource is needed to support consistent evaluation and guide effective organics infrastructure planning.

Strategy statement: Develop statewide economic and environmental comparison tools that provide consistent, data driven evaluations of different organics processing scales. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to design modeling resources that assess greenhouse gas emissions, land use needs, transportation impacts, affordability considerations, long-term operating costs, and other system tradeoffs across multiple scales. The coordinated effort will draw on existing data, technical expertise, and resource-shed information to create standardized comparison tools that help project sponsors, local governments, solid waste management districts, and private operators identify options suited to local conditions. By centralizing evaluation into a single accessible resource, the strategy supports informed decision making, feasibility assessments, and grant applications, and helps communities identify processing configurations that reduce risk and match regional needs.

Expected outcomes:

1. Clear, comparable insights into economic and environmental performance across multiple processing scales.
2. More informed, locally appropriate decision making by public and private stakeholders.

OS-07. Develop Economic and Environmental Comparison Tools

3. Improved alignment between processing scale choices and community conditions, resulting in lower implementation risks.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities, extension and applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Solid waste management districts
- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Agriculture Division of Livestock Environmental Permitting
- Composting and other organics processing facility operators
- Haulers and logistics partners
- GIS experts and data analysis partners
- Economic development organizations
- Agricultural and institutional generators
- Ohio Organics Council
- Ohio Green Industry Association
- Ohio Manufacturers Association
- U.S. Composting Council
- American Biogas Council
- American Planning Association, Ohio Chapter
- Regional planning organizations
- U.S. EPA Region 5
- Ohio Farm Bureau Federation

OS-08. Characterize Composting Leachate and Wastewater Streams

Statewide priorities supported: Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: Composting facilities across Ohio face challenges in managing leachate, process wastewater, and stormwater, in part because current regulatory expectations often rely on assumptions drawn from landfill leachate rather than data specific to composting operations. This misalignment can lead to costly management systems, limited options for appropriate handling or beneficial use, and uncertainty during permitting. Stakeholders have emphasized the need for reliable, Ohio-specific data on the characteristics and variability of liquids generated by composting processes to support guidance development, permitting decisions, and evaluation of management options. Without adequate characterization, regulators, facility operators, and planners lack the information needed to assess risks accurately and design feasible, fit-for-purpose solutions.

Strategy statement: Develop a statewide characterization initiative that evaluates composting leachate and wastewater streams through coordinated research partnerships. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to conduct literature review, sampling, analysis, and interpretation activities needed to build an Ohio-specific dataset. The coordinated effort will examine variability across feedstock types, processing methods, and facility scales, and will identify parameters most relevant for management and planning. The resulting characterization resource will support improved permitting clarity, inform guidance updates, and enable facility operators and regulators to make risk-based decisions for managing composting wastewater streams.

Expected outcomes:

1. Reliable, Ohio-specific data on composting leachate and wastewater characteristics that support informed decision making.
2. Improved clarity for facility operators and regulators regarding management considerations for different liquid types.
3. Stronger alignment between facility needs and planning or permitting processes through better understanding of liquid stream variability.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities, extension and applied-research programs
- Technical or neutral convening organizations

OS-08. Characterize Composting Leachate and Wastewater Streams

Collaborating organizations:

- Ohio Organics Council
- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio Department of Agriculture Division of Soil and Water Conservation
- Composting facility operators
- Regional laboratories and analytical partners
- USDA Natural Resources Conservation Service
- U.S. Composting Council Seal of Testing Assurance Program
- Ohio Green Industry Association

OS-09. Develop Cost-Avoidance Education and Planning Tools for Local Decision Makers

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Local governments often lack clear information about when organics diversion can reduce total waste system costs. Communities frequently assume organics programs are more expensive because they focus on upfront collection or processing expenses and overlook avoided landfill fees, contract structures, route redesign opportunities, generator density, or available processing options. Without practical, easy-to-use decision support tools, fiscal officers, public works staff, councils, and solid waste districts may hesitate to pursue organics diversion even when it could provide financial benefits. This gap limits informed budgeting, slows program adoption, and prevents communities from recognizing cost effective diversion opportunities suited to their specific conditions.

Strategy statement: Develop a statewide cost-avoidance education and planning initiative that equips local officials with practical decision support tools for evaluating organics diversion economics. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop standardized cost-comparison templates, planning worksheets, illustrative scenarios, and educational resources that illustrate how contract structures, route design, generator density, and access to processing options influence total waste system costs. The coordinated effort will provide accessible training and guidance to help municipalities, solid waste districts, and other local decision makers evaluate when organics diversion may be cost competitive or financially advantageous under local conditions. By centralizing planning tools and improving financial understanding, the strategy supports more confident, transparent, and informed decision making.

Expected outcomes:

1. Improved understanding among local officials of the conditions under which organics diversion can reduce total waste system costs.
2. More accurate and informed planning decisions that support cost-competitive organics diversion programs.
3. Increased confidence in evaluating contract options, service changes, and local scenarios that impact overall system economics.

OS-09. Develop Cost-Avoidance Education and Planning Tools for Local Decision Makers

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Solid waste management districts
- Municipal public works, budget and planning departments
- Haulers and logistics partners
- Composting and other organics processing facility operators
- Planning and engineering professionals
- Economic development organizations
- Ohio Organics Council
- American Biogas Council
- U.S. Composting Council
- U.S. EPA Region 5
- Natural Resources Defense Council
- Institute for Local Self-Reliance
- Ohio Green Industry Association

OS-10. Develop GIS-Enabled Organics Processing Facility Siting Platform

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Selecting appropriate sites for organics processing facilities remains a major barrier for communities, institutions, farms, and regional partners across Ohio. Stakeholders often struggle to identify locations that meet siting criteria related to environmental constraints, land use compatibility, access to infrastructure, and proximity to generators. These challenges are especially acute for rural areas, schools, smaller municipalities, and lower-volume generators that lack technical resources to evaluate potential sites. Without a centralized, accessible siting tool, planners, haulers, processors, and project sponsors face uncertainties that slow project development, increase costs, and hinder the establishment of a distributed processing network suited to Ohio's diverse needs. A unified statewide siting platform is needed to support informed evaluation and facilitate timely development of organics processing facilities.

Strategy statement: Develop a statewide GIS-enabled siting platform that integrates key environmental, land use, infrastructure, and feedstock data to support evaluation of suitable locations for organics processing facilities across multiple scales. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to design the platform, determine essential data layers, and develop technical guidance that helps users apply consistent criteria when assessing community scale, farm-based, institutional, mid-size, and regional site options. The coordinated effort will consolidate geographically relevant information, improve clarity around siting considerations, and support comparisons across locations based on environmental conditions, infrastructure access, and generator proximity. By providing a centralized resource with standardized criteria, the strategy enhances planning efficiency, reduces siting uncertainty, and supports development of a more distributed and accessible organics processing network.

Expected outcomes:

1. Greater clarity and consistency in identifying suitable sites for organics processing facilities at multiple scales.
2. Expanded access to siting information that supports diverse communities, institutions, farms, and project sponsors.
3. Improved planning efficiency through a centralized platform that integrates relevant environmental and land use data.

OS-10. Develop GIS-Enabled Organics Processing Facility Siting Platform

Recommended convening organizations:

- Applicable state agencies
- Universities and extension programs
- Relevant industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Solid waste management districts
- Metropolitan planning organizations and regional planning commissions
- USDA Natural Resources Conservation Service
- Municipal and county planning departments
- Community composting organizations, farms, and institutions
- Composting and other organics processing facility operators
- Ohio Organics Council
- American Biogas Council
- U.S. Composting Council
- GIS experts and consultants
- Data architects

OS-11. Develop Performance-Based Blended Soil Product Guidance

Statewide priorities supported: Priority 6: Support Market Development and Beneficial Use

Issues addressed: Blended soil amendments and engineered soils made from beneficial use byproducts and organics-derived materials, including Lake Erie dredge material, drinking water treatment materials, biosolids, compost, biochar, manure, sand, and soil, have important applications in restoration, topsoil creation, nutrient binding, and engineered soil functions. However, inconsistent blending practices and limited testing can lead to incompatibility issues, underperformance, unintended nutrient release, contaminant concerns, or geotechnical failure. Generators, processors, soil blenders, engineers, and regulators lack a clear statewide framework that defines how blended products should be evaluated, validated, and matched to appropriate use conditions. Without structured, performance-based development pathways, Ohio risks promoting soil blends that are not fully tested or aligned with beneficial use expectations, reducing confidence among users and limiting market adoption. A unified approach is needed to ensure blended soil products are technically sound, safe, and reliably suited for specific applications.

Strategy statement: Develop a statewide, performance-based blended soil product guidance initiative that establishes objectives, compatible feedstocks, and testing criteria for beneficial use byproducts and organics-derived soil blends. Recommended conveners, working in collaboration with participating organizations, will assemble a multidisciplinary working group of soil scientists, agronomists, geotechnical and environmental engineers, beneficial use byproducts processors, composting operators, wastewater and drinking water treatment staff, and sediment processors to produce a single guidance resource. The guidance will define performance thresholds, quality assurance expectations, specification formats, and practical steps for validating blends through pilot work or field demonstrations when appropriate. By grounding product development in scientific testing and material compatibility, this initiative will support reliable, fit-for-purpose blended soil products and improve confidence and consistency across restoration, infrastructure, agricultural, and engineered soil applications statewide.

Expected outcomes:

1. Clear, tested specifications and quality assurance criteria that strengthen confidence in blended soil amendments and engineered soil products.

OS-11. Develop Performance-Based Blended Soil Product Guidance

2. Verified performance and defined use conditions that reduce risk and support appropriate application across multiple organic and beneficial use byproducts.
3. Greater adoption of technically validated blended soil products in restoration, agriculture, infrastructure, and engineered soil markets.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Ohio Department of Agriculture Division of Soil and Water Conservation
- Soil scientists, agronomists, and geotechnical and environmental engineers
- U.S. Army Corps of Engineers
- Composting and other organics processing facility operators
- Wastewater and drinking water treatment facilities operators
- Beneficial use byproduct processors
- Biochar producers
- Port authorities and harbor sediment processors
- Soil blending and engineered soil manufacturing businesses
- Municipalities and county engineers
- End-use partners in agriculture, restoration, redevelopment, infrastructure, and engineered soil markets
- Ohio Organics Council
- Ohio Green Industry Association
- Ohio Manufacturers Association

OS-12. Establish Uniform Testing, Labeling, and Product Standards for Beneficial Use Byproducts and Organics-derived Materials

Statewide priorities supported: Priority 6: Support Market Development and Beneficial Use

Issues addressed: Approved beneficial use byproducts and organics-derived soil products, including Lake Erie dredge material, drinking water treatment materials, biosolids, compost, biochar, manure, sand, soil, and blended or engineered products, vary widely in feedstock composition, treatment chemistry, moisture content, physical structure, contaminant profile, nutrient characteristics, phosphorus-binding behavior, geotechnical properties, and handling requirements. End users such as farmers, engineers, contractors, municipalities, regulators, and project sponsors need predictable, credible information to assess performance and application suitability. Without statewide consistency in testing requirements, labeling expectations, and product information fields, users may struggle to compare materials, evaluate safety, interpret quality, or determine appropriate use conditions. These inconsistencies reduce confidence and can limit adoption of beneficial use byproducts across restoration, agricultural, infrastructure, and engineered soil applications. A clear, statewide framework is needed to ensure all beneficial use byproducts and organics-derived products are tested, labeled, and communicated using consistent, reliable, and technically defensible methods.

Strategy statement: Establish a statewide standards initiative that defines uniform testing, labeling, and product information expectations for beneficial use byproducts and organics-derived materials. Recommended conveners, working in collaboration with participating organizations, will assemble a multidisciplinary standards consortium including beneficial use byproducts processors, composters, biosolids managers, Lake Erie dredge material and sediment processors, biochar producers, engineered soil manufacturers, agronomists, soil scientists, civil and environmental engineers, and other end-use partners. The consortium will build the standards framework using performance data, contaminant screening results, geotechnical evaluations, and use condition thresholds generated through related blended product and characterization strategies. The resulting guidance will define minimum statewide testing parameters, reporting fields, performance indicators, and labeling formats to support predictable, science-based communication of material attributes across producers, regulators, and end users.

Expected outcomes:

OS-12. Establish Uniform Testing, Labeling, and Product Standards for Beneficial Use Byproducts and Organics-derived Materials

1. Consistent statewide testing and labeling standards that increase confidence and clarity for farmers, engineers, contractors, municipalities, and regulators.
2. Clear minimum product information requirements that allow users to easily evaluate suitability, safety, and performance.
3. Uniform specification and labeling templates that improve consistency and transparency across all beneficial use byproducts and organics-derived materials.

Recommended convening organizations:

- Beneficial use materials and soil product industry associations
- Applicable state agencies
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Ohio Department of Agriculture Division of Soil and Water Conservation
- Ohio Department of Transportation
- Ohio Department of Natural Resources
- U.S. Army Corps of Engineers
- Soil scientists, agronomists, and geotechnical and environmental engineers
- Composting and other organics processing facility operators
- Wastewater and drinking water treatment facilities operators
- Beneficial use byproduct processors
- Port authorities and harbor sediment processors
- Municipalities and county engineers
- End-use partners in agriculture, restoration, redevelopment, infrastructure, and engineered soil markets

OS-13. Establish Regional Management Partnerships for Beneficial Use Byproducts

Statewide priorities supported: Priority 5: Enhance Coordination, Collaboration, and Partnerships

Issues addressed: Beneficial use byproducts such as drinking water treatment materials and Lake Erie dredge material, biosolids, compost, biochar, and blended or engineered soil products are often generated in quantities or locations that make individual processing, storage, hauling, or end use deployment inefficient for single utilities or processors. Many generators lack nearby dewatering capacity, storage space, testing laboratories, or predictable outlets, while neighboring generators may face similar limitations that could be addressed through shared regional systems. Without coordinated regional partnerships, utilities and local governments may continue to rely on disposal even when viable beneficial use pathways exist. A regional approach is needed to align generators, processors, haulers, laboratories, municipalities, and end-use markets, making beneficial use logistics more consistent, predictable, and cost effective.

Strategy statement: Establish a statewide initiative to develop regional management partnerships that improve access to beneficial use processing, storage, hauling, testing, and end-use outlets for beneficial use byproducts and organics-derived materials. Recommended conveners, working in collaboration with participating organizations, will coordinate regional working groups that bring together drinking water and wastewater facilities, soil blenders, composters, sediment processors, municipalities, hauling contractors, and engineering partners. These working groups will use existing inventory and mapping outputs to identify clusters of generators, evaluate shared infrastructure opportunities such as dewatering or staging sites, assess pooled service contracts, and outline cooperative partnership models suited to regional conditions. The initiative will produce guidance and templates that support utilities, processors, and local governments in implementing reliable regional systems that facilitate practical and consistent beneficial use operations.

Expected outcomes:

- Regional partnership models and templates that reduce management costs, improve logistics, and expand beneficial use feasibility for utilities, processors, and local governments.
- Increased reliability and predictability through shared infrastructure and pooled services such as dewatering, hauling, testing, storage, and staging.

OS-13. Establish Regional Management Partnerships for Beneficial Use Byproducts

- Greater beneficial use adoption supported by coordinated regional connections between generators, processors, and end-use markets.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Solid waste management districts
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Ohio Department of Agriculture Division of Soil and Water Conservation
- Drinking water and wastewater treatment facilities
- Composting and other organics processing facility operators
- Beneficial use byproduct processors
- Biochar producers
- Port authorities and harbor sediment processors
- Soil blending and engineered soil manufacturing businesses
- U.S. Army Corps of Engineers
- Ohio Lake Erie Commission
- Municipalities and county engineers
- Hauling contractors and testing laboratories
- End-use partners in agriculture, restoration, infrastructure, engineered soil, and redevelopment markets
- Ohio Farm Bureau Federation
- Ohio Organics Council
- Ohio Green Industry Association
- Ohio Manufacturers Association

OS-14. Develop an Industry-Led Liability Assurance Framework for Beneficial Use Byproducts

Statewide priorities supported: Priority 6: Support Market Development and Beneficial Use

Issues addressed: Producers, processors, transporters, municipalities, engineers, and end users often perceive beneficial use of byproducts and organics-derived materials, such as Lake Erie dredge material, drinking water treatment materials, biosolids, compost, biochar, and byproduct blended soils, as riskier than disposal. Concerns stem from uncertainty about long-term liability, future regulatory changes, community perception, and misinterpretation of material performance. Even when testing, product standards, and site conditions support beneficial use, fear of being held responsible for unforeseen issues can delay projects, deter innovation, and limit adoption. Stakeholders consistently emphasize the need for voluntary, industry-led assurance mechanisms that clarify recommended practices, strengthen defensible documentation, and reduce perceived risks across the full spectrum of beneficial use applications. A comprehensive, technically grounded framework would help producers, processors, and project sponsors feel confident advancing beneficial use byproducts while following predictable, science-based expectations.

Strategy statement: Develop a statewide, voluntary liability assurance framework led by industry associations, beneficial use byproduct processors, soil product manufacturers, composters, biosolids managers, Lake Erie dredge material and drinking water treatment material handlers, engineering partners, and academic collaborators. Recommended conveners, working in collaboration with participating organizations, will form a consortium that draws on testing data, performance criteria, product standards, and pilot outcomes from related beneficial use strategies to create defensible guidance. The framework will define recommended testing packages, documentation practices, placement and use-site protocols, communication templates, and quality assurance procedures. It will also evaluate feasible voluntary assurance mechanisms, such as warranty statements, third-party verification, certification options, shared liability pools, or standardized compliance checklists, that help reduce perceived risk for producers, processors, municipalities, and end users.

Expected outcomes:

1. Clear industry-developed guidance that reduces perceived liability and increases confidence among producers, processors, municipalities, and end users.

OS-14. Develop an Industry-Led Liability Assurance Framework for Beneficial Use Byproducts

2. Defensible documentation and placement protocols that improve consistency and support appropriate beneficial use decision making.
3. Voluntary assurance tools that encourage broader adoption of beneficial use byproducts across restoration, agriculture, infrastructure, and redevelopment projects.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and academic policy/legal programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Ohio Department of Agriculture
- Ohio Department of Natural Resources
- USDA Natural Resources Conservation Service
- Ohio Lake Erie Commission
- U.S. Army Corps of Engineers
- Legal experts and environmental liability specialists
- Civil and environmental engineering consultants
- Drinking water and wastewater treatment facilities
- Port authorities and harbor sediment recycling processors
- Municipalities and county engineers
- County land reutilization corporations
- End use partners in agriculture, restoration, redevelopment, infrastructure, and engineered soil applications
- Ohio Organics Council
- Ohio Green Industry Association
- Ohio Manufacturers Association

OS-15. Develop a Statewide Inventory and Matching System for Beneficial Use Byproducts

Statewide priorities supported: Priority 6: Support Market Development and Beneficial Use

Issues addressed: Successful beneficial use of byproducts, including Lake Erie dredge material, drinking water treatment materials, biosolids, industrial byproducts, compost, biochar, and blended or engineered soil products, requires more than material availability. End users need reliable information about location, timing, dewatering or processing status, testing results, storage capacity, transport logistics, seasonal constraints, and suitability for agricultural, restoration, redevelopment, infrastructure, and engineered soil applications. Ohio currently lacks a unified, accessible statewide system that inventories beneficial use byproducts across all sources and connects them predictably to appropriate projects. Without consistent and up-to-date information, generators, processors, municipalities, and project sponsors may miss opportunities, experience planning delays, or continue relying on disposal. As beneficial use markets expand under related strategies, Ohio needs a centralized, data driven platform that tracks material characteristics and enables reliable matching across diverse applications.

Strategy statement: Develop a statewide inventory and matching system that tracks beneficial use byproducts across Lake Erie dredge material, drinking water treatment materials, biosolids, industrial byproducts, compost, biochar, and blended or engineered soil products. Recommended conveners, working in collaboration with participating organizations, will assemble a cross-sector technical team, including GIS specialists, data managers, soil product manufacturers, composters, biosolids and sediment processors, solid waste districts, municipalities, and engineering partners, to define system requirements and standardized data fields. The system will integrate testing results, labeling information, processing or dewatering status, storage options, and suitability indicators generated through complementary beneficial use strategies. By providing a single platform for tracking, comparing, and matching materials based on location, conditions, and end-use needs, this initiative will support predictable, efficient, and transparent beneficial use implementation across Ohio.

Expected outcomes:

1. A dynamic statewide inventory that provides consistent, accessible information on beneficial use byproducts from multiple sources.

OS-15. Develop a Statewide Inventory and Matching System for Beneficial Use Byproducts

2. Increased beneficial use implementation through reliable matching of available materials to agricultural, restoration, redevelopment, infrastructure, and engineered soil projects.
3. Improved project planning and reduced disposal through predictable, data-driven identification of suitable materials for specific applications.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Port authorities and harbor sediment recycling processors
- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio Lake Erie Commission
- Municipalities and county engineers
- Ohio Department of Transportation
- Ohio Department of Natural Resources
- U.S. Army Corps of Engineers
- Solid waste management districts
- Soil and water conservation districts
- Beneficial use byproduct processors
- Soil blending and engineered soil manufacturing businesses
- GIS experts and data analytics partners
- Agricultural, restoration, redevelopment, infrastructure, and engineered soil project sponsors
- Ohio Organics Council
- Ohio Green Industry Association
- Ohio Manufacturers Association

Animal Mortalities from Panzootic Events



The Animal Mortalities strategies strengthen Ohio's readiness to manage both routine mortality and emergency panzootic events in ways that protect animal health, public health, environmental quality, and agricultural continuity. Because mortality management involves multiple partners and rapid decision making, these strategies focus on building a coordinated statewide readiness system that includes consistent guidance, pre-identified capacity, reliable materials, and qualified operators and haulers.

Together, AM-01 through AM-04 outline the key elements of that system—from decision making guidance to regional capacity, logistical preparation, and trained personnel. The table that follows lists each Animal Mortalities strategy by its strategy ID and title, providing a quick reference for readers before the detailed profiles.

Strategy ID	Strategy Title
AM-01	Develop an Ohio Carcass Management Decision Framework with Disease-Specific Routing
AM-02	Develop Regional Emergency Capacity and Pre-Identified Carcass Management Sites
AM-03	Strengthen Emergency Composting Readiness Through Bulking Agent Storage and Standby MOUs
AM-04	Expand Personnel and Transport Readiness Through Certified Operators and Qualified Haulers

AM-01. Develop an Ohio Carcass-Management Decision Framework with Disease-Specific Routing

Statewide priorities supported: Priority 4 – Strengthen Education, Outreach, and Technical Assistance

Issues addressed: When an animal mortality incident occurs, producers, veterinarians, haulers, facility operators, local emergency managers, and community officials must quickly determine how to manage carcasses to prevent disease spread and protect people and the environment. Guidance is currently scattered across multiple agencies, and decisions can stall while responders weigh disease risks, biosecurity needs, site conditions, transportation limits, and available facility capacity. Certain diseases, such as those involving prion persistence, may require high-temperature destruction rather than composting or land-based disposal. These knowledge gaps delay response and create inconsistencies, increasing biosecurity risk during routine mortalities, natural disasters, and panzootic events. A unified, Ohio-specific decision framework is needed to establish clear routing rules and provide plain-language tools for responders and facility operators.

Strategy statement: Develop a statewide carcass-management decision framework that consolidates disease-specific routing rules, approval considerations, and practical operational guidance for responders and facility operators. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop a concise Ohio-specific framework containing an operational decision tree, disease-limitation annex, and plain-language SOPs that reflect technology suitability, regulatory thresholds, and biosecurity safeguards. The coordinated effort will engage carcass-management authorities, health and emergency response partners, processors, haulers, and university experts to ensure the framework is technically accurate, practical to apply, and accessible for exercises and real incidents.

Expected outcomes:

1. Faster and more consistent carcass management decisions under routine conditions and surge events.
2. Reduced biosecurity risk through clear disease-specific routing rules and operational limitations.
3. A single, plain-language statewide framework used by agencies, responders, producers, haulers, and processors.

Recommended convening organizations:

- Applicable state agencies

AM-01. Develop an Ohio Carcass-Management Decision Framework with Disease-Specific Routing

- Relevant industry associations
- Universities and extension or applied research programs
- Technical or neutral convening organizations

Collaborating organizations:

- USDA Animal and Plant Health Inspection Service
- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Agriculture Division of Livestock Environmental Permitting
- Ohio Department of Natural Resources Division of Wildlife
- Ohio Emergency Management Agency
- Ohio Department of Transportation
- Ohio Veterinary Medical Association
- Ohio Pork Council
- Ohio Poultry Association
- Ohio Cattlemen's Association
- Agricultural industry associations
- Composting and other organics processing facility operators
- Livestock farmers, animal shelters, veterinary clinics
- Haulers and logistics partners
- Licensed raw rendering material transporters
- Equipment vendors and suppliers
- Local health departments
- Amish and Mennonite agricultural organizations

AM-02. Develop Regional Emergency Capacity and Pre-Identified Carcass-Management Sites

Statewide priorities supported: Priority 2 – Expand Infrastructure and Processing Capacity and Priority 5 – Enhance Coordination, Collaboration, and Partnerships

Issues addressed: During an animal mortality emergency, state and county emergency managers, producers, haulers, composting operators, landfill teams, and local health officials need rapid access to information on processing facilities and sites that can be activated without creating new risks. Currently, that information is scattered and often not prescreened for access, drainage, setbacks, flood risk, proximity to sensitive receptors, or stormwater controls. These gaps lead to delays and uncertainty when routine systems are overwhelmed. A regional inventory, with prescreened emergency composting sites, willing facilities, qualified haulers, contractors, staging locations, and testing providers, is needed to support predictable, safe, and timely emergency activation.

Strategy statement: Develop and maintain a regional emergency-capacity inventory and a vetted list of pre-identified carcass management sites to support timely activation during mortality incidents. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to apply standardized screening criteria, document activation requirements, and maintain up-to-date information on facilities willing to accept mortalities, qualified haulers, equipment contractors, staging locations, and testing or monitoring providers. The coordinated effort will publish an accessible GIS-enabled directory to support planning, training, and operational activation during emergency events.

Expected outcomes:

1. An up-to-date regional inventory of emergency capacity and prescreened carcass-management sites.
2. Shorter “days to activate” through clearly defined criteria, site readiness, and prescreened resource lists.
3. Improved coordination among facilities, haulers, responders, and agencies during mortality incidents.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

AM-02. Develop Regional Emergency Capacity and Pre-Identified Carcass-Management Sites

Collaborating organizations:

- USDA Animal and Plant Health Inspection Service
- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Agriculture Division of Livestock Environmental Permitting
- Ohio Emergency Management Agency
- Ohio Department of Rehabilitation and Correction
- Agricultural industry associations
- Ohio Organics Council
- Ohio Pork Council
- Ohio Poultry Association
- Ohio Cattlemen's Association
- Ohio Farm Bureau Federation
- Ohio Veterinary Medical Association
- Composting and other organics processing facility operators
- Livestock farmers, animal shelters, veterinary clinics
- Haulers and logistics partners
- Licensed raw rendering material transporters
- Equipment vendors and suppliers
- Local health departments
- Amish and Mennonite agricultural organizations

AM-03. Strengthen Emergency Composting Readiness Through Bulking Agent Storage and Standby MOUs

Statewide priorities supported: Priority 2 – Expand Infrastructure and Processing Capacity and Priority 5 – Enhance Coordination, Collaboration, and Partnerships

Issues addressed: Large-volume mortality composting requires substantial quantities of bulking agents, such as wood chips and sawdust, along with service providers ready to mobilize quickly. Local emergency coordinators often face bottlenecks due to limited stockpiles, unclear days-of-supply targets, and the absence of standby agreements that define acceptance criteria, biosecurity controls, cost recovery, and activation triggers. These gaps slow emergency activation and increase risk. Establishing supplier lists, regional stockpiles, quality specifications, delivery logistics, and template MOUs can help responders act decisively and protect communities during emergencies.

Strategy statement: Develop a statewide emergency composting readiness framework that strengthens access to fit-for-purpose bulking agents and pre-arranged standby agreements. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify regional stockpile or transfer-site options, define bulking agent quality specifications, develop scenario-based days-of-supply targets, and establish template MOUs outlining acceptance criteria, biosecurity controls, cost recovery, liability, approvals, communication protocols, and activation triggers. The coordinated effort will support consistent bulking agent availability, clarify logistics expectations, and improve readiness among suppliers, haulers, and processors.

Expected outcomes:

1. Reliable access to fit-for-purpose bulking agents through defined quality specifications, supply targets, and regional stockpiles.
2. Faster emergency activation enabled by standardized, pre-arranged MOUs specifying criteria, controls, and operational triggers.
3. Consistent material quality and safer emergency composting operations through coordinated supplier engagement and replenishment planning.

AM-03. Strengthen Emergency Composting Readiness Through Bulking Agent Storage and Standby MOUs

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- USDA Animal and Plant Health Inspection Service
- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Agriculture Division of Livestock Environmental Permitting
- Ohio Emergency Management Agency
- Ohio Department of Rehabilitation and Correction
- Ohio Pork Council
- Ohio Poultry Association
- Ohio Cattlemen's Association
- Ohio Farm Bureau Federation
- Ohio Veterinary Medical Association
- Ohio Organics Council
- Composting and other organics processing facility operators
- Livestock farmers, animal shelters, veterinary clinics
- Haulers and logistics partners
- Licensed raw rendering material transporters
- Equipment vendors and suppliers
- Local health departments

AM-04. Expand Personnel and Transport Readiness Through Certified Operators and Qualified Haulers

Statewide priorities supported: Priority 2 – Expand Infrastructure and Processing Capacity and Priority 4 – Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Safe and biosecure movement of animal mortalities requires trained operators and qualified haulers who meet minimum standards for leakproof and covered transport, training, disinfection capability, spill response, routing, movement controls, and documentation. Availability and documentation vary by region, leaving producers, facility operators, and responders uncertain who can be mobilized quickly and under what standards. A unified roster, aligned with Ohio EPA operator certification and OSU Extension mortality-composting training, and clear hauler criteria can accelerate deployment and improve confidence across the response network.

Strategy statement: Develop a statewide personnel and transport readiness framework that maintains a roster of certified operators and qualified haulers and clarifies minimum transport and biosecurity standards. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop roster criteria, publish minimum hauler requirements, align training expectations with existing certification programs, and coordinate dissemination of readiness information across producer, hauler, processor, and responder networks. The coordinated effort will support consistent mobilization during routine mortalities and emergency events and improve statewide access to qualified service providers.

Expected outcomes:

1. A statewide, easily accessible roster of certified operators and qualified haulers that improves readiness during routine and emergency carcass management needs.
2. Clear, unified transport and biosecurity standards that enhance consistency, safety, and compliance across haulers and facility operators.
3. Stronger statewide readiness through coordinated training promotion, aligned certification programs, and consistent personnel and hauler documentation.

AM-04. Expand Personnel and Transport Readiness Through Certified Operators and Qualified Haulers

Recommended convening organizations:

- Applicable state agencies
- Agricultural industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Agriculture Division of Livestock Environmental Permitting
- Ohio Emergency Management Agency
- Ohio Department of Rehabilitation and Correction
- Ohio Organics Council
- Ohio Department of Rehabilitation and Correction
- Ohio Pork Council
- Ohio Poultry Association
- Ohio Cattlemen's Association
- Ohio Farm Bureau Federation
- Composting and other organics processing facility operators
- Haulers and logistics partners
- Licensed raw rendering material transporters
- Local health departments
- Solid waste management districts

Animal Waste (Manures and Ancillary Wastes)



The Animal Waste strategies help strengthen Ohio's ability to plan for, move, process, and beneficially use manure and other animal-related organic materials. Because these materials are generated across diverse operations and regions, the strategies focus on improving statewide information, watershed targeting, regional logistics, and outreach to decentralized generators. Together, AW-01 through AW-04 support a more resilient and responsive system that can reduce nutrient pressures, improve emergency preparedness, expand processing and market pathways, and connect surplus materials with appropriate receiving, treatment, and beneficial use options.

The table below lists each Animal Waste strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
AW-01	Develop a Statewide Manure Flow, Tracking, and Contingency Framework
AW-02	Watershed Targeted Manure Management
AW-03	Develop Regional Manure Transportation and Storage/Staging Logistics Pilot Projects
AW-04	Develop Equine-Manure Outreach, Collection, and Market Solutions

AW-01. Develop a Statewide Manure Flow, Tracking, and Contingency Framework

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making

Issues addressed: Ohio lacks statewide information on off-farm manure movements, by type, volume, season, destination, and end use, which limits planning capacity and the ability to prepare logistics, storage, and receiving options in regions under nutrient pressure. Extreme weather, animal disease events, storage failures, and other disruptions can quickly overwhelm routine management systems, creating urgent needs for temporary storage, alternative receiving sites, emergency hauling support, or short-term processing pathways. Without a baseline and practical tracking structure, contingency actions are slower, riskier, and costlier to implement. A coordinated statewide framework is needed to compile baseline movement data, support voluntary tracking, and preplan contingency elements that reduce environmental and operational risks during disruptions.

Strategy statement: Develop a phased, statewide manure flow and contingency framework that establishes core baseline information, supports low-burden tracking, and strengthens emergency preparedness for off-farm manure movements. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to define essential data fields, identify practical voluntary or program-based tracking options with confidentiality protections, and determine how baseline information can be updated annually to reflect seasonal shifts and emerging conditions. The coordinated effort will also outline contingency framework components, such as emergency receiving sites, contractor lists, staging locations, and operational protocols for weather or disease related disruptions, based on shared planning inputs from technical, industry, and regional partners. By aligning baseline and contingency elements within a unified statewide structure, the strategy supports more reliable logistics, targeted resource deployment, and faster response during system stress.

Expected outcomes:

1. A statewide, annually updated baseline and low-burden tracking structure that improves visibility into off-farm manure flows, regional nutrient pressures, seasonal constraints, and receiving pathways.
2. A ready-to-activate contingency framework with mapped emergency sites, contractor lists, and operational protocols that shorten response time and reduce environmental risk during disruptions.

AW-01. Develop a Statewide Manure Flow, Tracking, and Contingency Framework

3. More targeted logistics, storage, processing, and market-development actions in nutrient-sensitive watersheds informed by planning-grade baseline data and practiced contingency procedures.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio Department of Agriculture Division of Livestock Environmental Permitting
- Ohio Department of Agriculture Division of Soil and Water Conservation
- Ohio Department of Natural Resources H2Ohio Program
- USDA Natural Resources Conservation Service
- Manure brokers, custom applicators, and haulers
- Ohio Horseman's Council
- Ohio Veterinary Medical Association
- Ohio Pork Council
- Ohio Poultry Association
- Ohio Cattlemen's Association
- Ohio Farm Bureau Federation
- Ohio Organics Council
- Ohio Water Development Authority
- Composting and other organics processing facility operators
- GIS experts and data architects
- Watershed planning and management organizations

AW-02. Watershed Targeted Manure Management

Statewide priorities supported: Priority 5: Enhance Coordination, Collaboration, and Partnerships; and Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Some Ohio regions experience high livestock density, limited land availability, and sensitive water quality conditions that create nutrient pressure and make off-farm manure management a priority. Surplus manure must be directed into processing pathways, such as composting or co-composting, anaerobic digestion, and separation or pelletization, to convert nutrients and organic matter into marketable, transportable products that reduce runoff risks. Watershed-targeted manure management aligns with statewide market development and procurement initiatives for compost and soil amendments and leverages organics resource-shed planning tools to match processing scale, logistics, and storage or staging options to local watershed conditions. Coordinated watershed targeting creates practical, recyclable pathways for manure derived materials with measurable environmental benefits.

Strategy statement: Develop a watershed-targeted manure management approach that aligns nutrient-pressure conditions with appropriate organics-recovery pathways. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify priority watersheds, define targeting criteria, and develop practical planning tools that support redistribution, timing optimization, and off-farm processing of manure and manure derived materials. The coordinated effort will incorporate watershed planning expertise, organics processing partners, university and extension input, hauling and brokering knowledge, and baseline/resource-shed data to support decision making. By aligning water quality objectives with composting, co-composting, anaerobic digestion, separation/pelletization, and soil product markets, the strategy will improve regional nutrient outcomes while strengthening the beneficial use value chain for manure derived products.

Expected outcomes:

1. Reduced nutrient loading and runoff risk in targeted watersheds through improved redistribution, timing, placement, and processing of manure materials.
2. Increased manure recycling and product utilization through expanded composting, anaerobic digestion, and separation technologies.
3. More efficient and coordinated investments driven by updated resource-shed insights that align logistics, storage, and processing capacity with surplus areas.

AW-02. Watershed Targeted Manure Management

Recommended convening organizations:

- Applicable state agencies
- Watershed planning and management entities
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio Department of Agriculture Division of Livestock Environmental Permitting
- Ohio Department of Agriculture Division of Soil and Water Conservation
- Ohio Department of Natural Resources H2Ohio Program
- USDA Natural Resources Conservation Service
- Watershed organizations
- Manure brokers, custom applicators, and haulers
- Ohio Horseman's Council
- Ohio Pork Council
- Ohio Poultry Association
- Ohio Cattlemen's Association
- Ohio Farm Bureau Federation
- Ohio Veterinary Medical Association
- Agricultural industry associations
- Ohio Organics Council
- Ohio Water Development Authority
- Composting and other organics processing facility operators
- Amish and Mennonite agricultural organizations
- GIS experts and data architects
- Consultants

AW-03. Develop Regional Manure Transportation and Storage/Staging Logistics Pilot Projects

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; and Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Promising off-farm manure management approaches vary widely in feasibility and cost depending on regional feedstock density, infrastructure access, logistics constraints, and market conditions, making project selection and replication difficult. Transportation costs, limited hauling availability, timing constraints, and weak coordination hinder movement of manure from surplus areas to farms, composting facilities, digesters, and other end users. Seasonal land application windows, wet weather, winter restrictions, and limited on-farm storage create bottlenecks that can increase the risk of poorly timed land application or emergency hauling. A coordinated set of pilot projects is needed to test practical regional models for brokering and hauling networks, aggregation hubs, and storage or staging capacity, including co-collection or consolidation with other compatible organic materials.

Strategy statement: Develop and implement regional pilot projects that evaluate practical manure transportation, storage/staging, aggregation, and processing models in priority surplus-shed areas. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify priority regions using resource-shed and baseline insights, support partners in planning pilot concepts, and facilitate evaluation of approaches such as coordinated brokering and hauling networks, regional storage or staging sites, transfer hubs, and centralized or regional anaerobic digestion options where feedstock and markets allow. The coordinated effort will incorporate siting and permitting considerations, logistical assessments, basic performance metrics, and consistent tracking of representative indicators such as tonnage moved, haul efficiency, storage utilization, processed volumes, and product quality. By synthesizing pilot findings across diverse regional conditions, the strategy will help determine which models are scalable, cost effective, and suited for broader implementation.

Expected outcomes:

1. Improved manure movement from surplus sheds to end users through increased brokered volumes and fewer cost and coordination barriers.
2. Expanded organics processing activity that increases production of transportable, marketable manure derived products.

AW-03. Develop Regional Manure Transportation and Storage/Staging Logistics Pilot Projects

3. Reduced seasonal and emergency bottlenecks through activated regional storage options and clearer contingency pathways.

Recommended convening organizations:

- Applicable state agencies
- Watershed and regional planning organizations
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Surface Water
- Ohio Department of Agriculture Division of Livestock Environmental Permitting
- Ohio Department of Agriculture Division of Soil and Water Conservation
- Ohio Department of Natural Resources H2Ohio Program
- USDA Natural Resources Conservation Service
- Manure brokers, custom applicators, and haulers
- Agricultural industry associations
- Ohio Organics Council
- Ohio Horseman's Council
- Ohio Pork Council
- Ohio Poultry Association
- Ohio Cattlemen's Association
- Ohio Farm Bureau Federation
- Ohio Water Development Authority
- Composting and other organics processing facility operators
- Amish and Mennonite agricultural organizations
- Municipalities and county governments
- GIS experts and data architects
- Consultants

AW-04. Develop Equine Manure Outreach, Collection, and Market Solutions

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance; and Priority 6: Support Market Development and Beneficial Use

Issues addressed: Equine facilities, livestock auctions, fairs, small farms, and other non-traditional manure generators may lack adequate storage, nutrient management planning, reliable hauling, or beneficial use outlets for their horse manure and bedding. These challenges are amplified in urban and suburban areas where concentrated manure volumes are located near residential or commercial development and land application or composting opportunities are limited. Odor, truck access, stormwater, nuisance conditions, and zoning constraints can restrict onsite management or expansion of composting options. Outreach to equine facilities is difficult because owner networks are decentralized and there is no single registry of equine premises, requiring engagement through associations, service providers, events, and localized directories. A coordinated statewide approach is needed to reach equine generators, improve collection and aggregation options, and support market pathways for clean, transportable equine manure and bedding.

Strategy statement: Develop a coordinated equine manure outreach, collection, and market solutions initiative that helps equine generators engage in practical and protective management pathways. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to establish outreach channels for private horse owners and boarding barns, identify feasible collection and aggregation approaches, and support routing of clean, transportable equine manure and bedding to appropriate processing and market outlets. The coordinated effort will draw on equine sector associations, extension partners, fair boards, farriers, equine veterinarians, haulers, brokers, composters, digesters, soil blenders, and GIS/data partners to refine outreach formats, understand local conditions, evaluate collection feasibility, and improve market connectivity. By tailoring engagement to decentralized equine networks and documenting practical, region appropriate solutions, the initiative will reduce nuisance conditions, expand beneficial use pathways, and strengthen manure management options for equine manure generators across Ohio.

Expected outcomes:

1. Increased identification and engagement of equine facilities through targeted outreach channels.
2. Greater volumes of clean, transportable equine manure and bedding delivered to processing and market outlets.

AW-04. Develop Equine Manure Outreach, Collection, and Market Solutions

3. Reduced nuisance and runoff risks at urban and suburban equine facilities through scheduled collection, aggregation options, and tailored housekeeping guidance.

Recommended convening organizations:

- Applicable state agencies
- Watershed and regional planning organizations
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio Department of Agriculture Division of Soil and Water Conservation
- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio 4-H horse programs
- Ohio Horseman's Council
- United States Pony Clubs Great Lakes Region
- Farriers and equine veterinarians
- Boarding stable operators
- Ohio Fair Managers Association and county fair boards
- Composting and other organics processing facility operators
- Amish and Mennonite agricultural organizations
- Municipalities and county governments
- GIS experts and data architects
- Haulers and logistics partners
- Ohio Organics Council

Biosolids



The Biosolids strategies strengthen Ohio's ability to plan for, manage, and beneficially use biosolids by improving statewide data, regional coordination, public communication, and targeted infrastructure options. Because biosolids management varies across facilities and regions, these strategies focus on building a more resilient system that can adapt to changing capacity constraints, public concerns, market needs, and emerging regulatory or contaminant issues. Together, BS-01 through BS-05 support a more coordinated approach that connects reliable information, infrastructure planning, communication tools, and beneficial use pathways.

The table below lists each Biosolids strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
BS-01	Develop a Statewide Biosolids Baseline and Data Governance Framework
BS-02	Develop Regional Infrastructure Gap Screening and Partnership Development for Biosolids
BS-03	Develop a Statewide Biosolids Education and Public Confidence Initiative
BS-04	Expand WWTP-Led Biosolids Composting and Co-Composting
BS-05	Optimize Biosolids Anaerobic Digestion and Biogas Recovery

BS-01. Develop a Statewide Biosolids Baseline and Data Governance Framework (rewritten BS-01)

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making

Issues addressed: Ohio's biosolids data is reported for regulatory purposes, but it is not standardized into a planning-grade statewide dataset. Differences in reporting units, seasonal storage practices, solids handling approaches, and facility-specific management pathways create inconsistencies that limit comparability and hinder statewide planning. Existing datasets do not fully capture generation quantities, management pathways, regional vulnerabilities, or the performance of storage, dewatering, hauling, digestion, drying, and land application systems. Without a unified biosolids data structure, Ohio cannot reliably identify infrastructure gaps, evaluate resiliency under emerging contaminant pressures, or integrate biosolids information into broader organics resource-shed planning systems.

Strategy statement: Develop a statewide biosolids baseline and data governance framework that defines core data elements, normalization methods, material categories, and privacy-protective aggregation approaches. Recommended conveners, working in collaboration with participating organizations, will establish a collaborative working group of wastewater utilities, haulers, biosolids processors, local partners, and regional stakeholders to determine data needs, reporting options, modernization opportunities, and planning-grade metrics. The resulting framework will support integration of biosolids data into statewide organics resource-shed platforms, while clarifying update cycles, governance roles, and mechanisms for sharing planning-level information across utilities, regional collaboratives, and state partners.

Expected outcomes:

1. A normalized, statewide biosolids dataset describing generation, management pathways, and regional service gaps.
2. A privacy-protective, low-burden data governance framework endorsed by utilities, haulers, and processors.
3. Clear governance structures for biosolids data updates and planning integration.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations

BS-01. Develop a Statewide Biosolids Baseline and Data Governance Framework (rewritten BS-01)

Collaborating organizations:

- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Wastewater treatment plant operators
- Biosolids haulers and logistic partners
- Local health departments
- GIS experts and data architects
- Biosolids land application service providers

BS-02. Develop Regional Infrastructure Gap Screening and Partnership Development for Biosolids

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 2: Expand Infrastructure and Processing Capacity; and Priority 6: Support Market Development and Beneficial Use

Issues addressed: Biosolids infrastructure in Ohio is uneven, with many wastewater treatment plants, especially smaller or rural facilities, facing limited access to dewatering, storage, hauling, digestion, drying, and reliable backup outlets. These gaps create high costs, long hauling distances, reduced resiliency, and limited access to beneficial use markets. Statewide organics resource-shed planning systems identify geographic gaps in processing capacity, but biosolids-specific constraints such as seasonal storage limits, digestion bottlenecks, land application disruptions, and biosolids-specific vulnerabilities require dedicated data layers and tailored regional partnership models. Without structured biosolids-focused coordination, communities cannot fully leverage shared services or regional infrastructure solutions.

Strategy statement: Develop biosolids specific infrastructure gap screening tools and regional partnership frameworks that integrate with the statewide organics resource-shed system. Recommended conveners, working in collaboration with participating organizations, will coordinate efforts to compile biosolids datasets describing storage capacity, dewatering capability, digestion and drying infrastructure, hauling constraints, backup outlets, and vulnerability indicators. These biosolids layers will feed directly into statewide planning systems and support regional working groups composed of utilities, processors, local governments, haulers, and engineering partners. The working groups will evaluate shared service opportunities such as regional dewatering hubs, shared storage sites, cooperative hauling contracts, or joint composting and digestion facilities, producing region specific partnership models that communities can adopt.

Expected outcomes:

1. Biosolids-specific data layers integrated into statewide resource-shed planning to improve gap identification.
2. Clear regional shared service models designed from biosolids assessments and statewide planning outputs.
3. Increased biosolids system resiliency through coordinated regional planning and shared infrastructure options.

BS-02. Develop Regional Infrastructure Gap Screening and Partnership Development for Biosolids

Recommended convening organizations:

- Applicable state agencies
- Industry associations and beneficial use groups
- Regional wastewater utility collaboratives
- Universities, extension and applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Wastewater treatment plant operators
- Biosolids haulers and logistic partners
- Municipalities and county governments
- Engineering and planning consultants
- Biosolids land application providers
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Solid waste management districts
- Ohio Organics Council
- Ohio Farm Bureau Federation
- GIS experts and data architects

BS-03. Develop a Statewide Biosolids Education and Public Confidence Initiative

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Public acceptance remains one of the most significant barriers to reliable biosolids management in Ohio. Concerns about odors, pathogens, Class B biosolids, PFAS, land application visibility, and treatment processes contribute to skepticism even when biosolids meet regulatory standards. Misconceptions about environmental safeguards and nutrient cycling benefits drive community opposition, reduce site availability, and undermine beneficial use pathways. A statewide, coordinated communication effort is needed to ensure residents, landowners, agricultural partners, and local officials receive clear, accessible, and science-based information about biosolids management, safety, and beneficial uses.

Strategy statement: Develop a statewide biosolids education and public confidence initiative that delivers clear, audience-specific communication about biosolids treatment, safety, monitoring, odor control, regulatory safeguards, and beneficial use applications. Recommended conveners, working in collaboration with participating organizations, will coordinate a Biosolids Communications Working Group consisting of regulators, operators, agricultural organizations, independent experts, and communication specialists. The initiative will produce consistent statewide messaging, tailored outreach materials, communication templates for utilities, and digital education resources that improve transparency and support informed public dialogue around biosolids and their role in Ohio's circular economy.

Expected outcomes:

1. Increased public confidence through clear, consistent, and transparent biosolids communication.
2. Reduced opposition to land application activities through improved expectations management and standardized outreach practices.
3. Stronger understanding of biosolids' role in nutrient cycling, soil health, and circular economy outcomes.

BS-03. Develop a Statewide Biosolids Education and Public Confidence Initiative

Recommended convening organizations:

- Applicable state agencies
- Wastewater utilities
- Universities, extension and applied-research programs
- Relevant industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Agricultural organizations
- Communications specialists
- Municipalities and county governments
- Township officials
- Biosolids land application providers
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Solid waste management districts
- Ohio Organics Council
- Ohio Farm Bureau Federation

BS-04. Expand WWTP-Led Biosolids Composting and Co-Composting

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Many wastewater treatment plants (WWTP) rely heavily on land application as their primary biosolids management pathway, but this option is increasingly constrained by weather, seasonal windows, land availability, odor concerns, nutrient restrictions, and emerging contaminant considerations. At the same time, numerous regions lack composting infrastructure capable of managing locally generated organic materials such as yard waste, wood waste, food scraps, and manures. WWTP-led composting and co-composting, using biosolids combined with locally available organic feedstocks, can create new community processing capacity, diversify biosolids management options, and produce stabilized soil amendments that may face fewer restrictions than land application practices. By adding composting capability at existing WWTPs, communities can reduce reliance on land application, expand beneficial use outlets for their own organic materials, and strengthen overall biosolids system resiliency.

Strategy statement: Expand wastewater-utility-led composting and co-composting by developing a coordinated statewide support initiative that helps facilities evaluate, pilot, and adopt composting systems incorporating biosolids and locally generated organic materials. Recommended conveners, working in collaboration with participating organizations, will collaborate with wastewater utilities to assess facility suitability, understand composting regulatory and operational considerations, identify accessible bulking materials, and build partnerships with yard waste, wood waste, and organics processing programs. The initiative will support development of pilot composting projects, provide technical training and operator guidance, and promote quality assurance practices aligned with statewide soil product standards. By creating a structured pathway for WWTPs to add composting capacity, the strategy enables utilities and communities to diversify biosolids management options, enhance resiliency, and produce high quality soil amendments suitable for agricultural, landscaping, stormwater, reclamation, and public sector uses.

Expected outcomes:

1. Expanded locally controlled biosolids composting capacity that reduces reliance on land application and improves operational resiliency.
2. Production of market-ready compost aligned with statewide quality and performance standards.

BS-04. Expand WWTP-Led Biosolids Composting and Co-Composting

3. Stronger collaboration among wastewater utilities, solid waste districts, yard waste programs, local governments, and organics processors.

Recommended convening organizations:

- Applicable state agencies
- Wastewater utilities
- Solid waste management districts
- Relevant industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Haulers and logistics partners
- Municipal public service departments
- County governments
- Engineering consultants
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Ohio Organics Council
- Ohio Green Industry Association
- Ohio Manufacturers Association
- Ohio EPA Division of Materials and Waste Management
- Universities, extension and applied-research programs
- Ohio Farm Bureau Federation

BS-05. Optimize Biosolids Anaerobic Digestion and Biogas Recovery

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Many Ohio wastewater treatment plants operate digesters that do not maximize solids reduction, gas capture, heating and mixing efficiency, or opportunities for beneficial use of biogas. Some facilities flare biogas due to equipment constraints or lack of feasible recovery pathways, while others operate below design capacity or face aging infrastructure that limits performance. At the same time, compatible co-digestion feedstocks such as food scraps, food waste, FOG, and septage could increase organics processing capacity when carefully evaluated for technical, operational, and regulatory fit. Without a coordinated statewide framework to assess digester conditions, identify upgrade opportunities, evaluate co-digestion feasibility, and connect utilities to achievable biogas use options, Ohio wastewater plants may miss opportunities to reduce energy costs, improve resiliency, support circular economy goals, and expand regional and local organics processing options.

Strategy statement: Optimize biosolids anaerobic digestion and biogas recovery by developing a statewide evaluation and WWTP upgrade planning initiative tailored to the needs of wastewater utilities. Recommended conveners, working in collaboration with participating organizations, will organize a multidisciplinary working group of digester operators, engineers, energy system specialists, organics processors, and municipal partners. This group will develop a standardized assessment approach that helps facilities evaluate digester performance, identify feasible upgrades, consider biogas beneficial use options such as heat recovery or combined heat and power, and assess opportunities for co-digestion with compatible feedstocks. The initiative will align digester improvements with facility capital planning cycles, highlight funding pathways, and support pilot or demonstration concepts that illustrate scalable models for optimized digestion and biogas recovery across Ohio.

Expected outcomes:

1. Increased biogas recovery and improved digester performance through targeted optimization and upgraded operational practices.
2. Expanded co-digestion opportunities that safely increase regional organics processing capacity.
3. Facility-specific upgrade concepts and pilot demonstrations that provide scalable models for enhanced digestion and biogas-use pathways.

BS-05. Optimize Biosolids Anaerobic Digestion and Biogas Recovery

Recommended convening organizations:

- Applicable state agencies
- Wastewater utilities
- Relevant industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Solid waste management districts
- Engineering and energy system consultants
- Haulers and logistics partners
- Septage and FOG collection companies
- Licensed raw rendering materials transporters
- Local governments and capital planning offices
- Universities, extension and applied-research programs
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Ohio Organics Council
- Ohio EPA Division of Materials and Waste Management

Compostable Paper Products



The compostable paper strategies help clarify when paper-based food service items and related compostable paper products can support organics programs and when they should follow other management pathways. Because these items vary widely in performance, coatings, and contamination risk, the strategies focus on providing clear definitions, acceptance criteria, and practical guidance for generators, haulers, facilities, program managers, and the public. Together, CP-01 and CP-02 support a more consistent system that helps keep clean, high-value paper in the traditional recycling stream while directing food-soiled, non-coated paper and other eligible items to composting where facilities are equipped to handle them.

The table below lists each Compostable Paper strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
CP-01	Establish Statewide Guidance for Compostable Paper Acceptance and Diversion
CP-02	Develop Model Generator Agreements and Contamination Controls for Compostable Paper

CP-01. Establish Statewide Guidance for Compostable Paper Acceptance and Diversion

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance; and Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: A portion of the municipal paper stream cannot be processed in traditional recycling programs but can be diverted through composting when items are food-soiled, non-coated with non-compostable plastics, and compatible with facility processes. However, generators and the public often struggle to distinguish these items from clean recyclable paper or from certified compostable products, leading to mis-sorting and contamination. Programs across Ohio lack consistent acceptance lists and messaging, causing confusion, higher reject rates, and missed diversion opportunities. These inconsistencies create operational challenges for receiving facilities and weaken confidence in compostable paper diversion systems. Clear statewide guidance is needed to define compostable-paper categories, align processing routing decisions, and support consistent communication.

Strategy statement: Establish a statewide guidance framework that clearly defines compostable paper, distinguishes it from recyclable paper and certified compostable products, and provides consistent acceptance lists, routing guidance, and communication templates. Recommended conveners, working in collaboration with participating organizations, will coordinate a working group of composting operators, haulers, generators, and certification organizations to develop plain language materials that explain labeling, certification, and facility specific acceptance. The guidance will standardize how programs communicate acceptable items, provide templates for signage and procurement messaging, and help facilities create overlays that reflect their operational capabilities. By aligning common definitions with consistent statewide communication, this strategy reduces contamination, improves diversion of appropriate compostable paper, and enhances program design and procurement practices.

Expected outcomes:

1. Reduced contamination and reject rates in recycling and composting streams through consistent statewide acceptance lists and communication tools.
2. Improved diversion of appropriate compostable paper while maintaining recycling priority for clean, high-value paper.
3. Procurement and program decisions that reflect real world facility acceptance, reducing unsupported or mislabeled products in the stream.

CP-01. Establish Statewide Guidance for Compostable Paper Acceptance and Diversion

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Solid waste management districts
- Universities, extension and applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Composting facility operators
- Ohio Organics Council
- U.S. Composting Council
- Biodegradable Products Institute
- Solid waste management districts
- Haulers
- Zero-waste professionals
- Institutional and commercial generators, including schools, universities, hospitals, restaurants, and event venues
- Paper products manufacturers

CP-02. Develop Model Generator Agreements and Contamination Controls for Compostable Paper

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Source-separated organics streams are frequently contaminated when generators incorrectly include plastic-lined, coated, or multi-material paper packaging that is not compostable. These items increase reject rates, elevate costs, undermine end-product quality, and damage program credibility. Many generators lack clear expectations, enforceable standards, or consistent procedures for separating acceptable compostable paper from non-compostable paper items. A statewide model for generator agreements is needed to embed contamination controls into program participation, service contracts, and internal procedures.

Strategy statement: Develop model generator agreement language that embeds contamination control expectations and supports consistent separation of compostable paper at the point of generation. Recommended conveners, working in collaboration with participating organizations, will coordinate a working group of composting operators, haulers, generators, and program specialists to create model terms that define accepted materials with facility specific overlays, establish contamination thresholds, outline training and signage expectations, and provide procedures for inspection, feedback, and corrective action. The model language will be available for facilities, haulers, and generators to incorporate into service contracts, program guidelines, or operational policies, enabling more consistent generator behavior and reducing contamination in compostable paper streams.

Expected outcomes:

1. Reduced contamination and reject rates through clear expectations and consistent generator practices.
2. Improved compliance supported by training standards, signage requirements, and structured feedback processes.
3. Increased diversion of eligible compostable paper without compromising compost quality or market confidence.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Solid waste management districts
- Universities, extension and applied-research programs

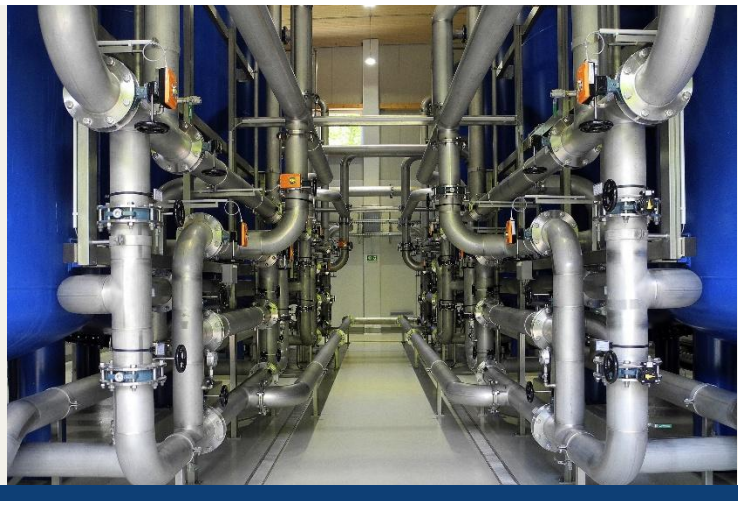
CP-02. Develop Model Generator Agreements and Contamination Controls for Compostable Paper

- Technical or neutral convening organizations

Collaborating organizations:

- Composting facility operators
- Generators, including restaurants, schools, universities, hospitals, event venues, and offices with food service
- Solid waste management districts
- Haulers
- Paper products manufacturers

Drinking Water Treatment Materials



The Drinking Water Treatment Materials (DWTM) strategies strengthen Ohio's ability to evaluate, manage, and beneficially use these byproducts by improving technical guidance, characterization practices, statewide data, and targeted field evaluation. Because DWTM originates from many facilities and varies in composition, the strategies support a more coordinated system that can connect generators, regulators, researchers, municipalities, processors, and end users. Together, DW-01 through DW-06 help build confidence in appropriate applications, from soil amendments and engineered soil blends to restoration and water quality projects, where well-characterized materials and clear evaluation criteria guide beneficial use.

The table below lists each DWTM strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
DW-01	Develop a DWTM Beneficial Use Technical and Education Initiative
DW-02	Develop a Standardized Characterization and Screening Protocol for DWTM
DW-03	Develop pH-Informed Guidance for Evaluating Aluminum-Based DWTM
DW-04	Develop a Statewide Inventory and Mapping System for DWTM Generation
DW-05	Develop a DWTM Pilot and Performance Evaluation Framework
DW-06	Develop a DWTM Evaluation Framework for Phosphorus Control and Water Quality Applications

DW-01. Develop a DWTM Beneficial Use Technical and Education Initiative

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Although strong scientific knowledge exists for evaluating and beneficially using drinking water treatment materials (DWTM), this information has not been translated into clear, practical, and trusted guidance for generators, processors, municipalities, engineers, and project sponsors. The absence of accessible "how-to" instructions leads to inconsistent decision making, cautious permitting, and underuse of materials that could support soil health, phosphorus binding, watershed restoration, or manufactured soil applications. Technical expertise relevant to DWTM, such as soil science, agronomy, byproducts management, and water quality engineering, is dispersed across agencies and universities without a coordinated structure for producing unified guidance. Outreach is also fragmented, reinforcing misconceptions about DWTM as waste or overstating benefits without clarifying use conditions. A coordinated strategy is needed to integrate expert input, formal guidance development, and consistent communication aligned with statewide priorities.

Strategy statement: Develop a statewide Drinking Water Treatment Materials Beneficial Use Technical and Education Initiative that unifies expert working groups, guidance development, and technical outreach. Recommended conveners, working in collaboration with participating organizations, will assemble a multidisciplinary team, including DWTM program staff, soil and water specialists, university researchers, engineers, agronomists, municipalities, and beneficial use byproduct processors, to develop practical guidance and communication tools grounded in existing science. The initiative will produce technical resources such as model specifications, decision supports, and clarity on beneficial use evaluation pathways, alongside coordinated messaging that helps stakeholders understand appropriate and tested uses. All outputs will undergo review through established state channels to ensure scientific, regulatory, and communication consistency.

Expected outcomes:

1. Consistent, technically credible guidance that strengthens statewide beneficial use decision making for DWTM.
2. Unified messaging that increases public and stakeholder confidence in appropriate DWTM applications.
3. Improved collaboration among municipalities, engineers, soil blending operations, and project sponsors supported by expert-developed outreach.

DW-01. Develop a DWTM Beneficial Use Technical and Education Initiative

Recommended convening organizations:

- Applicable state agencies
- Universities and extension or applied-research programs
- Environmental, engineering, and soil science industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Ohio Department of Transportation
- Ohio Department of Natural Resources
- Soil and water conservation districts
- Municipalities and county engineers
- Drinking water treatment facility operators
- Agronomists, soil scientists, and environmental engineers
- Beneficial use byproducts processors and end-use partners
- USDA Natural Resources Conservation Service

DW-02. Develop a Standardized Characterization and Screening Protocol for DWTM

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 2: Expand Infrastructure and Processing Capacity; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Drinking water treatment materials vary considerably by treatment process—including lime softening, aluminum-based coagulation, iron-based coagulation, and mixed streams, with each type having different reuse suitability, pH behavior, contaminant profiles, and performance potential. Without consistent characterization and screening requirements, beneficial use decisions are inconsistent, creating uncertainty for generators, regulators, and end users. Variability in testing practices leads to cautious or uneven adoption of promising materials, complicating planning for soil blending, restoration, watershed, and engineered soil applications. A standardized, science-based protocol is needed to ensure DWTMs are consistently evaluated before beneficial use.

Strategy statement: Develop a statewide characterization and screening protocol for DWTM that combines material type identification, contaminant testing, and performance criteria. Recommended conveners, working in collaboration with participating organizations, will assemble a technical working group of agency scientists, soil experts, environmental engineers, and beneficial use byproducts specialists to establish minimum testing requirements and characterization parameters. The guidance will define core analyses, screening thresholds, reuse specific criteria, and decision support formats for evaluating DWTM suitability across soil amendment, restoration, engineered soil, and water quality applications.

Expected outcomes:

1. Consistent, science-based evaluations of DWTM before beneficial use.
2. Clear testing expectations for generators, processors, regulators, and end users.
3. Improved ability to match DWTM types with appropriate beneficial use pathways.

DW-02. Develop a Standardized Characterization and Screening Protocol for DWTM

Recommended convening organizations:

- Applicable state agencies
- Universities and extension or applied-research programs
- Environmental and soil science industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Ohio Department of Transportation
- Ohio Department of Natural Resources
- Drinking water treatment facility operators
- Soil and water conservation districts
- Municipalities and county engineers
- Beneficial use byproducts processors and end-use partners
- Agronomists, soil scientists, and environmental engineers

DW-03. Develop pH-Informed Guidance for Evaluating Aluminum-Based DWTM

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Aluminum-based DWTM is often misunderstood due to confusion between total aluminum content and the factors that determine suitability and risk, such as soil pH, soluble aluminum behavior, application rate, and site-specific conditions. Without clear, pH-based evaluation criteria, stakeholders may use overly cautious assumptions or misclassify aluminum-based DWTM as unsuitable even when data indicate safe and effective reuse. A practical, scientifically grounded framework is needed to clarify when aluminum-containing DWTM can be used beneficially, what conditions require additional controls, and how evaluations should distinguish aluminum-based DWTM from other DWTM types.

Strategy statement: Develop practical, pH-informed guidance for evaluating aluminum-based DWTM across soil amendment, restoration, and water quality applications. Recommended conveners, working in collaboration with participating organizations, will coordinate a technical subgroup of soil scientists, agronomists, hydrologists, and agency specialists to synthesize available research and define soluble-aluminum and pH thresholds. The guidance will provide evaluation criteria, application considerations, site-control options, and communication tools that help stakeholders accurately interpret aluminum behavior under different soil and environmental conditions.

Expected outcomes:

1. Clear, scientifically grounded guidance that reduces confusion about aluminum-based DWTM.
2. More accurate and consistent evaluations of aluminum-related risks and reuse suitability.
3. Improved confidence among generators, regulators, agronomists, and end users regarding when aluminum-containing DWTM can be beneficially applied.

DW-03. Develop pH-Informed Guidance for Evaluating Aluminum-Based DWTM

Recommended convening organizations:

- Applicable state agencies
- Universities and extension or applied-research programs
- Environmental, soil-science, and agronomy industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Agronomists and soil scientists
- Drinking water treatment facility operators
- USDA Natural Resources Conservation Service
- Soil and water conservation districts
- Municipalities and county engineers
- Beneficial use byproduct processors and end-use partners

DW-04. Develop a Statewide Inventory and Mapping System for DWTM Generation

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Current estimates of DWTM generation vary by facility size, treatment chemistry, and DWTM type, including lime softening, aluminum-based, iron-based, and mixed types, and may not accurately represent statewide quantities or beneficial use potential. Without a reliable, up-to-date inventory and geospatial map of DWTM generation, stakeholders cannot effectively evaluate material availability, plan logistics, or integrate DWTM into blended soil or engineered soil markets. A consistent statewide inventory is needed to identify where DWTM is generated, in what quantities, and with what characteristics relevant to beneficial use.

Strategy statement: Develop a statewide inventory and geospatial mapping system that describes DWTM generation quantities, types, and treatment characteristics. Recommended conveners, working in collaboration with participating organizations, will assemble a team including DWTM program staff, GIS specialists, data analysts, and beneficial use byproducts experts to compile reporting data, verify characteristics, and produce mapping layers that reflect location, DWTM type, chemistry, generation timing, and relevant attributes. The inventory will be designed to integrate with statewide DWTM matching systems and updated on a routine cycle.

Expected outcomes:

1. A reliable statewide inventory and map describing DWTM quantities, types, and characteristics.
2. Improved planning and beneficial use decision making for soil blending, restoration, engineered soil, and water quality uses.
3. A standardized data layer that integrates with DWTM end user matching and material identification tools.

DW-04. Develop a Statewide Inventory and Mapping System for DWTM Generation

Recommended convening organizations:

- Applicable state agencies
- Universities and extension or applied-research programs
- GIS and data analysis industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Drinking water treatment facilities
- Universities and GIS/data specialists
- Soil and water conservation districts
- Municipalities and county engineers
- Beneficial use byproducts processors and end-use partners
- Beneficial use project sponsors across restoration, infrastructure, engineered soil, and agricultural sectors
- GIS experts and data architects

DW-05. Develop a DWTM Pilot and Performance Evaluation Framework

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 6: Support Market Development and Beneficial Use

Issues addressed: DWTM performance varies significantly depending on DWTM type, soil characteristics, vegetation, application rate, and site conditions. Lime softening, aluminum-based, iron-based, and mixed types behave differently, and laboratory tests alone do not reliably predict field performance. Without targeted pilot evaluations, it is difficult to determine whether observed results depend on material properties, site conditions, or application practices. Stakeholders strongly prefer scientifically monitored field trials over generalized recommendations. A coordinated approach is needed to generate credible performance-based criteria for agricultural, soil amendment, restoration, and topsoil deficient applications.

Strategy statement: Develop a statewide DWTM pilot and performance evaluation framework led by industry associations, universities, extension programs, and beneficial use byproducts processors. Recommended conveners, working in collaboration with participating organizations, will coordinate a multidisciplinary working group, including agronomists, soil scientists, engineers, restoration experts, municipalities, land managers, and soil testing laboratories, to design standardized pilot protocols for lime, alum, iron, and mixed byproducts. The framework will define baseline sampling, material characterization, application rate criteria, monitoring parameters, and interpretation guidelines for evaluating DWTM performance across targeted soil and restoration conditions.

Expected outcomes:

1. Verified, performance-based criteria for agricultural, soil amendment, restoration, and topsoil creation applications of DWTM.
2. Standardized pilot designs and monitoring templates that reduce uncertainty for regulators, landowners, and end users.
3. Increased confidence in appropriate DWTM applications supported by transparent, data driven demonstrations.

DW-05. Develop a DWTM Pilot and Performance Evaluation Framework

Recommended convening organizations:

- Applicable state agencies
- Universities and extension or applied-research programs
- Relevant industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Ohio Department of Agriculture
- Soil and water conservation districts
- USDA Natural Resources Conservation Service
- Municipalities and county engineers
- Agronomists, soil scientists, and environmental or geotechnical engineers
- Drinking water and wastewater treatment facilities
- Restoration contractors and agricultural pilot hosts

DW-06. Develop a DWTM Evaluation Framework for Phosphorus Control and Water Quality Applications

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Aluminum and iron based DWTM may provide significant phosphorus binding and water quality benefits, but their performance depends on material characteristics, soluble aluminum behavior, hydrologic conditions, hydraulic loading, contact time, and site-specific water chemistry. Applications such as engineered wetlands, edge-of-field systems, manure related interfaces, watershed nutrient reduction projects, and H2Ohio or ODNR initiatives require material-specific testing and coordinated pilot monitoring. Without controlled evaluations, it is difficult to determine whether observed water quality benefits stem from material properties, hydrology, or site conditions. A technical framework is needed to evaluate and demonstrate DWTM performance in water quality settings.

Strategy statement: Develop a water quality evaluation and pilot testing framework for aluminum and iron based DWTM led by industry associations, universities, watershed programs, and beneficial use byproducts processors. Recommended conveners, working in collaboration with participating organizations, will coordinate a multidisciplinary team, including environmental engineers, hydrologists, soil scientists, watershed managers, municipal partners, and testing laboratories, to design standardized protocols for evaluating DWTM performance in engineered wetlands, edge-of-field filters, manure related uses, post manure applications, and watershed nutrient reduction projects. The framework will establish baseline sampling, hydraulic and hydrologic assessments, phosphorus-binding monitoring, soluble aluminum evaluation, contaminant screening, and system-specific operational parameters. Results will be translated into guidance that informs appropriate water-quality applications statewide.

Expected outcomes:

1. Verified, performance-based criteria for phosphorus control and water quality applications using suitable DWTM.
2. Standardized pilot designs, monitoring protocols, and decision criteria that improve confidence in appropriate water quality uses.
3. Improved alignment between DWTM beneficial use evaluations and nutrient reduction, watershed management, and water quality program priorities.

DW-06. Develop a DWTM Evaluation Framework for Phosphorus Control and Water Quality Applications

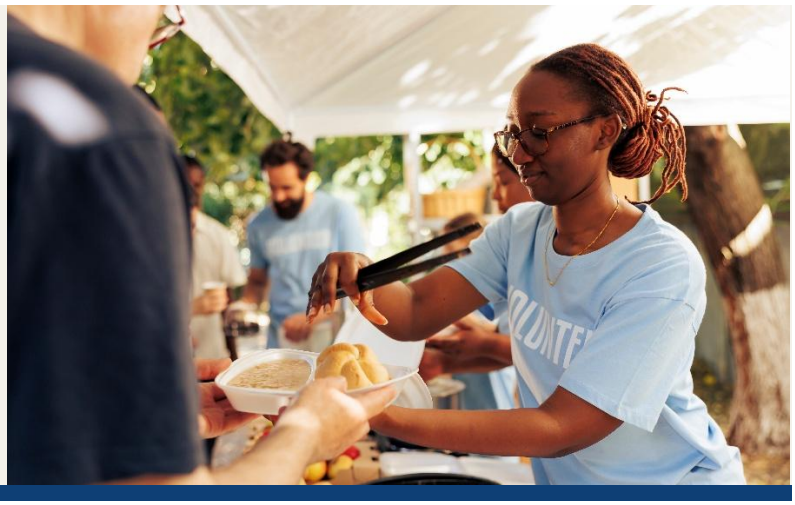
Recommended convening organizations:

- Applicable state agencies
- Universities and watershed research programs
- Environmental engineering, hydrology, and soil-science industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Divisions of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Drinking and Ground Waters
- Ohio Department of Agriculture Division of Soil and Water Conservation
- Ohio Department of Natural Resources and H2Ohio program partners
- Soil and water conservation districts
- Watershed coordinators and local water-quality programs
- Municipalities and county engineers
- Environmental engineers, hydrologists, and soil scientists
- Drinking water treatment facilities
- Agricultural and restoration end-use partners

Edible Food Recovery



The Edible Food Recovery strategies strengthen Ohio's ability to recover edible surplus food by improving statewide data, clarifying guidance, expanding participation, and supporting targeted pilots, cold-chain capacity, redistribution logistics, staffing, transportation, and preservation options. Because food rescue involves many partners working across rural, suburban, and urban communities, these strategies help build a more coordinated, resilient, and accessible recovery system. Together, FR-01 through FR-10 support efforts that reduce avoidable disposal while increasing safe redistribution to people and communities across Ohio.

The table below lists each Edible Food Recovery strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
FR-01	Develop a Statewide Food Rescue Data, Mapping, and Reporting Framework
FR-02	Develop Statewide Donor, Legal, Food Safety, and Transporter Guidance
FR-03	Expand Participation Among High-Volume Generators, Events, and Schools
FR-04	Pilot New Food Rescue Practices by Region or Sector
FR-05	Expand Cold-Chain and Regional Redistribution Capacity for Food Rescue
FR-06	Expand Staffing and Coordination Capacity for Food Rescue
FR-07	Improve Transportation Funding Flexibility for Food Rescue
FR-08	Expand Rescue Kitchen, Preservation, and Food Transformation Capacity
FR-09	Evaluate Legislative Tools, Economic Pathways, and Funding Mechanisms for Food Rescue
FR-10	Simplify Reporting and Grant Requirements for Food Rescue Organizations

FR-01. Develop a Statewide Food Rescue Data, Mapping, and Reporting Framework

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 5: Enhance Coordination, Collaboration, and Partnerships

Issues addressed: Ohio lacks consistent, planning grade data describing edible food rescue activity and capacity. Food banks, rescue organizations, donors, haulers, and recipient agencies report limited clarity on essential data elements, reporting expectations, and protections for sensitive information. Statewide visibility into donor sectors, rescued quantities by food category, cold-chain assets, recipient capacity, logistics coverage, distribution outcomes, informal or direct donations, and rural service gaps remain incomplete. These gaps constrain coordinated planning, equitable service coverage, and confidence in investment decisions, while reducing operational efficiency and readiness across the edible food rescue system.

Strategy statement: Develop a statewide edible food rescue data, mapping, and reporting framework. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to establish an integrated statewide approach that defines core data elements, supports privacy-protective aggregation, and incorporates GIS-based visibility of activity, assets, service coverage, and gaps. The coordinated effort will identify consistent terminology, outline a practical minimum dataset, and describe feasible reporting structures suitable for organizations of different sizes. Components of the framework may be developed or refined in stages and through independent workstreams, while ultimately aligning to support a unified, planning-grade statewide understanding of edible food rescue flows, infrastructure, and regional needs.

Expected outcomes:

1. Improved statewide visibility into edible food rescue activity, assets, and service gaps.
2. Practical, low-burden, privacy-protective reporting supported across participating organizations.
3. Clear statewide data structure that strengthens coordinated planning and investment decisions.

Recommended convening organizations:

- Applicable state and federal agencies
- Relevant industry associations
- Regional planning entities

FR-01. Develop a Statewide Food Rescue Data, Mapping, and Reporting Framework

- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- GIS experts and data architects
- Food rescue organizations, food banks, and rescue hubs
- Pantries and recipient organizations
- Ohio Food Policy Network
- Food policy councils
- Donor sectors: food processors, distributors, retailers, restaurants, institutions, farms, and event venues
- Haulers, logistics providers, and refrigerated fleet operators
- Cold and freezer storage operators, cross-docking and warehouse facilities
- Municipal governments
- Local health departments
- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- U.S. EPA Region 5
- Solid waste management districts
- Ohio Organics Council
- Agricultural industry associations

FR-02. Develop Statewide Donor, Legal, Food-Safety, and Transporter Guidance

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Generators, transporters, and recipient organizations often face uncertainty about food donation requirements, safe handling expectations, liability protections, and allowable pathways for surplus food. These gaps affect grocery stores, institutions, farms, distributors, drivers, businesses, and regional hubs that need clear direction when managing edible surplus or rejected loads. Inconsistent interpretation of food safety practices, date labeling, packaging expectations, and triage decisions can lead to edible food being discarded unnecessarily. Stakeholders also report confusion about roles across jurisdictions, including in rural and urban areas where transportation distance, routing options, and recipient agency capabilities vary. This uncertainty limits safe participation, reduces confidence in donation pathways, and contributes to avoidable disposal of edible food.

Strategy statement: Develop statewide edible food rescue guidance for donors, recipient organizations, and transporters. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to prepare a unified, plain language guidance suite that explains donation expectations, food safety considerations, liability protections, allowable pathways, date labeling concepts, packaging practices, and real time triage decision points relevant to generators, drivers, and receiving agencies. The coordinated effort will integrate operational insight from participating organizations so materials remain practical for diverse rural and urban settings and may incorporate routing or infrastructure considerations relevant to transportation planners such as ODOT and regional metropolitan or transportation planning organizations (MPO/RTPO). Guidance may include consistent terminology, simple decision aids, and privacy-protective approaches that support feasible participation across varied organizational capacities.

Expected outcomes:

1. Clear and consistent statewide understanding of donation, food safety, and transporter considerations.
2. Increased confidence among donors, recipient organizations, and transporters in safe edible food rescue practices.
3. Reduced disposal of edible food caused by uncertainty about allowable pathways or handling expectations.

FR-02. Develop Statewide Donor, Legal, Food-Safety, and Transporter Guidance

Recommended convening organizations:

- Applicable state and federal agencies
- Local health departments
- Relevant industry associations
- Regional planning entities
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Transportation
- Local MPO/RTPO
- Donation law experts
- Ohio Food Policy Network
- Food policy councils
- Food rescue organizations, food banks, and rescue hubs
- Pantries and recipient organizations
- Donor sectors including food processors, distributors, retailers, restaurants, institutions, farms, and event venues
- Local health departments
- Solid waste management districts
- Composting and other organics processing facility operators
- Agricultural industry associations
- U.S. EPA Region 5
- Natural Resources Defense Council

FR-03. Expand Participation Among High-Volume Generators, Events, and Schools

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: High-volume generators, including retailers, food manufacturers, distributors, institutions, and farms, produce large quantities of surplus edible food, but participation in donation programs is inconsistent due to limited staff time, packaging constraints, scheduling barriers, and unclear expectations. Event organizers face similar challenges when managing surplus food from festivals, late evening gatherings, farmers' markets, and tourism related events, where limited post-event logistics lead to preventable disposal. Schools also experience edible surplus through meal programs and share table practices, but uncertainty about food safety expectations, storage limitations, and coordination needs can restrict participation. These gaps reduce the amount of edible food captured across multiple sectors and prevent consistent statewide recovery of safe surplus food.

Strategy statement: Expand sector-specific edible food rescue participation among high-volume generators, event organizers, and schools. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to prepare sector-specific guidance and participation models that clarify donation expectations, safe handling considerations, packaging approaches, and coordination pathways relevant to retailers, manufacturers, institutions, distributors, event venues, and K–12 food service operations. The coordinated effort will draw on operational insight from participating organizations, so materials remain practical and adaptable across diverse settings and service capacities. The resulting guidance will support consistent understanding of feasible participation approaches and help organizations incorporate edible food rescue practices into their existing workflows.

Expected outcomes:

1. Increased routine participation in edible food rescue practices among large generators, event organizers, and school food service operations.
2. More consistent redirection of safe surplus food from retail, manufacturing, institutional, agricultural, and event settings.
3. Reduced disposal of edible food caused by food safety uncertainty or limited coordination across sectors.

FR-03. Expand Participation Among High-Volume Generators, Events, and Schools

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Food rescue organizations, food banks, and rescue hubs
- Pantries and recipient organizations
- Donor sectors including food processors, distributors, retailers, restaurants, institutions, farms, event venues, and schools
- Haulers, logistics providers, and refrigerated fleet operators
- Cold and freezer storage operators, cross-docking and warehouse facilities
- Ohio Food Policy Network
- Food policy councils
- Sustainability organizations
- Municipal governments
- Local health departments
- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Agricultural industry associations

FR-04. Pilot New Food Rescue Practices by Region or Sector

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Edible food rescue practices vary significantly across Ohio, and stakeholders note that statewide implementation may be premature without testing approaches under real operating conditions. Retail corridors, institutional donors, rural service areas, high-volume donor clusters, and event recovery settings each present different logistical and food safety challenges that influence feasibility. Cold-chain limitations, routing constraints, staffing availability, coordination needs, and unpredictable donation patterns create additional uncertainty about which models can be scaled. Rescue kitchens, regional hubs, and load matching systems also require field testing to understand operational fit and resource needs. Without targeted pilots, Ohio lacks the practical insight required to design statewide implementation models grounded in tested, realistic experience.

Strategy statement: Coordinate pilot projects for new food rescue practices in priority regions or sectors. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to design, test, and assess practical models for routing improvements, donor participation, cold-chain handling, event recovery practices, hub operations, and load matching coordination. The coordinated effort will draw on operational experience from participating organizations to refine approaches that respond to diverse conditions such as donor density, rural distances, institutional constraints, and timing uncertainties. Pilots will support evaluation of feasible workflows, equipment needs, staffing considerations, and coordination pathways that may be suitable for broader use across Ohio.

Expected outcomes:

1. Clear understanding of which edible food rescue models are effective across different regions and sectors.
2. Scalable practices informed by real-world pilot results and operational feedback.
3. Increased readiness for statewide planning supported by tested, practical implementation models.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

FR-04. Pilot New Food Rescue Practices by Region or Sector

Collaborating organizations:

- Food rescue organizations, food banks, and rescue hubs
- Pantries and recipient organizations
- Donor sectors including food processors, distributors, retailers, restaurants, institutions, farms, and event venues
- Haulers, logistics providers, and refrigerated fleet operators
- Cold and freezer storage operators, cross-docking and warehouse facilities
- Ohio Food Policy Network
- Food policy councils
- Sustainability organizations
- Municipal governments
- Local health departments
- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Ohio Organics Council
- Agricultural industry associations
- Natural Resources Defense Council
- U.S. EPA Region 5

FR-05. Expand Cold-Chain and Regional Redistribution Capacity for Food Rescue

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Many organizations across Ohio face limited access to refrigerated vehicles, cold and freezer storage, cross-docking capacity, and short-term staging or warehouse space required for safe and timely redistribution of perishable rescued food. These gaps affect food rescue organizations, food banks, donors, haulers, and recipient agencies, especially in rural and low-density regions where distance, route timing, and limited aggregation points constrain redistribution. Without reliable cold-chain capacity, rescued food can be delayed, downgraded, or declined, even when donors and recipients are available. Stakeholders also identified the need for stronger coordination tools to match large or time sensitive donations with appropriate outlets. These infrastructure and logistics limitations restrict Ohio's ability to safely handle higher volumes of perishable rescued food.

Strategy statement: Expand statewide understanding of cold-chain and regional redistribution needs for edible food rescue. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to prepare practical guidance that describes approaches for refrigerated vehicle access, cold and freezer storage options, cross-docking capacity, short-term staging or warehouse considerations, and coordination pathways for large or time sensitive donations. The coordinated effort will incorporate operational insight from participating organizations, so the guidance reflects conditions across rural and urban areas and accommodates diverse donor, transporter, hub, and recipient capacities. Materials will remain neutral and adaptable, supporting consistent statewide awareness of feasible approaches to cold-chain and redistribution capacity for perishable rescued food.

Expected outcomes:

1. Increased statewide capacity to safely handle and redistribute perishable rescued food.
2. More reliable regional aggregation and routing supported by cold-chain and staging infrastructure.
3. Improved coordination and redistribution efficiency for large or time sensitive donations.

FR-05. Expand Cold-Chain and Regional Redistribution Capacity for Food Rescue

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Food rescue organizations, food banks, and rescue hubs
- Pantries and recipient organizations
- Donor sectors including food processors, distributors, retailers, restaurants, institutions, farms, and event venues
- Haulers, logistics providers, and refrigerated fleet operators
- Supply-chain experts
- Cold and freezer storage operators, cross-docking and warehouse facilities
- Ohio Food Policy Network
- Food policy councils
- Municipal governments
- Local health departments
- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Agricultural industry associations

FR-06. Expand Staffing and Coordination Capacity for Food Rescue

Statewide priorities supported: Priority 3: Increase Funding and Incentives

Issues addressed: Food rescue organizations, food banks, and regional partners frequently face staffing and volunteer shortages that limit their ability to manage rapid pickups, coordinate donor relationships, handle perishables, and respond to time - sensitive donations. Many programs rely on volunteers whose availability may vary widely, especially in rural regions or during off-hours when safe handling requirements are most critical. Organizations also report gaps in routing, dispatch, food safety oversight, troubleshooting, and recipient agency coordination, which reduce operational reliability. Without consistent funding for core coordination roles, edible food recovery systems remain dependent on small, volunteer-based models that are difficult to scale or sustain. These constraints reduce statewide capacity to redirect edible food efficiently and safely.

Strategy statement: Expand staffing and coordination capacity for edible food rescue operations. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify practical approaches that strengthen paid coordination roles, volunteer management support, routing and dispatch capacity, donor communication functions, food safety oversight, and regional coordination. The coordinated effort will incorporate operational perspectives across organizations of different sizes and service areas, including large generators that maintain existing logistics equipment or handling capacity, to clarify staffing needs that support timely movement of perishable rescued food. Approaches will remain adaptable to diverse organizational structures and regional contexts so staffing models can be scaled where feasible.

Expected outcomes:

1. Increased reliability and consistency of edible food rescue operations supported by strengthened staffing and coordination roles across sectors.
2. Improved ability to manage time sensitive pickups, donor relationships, and regional coordination needs.
3. Reduced dependence on volunteer-only models that limit scalability across diverse service areas.

FR-06. Expand Staffing and Coordination Capacity for Food Rescue

Recommended convening organizations:

- Relevant industry associations
- Regional planning entities
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Food rescue organizations, food banks, and rescue hubs
- Pantries and recipient organizations
- Donor sectors including food processors, distributors, retailers, restaurants, institutions, farms, and event venues
- Haulers, logistics providers, and refrigerated fleet operators
- Cold and freezer storage operators, cross-docking and warehouse facilities
- Municipal governments
- Ohio Food Policy Network
- Food policy councils
- Sustainability organizations
- Philanthropy organizations

FR-07. Improve Transportation Funding Flexibility for Food Rescue
Statewide priorities supported: Priority 3: Increase Funding and Incentives
Issues addressed: Food rescue organizations, food banks, regional hubs, and community partners often rely on transportation assets such as refrigerated trucks, vans, trailers, containers, and shared logistics equipment to safely move perishable rescued food. However, existing funding structures frequently do not align with the useful life, maintenance needs, or operating costs of these assets. Short grant periods, capital-only restrictions, reimbursement limits, match requirements, insurance gaps, and insufficient support for fuel, repairs, driver costs, and replacement planning can make it difficult to sustain reliable transportation capacity. These constraints affect both urban and rural service areas and limit the ability of organizations to respond quickly to time sensitive donations or maintain durable equipment needed for safe edible food rescue operations.
Strategy statement: Improve funding flexibility for transportation assets used in edible food rescue operations. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify practical approaches for supporting the full lifecycle of refrigerated vehicles, trailers, bins, containers, liftgates, routing technology, and shared-use logistics equipment. The coordinated effort will draw on operational experience from participating organizations to clarify funding needs related to purchase or leasing options, maintenance, insurance, fuel, repairs, replacement cycles, storage, and driver or dispatch support, and may include general consideration of cost factors relevant to transporting, handling, or disposing of surplus edible food. Approaches will remain adaptable to different organizational sizes, service areas, and transportation models so durable transportation capacity can be sustained across regions.
Expected outcomes: 1. Transportation assets sustained through funding approaches aligned with real operating needs. 2. Increased capacity to manage perishable rescued food through reliable, well-maintained equipment. 3. More consistent statewide transportation support for edible-food-rescue activities.

FR-07. Improve Transportation Funding Flexibility for Food Rescue

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Regional planning entities
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Food rescue organizations, food banks, and rescue hubs
- Haulers, logistics providers, and refrigerated fleet operators
- Cold and freezer storage operators, cross-docking and warehouse facilities
- Municipal governments
- Ohio EPA Office of Environmental Education
- Solid waste management districts
- Agricultural industry associations
- Ohio Food Policy Network
- Food policy councils
- Philanthropy organizations

FR-08. Expand Rescue Kitchen, Preservation, and Food Transformation Capacity

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Many regions in Ohio lack sufficient rescue kitchen and preservation capacity to safely stabilize edible surplus food when immediate redistribution is not feasible. Food rescue organizations, food banks, community kitchens, and regional hubs often have limited access to equipment, staffing, and space needed for freezing, canning, dehydration, meal preparation, or other transformation activities. These limitations can result in edible food being downgraded or discarded when donation timing, recipient availability, or distribution schedules do not align. Stakeholders also report challenges coordinating value-added processing in areas with limited infrastructure or limited ability to handle large or unpredictable volumes of rescued food. Without expanded preservation and transformation options, Ohio cannot fully utilize edible surplus that requires quick stabilization or processing.

Strategy statement: Expand edible food rescue preservation and transformation capacity across regional and community settings. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify practical approaches for supporting rescue kitchens, shared-use kitchens, meal preparation programs, and value-added preservation methods such as freezing, canning, dehydration, and other stabilization techniques. The coordinated effort will draw on operational experience across organizations of varying sizes to clarify equipment needs, workflow considerations, staffing requirements, and feasible coordination models for processing surplus food. Approaches will remain adaptable to local conditions and to organizations that support meal preparation, value-added transformation, or other community-based rescue functions so communities can strengthen preservation options that support safe, timely stabilization and transformation of edible food that cannot be redistributed immediately.

Expected outcomes:

1. Increased availability of preservation and transformation options that extend the usability of rescued food.
2. Reduced loss of edible surplus caused by timing challenges or limited immediate distribution capacity.
3. Expanded regional ability to safely stabilize surplus food through rescue kitchens and value-added processing.

FR-08. Expand Rescue Kitchen, Preservation, and Food Transformation Capacity

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Food rescue organizations, food banks, and rescue hubs
- Community kitchens and shared-use kitchen operators
- Pantries and recipient organizations
- Culinary institutions
- Start-up incubators
- Donor sectors including food processors, distributors, retailers, restaurants, institutions, farms, and event venues
- Haulers, logistics providers, and refrigerated fleet operators
- Cold and freezer storage operators, cross-docking and warehouse facilities
- Local health departments
- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Philanthropy organizations

FR-09. Evaluate Legislative Tools, Economic Pathways, and Funding Mechanisms for Food Rescue

Statewide priorities supported: Priority 3: Increase Funding and Incentives

Issues addressed: Edible food rescue in Ohio depends on long-term policy support, financial stability, and clear understanding of economic factors that influence generator behavior and system feasibility. Large generators, institutions, and food service operations face varied cost structures related to donation, disposal, handling, transportation, cold-chain needs, and staff coordination, yet the relative economics of donation compared to other management pathways are not consistently understood. Stakeholders also note that voluntary programs may be insufficient for some sectors without supportive legislation or financial incentives. Current funding for food rescue infrastructure, staffing, coordination, and regional capacity is often fragmented or short-term, limiting durable system development. Without coordinated evaluation of policy options, economic considerations, and funding models, Ohio lacks clear pathways for sustainable statewide edible food rescue systems.

Strategy statement: Evaluate legislative tools, economic pathways, and long-term funding mechanisms that could support statewide edible food rescue systems. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to review disposal disincentives, donation incentives, phased generator requirements, and other policy options relevant to large generators and institutions; assess the comparative economics of donation, downstream organics management, and disposal; and explore durable funding mechanisms such as fee supported programs or other revenue sources. The coordinated effort will incorporate practical insight from participating organizations across different sectors to clarify how policy, economics, and funding structures influence edible food rescue feasibility, system stability, and long-term planning.

Expected outcomes:

1. Clear understanding of legislative and financial tools that could strengthen statewide edible food rescue systems.
2. Improved visibility into comparative costs and economic factors that influence donation and disposal decisions.
3. Identification of durable funding pathways that support long-term edible food rescue infrastructure and operations.

FR-09. Evaluate Legislative Tools, Economic Pathways, and Funding Mechanisms for Food Rescue

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations
- Regional planning entities

Collaborating organizations:

- Food rescue organizations, food banks, and rescue hubs
- Pantries and recipient organizations
- Donor sectors including food processors, distributors, retailers, restaurants, institutions, farms, and event venues
- Haulers, logistics providers, and refrigerated fleet operators
- Cold and freezer storage operators, cross-docking and warehouse facilities
- Ohio Food Policy Network
- Food policy councils
- Sustainability organizations
- Municipal governments
- Local health departments
- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Agricultural industry associations
- Philanthropy organizations
- U.S. EPA Region 5

FR-10. Simplify Reporting and Grant Requirements for Food Rescue Organizations

Statewide priorities supported: Priority 3: Increase Funding and Incentives; Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Food rescue organizations frequently experience reporting and administrative requirements that do not align with how their programs operate. Many grants and state programs require individual-level or highly detailed reporting formats that are burdensome for small or volunteer-driven organizations. Stakeholders note that duplicative data requests, inconsistent metrics, and limited flexibility in reporting formats divert staff time away from core rescue activities. These challenges are especially severe for organizations with limited administrative capacity, rural partners, and smaller nonprofits that cannot easily meet complex documentation expectations. Without streamlined, practical reporting approaches, participation in food rescue programs and grant opportunities may be limited.

Strategy statement: Simplify reporting and grant requirements for food rescue organizations. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify practical reporting methods that align with common metrics, reduce duplicative administrative requirements, and support aggregated organizational reporting formats. The coordinated effort will draw on operational experience from organizations of different sizes and service areas to clarify feasible reporting structures that maintain accountability while remaining practical for limited capacity organizations. Approaches will remain adaptable so reporting expectations support participation across diverse rescue models and administrative capacities.

Expected outcomes:

1. Clear and consistent reporting expectations that reduce administrative burden for food rescue organizations.
2. Greater participation in grant programs supported by practical, flexible reporting formats.
3. Improved alignment of statewide metrics through simplified and coordinated reporting requirements.

FR-10. Simplify Reporting and Grant Requirements for Food Rescue Organizations

Recommended convening organizations:

- Applicable state and federal agencies
- Relevant industry associations
- Regional planning entities
- Technical or neutral convening organizations

Collaborating organizations:

- Food rescue organizations, food banks, and rescue hubs
- Pantries and recipient organizations
- Haulers, logistics providers, and refrigerated fleet operators
- Ohio Food Policy Network
- Food policy councils
- Municipal governments
- Ohio EPA Office of Environmental Education
- Solid waste management districts
- Agricultural industry associations
- Philanthropy organizations

Fats, Oils, and Grease (FOG)



The Fats, Oils, and Grease (FOG) strategies strengthen Ohio's ability to manage FOG more consistently by improving terminology, statewide data, infrastructure mapping, practical guidance, pilot collection models, regional preprocessing and processing approaches, co-digestion education, and voluntary recognition options. Because FOG affects wastewater systems, food service operations, haulers, and processors, these strategies help build a more coordinated system that reduces sewer system impacts, improves recovery of usable FOG streams, and expands opportunities for beneficial use.

The table below lists each FOG strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
FOG-01	Establish Statewide Terminology for Fats, Oils, and Grease Streams
FOG-02	Develop a Statewide FOG Data, Reporting, and Planning Framework
FOG-03	Develop a Statewide Mapping System for FOG Management Infrastructure and Service Conditions
FOG-04	Develop Best Management Practices for Food service Fats, Oils, and Grease Management
FOG-05	Pilot Household Cooking-Oil Collection and Recycling Programs
FOG-06	Develop and Pilot Regional Hub-and-Spoke FOG Collection, Preprocessing, and Processing Models
FOG-07	Develop Guidance and Education for WWTP Co-Digestion of Brown Grease
FOG-08	Establish a Voluntary Certification and Recognition Program for High-Performing FOG Generators and Haulers

FOG-01. Establish Statewide Terminology for Fats, Oils, and Grease Streams

Statewide priorities supported: Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: Terminology for fats, oils, and grease streams, such as yellow grease, brown grease, used cooking oil, interceptor waste, and unmanaged FOG discharged to sewer systems, is used inconsistently across haulers, food service establishments, pretreatment programs, wastewater treatment plants, and processors. The regulatory definition of FOG is intentionally broad, but it does not reflect the terminology used in practice and creates confusion about regulatory expectations and compliance. Without clear statewide terminology, operators and regulators face fragmented data, inconsistent operational decisions, and reduced ability to prioritize and manage FOG streams efficiently.

Strategy statement: Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop consistent statewide terminology for FOG streams, including distinctions among yellow grease, brown grease, used cooking oil, interceptor-derived materials, and unmanaged sewer-discharged FOG. This effort will synthesize existing industry terminology, pretreatment program needs, wastewater operational perspectives, and processing sector practices to produce terminology that reflects real-world operations while supporting clear regulatory expectations.

Expected outcomes:

1. Consistent statewide terminology is used by municipalities, haulers, pretreatment programs, food service establishments, and wastewater treatment plants.
2. Improved clarity in enforcement, pretreatment planning, permitting, and FOG management expectations.
3. Enhanced ability to track, plan for, and expand recycling, treatment, co-digestion, and beneficial use pathways for distinct FOG streams.

FOG-01. Establish Statewide Terminology for Fats, Oils, and Grease Streams

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Municipal pretreatment program associations
- Universities, extension and applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Local health departments
- Wastewater treatment plant operators
- Licensed FOG haulers
- Food service industry representatives
- FOG processors (renderers, biodiesel producers, cooking oil recyclers, anaerobic digester operators)
- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies

FOG-02. Develop a Statewide FOG Data, Reporting, and Planning Framework

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making

Issues addressed: Ohio lacks centralized, digitized, and planning-grade information on FOG generation, collection, pretreatment impacts, and downstream processing pathways. Existing data are fragmented or proprietary across haulers, wastewater treatment plants, processors, pretreatment programs, and local health departments, making it difficult to evaluate management practices, infrastructure needs, or statewide trends. This fragmentation limits visibility into sewer system stressors such as blockages and SSOs, obscures contamination patterns, and complicates pretreatment oversight. Without a unified dataset, agencies cannot reliably identify regional vulnerabilities, plan for beneficial use pathways, or support infrastructure investment decisions. A statewide data framework is needed to consolidate reporting, protect sensitive business information, and create a planning-grade baseline for decision makers.

Strategy statement: Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop a statewide FOG data, reporting, and planning framework that consolidates baseline information on generation, collection, pretreatment indicators, and processing pathways. This collaborative process will define core data fields, establish anonymized and aggregated reporting formats that protect proprietary business information, and integrate existing datasets, including pretreatment records, business registries, hauler documentation, WWTP receiving information, processor inputs, and sewer system indicators, into a planning-grade unified structure. The framework will support visibility into distinct FOG streams, clarify system stressors and management practices, and strengthen statewide planning for pretreatment oversight, infrastructure reliability, and beneficial use opportunities.

Expected outcomes:

1. A unified statewide dataset that consolidates FOG generation, collection, pretreatment indicators, and processing pathways into a planning-grade structure.
2. Improved visibility into FOG management practices and system stressors, supporting more reliable statewide planning and pretreatment oversight.
3. Stronger ability to identify beneficial use opportunities, collection gaps, and infrastructure needs related to distinct FOG streams.

FOG-02. Develop a Statewide FOG Data, Reporting, and Planning Framework

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Municipal pretreatment program associations
- Technical or neutral convening organizations

Collaborating organizations:

- Local health departments
- Municipal pretreatment programs
- Wastewater treatment plant operators
- Licensed FOG haulers
- FOG processors (renderers, biodiesel producers, cooking-oil recyclers, anaerobic digester operators)
- Food service industry representatives
- Universities, extension and applied-research programs
- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies

FOG-03. Develop a Statewide Mapping System for FOG Management Infrastructure and Service Conditions

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making

Issues addressed: Access to appropriate collection, transportation, and processing outlets for fats, oils, and grease (FOG) varies substantially across Ohio. Rural and low-density regions often face long haul distances, higher costs per stop, inconsistent service frequency, and limited receiving options for yellow grease, brown grease, used cooking oil, and interceptor-derived materials. Generators and haulers also lack clear information about which facilities accept different FOG streams, what criteria apply, and where service gaps occur. These inconsistencies hinder pretreatment planning, operational reliability, and the development of beneficial use pathways such as rendering, biodiesel production, and co-digestion. A statewide mapping system is needed to consolidate infrastructure information, highlight regional gaps, and support planning decisions for both routine operations and contingency situations.

Strategy statement: Develop and maintain a statewide interactive mapping system that displays licensed haulers, rendering and biodiesel facilities, wastewater treatment plants and pretreatment programs receiving brown grease, anaerobic digestion and co-digestion outlets, and other transfer or aggregation locations. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify required data fields, define acceptance criteria overlays, and incorporate attributes such as material restrictions, load requirements, service frequency, contamination issues, and geographic coverage. The mapping system will be updated regularly and designed to support both routine operational planning and contingency coordination during service disruptions or facility outages. To improve compatibility across statewide tools, conveners will also coordinate with the lead agencies responsible for related mapping systems, such as those supporting other organics or byproduct streams, to align data structures and user interface elements. Together, these efforts will produce a comprehensive, accessible resource that strengthens FOG management reliability and infrastructure planning.

Expected outcomes:

1. A dynamic, accessible tool that enables generators, haulers, and pretreatment programs to identify appropriate FOG collection and processing options in real time.
2. Improved visibility into regional service gaps, rural access limitations, and infrastructure needs across multiple FOG pathways.

FOG-03. Develop a Statewide Mapping System for FOG Management Infrastructure and Service Conditions

3. A coordinated information platform that supports pretreatment oversight, targeted infrastructure planning, and development of scalable pilot or regional models.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities, extension and applied-research programs
- Municipal pretreatment program associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Surface Water
- Ohio Department of Agriculture Division of Animal Health
- Municipal pretreatment programs
- Wastewater treatment plant operators
- Licensed FOG haulers
- FOG processors (renderers, biodiesel producers, cooking oil recyclers, anaerobic digester operators)
- Local health departments
- Ohio Restaurant and Hospitality Alliance
- Ohio Manufacturers Association

FOG-04. Develop Best Management Practices for Food Service Fats, Oils, and Grease Management

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Food service establishments, including restaurants, cafeterias, grocery stores, institutions, and commercial kitchens, often lack clear, practical guidance on how to properly manage fats, oils, and grease (FOG). Without accessible best practices, everyday kitchen activities can result in preventable FOG discharges to sewer systems, poor source capture, improper storage of used cooking oil, and inconsistent interceptor maintenance. These behaviors contribute to blockages and overflows, increase pretreatment violations, elevate sewer system maintenance burdens, and hinder recovery of suitable FOG streams for recycling, beneficial use, or energy production. Clear statewide guidance is needed to standardize FOG source control practices and support food service establishments in improving compliance and operational reliability.

Strategy statement: Develop and distribute practical best management practice (BMP) guidance that helps food service establishments manage fats, oils, and grease effectively, safely, and in alignment with pretreatment expectations. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop BMP materials covering dry wiping practices, sink strainers, proper used oil storage, spill prevention steps, clear "do-not-dump" procedures, daily kitchen behaviors that reduce contamination, and routine interceptor maintenance. The coordinated effort will refine materials through input from pretreatment programs, food service operators, wastewater utilities, environmental-health professionals, and industry groups to ensure clarity, practicality, and adaptability for facilities of different sizes and capacities. The resulting BMPs will provide easy-to-use tools, including posters, checklists, and training aids, that help establishments reduce sewer impacts, support pretreatment compliance, and increase opportunities for recycling and beneficial use of captured FOG.

Expected outcomes:

1. Improved FOG source capture and reduced sewer discharges due to consistent use of practical BMPs in food service establishments.
2. More reliable handling, storage, and maintenance practices that support recycling, beneficial use, and pretreatment compliance.

FOG-04. Develop Best Management Practices for Food Service Fats, Oils, and Grease Management

3. Reduced operational burdens for pretreatment programs and wastewater utilities through fewer blockages, violations, and maintenance incidents.

Recommended convening organizations:

- Applicable state agencies
- Environmental health and food service industry associations
- Wastewater recycling associations
- Technical or neutral convening organizations

Collaborating organizations:

- Municipal pretreatment programs
- Food service industry groups and business associations
- Local health departments
- Wastewater utilities
- Environmental health practitioners
- Universities, extension and applied-research programs
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance
- Ohio Manufacturers Association
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies

FOG-05. Pilot Household Cooking Oil Collection and Recycling Programs

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Most households in Ohio dispose of used cooking oil by pouring it down drains or throwing it away because easy, well communicated collection options do not exist. These everyday disposal practices contribute to sewer blockages, pretreatment challenges, and increased maintenance burdens for wastewater utilities. Although household FOG represents a small and diffuse stream, even moderate improvements in recovery can reduce sewer impacts and create a clean feedstock for biodiesel production or other beneficial use pathways. Ohio lacks standardized models for residential cooking oil collection, leaving communities without tested approaches for logistics, contamination control, storage options, or community partnerships. Pilot programs are needed to evaluate feasible models and determine whether regional or statewide expansion would be beneficial.

Strategy statement: Develop and pilot household cooking oil collection and recycling programs that test practical recovery models suitable for different communities. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to design and implement pilots through solid waste management districts, local governments, retail partners, or community facilities such as fire stations or recycling centers. Pilot models may include permanent drop-off tanks, seasonal or holiday collection events, curbside trials, or integration with existing household hazardous waste or recycling programs. Each pilot will evaluate logistics, contamination control approaches, storage practices, routing to biodiesel or other recycling outlets, and participation rate drivers. Findings will help determine feasibility, infrastructure needs, and outreach strategies needed to support potential regional or statewide expansion of household cooking oil recovery.

Expected outcomes:

1. Demonstrated collection models that recover residential cooking oil and reduce sewer and pretreatment impacts.
2. Practical pilot data on participation rates, contamination levels, routing pathways, and cost effectiveness to inform potential expansion.
3. Increased diversion of household FOG to beneficial use pathways such as biodiesel production, strengthening statewide organics recovery goals.

FOG-05. Pilot Household Cooking Oil Collection and Recycling Programs

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Universities and extension or applied research programs
- Municipal and county governments
- Technical or neutral convening organizations

Collaborating organizations:

- Local health departments
- Licensed FOG haulers
- FOG processors (renderers, biodiesel producers, cooking-oil recyclers, anaerobic digester operators)
- Municipal public service departments
- Community facility partners (fire stations, recycling centers)
- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies

FOG-06. Develop and Pilot Regional Hub-and-Spoke FOG Collection, Preprocessing, and Processing Models

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Rural and low-density areas often experience long haul distances, limited FOG receiving options, and inconsistent collection service for brown grease and other FOG streams. These constraints reduce access to proper management outlets, increase costs for haulers, and limit opportunities for beneficial use such as rendering, biodiesel production, or co-digestion. In addition, the variability and contamination of brown grease create uncertainty for haulers, rendering facilities, biodiesel processors, and wastewater treatment plants, especially where preprocessing practices are not well-defined or widely adopted. Stakeholders emphasized the need for pilot demonstrations, including regional aggregation hubs, coordinated service models, and trials of preprocessing methods, to evaluate real world feasibility, improve feedstock quality, and guide statewide investment and implementation.

Strategy statement: Develop and pilot regional hub-and-spoke FOG collection, preprocessing, and processing models that improve service reliability and expand access to appropriate FOG management in underserved areas. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to design and test regional approaches such as shared aggregation points, transfer locations, satellite receiving sites, and coordinated service routes. Pilot projects may be initiated by licensed haulers, rendering and biodiesel producers, preprocessing facility operators, municipal pretreatment programs, or wastewater utilities, and will evaluate logistics, preprocessing techniques such as screening, settling, filtration, contamination reduction practices, feedstock quality improvements, co-digestion feasibility at WWTPs, and acceptance criteria considerations. Lessons learned will inform the development of practical preprocessing guidance, clarify infrastructure needs, and identify which regional hub-and-spoke models are technically feasible, cost effective, and scalable across the state.

Expected outcomes:

1. Demonstrated regional FOG collection, preprocessing, and receiving models that reduce long haul distances, improve reliability, and expand access to proper management in underserved areas.

FOG-06. Develop and Pilot Regional Hub-and-Spoke FOG Collection, Preprocessing, and Processing Models

2. Pilot-tested data on preprocessing effectiveness, feedstock quality, coordination workflows, and acceptance criteria that inform statewide guidance and infrastructure planning.
3. Improved collection efficiency, reduced rejection of brown grease, and expanded opportunities for beneficial use supported by scalable regional models.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Regional utility collaboratives
- Universities and extension or applied research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Licensed FOG haulers
- Rendering facilities, biodiesel producers, cooking-oil recyclers, and preprocessing facility operators
- Wastewater treatment plant operators and municipal pretreatment programs
- Local health departments
- Regional planning agencies
- Community facility partners (fire stations, recycling centers)
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance
- Ohio Manufacturers Association
- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Solid waste management districts
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies

FOG-07. Develop Guidance and Education for WWTP Co-Digestion of Brown Grease

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: Many wastewater treatment plants are unfamiliar with the potential benefits of accepting brown grease as a co-digestion feedstock and lack practical information on how to evaluate material suitability, manage contaminants, establish acceptance criteria, and operate receiving systems safely. Brown grease quality varies significantly, and concerns about odors, screening needs, preprocessing requirements, and infrastructure readiness contribute to operator hesitation. Without clear, accessible guidance, WWTPs may avoid considering brown grease even when it could support increased biogas production and reduce sewer impacts. A coordinated statewide effort is needed to clarify technical considerations, provide operational tools, and help facilities responsibly evaluate co-digestion opportunities for suitable brown grease feedstocks.

Strategy statement: Develop and distribute practical statewide guidance that equips WWTP operators, digester managers, municipal pretreatment programs, and technical partners with the information needed to evaluate and accept suitable brown grease for anaerobic co-digestion. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to create materials that explain benefits, feedstock characteristics, acceptance criteria, prohibited materials, preprocessing expectations, receiving station needs, screening requirements, odor control considerations, and basic infrastructure elements essential for safe operation. The coordinated effort will incorporate input from WWTP operators, pretreatment personnel, anaerobic digestion experts, FOG processors, and environmental health partners to ensure clarity and practical applicability. The resulting guidance will help facilities assess feedstock quality, refine acceptance criteria responsibly, and evaluate how preprocessing improvements can support reliable co-digestion practices.

Expected outcomes:

1. Greater awareness among WWTP operators of the feasibility, energy benefits, and operational considerations associated with brown grease co-digestion.
2. Clear and accessible acceptance criteria and operational practices that help facilities safely evaluate and receive suitable brown grease feedstocks.

FOG-07. Develop Guidance and Education for WWTP Co-Digestion of Brown Grease

3. Expanded beneficial use opportunities for brown grease, including increased biogas production and reduced sewer system impacts.

Recommended convening organizations:

- Applicable state agencies
- Universities and extension or applied research programs
- Environmental health and wastewater industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Wastewater treatment plant operators
- Municipal pretreatment programs
- Anaerobic digestion experts
- FOG processors (renderers, biodiesel producers, cooking-oil recyclers)
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance
- Ohio Manufacturers Association
- Ohio EPA Division of Surface Water
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies

FOG-08. Establish a Voluntary Certification and Recognition Program for High-Performing FOG Generators and Haulers

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Food service establishments and FOG haulers often lack positive incentives to adopt and maintain best management practices (BMPs) that improve FOG capture, reduce sewer discharges, and support recycling or beneficial use pathways. Compliance is generally driven by enforcement, which does not encourage continuous improvement or reward those who consistently exceed baseline expectations. Without a voluntary recognition system, high-performing generators and haulers receive little visibility or acknowledgement for investing in training, maintenance, and improved operational practices. The absence of positive program signals limits statewide consistency, reduces motivation to improve practices, and creates missed opportunities to highlight leaders and strengthen pretreatment performance.

Strategy statement: Establish a statewide voluntary certification and recognition program that encourages food service establishments, haulers, and other FOG generators to adopt and maintain high-quality fats, oils, and grease management practices. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop program criteria, verification approaches, branding materials, and tiered recognition levels suitable for diverse operator types. Certification will be based on meeting defined BMP standards, verified through pretreatment programs or other qualified reviewers, and supported by outreach materials that help operators understand requirements and benefits. The program will include recognition tiers, such as “FOG Steward,” “Silver Partner,” or “Gold Partner,” to acknowledge sustained high performance and encourage continuous improvement. By creating a voluntary pathway that highlights good actors rather than relying solely on enforcement, the initiative will support statewide consistency, strengthen compliance, and improve overall FOG management outcomes.

Expected outcomes:

1. Increased voluntary adoption of FOG best management practices among food service establishments and haulers.
2. Greater consistency and transparency in statewide FOG performance through standardized certification criteria and verification.
3. Positive reinforcement that encourages continuous improvement and reduces reliance on enforcement alone to achieve compliance.

FOG-08. Establish a Voluntary Certification and Recognition Program for High-Performing FOG Generators and Haulers

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied research programs
- Municipal pretreatment program associations
- Technical or neutral convening organizations

Collaborating organizations:

- Wastewater utilities
- Municipal pretreatment programs
- Local health departments
- FOG haulers
- Food service industry groups and business associations
- Environmental health organizations
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance
- Ohio Manufacturers Association
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Ohio EPA Division of Surface Water
- Ohio EPA Office of Environmental Education

Food Scraps



The Food Scraps strategies strengthen Ohio's ability to manage food that has been defined as waste by improving terminology, statewide data, source-separation education, large generator diversion support, and regulatory clarity. Because food scraps management varies across communities, facilities, and generator types, these strategies support a more coordinated organics system that can respond to regional service gaps, facility acceptance requirements, contamination concerns, generator needs, and opportunities to expand composting, digestion, depackaging oversight, and other appropriate management pathways. Together, FS-01 through FS-05 help establish consistent expectations and practical tools for generators, haulers, processors, and program managers.

The table below lists each Food Scraps strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
FS-01	Establish Statewide Terminology for Food Scraps, Food Waste, and Surplus Food
FS-02	Develop a Statewide Food Scraps Data, Mapping, and Reporting Framework
FS-03	Develop a Statewide Institutional Organics Diversion Initiative
FS-04	Develop a Statewide Source-Separation Education for Food Scraps and Compostable Materials
FS-05	Evaluate Regulatory Requirements and Performance Standards for Food Waste Depackaging Operations

FS-01. Establish Statewide Terminology for Food Scraps, Food Waste, and Surplus Food

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: Ohio lacks consistent terminology for food scraps, food waste, edible surplus food, inedible fractions, pre-consumer and post-consumer materials, and disposed food waste. Inconsistent definitions create confusion for solid waste districts, processors, haulers, food rescue organizations, regulators, and generators. Without uniform terminology, statewide programs for food waste prevention, edible food recovery, composting, anaerobic digestion, animal feed pathways, and disposal reporting may be misaligned. Uniform definitions are necessary for statewide clarity, regulatory and programmatic alignment, and accurate measurement and outreach.

Strategy statement: Develop consistent statewide terminology that clearly distinguishes edible surplus food, inedible food scraps, pre-consumer and post-consumer materials, food waste routed to disposal, and feedstocks intended for composting, anaerobic digestion, or other processing pathways. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop draft definitions, refine them through broad stakeholder engagement and public input, and integrate final terminology into statewide guidance, generator instructions, reporting protocols, grant criteria, and applicable rules. This coordinated approach will align terminology across agencies, programs, and operational partners to support consistent statewide implementation.

Expected outcomes:

1. Uniform terminology is adopted across agencies, solid waste districts, local governments, haulers, processors, food rescue organizations, and generators.
2. Clear, consistent terminology supporting program design, enforcement, grant eligibility, facility acceptance criteria, and statewide reporting.
3. Improved ability to plan, measure, and coordinate food scraps prevention, edible food recovery, organics recycling, and disposal reduction strategies.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

FS-01. Establish Statewide Terminology for Food Scraps, Food Waste, and Surplus Food

Collaborating organizations:

- Food recovery organizations and food access experts
- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics partners
- Food processors, distributors and retailers
- Composting and other organics processing facility operators
- Agricultural industry associations
- Ohio Organics Council
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance
- Ohio Manufacturers Association
- Natural Resources Defense Council
- U.S. EPA Region 5

FS-02. Develop a Statewide Food Scraps Data, Mapping, and Reporting Framework

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 5: Enhance Coordination, Collaboration, and Partnerships

Issues addressed: Ohio lacks consistent, planning-grade data describing food scraps, surplus edible food, and other food scraps streams. Current information does not fully characterize generator sectors, quantities, collection access, management pathways, contamination trends, acceptance parameters, processing capacity, hauler coverage, end-product use, or regional gaps. Generators, haulers, food rescue organizations, and processors face uncertainty about data needs, reporting burden, use of data, and protection of proprietary information. These gaps limit Ohio's ability to target pilot projects, scale diversion programs, and plan resilient organics management infrastructure.

Strategy statement: Develop a statewide baseline and data sharing framework that defines generator categories, core data elements, GIS-based mapping requirements, privacy-protective aggregation approaches, and planning-grade oversight expectations. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify essential data fields, refine feasible reporting methods, standardize statewide definitions, minimize reporting burden, and determine update cycles for maintaining consistent datasets and mapping tools. The coordinated effort will support transparent statewide tracking of generation, diversion quantities, contamination trends, facility acceptance, service coverage, and regional gaps.

Expected outcomes:

1. A statewide dataset detailing generation, diversion, contamination trends, management pathways, and service gaps for food waste and surplus food streams.
2. A feasible, low-burden, privacy-protective data sharing and mapping system endorsed by generators, haulers, processors, and food rescue organizations.
3. A clear statewide governance structure for data collection, quality assurance, reporting, mapping updates, and continuous improvement.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

FS-02. Develop a Statewide Food Scraps Data, Mapping, and Reporting Framework

Collaborating organizations:

- Food recovery organizations and food access experts
- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics partners
- Food processors, distributors and retailers
- Composting and other organics processing facility operators
- Agricultural industry associations
- Ohio Organics Council
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance
- Ohio Manufacturers Association

FS-03. Develop a Statewide Institutional Organics Diversion Initiative

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Large generators, such as grocery stores, institutions, schools, universities, correctional facilities, manufacturers, and food service operations, produce consistent, high-volume amounts of food scraps. Participation is often limited by contract barriers, unclear generator, hauler, and processor expectations, staffing gaps, insufficient training on source separation, and inconsistent contamination control procedures. Schools and institutions struggle to sustain programs due to custodial and janitorial contract limitations and turnover. A statewide initiative is needed to strengthen operational clarity, embed contamination control expectations into generator agreements, and pilot diversion models tailored to high-volume institutional settings.

Strategy statement: Develop a statewide Institutional Organics Diversion Initiative that supports consistent, scalable diversion practices for large commercial and institutional generators. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to design and test practical diversion models, including staffing approaches, routing practices, contamination controls, data collection methods, equipment needs, processor acceptance considerations, and model generator agreements that embed clear program expectations. A working group of processors, haulers, generators, facility managers, and organizational representatives will co-develop model terms that define accepted materials, establish contamination thresholds, outline training and signage requirements, and provide procedures for inspection, feedback, and corrective action.

Expected outcomes:

1. Increased diversion from high-volume institutional and commercial generators.
2. Standardized separation and contamination control practices tailored to institutional settings.
3. More sustainable school and institutional programs supported by clear training, roles, and operational tools.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Solid waste management districts
- Technical or neutral convening organizations

FS-03. Develop a Statewide Institutional Organics Diversion Initiative

Collaborating organizations:

- Food recovery organizations and food access experts
- Ohio Department of Health Bureau of Health Improvement and Wellness
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics partners
- Schools, universities, hospitals, correctional facilities
- Grocers and other retailers
- Food processors and distributors
- Local health departments
- Facility management and labor representatives
- Composting and other organics processing facility operators
- Ohio Organics Council
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance

FS-04. Develop a Statewide Source-Separation Education for Food Scraps and Other Compostable Materials

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Confusion about proper source separation of food scraps and compostable materials across homes, workplaces, institutions, events, and retail settings leads to contamination, rejected loads, higher processing costs, and inconsistent program performance. Differing facility acceptance rules, mixed product labeling, and inconsistent public-facing messaging contribute to misunderstanding and limit the success of existing and future diversion programs, including curbside collection, drop-off sites, and workplace organics initiatives. Clear, statewide educational guidance is needed so individuals and employees can correctly separate materials in any setting.

Strategy statement: Develop a statewide education and guidance initiative that teaches residents, employees, businesses, institutions, retailers, haulers, and event organizers how to properly source-separate food scraps and compostable materials using consistent, portable rules applicable across home, workplace, curbside, drop-off, and event settings. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop standardized acceptance lists, clear examples of non-acceptable look-alikes, generator-specific instructions, contamination control practices, and outreach templates usable in multiple contexts. Educational materials will be co-developed with processors, haulers, solid waste districts, retailers, and compostable product experts to ensure practicality, alignment with facility capabilities, and adaptability to existing programs as well as future residential curbside expansion.

Expected outcomes:

1. Reduced contamination across business, retail, institutional, and residential organics streams through clear statewide separation guidance.
2. Higher participation and correct sorting driven by consistent statewide signage, templates, and instructions.
3. Improved compost quality and reduced processing burden due to messaging aligned with facility acceptance criteria and contamination control protocols.

FS-04. Develop a Statewide Source-Separation Education for Food Scraps and Other Compostable Materials

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics partners
- Schools, universities, hospitals, correctional facilities
- Grocers and other retailers
- Food processors and distributors
- Local health departments
- Facility management and labor representatives
- Composting and other organics processing facility operators
- Ohio Organics Council
- Ohio Grocers Association
- Ohio Restaurant and Hospitality Alliance
- Ohio Manufacturing Association
- Compostable products certification organizations and manufacturers
- Biodegradable Products Institute
- Municipal governments

FS-05. Evaluate Regulatory Requirements and Performance Standards for Food Waste Depackaging Operations

Statewide priorities supported: Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: Ohio's regulatory framework does not clearly define standards for food waste depackaging operations, especially those outside permitted composting or anaerobic digestion footprints. Many depackaging operations run under recycling exemptions, preventing the state from requiring contamination controls, feedstock restrictions, or residue management practices. Commingled packaged loads often create shredded, cross-material residues that cannot be recycled, increasing disposal and microplastics risks for downstream composting and digestion operations. This threatens product quality, increases processing burden, and undermines statewide market development goals. Ohio must evaluate whether solutions can be implemented under the current regulatory framework or whether new rules with performance standards are needed to ensure depackaging is conducted safely, responsibly, and in a manner consistent with organics system goals.

Strategy statement: Evaluate regulatory and performance standard needs for food waste depackaging operations to ensure safe, contamination-controlled, and market-protective practices. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to assess risks associated with commingled packaged loads, review current recycling exemption provisions, analyze contamination pathways and microplastics concerns, compare approaches used in other states, and identify feasible points of regulatory authority. Based on findings, the coordinated effort will outline potential criteria for acceptable feedstocks, separation practices, operating safeguards, residue management expectations, contamination thresholds, and reporting or inspection requirements, and determine whether formal rulemaking with performance standards is warranted.

Expected outcomes:

1. Clear determination of regulatory gaps associated with exempt depackaging operations and risks from commingled packaged loads.
2. Draft or recommended regulatory or performance standard language for depackaging facilities, if warranted, to support contamination-controlled operations.
3. Improved feedstock quality and reduced contamination entering composting and digestion systems, strengthening end market viability.

FS-05. Evaluate Regulatory Requirements and Performance Standards for Food Waste Depackaging Operations

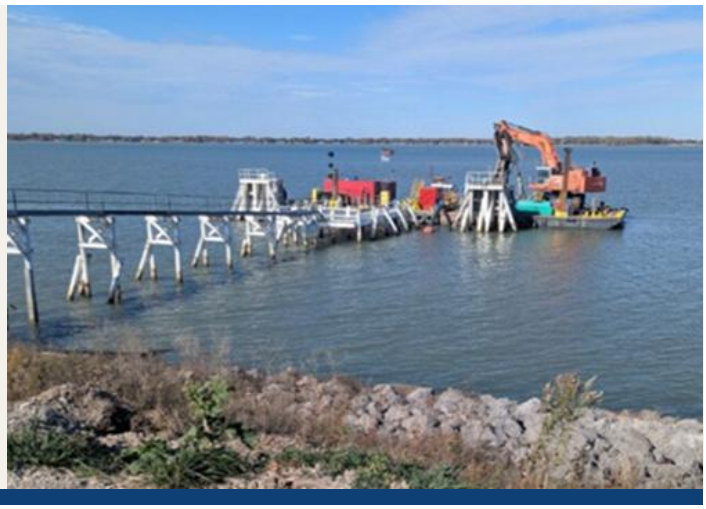
Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Materials and Waste Management
- Ohio EPA Division of Surface Water
- Solid waste management districts
- Depackaging facility operators
- Haulers and logistics partners
- Local health departments
- Composting and other organics processing facility operators
- Ohio Organics Council
- Ohio Grocers Association
- Ohio Manufacturers Association
- Ohio Environmental Health Association

Lake Erie Dredge Material



The Lake Erie Dredge Material strategies strengthen Ohio's ability to manage, evaluate, and beneficially use dredge material through coordinated technical guidance, clear communication, pilot testing, and targeted market development. Because dredge material projects involve local governments, regulatory partners, project sponsors, processors, and end-users, these strategies support a more consistent and practical framework for moving suitable material into productive uses. Together, DR-01 and DR-02 help address public confidence, regulatory clarity, and end-market needs in ways that support safe, beneficial applications.

The table below lists each Lake Erie Dredge Material strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
DR-01	Develop a Lake Erie Dredge Material Beneficial Use Technical and Education Initiative
DR-02	Develop an Integrated Lake Erie Dredge Material Pilot and Market Expansion Framework

DR-01. Develop a Lake Erie Dredge Material Beneficial Use Technical and Education Initiative

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Although substantial scientific knowledge exists for evaluating and using Lake Erie dredge material, that information has not been translated into clear, practical, and trusted guidance for generators, project sponsors, local governments, and end users. The absence of accessible "how-to" instructions contributes to inconsistent decision making, underuse of suitable dredge material, and continuing public skepticism. Technical experts are dispersed across agencies and universities without a coordinated structure for developing unified guidance or communicating consistent, technically accurate messages. Outreach efforts are often fragmented, resulting in mixed signals that either overstate benefits or reinforce misconceptions about Lake Erie dredge material being a waste. A coordinated strategy is needed to produce vetted technical guidance and consistent communication that aligns with the specific regulatory priorities and beneficial use expectations for Lake Erie dredge material.

Strategy statement: Develop a coordinated Lake Erie Dredge Material Beneficial use Technical and Education Initiative that unifies expert input, guidance development, and outreach into a single, structured program. Recommended conveners, working in collaboration with participating organizations, will assemble a multidisciplinary technical team including dredge program staff, soil and water experts, university researchers, engineers, agronomists, port authorities, municipalities, and beneficial use byproduct specialists. The initiative will produce practical guidance based on existing scientific and regulatory knowledge, including model specifications, decision supports, and clarity on approval pathways. Concurrently, the team will develop technically accurate communication materials that provide consistent messages about the appropriate, tested, and beneficial use of dredge material. All outputs will be reviewed through established Lake Erie dredge material regulatory channels to ensure scientific accuracy and alignment with program priorities before being shared with stakeholders. This initiative will serve as the central platform for delivering vetted, cohesive technical information and outreach for Lake Erie dredge material beneficial use.

Expected outcomes:

1. Consistent, technically credible guidance that improves decision making and supports appropriate beneficial use approvals.

DR-01. Develop a Lake Erie Dredge Material Beneficial Use Technical and Education Initiative

2. Unified, trusted messaging that increases public acceptance and reduces reactionary opposition to Lake Erie dredge material beneficial use.
3. Stronger confidence among farmers, engineers, municipalities, and project sponsors supported by expert-developed and agency-reviewed outreach materials.

Recommended convening organizations:

- Applicable state agencies
- Universities and extension or applied-research programs
- Environmental, engineering, and soil science industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Surface Water
- Ohio EPA Division of Materials and Waste Management
- Ohio Lake Erie Commission
- Ohio Department of Transportation
- Ohio Department of Natural Resources
- Soil and water conservation districts
- Port authorities and harbor sediment recycling facilities
- Municipalities and county engineers
- Agronomists, soil scientists, environmental engineers
- Beneficial use byproducts processors and end use partners in agriculture, restoration, redevelopment, and infrastructure
- U.S. Army Corps of Engineers

DR-02. Develop an Integrated Lake Erie Dredge Material Pilot and Market Expansion Framework

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 2: Expand Infrastructure and Processing Capacity; and Priority 6: Support Market Development and Beneficial Use

Issues addressed: Although multiple beneficial use applications show promise for Lake Erie dredge material, they are not consistently tested, demonstrated, or linked to predictable year-round markets. Agricultural, soil amendment, topsoil creation, and restoration uses require targeted pilot evaluations because performance varies with soil conditions, vegetation type, contaminant profile, and application rate. Several Lake Erie harbor communities operate successful dredge recycling programs, but their operational practices, permitting pathways, and funding structures are not comprehensively documented for replication. Beyond agriculture, many infrastructure and redevelopment sectors offer high-value opportunities for dredge material, yet these markets remain underdeveloped. Without a coordinated approach that links pilot testing, documentation of successful harbor models, and market expansion, Lake Erie dredge material may continue to lack consistent outlets despite demonstrated suitability.

Strategy statement: Establish an integrated pilot and market-expansion framework for Lake Erie dredge material that combines targeted pilot testing, documentation of successful harbor recycling practices, and strategic expansion into non-agricultural and infrastructure markets. Recommended conveners, working in collaboration with participating organizations, will coordinate a multidisciplinary working group of dredge program staff, harbor authorities, engineers, soil and water experts, municipalities, and beneficial use byproduct processors. The initiative will support design and evaluation of pilot projects for agricultural, soil amendment, restoration, and engineered soil applications using consistent testing and performance criteria. It will also compile scalable operational models from Lake Erie harbor facilities to guide replication by other communities. Using pilot results and documented operational practices, the working group will identify appropriate infrastructure, redevelopment, and engineered soil applications with year-round potential, and develop guidance that clarifies technical fit, performance expectations, and suitability conditions. This integrated approach will create predictable pathways for expanding beneficial use markets for dredge material across the Lake Erie region.

DR-02. Develop an Integrated Lake Erie Dredge Material Pilot and Market Expansion Framework

Expected outcomes:

1. Verified, performance-based criteria for agricultural, soil amendment, restoration, topsoil, and engineered soil applications based on pilot evaluations.
2. Transferable harbor recycling models that support replication of successful dredge material beneficial use practices.
3. Expanded non-agricultural and infrastructure markets that create predictable, year-round demand for suitable dredge material.

Recommended convening organizations:

- Applicable state agencies
- Universities and extension or applied-research programs
- Environmental, engineering, soil science, and dredging industry associations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio EPA Division of Surface Water
- Ohio EPA Division of Materials and Waste Management
- Ohio Lake Erie Commission
- Ohio Department of Transportation
- Ohio Department of Natural Resources
- Soil and Water Conservation Districts
- Port authorities and harbor sediment recycling facilities
- Municipalities and county engineers
- Agronomists, soil scientists, environmental engineers
- Beneficial use byproducts processors and end-use partners in agriculture, restoration, redevelopment, and infrastructure
- U.S. Army Corps of Engineers

Raw Rendering Material and Routine Mortalities



The Raw Rendering Material and Routine Mortalities strategies strengthen Ohio's ability to plan for, collect, process, and manage raw rendering materials and related animal byproducts by improving data, service mapping, coordination, generator guidance, technical assistance, and targeted infrastructure development. Because rendering is a high-value recovery pathway that depends on reliable service and clear expectations, these strategies support a more resilient system that improves access for small, rural, and dispersed generators; reduces contamination and biosecurity risks; and clarifies appropriate alternatives when rendering is not feasible in certain locations or service conditions. Together, RR-01 through RR-10 help support consistent operations, informed contingency planning, and practical tools for generators, haulers, processors, and regulators.

The table below lists each Raw Rendering Material and Routine Mortalities strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
RR-01	Develop a Statewide Baseline and Data Sharing Framework for Raw Rendering Materials
RR-02	Develop a Statewide Mapping of Raw Rendering Material Management Infrastructure and Service Conditions
RR-03	Strengthen Coordination, Communication, and Outreach Among Raw Rendering Material Stakeholders
RR-04	Improve Generator Storage, Handling, Contamination Prevention, and Acceptance Readiness
RR-05	Expand Local, Regional, and Shared Service Models for Small and Dispersed Generators

Strategy ID	Strategy Title
RR-06	Expand Training, Education, and Technology Information
RR-07	Develop Onsite Materials Management Guidance and a Generator Self-Assessment Toolkit
RR-08	Conduct Priority Pilot Projects for Scalable Raw Rendering Material Management
RR-09	Develop Targeted Management Solutions for High Biosecurity and High Risk Animal Materials
RR-10	Clarify Backup Pathways, Biosecurity Practices, and Transport Expectations

RR-01. Develop a Statewide Baseline and Data Sharing Framework for Raw Rendering Materials

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making

Issues addressed: Ohio lacks consistent, planning-grade data for raw rendering materials and related animal byproducts. Current information does not fully characterize source categories, volumes, management pathways, service gaps, or performance trends. Generators and processors also face uncertainty about what information is needed, how it will be used, and how proprietary data will be protected. These gaps limit the state's ability to design and target pilot projects, build appropriate infrastructure, and support scalable raw rendering materials management pathways. A statewide, privacy-protective data framework is needed to consolidate essential information and guide coordinated planning efforts across regions.

Strategy statement: Develop a statewide planning baseline and data sharing framework that defines source categories, feasible data elements, privacy-protective aggregation methods, and general oversight expectations. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify needed data fields, minimize reporting burden, clarify how data will be aggregated and protected, and outline governance roles for maintaining planning-grade datasets over time and sharing data with stakeholders. The coordinated effort will integrate existing reporting streams, stakeholder input, and regional service gap insights to create a single statewide resource that supports infrastructure evaluation, pilot project selection, contingency planning, and long-term management of raw rendering materials.

Expected outcomes:

1. A consistent statewide dataset describing generation, management pathways, and service gaps for all raw rendering material categories.
2. A feasible, low-burden, privacy-protective data sharing system endorsed by generators and processors.
3. A clear governance structure for data collection, quality assurance, reporting, and future updates.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied research programs

RR-01. Develop a Statewide Baseline and Data Sharing Framework for Raw Rendering Materials

- Technical or neutral convening organizations

Collaborating organizations:

- Agricultural industry associations
- Meat and poultry processors, livestock farmers, animal shelters, veterinary clinics
- State, county and municipal road management departments
- Rendering facilities
- Composting and other organics processing facility operators
- Licensed raw rendering material transporters
- Local health departments
- Solid waste management districts
- Ohio Veterinary Medical Association
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Agriculture Division of Meat Inspection
- Ohio EPA Division of Materials and Waste Management
- USDA Animal and Plant Health Inspection Service

RR-02. Develop a Statewide Mapping of Raw Rendering Material Management Infrastructure and Service Conditions

Statewide priorities supported: Priority 5: Enhance Coordination, Collaboration, and Partnerships

Issues addressed: Access to appropriate processing outlets for raw rendering materials and related animal byproducts varies significantly across Ohio. Generators may not know which facilities can accept specific materials, how fresh the materials must be, what storage or handling requirements apply, or what options exist when rendering capacity is limited. Rural and underserved areas face longer transport distances, higher per-stop costs, and more frequent disruptions. Stakeholders emphasized the need for an up-to-date, interactive statewide mapping tool that consolidates all collection, processing, storage, and aggregation options; identifies time sensitive acceptance requirements; and can support both routine operations and emergency response during disease events or capacity disruptions.

Strategy statement: Develop and maintain a statewide interactive mapping system that consolidates all available management outlets, service conditions, and acceptance criteria for raw rendering materials and related animal byproducts. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to define core mapping attributes, integrate data on rendering facilities, composting outlets, anaerobic digestion and co-digestion options, transfer and aggregation sites, cold-storage locations, licensed haulers, collection routes, and regional service gaps. The coordinated effort must ensure the system includes time-sensitive acceptance windows, seasonal variability, material restrictions, and other operational considerations necessary for reliable planning. The mapping system must be updated regularly and designed to support contingency planning, such as routing changes or emergency response during animal disease outbreaks or infrastructure disruptions, while improving statewide visibility into service gaps and infrastructure needs.

Expected outcomes:

1. An accessible, dynamic statewide tool that helps generators identify appropriate processing outlets, haulers, and acceptance criteria in real time.
2. Improved visibility into service gaps, route inefficiencies, storage limitations, and contingency needs across multiple animal byproducts management pathways.
3. A shared information platform supporting coordinated planning, infrastructure development, emergency response, and pilot project selection.

RR-02. Develop a Statewide Mapping of Raw Rendering Material Management Infrastructure and Service Conditions

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Mapping and geographic information systems experts
- Rendering facilities
- Composting and other organics processing facility operators
- Licensed raw rendering material transporters
- Solid waste management districts
- Local health departments
- Agricultural industry associations
- Ohio Organics Council
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Agriculture Division of Meat Inspection
- Ohio EPA Division of Materials and Waste Management
- USDA Animal and Plant Health Inspection Service

RR-03. Strengthen Coordination, Communication, and Outreach Among Raw Rendering Material Stakeholders

Statewide priorities supported: Priority 5: Enhance Coordination, Collaboration, and Partnerships

Issues addressed: Small and dispersed generators of rendering waste often rely on informal information networks and may not be aware of available collection options, acceptance requirements, or emerging service models. Inconsistent communication among generators, haulers, rendering companies, processors, inspectors, trade associations, and state agencies limits problem solving and slows adoption of improved storage, handling, or recycling service approaches. Stakeholders emphasized the value of more predictable outreach channels, clearer communication about service conditions, and accessible opportunities for engagement across regions. Better coordination is essential for increasing system awareness and supporting implementation of both newly emerging shared-service models for small and dispersed generators and the statewide mapping insights that identify where collection routes, processing outlets, and storage options are limited or constrained.

Strategy statement: Strengthen statewide coordination and communication within the raw rendering material and animal byproducts management network through a unified outreach and engagement initiative. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify preferred engagement formats, priority topics, accessibility needs, and regional considerations based on light statewide outreach. Using these insights, the initiative will develop and deliver a practical mix of engagement options such as regional workshops, periodic virtual briefings, and, in areas where broad interest exists, an annual or biannual statewide meeting. All materials will be made available in accessible formats, digital and print, with language support where needed, and stakeholder feedback will guide ongoing refinement of outreach and industry engagement practices.

Expected outcomes:

1. Stronger communication and information sharing networks that increase generator awareness of available collection services, acceptance requirements, and regional conditions.
2. Regular stakeholder engagement that supports collaborative problem solving and aligns generators, haulers, processors, and agencies around shared improvements.
3. Improved participation and adoption of new shared-service and coordinated collection models through clear outreach and accessible communication.

RR-03. Strengthen Coordination, Communication, and Outreach Among Raw Rendering Material Stakeholders

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Agricultural industry associations
- Meat and poultry processors, livestock farmers, animal shelters, veterinary clinics
- Rendering facilities
- Composting and other organics processing facility operators
- Licensed raw rendering material transporters
- State, county and municipal road management departments
- Ohio Organics Council
- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Agriculture Division of Meat Inspection
- Solid waste management districts
- USDA Animal and Plant Health Inspection Service
- Amish and Mennonite agricultural organizations
- Local health departments
- Ohio Veterinary Medical Association

RR-04. Improve Generator Storage, Handling, Contamination Prevention, and Acceptance Readiness

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: Generator-level storage and handling practices directly influence odor, vector attraction, leakage, carcass or byproduct condition, contamination risk, and acceptance at rendering facilities, composters, digesters, or other processing outlets. Inadequate containment, improper packaging, temperature mismanagement, and lack of staging controls can contribute to rejections, service disruptions, and environmental problems. Stakeholders emphasized the need for clearer guidance, practical steps generators can take to meet acceptance criteria, and better awareness of equipment and containment options that support protective and compliant management. A unified statewide guidance effort is needed to help generators understand how proper storage, handling, contamination prevention, and temperature control influence acceptance readiness and system reliability.

Strategy statement: Develop statewide best-practice guidance that helps generators improve storage, handling, containment, sanitation, temperature management, and contamination prevention practices for raw rendering materials and related byproducts. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to compile practical, neutral guidance describing typical acceptance criteria, containment and staging considerations, packaging restrictions, species and decomposition limitations, liquid containment expectations, and biosecurity principles relevant to protective handling. The coordinated effort will highlight equipment and containment options, such as sealed totes, refrigerated storage, secondary containment, and secure staging areas, while clarifying practices that strengthen acceptance readiness for rendering, composting, digestion, or regional shared-service systems. All guidance will be aligned with applicable regulatory requirements governing storage, handling, and transfer of raw rendering materials.

Expected outcomes:

1. Improved material storage, handling, containment, and contamination-prevention practices that reduce rejection and nuisance conditions.
2. Better alignment between generator readiness and facility acceptance criteria.
3. Enhanced compatibility with regional/shared-service models, aggregation points, and other system improvements.

RR-04. Improve Generator Storage, Handling, Contamination Prevention, and Acceptance Readiness

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Agricultural industry associations
- Meat and poultry processors, livestock farmers, animal shelters, veterinary clinics
- Rendering facilities
- Composting and other organics processing facility operators
- Licensed raw rendering material transporters
- Equipment vendors and suppliers
- Ohio Organics Council
- Ohio Farm Bureau Federation
- Ohio EPA Division of Materials and Waste Management
- USDA Animal and Plant Health Inspection Service
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Agriculture Division of Meat Inspection

RR-05. Expand Local, Regional, and Shared Service Models for Small and Dispersed Generators

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Small and dispersed generators, including farms, butcher shops, small processors, veterinary clinics, animal shelters, and seasonal operations, often struggle to access collection or processing services due to long haul distances, low route density, irregular generation patterns, minimum pickup requirements, and limited infrastructure options. At the same time, some processing facilities report turning away materials because of insufficient service capacity or operational constraints. These gaps cannot be effectively addressed without a clear understanding of where infrastructure exists, where service is lacking, and where shared-service or coordinated pickup models may be feasible. Stakeholders emphasized the need for expanded service approaches that build on statewide mapping insights that identify regional infrastructure gaps, acceptance windows, and available processing outlets.

Strategy statement: Develop and support local, regional, and shared-service models that improve access to reliable collection and processing options for small and dispersed generators. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to identify priority regions based on statewide mapping insights, evaluate feasible service configurations, and facilitate planning discussions among rendering partners, haulers, processors, and local governments. The coordinated effort will explore options such as coordinated pickup routes, aggregation points, shared containers, refrigerated regional storage, transfer locations, backhaul opportunities, and contained hub-and-spoke systems. By helping participants understand regulatory considerations, identify resource needs, and coordinate with appropriate funding pathways, the initiative will support implementation of practical models that expand service access, reduce disruptions, and strengthen management capacity for small and dispersed generators.

Expected outcomes:

1. Practical evaluation and implementation of shared-service, aggregation, and coordinated pickup models that improve access for small and dispersed generators.
2. Expanded service capacity in regions identified as underserved.
3. Increased generator participation and reduced service disruptions supported by coordinated planning and improved access to funding or strategic resources.

RR-05. Expand Local, Regional, and Shared Service Models for Small and Dispersed Generators

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Agricultural industry associations
- Meat and poultry processors, livestock farmers, animal shelters, veterinary clinics
- Rendering facilities
- Composting and other organics processing facility operators
- Licensed raw rendering material transporters
- Amish and Mennonite agricultural organizations
- Equipment vendors and suppliers
- Ohio Organics Council
- Ohio Farm Bureau Federation
- Ohio EPA Division of Materials and Waste Management
- USDA Animal and Plant Health Inspection Service
- Solid waste management districts
- Local health departments
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Agriculture Division of Meat Inspection

RR-06. Expand Training, Education, and Technology Information

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Generators, processors, and haulers need accessible, practical training on safe management of raw rendering materials, including biosecurity, odor and vector control, compliant storage and handling, temperature management, contamination prevention, regulatory considerations, and grant-writing fundamentals. Stakeholders also emphasized the need for neutral, non-vendor-specific information about composting, rendering, digestion, contained systems, and other management approaches to support informed decision making. Effective training and technology guidance are essential for improving generator readiness, strengthening service reliability, and supporting expanded service models, onsite configurations, and contingency operations.

Strategy statement: Develop a statewide training and technical information program that provides generators, haulers, and processors with accessible and practical education on safe and compliant management of raw rendering materials. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to inventory existing training resources, identify gaps, and develop cohesive materials, including online modules, in-person sessions, and concise guidance briefs, that support improved storage, handling, biosecurity, odor/vector control, temperature regulation, and contamination prevention practices. The coordinated effort must incorporate vendor-neutral technology information describing key categories and operating considerations for composting, rendering, digestion, and containerized systems without endorsing specific products. All training materials must be aligned with statewide storage and handling expectations, supportive of shared-service or regional models, inclusive of onsite options where appropriate, and integrated with biosecurity principles needed during both routine operations and contingency scenarios.

Expected outcomes:

1. Increased adoption of safe storage, handling, biosecurity, and contamination prevention practices among generators, haulers, and processors.
2. Better understanding of compliant, vendor-neutral technology categories and operational safeguards across multiple management pathways.

RR-06. Expand Training, Education, and Technology Information
3. Stronger implementation of generator readiness practices, regional or shared-service solutions, onsite options, and contingency procedures supported by accessible, consistent statewide training.
Recommended convening organizations: • Applicable state agencies • Relevant industry associations • Universities and extension or applied-research programs • Technical or neutral convening organizations **Collaborating organizations:** • Agricultural industry associations • Meat and poultry processors, livestock farmers, animal shelters, veterinary clinics • Rendering facilities • Composting and other organics processing facility operators • Licensed raw rendering material transporters • Amish and Mennonite agricultural organizations • Equipment vendors and suppliers • Ohio Organics Council • Ohio Farm Bureau Federation • Ohio EPA Division of Materials and Waste Management • Ohio Department of Agriculture Division of Animal Health • Ohio Department of Agriculture Division of Meat Inspection • USDA Animal and Plant Health Inspection Service • Solid waste management districts • Local health departments

RR-07. Develop Onsite Materials Management Guidance and a Generator Self-Assessment Toolkit

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: For some generators, particularly small operations and those located far from existing collection or processing services, onsite management of raw rendering materials may be the most practical option. These operators need clear, neutral guidance to determine whether composting, containerized or in-vessel systems, small digesters, or other onsite approaches are appropriate solutions for their operation. Many generators also need help understanding applicable training and authorization expectations and implementing safe, compliant practices. A straightforward, plain language tool is needed to help generators assess whether onsite handling fits their conditions, what regulatory considerations may apply, and how to adopt protective operational controls.

Strategy statement: Develop a statewide onsite-management guidance and generator self-assessment toolkit that helps small and dispersed generators evaluate feasibility and select appropriate onsite technologies or configurations. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop plain language decision trees, site assessment checklists, regulatory summaries, and neutral technology briefs covering composting systems, containerized or in-vessel units, and small digesters. The coordinated effort will incorporate basic design and siting considerations, safety and containment principles, biosecurity practices, temperature monitoring expectations, and operational safeguards relevant to onsite management. To support broad access, the toolkit will be available online and in print, with language access options for communities with limited internet availability or specific translation needs.

Expected outcomes:

1. Increased ability for generators to self-evaluate and implement safe, compliant onsite management practices.
2. Higher adoption of protective onsite practices that reduce nuisance conditions, contamination risks, and rejected materials.
3. Improved service access and resiliency for underserved regions by reducing transport dependence and enabling reliable onsite solutions.

RR-07. Develop Onsite Materials Management Guidance and a Generator Self-Assessment Toolkit

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Agricultural industry associations
- Meat and poultry processors, livestock farmers, animal shelters, veterinary clinics
- Composting and other organics processing facility operators
- Amish and Mennonite agricultural organizations
- Equipment vendors and suppliers
- Ohio Organics Council
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Agriculture Division of Meat Inspection
- Ohio EPA Division of Materials and Waste Management
- USDA Animal and Plant Health Inspection Service
- USDA Natural Resources Conservation Service
- Soil and water conservation districts
- Solid waste management districts
- Consultants
- Language access partners

RR-08. Conduct Priority Pilot Projects for Scalable Raw Rendering Material Management

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Many regions in Ohio lack consistent storage, collection services, composting and other processing options for raw rendering materials, especially for smaller generators and for parts of animals designated as *specified risk materials*. Service gaps, long haul distances, and contamination concerns limit diversion and protective management. Stakeholders identified the need for pilots that assess multiple management approaches, such as coordinated collection, shared or contained storage, contamination control practices, composting feasibility, and other processing pathways. Anaerobic digestion and co-digestion are a promising processing option but require additional evaluation of material suitability, operational constraints, and regulatory considerations. Pilot data will help clarify practical and cost effective, scalable solutions and support statewide infrastructure planning.

Strategy statement: Conduct targeted pilot projects to evaluate scalable collection, storage, preprocessing, composting, and processing approaches for raw rendering materials and specified risk materials. Recommended conveners, working with participating organizations, will use statewide baseline and service gap data to identify priority regions, support interested entities in planning and conducting pilots, and facilitate evaluation of approaches such as coordinated collection, shared or contained storage, contamination control practices, composting, and anaerobic digestion or co-digestion for suitable feedstocks. Pilot efforts will assess logistical performance, materials receiving considerations, and dosing feasibility at existing digestion facilities, and help clarify regulatory considerations for potential dedicated digestion facilities. Pilot sponsors may voluntarily provide concise summaries to support broader knowledge exchange while minimizing reporting burden.

Expected outcomes:

1. Pilot results guide statewide planning by pinpointing regional service gaps and informing infrastructure development for raw rendering and specified risk materials.
2. Clear operational and cost-effectiveness information that supports statewide infrastructure planning and regional service improvements.
3. Pilot activities clarify operational, suitability, and regulatory considerations for anaerobic digestion and co-digestion relative to other processing technologies.

RR-08. Conduct Priority Pilot Projects for Scalable Raw Rendering Material Management

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Agricultural industry associations
- Meat and poultry processors, livestock farmers, animal shelters, veterinary clinics
- Composting and other organics processing facility operators
- Amish and Mennonite agricultural organizations
- Equipment vendors and suppliers
- Ohio Organics Council
- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Agriculture Division of Meat Inspection
- USDA Animal and Plant Health Inspection Service
- USDA Natural Resources Conservation Service
- Soil and water conservation districts
- Solid waste management districts
- Consultants

RR-09. Develop Targeted Management Solutions for High Biosecurity and High Risk Animal Materials

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Certain animal byproducts cannot be managed through routine rendering, composting, or digestion because of biosecurity or contamination high risks—such as CWD-positive or suspect cervid carcasses, euthanized animals containing pentobarbital, condemned carcasses, and research or pathological wastes. These materials require fit-for-purpose treatment technologies, such as high-temperature thermal destruction, alkaline hydrolysis, or infectious waste autoclaving, and clearly defined pathways for onsite treatment or access to qualified regional facilities. Without streamlined, technology specific guidance and coordinated availability planning, facilities and generators risk environmental contamination, rejected loads, compliance challenges, and public or animal health concerns. A clear statewide approach is needed to outline appropriate technologies, approvals, and availability models for managing high-risk animal byproducts safely and predictably.

Strategy statement: Develop a statewide targeted-management guidance framework that identifies appropriate technologies and availability pathways for high biosecurity and contamination high risk animal materials. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to define fit-for-purpose treatment options, such as incineration, alkaline hydrolysis, and infectious waste autoclaving, along with their relevant approval considerations, operational safeguards, and biosecurity requirements. The coordinated effort will produce a concise Technology and Approval Matrix describing which facilities may treat specific material types, under which conditions, and with what supporting documentation; a centralized online guidance hub containing SOPs and safety considerations; and a neutral white paper outlining practical disposal and treatment options for euthanized, condemned, or research animals. All guidance will be aligned with applicable regulatory requirements governing diseased animals disposal and nationally recognized emergency carcass management guidance, ensuring consistent understanding across operators, regulators, health officials, and emergency management partners.

RR-09. Develop Targeted Management Solutions for High Biosecurity and High Risk Animal Materials

Expected outcomes:

1. Clear, Ohio-specific pathways for treating and disposing of high biosecurity and contamination high risk animal materials.
2. Improved treatment availability through coordinated planning with qualified facilities and published SOPs.
3. Reduced risk of environmental contamination, rejected loads, and biosecurity failures.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Universities, veterinary schools, and hospital biosafety officers
- Research institutions
- Infectious waste treatment facility operators
- Alkaline hydrolysis facility operators and vendors
- Treatment equipment vendors
- Treatment technology experts
- Landfill operators
- Local health departments
- Ohio Emergency Management Agency
- Ohio Department of Natural Resources Division of Wildlife
- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Agriculture Division of Meat Inspection
- USDA Animal and Plant Health Inspection Service

RR-10. Clarify Backup Pathways, Biosecurity Practices, and Transport Expectations

Statewide priorities supported: Priority 5: Enhance Coordination, Collaboration, and Partnerships

Issues addressed: Generators may need alternative management pathways when rendering service is disrupted by weather, equipment downtime, contamination incidents, disease restrictions, pricing changes, or route limitations. Without clear guidance, generators may be uncertain about acceptable temporary storage options, allowable backup disposal outlets, or the biosecurity measures needed to prevent disease spread, contamination, odor, or nuisance conditions. Transport expectations, including sealed containers, contamination prevention, cleaning and disinfection, documentation, and carcass or byproduct condition requirements, also influence acceptance by composting, digestion, landfill, or emergency-response systems. Backup pathway decisions must reflect current service maps, storage and handling expectations, biosecurity requirements, and the availability of coordinated regional or shared-service models for small and dispersed generators.

Strategy statement: Develop statewide guidance that clarifies acceptable backup management pathways, biosecurity expectations, and transport practices when rendering service is unavailable or restricted. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to outline practical backup options, including temporary storage, permitted composting facilities, on-farm composting where allowed, landfill disposal, and other approved outlets, alongside neutral, protective steps for biosecurity, contamination prevention, and transport. The coordinated effort will describe sealed container and containment expectations, cleaning and disinfection practices, documentation standards, byproduct-condition considerations, reportable disease triggers, and communication protocols among generators, haulers, processors, and agencies. Backup pathway guidance will be aligned with statewide mapping of service availability, generator storage and handling expectations, and regional/shared-service models so that generators can respond predictably and safely to service disruptions.

Expected outcomes:

1. Clear, accessible guidance that helps generators, haulers, and processors identify appropriate and compliant backup pathways during service disruptions.
2. Improved adherence to biosecurity, contamination prevention, and proper transport practices during routine and emergency operations.

RR-10. Clarify Backup Pathways, Biosecurity Practices, and Transport Expectations

3. Stronger resilience and operational reliability through alignment with statewide mapping, coordinated communication networks, and regionally appropriate shared-service models.

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Agricultural industry associations
- Meat and poultry processors, livestock farmers, animal shelters, veterinary clinics
- Rendering facilities
- Landfill operators
- Composting and other organics processing facility operators
- Local health departments
- Ohio Emergency Management Agency
- Ohio Department of Natural Resources Division of Wildlife
- Ohio EPA Division of Materials and Waste Management
- Ohio Department of Agriculture Division of Animal Health
- Ohio Department of Agriculture Division of Meat Inspection
- USDA Animal and Plant Health Inspection Service
- Solid waste management districts

Septage



The Septage strategies strengthen Ohio's ability to plan for, coordinate, and improve septage collection, receiving, treatment, and beneficial use pathways by enhancing statewide data, clarifying facility information, providing consistent acceptance guidance, supporting regional service models, and improving coordination across partners. Because septage management varies widely across rural and urban areas, these strategies help build a more reliable and equitable system that can respond to service gaps, long haul distances, uneven receiving capacity, operator concerns, infrastructure limitations, and emerging regulatory or contaminant issues. Together, SM-01 through SM-06 support a more coordinated statewide approach for haulers, wastewater utilities, local health departments, and regional planning partners.

The table below lists each Septage strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
SM-01	Develop a Statewide Septage Data and Service Gap Framework
SM-02	Develop a Statewide Septage Receiving Facility Inventory and Finder Tool
SM-03	Develop Statewide Septage Acceptance Guidance and Co-Digestion Readiness Resources
SM-04	Develop and Pilot Regional Hub and Spoke Septage Receiving Models
SM-05	Conduct a Statewide Feasibility Assessment for Dedicated Septage Treatment Facilities
SM-06	Establish a Statewide Septage Management Coordination Taskforce

SM-01. Develop a Statewide Septage Data and Service Gap Framework

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making

Issues addressed: Ohio lacks centralized, digitized, and planning-grade information on septage generation, hauling patterns, receiving facility capacity, and regional service gaps. Fragmented datasets and paper-based hauler reporting make it difficult to understand statewide volumes or identify where facility access is limited. Haulers frequently call multiple facilities before finding one that can accept septage, resulting in financially unsustainable travel distances, especially in rural areas. These inefficiencies increase costs for haulers and contribute to higher septic system maintenance burdens for small and rural communities. Missing or inconsistent data prevents state agencies from answering critical capacity questions, slows infrastructure investment decisions, and obscures bottlenecks that undermine reliable service. A unified statewide framework is needed to support coordinated planning, oversight, and decision making.

Strategy statement: Develop a statewide septage data and service gap framework that integrates baseline generation information, receiving-facility characteristics, and lightweight digital reporting into a single, accessible structure. Recommended conveners, working in collaboration with participating organizations, will assemble a working group of public health officials, wastewater operators, haulers, and local governments to identify key data elements, reporting options, and mapping requirements. The framework will consolidate existing datasets, modernize hauler documentation, and produce planning-grade geospatial outputs that clarify where receiving access is limited, hauling distances are excessive, or vulnerabilities create service reliability risks. By defining update cycles, governance roles, and data sharing pathways, the initiative will enable more efficient statewide assessments and support infrastructure, regulatory, and programmatic decision making.

Expected outcomes:

1. A unified statewide data and mapping system that consolidates septage generation, hauling, and receiving information.
2. Clear visibility into service gaps, hauling burdens, and regional vulnerabilities that support informed decision making.
3. Improved planning and oversight through modernized reporting, reduced administrative burden, and consistent statewide data governance.

SM-01. Develop a Statewide Septage Data and Service Gap Framework

Recommended convening organizations:

- Applicable state agencies
- Public health and wastewater sector associations
- Regional planning organizations
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio Department of Health, Sewage Treatment Systems Program
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Environmental Financial Assistance
- Local health departments
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Wastewater treatment plant operators
- Licensed septage haulers
- Septage treatment facilities
- Municipal and county governments

SM-02. Develop a Statewide Septage Receiving Facility Inventory and Finder Tool

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Septage haulers across Ohio lack a centralized, user friendly resource that identifies where septage can be legally and reliably taken. Receiving facilities vary widely in acceptance criteria, hours, fees, capacity limits, and seasonal constraints, forcing haulers, especially in rural regions, to make multiple calls or travel long distances. These challenges reduce operational efficiency, increase costs, and create inequitable access to essential services. A clear statewide inventory and a digital tool are needed to support haulers, health districts, regulators, and wastewater facilities in making informed decisions and improving system reliability.

Strategy statement: Develop a statewide inventory and digital finder tool that consolidates all septage receiving options, including wastewater treatment plants, dedicated facilities, transfer or receiving stations, and permitted land application sites, into a single accessible resource. Recommended conveners, working in collaboration with participating organizations, will assemble a working group to define required inventory fields and data maintenance practices. The tool will incorporate operational details such as location, hours, acceptance criteria, fees, screening requirements, capacity limits, and seasonal constraints. As statewide septage reporting improves, the inventory will be updated to reflect current facility capabilities and broadened to support regional planning and infrastructure decisions.

Expected outcomes:

1. A reliable statewide directory and map-based tool that helps haulers quickly identify viable receiving locations and operational details.
2. Clear visibility into geographic disparities and service gaps that support informed statewide planning.
3. Improved coordination and reliability as shared information helps align haulers, WWTPs, local health departments, and regulators.

Recommended convening organizations:

- Applicable state agencies
- Wastewater industry associations
- Technical or neutral convening organizations

SM-02. Develop a Statewide Septage Receiving Facility Inventory and Finder Tool

Collaborating organizations:

- Ohio Department of Health, Sewage Treatment Systems Program
- Ohio EPA Division of Surface Water
- Local health departments
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Wastewater treatment facilities
- Septage haulers
- Relevant industry associations
- Pretreatment programs
- Universities and extension or applied-research programs

SM-03. Develop Statewide Septage Acceptance Guidance and Co-Digestion Readiness Resources

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Wastewater treatment plants (WWTPs) are critical septage-receiving partners, but acceptance practices vary widely due to concerns about hydraulic and organic loading, grit and debris content, FOG, odors, staffing limitations, receiving hours, and potential treatment process disruption. Many operators lack consistent criteria for evaluating septage characteristics, determining pretreatment needs, or providing clear expectations to haulers. Opportunities for co-digestion and biogas production are often underutilized because operators do not have standardized feasibility tools or operational controls. Without consistent statewide guidance, haulers face long travel distances, WWTPs face uncertainty, and valuable co-digestion pathways remain unrealized.

Strategy statement: Develop statewide septage acceptance guidance, operator training resources, and co-digestion readiness tools that help WWTPs evaluate, accept, pretreat, and manage septage safely and predictably. Recommended conveners, working in collaboration with participating organizations, will assemble a multidisciplinary working group of WWTP operators, haulers, public health partners, and beneficial use byproducts specialists to create standardized acceptance criteria, receiving station expectations, screening and pretreatment considerations, sampling approaches, communication templates, and co-digestion evaluation tools. These resources will help WWTPs adopt consistent practices, understand infrastructure needs, and identify feasible opportunities to incorporate septage into digestion systems. The guidance will be paired with technical assistance that supports facilities in improving reliability and expanding receiving capacity.

Expected outcomes:

1. Clear statewide guidance that increases operator confidence and encourages predictable, safe septage acceptance.
2. Expanded WWTP receiving capacity supported by consistent criteria, operator training, and targeted infrastructure support.
3. Increased opportunities for co-digestion and reduced haul distances through improved WWTP readiness and regional coordination.

SM-03. Develop Statewide Septage Acceptance Guidance and Co-Digestion Readiness Resources

Recommended convening organizations:

- Applicable state agencies
- Wastewater and public health associations
- Regional utility collaboratives
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio Department of Health, Sewage Treatment Systems Program
- Ohio EPA Division of Surface Water
- Ohio EPA Division of Materials and Waste Management
- Local health departments
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Ohio Organics Council
- Wastewater treatment plant operators
- Septage haulers
- Universities and extension or applied-research programs
- Pretreatment programs
- Consultants

SM-04. Develop and Pilot Regional Hub and Spoke Septage Receiving Models

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 2: Expand Infrastructure and Processing Capacity; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Rural regions frequently experience long haul distances, limited receiving options, and seasonal bottlenecks that undermine reliable septage management. WWTP access may be restricted due to capacity limits, operational constraints, or receiving-hour limitations. Stakeholders consistently emphasized the need for pilot demonstrations, such as regional transfer hubs, satellite receiving points, and coordinated receiving models, to assess feasibility, reduce transportation burdens, and strengthen service reliability in underserved areas.

Strategy statement: Develop and pilot regional hub-and-spoke septage receiving models that reduce haul distances and improve service reliability in rural and underserved regions. Recommended conveners, working in collaboration with participating organizations, will coordinate targeted pilot projects with WWTP operators, haulers, local governments, and public health partners to test various configurations such as transfer hubs, satellite receiving points, and dedicated receiving stations. Pilot evaluations will assess operational workflows, screening or pretreatment needs, infrastructure requirements, hauling logistics, and coordination practices. Lessons learned will inform scalable, cost effective regional models that improve septage acceptance and reduce bottlenecks statewide.

Expected outcomes:

1. Demonstrated regional receiving models that reduce long haul distances and improve service reliability in underserved areas.
2. Practical pilot-tested information on infrastructure needs, operating procedures, and coordination workflows.
3. Scalable options for regional transfer hubs, satellite receiving points, and dedicated receiving stations guided by pilot results.

Recommended convening organizations:

- Applicable state agencies
- Regional wastewater utility collaboratives
- Universities and extension or applied-research programs
- Relevant industry associations
- Technical or neutral convening organizations

SM-04. Develop and Pilot Regional Hub and Spoke Septage Receiving Models

Collaborating organizations:

- Ohio Department of Health, Sewage Treatment Systems Program
- Ohio EPA Division of Surface Water
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Local health departments
- Wastewater treatment plant operators
- Septage haulers
- Municipal and county governments
- Pretreatment programs
- Consultants

SM-05. Conduct a Statewide Feasibility Assessment for Dedicated Septage Treatment Facilities

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making; Priority 2: Expand Infrastructure and Processing Capacity; Priority 6: Support Market Development and Beneficial Use

Issues addressed: Ohio has very limited dedicated septage treatment infrastructure, and many regions lack reliable WWTP access. Stakeholders note that dedicated facilities may provide regional solutions, but feasibility remains uncertain due to high capital costs, complex permitting, contaminant load risks, screening needs, septage management requirements, market viability concerns, and public acceptance challenges. Without a structured statewide assessment, agencies and potential developers cannot confidently explore investment, partnership, or pilot options.

Strategy statement: Conduct a statewide feasibility assessment for dedicated septage treatment facilities that evaluates business, technical, regulatory, market, and infrastructure considerations. Recommended conveners, working in collaboration with participating organizations, will coordinate an assessment team composed of wastewater operators, septage haulers, engineering experts, and public health representatives. The assessment will evaluate siting requirements, capital and operating costs, permitting pathways, feedstock availability, contaminant considerations, septage management needs, revenue opportunities, and public acceptance factors. Findings will identify promising regions and feasible models, providing actionable guidance for investment, partnerships, pilot development, or public-private collaboration.

Expected outcomes:

1. Clear understanding of business, technical, regulatory, and market factors influencing dedicated facility viability.
2. Identification of promising regions and feasible models that address infrastructure gaps and hauling burdens.
3. Actionable guidance for investment, permitting, partnerships, and pilot opportunities to expand septage treatment capacity.

SM-05. Conduct a Statewide Feasibility Assessment for Dedicated Septage Treatment Facilities

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Economic-development partners
- Municipal and regional infrastructure partners
- Technical or neutral convening organizations

Collaborating organizations:

- Ohio Department of Health, Sewage Treatment Systems Program
- Ohio EPA Division of Surface Water
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Local health departments
- Wastewater treatment plant operators
- Septage haulers
- Engineering consultants and business-model specialists
- Universities and extension or applied-research programs

SM-06. Establish a Statewide Septage Management Coordination Taskforce

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance; Priority 5: Enhance Coordination, Collaboration, and Partnerships

Issues addressed: Septage management responsibilities are distributed across wastewater utilities, local health departments, septage haulers, state agencies, pretreatment programs, and regional partners, resulting in inconsistent documentation requirements, receiving criteria, enforcement practices, public outreach expectations, infrastructure coordination, and approaches to emerging contaminants. This fragmentation creates confusion, regional gaps, costly inefficiencies, and missed opportunities for shared learning and statewide alignment. A coordinated statewide structure is needed to align communication, expectations, and implementation practices across all stakeholders.

Strategy statement: Establish a statewide septage management coordination taskforce that brings together wastewater operators, septage haulers, health departments, state agencies, pretreatment programs, regional partners, and other stakeholders to align expectations and improve statewide reliability. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to convene and support the taskforce to develop shared communication protocols, support joint education, identify funding opportunities, review service gaps, and encourage consistent approaches to receiving criteria, complaint response, land application oversight, illegal dumping prevention, and emerging contaminant planning. Regular convenings will support continuous improvement and statewide consistency.

Expected outcomes:

1. Consistent statewide communication and expectations across haulers, WWTPs, regulators, and health districts.
2. Improved public outreach, funding coordination, and emerging contaminant planning through a unified stakeholder group.
3. Strengthened statewide service reliability as shared protocols and coordinated planning reduce gaps and inconsistencies.

Recommended convening organizations:

- Applicable state agencies
- Public health and wastewater associations
- Technical or neutral convening organizations

SM-06. Establish a Statewide Septage Management Coordination Taskforce

Collaborating organizations:

- Ohio Department of Health, Sewage Treatment Systems Program
- Ohio EPA Division of Surface Water
- Ohio Rural Water Association
- Ohio Water Development Authority
- Association of Ohio Metropolitan Wastewater Agencies
- Local health departments
- Wastewater treatment plant operators
- Septage haulers
- Pretreatment program partners
- Municipal and county governments
- Universities and extension or applied-research programs

Wood and Forestry Waste



The Wood and Forestry Waste strategies strengthen Ohio's ability to plan for, separate, recover, process, and beneficially use wood materials by improving material definitions, data, regional coordination, contamination prevention, infrastructure options, and market development. Because wood waste varies widely by source, quality, and regional conditions, these strategies support a more consistent and resilient recovery system that can respond to local capacity constraints, variable material quality, storm related surges, construction and demolition debris, market limitations, and environmental or product quality concerns. Together, WW-01 through WW-08 help create clearer expectations and practical tools for generators, haulers, processors, end markets, and program managers.

The table below lists each Wood and Forestry Waste strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
WW-01	Establish Wood Waste Categories, Priority Streams, and Recovery Suitability
WW-02	Develop a Statewide Wood Waste Data, Infrastructure, and Performance Baseline
WW-03	Develop Guidance for Wood Waste Sorting and Contamination Prevention
WW-04	Develop Regional Wood Waste Aggregation, Processing, and Partnership Models
WW-05	Strengthen Clean Wood Recovery Infrastructure and End-Use Outlets
WW-06	Develop Reclaimed Wood, Reuse, and Value-Added Product Markets
WW-07	Establish Lower Grade Wood Quality Safeguards
WW-08	Establish Management Pathways for Difficult or Contaminated Wood Streams

WW-01. Establish Wood Waste Categories, Priority Streams, and Recovery Suitability

Statewide priorities supported: Priority 7: Improve Regulatory Clarity and Consistency

Issues addressed: Ohio's wood waste stream spans clean wood, land clearing debris, storm debris, pallets, dimensional lumber, construction and demolition (C&D) wood, engineered wood, and painted or treated material, each with distinct recovery potential and risks. Without consistent statewide categories and acceptance criteria, different materials are often handled as a single stream, increasing contamination and reducing viable recovery options. These gaps affect arborists, contractors, utilities, municipal programs, C&D facilities, haulers, processors, and end users. Inconsistent terminology undermines market confidence, logistics planning, and routing to appropriate outlets. A clear, statewide classification is needed to support sorting, routing, and decision making across routine, land clearing, forestry, storm, and C&D generation and processing contexts.

Strategy statement: Develop statewide guidance for wood waste classification and use suitability. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to define major wood streams, distinguish clean and recoverable materials from those requiring special handling or disposal, and outline example acceptance criteria for reuse, mulch, compost bulking agents, biomass, bedding, biochar, erosion control, and related outlets. The coordinated effort will reflect operational insight from generators, haulers, processors, and end users across forestry, land clearing, municipal brush, storm surge, and C&D generation and processing facilities, using consistent terminology suited to practical field decisions.

Expected outcomes:

1. Clear and consistent understanding of clean, recoverable, and difficult wood streams.
2. Improved acceptance clarity for generators, haulers, processors, and end-use partners.
3. More reliable routing that reduces contamination and supports appropriate beneficial use.

WW-01. Establish Wood Waste Categories, Priority Streams, and Recovery Suitability

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Solid waste management districts
- Universities and extension programs
- Regional planning entities
- Technical or neutral convening organizations

Collaborating organizations:

- Municipal public works and parks departments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Arborists and landscapers
- Composting and wood recycling facilities
- Construction and Demolition Association of Ohio
- United States Biochar Initiative
- Ohio Forestry Association
- Ohio Society of American Foresters
- Public Utilities Commission of Ohio
- Biomass and bedding market representatives
- Ohio Organics Council
- Ohio Manufacturing Association
- Sustainable Ohio By-product Synergy Network
- Reclaimed wood and architectural salvage businesses
- Product testing laboratories and quality assurance partners

WW-02. Develop a Statewide Wood Waste Data, Infrastructure, and Performance Baseline

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making

Issues addressed: Ohio lacks planning level visibility into wood waste generation, disposal, recovery potential, processing capacity, regional access gaps, contamination patterns, and end use destinations. Incomplete data limits confidence for generators, haulers, processors, municipalities, and markets. Without a practical statewide baseline, partners cannot reliably identify underserved areas, prioritize infrastructure, or track progress across clean wood, land clearing, storm debris, and construction and demolition (C&D) wood streams. This hampers investment decisions, logistics design, and market development. A consistent baseline is needed to support coordinated planning and performance evaluation.

Strategy statement: Develop a statewide wood waste data and infrastructure baseline. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to compile planning grade information on wood waste generation, disposal, recovery pathways, and facility capacity across clean wood, land clearing debris, storm-related material, forest residues, and C&D wood streams. The coordinated effort will describe approaches for documenting facilities that accept or process wood, assembling regional service gap insights, and outlining practical performance measures that reflect recovery potential and material quality. Participating organizations will contribute reporting perspectives from municipal programs, land clearing and forestry operations, haulers, processors, C&D processing facilities, and end use markets so the resulting baseline reflects real world operating conditions and regional variability. The baseline will support statewide understanding of wood waste flows, infrastructure distribution, and factors that influence recovery opportunities across diverse community types.

Expected outcomes:

1. Planning grade statewide visibility into flows, capacity, and regional access gaps.
2. More consistent identification of recovery opportunities across multiple wood streams.
3. Practical indicators that improve confidence in progress tracking over time.

WW-02. Develop a Statewide Wood Waste Data, Infrastructure, and Performance Baseline

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations
- Regional planning entities

Collaborating organizations:

- Municipal public works and parks departments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Arborists and landscapers
- Composting and wood recycling facilities
- Construction and Demolition Association of Ohio
- United States Biochar Initiative
- Ohio Forestry Association
- Ohio Society of American Foresters
- Public Utilities Commission of Ohio
- Biomass and bedding market representatives
- Ohio Organics Council
- Ohio Manufacturing Association
- Sustainable Ohio By-product Synergy Network
- Reclaimed wood and architectural salvage businesses
- Product testing laboratories and quality assurance partners

WW-03. Develop Guidance for Wood Waste Sorting and Contamination Prevention

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Clean wood often becomes unsuitable for recovery when it is mixed with treated or painted material, engineered wood, adhesives, hardware, drywall, soil, plastics, metals, or mixed construction and demolition wood. Generators such as arborists, contractors, utilities, municipal crews, and construction and demolition facilities make early decisions that strongly influence material quality, but field practices vary widely across regions and programs. These inconsistencies lead to contamination, rejected loads, reduced product quality, and diminished confidence among processors and end-use markets. Fragmented sorting and storage practices also create operational inefficiencies and limit options for routing clean wood to appropriate beneficial uses. Clear, practical guidance is needed to help generators make consistent decisions across diverse settings and capacities.

Strategy statement: Develop generator guidance for sorting, storage, acceptance, and routing of wood waste. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to describe general concepts for identifying acceptable and unacceptable wood materials, organizing storage to preserve material quality, recognizing contamination concerns, and understanding routing considerations suited to clean wood, brush, pallets, logs, chips, forest residues, land clearing debris, storm debris, and construction and demolition wood. The coordinated effort will reflect real world operational perspectives from municipal programs, utilities, arborists, landscapers, contractors, and construction and demolition facilities so the guidance remains practical and adaptable across varied wood generation sources.

Expected outcomes:

1. More consistent generator decisions that support clear sorting and acceptance practices for wood waste.
2. Reduced contamination in wood waste streams improves suitability for approved recovery and beneficial use.
3. Stronger alignment among generators, haulers, processors, and end users regarding material quality expectations.

WW-03. Develop Guidance for Wood Waste Sorting and Contamination Prevention

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations
- Regional planning entities

Collaborating organizations:

- Municipal public works and parks departments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Arborists and landscapers
- Composting and wood recycling facilities
- Construction and Demolition Association of Ohio
- United States Biochar Initiative
- Ohio Forestry Association
- Ohio Society of American Foresters
- Public Utilities Commission of Ohio
- Biomass and bedding market representatives
- Ohio Organics Council
- Ohio Manufacturing Association
- Sustainable Ohio By-product Synergy Network
- Reclaimed wood and architectural salvage businesses
- Product testing laboratories and quality assurance partners

WW-04. Develop Regional Wood Waste Aggregation, Processing, and Partnership Models

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity; Priority 5: Enhance Coordination, Collaboration, and Partnerships

Issues addressed: Clean wood, brush, chips, pallets, logs, land clearing debris, storm debris, and construction and demolition (C&D) wood are generated across decentralized sources, resulting in fragmented supply and uneven access to processing. Rural and small communities face long haul distances and limited infrastructure, while urban and peri-urban areas experience inefficiencies from uneven storage and inconsistent routing. These conditions reduce predictability for processors and buyers and limit opportunities to direct clean wood to beneficial uses. Partners lack a shared regional approach that clarifies how materials can be aggregated and moved through feasible pathways. A coordinated framework is needed to improve access and alignment between varied types of sources and end users across regions.

Strategy statement: Coordinate development of regional wood waste aggregation and processing models. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to describe approaches that reflect how generators, haulers, processors, and end users can participate in region specific systems that support aggregation, staging, routing, and storage of clean wood, brush, pallets, logs, chips, land clearing debris, storm debris, and C&D wood. The coordinated effort should incorporate real world operational perspectives from rural, small, peri urban, and urban communities so models remain adaptable to varied conditions and practical for participants with different capacities. The resulting regional models should offer a single coordinated mechanism that improves clarity about how wood waste can be organized and directed through feasible recovery pathways tailored to local characteristics.

Expected outcomes:

1. Clearer understanding among regional partners of feasible approaches for organizing wood waste aggregation, staging, routing, and storage.
2. More predictable and region-specific pathways that improve access to recovery options for communities with different capacities and geographic characteristics.
3. Stronger alignment among generators, haulers, processors, and end users resulting in more consistent regional wood waste management practices.

WW-04. Develop Regional Wood Waste Aggregation, Processing, and Partnership Models

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations
- Regional planning entities

Collaborating organizations:

- Municipal public works and parks departments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Arborists and landscapers
- Composting and wood recycling facilities
- Construction and Demolition Association of Ohio
- United States Biochar Initiative
- Ohio Forestry Association
- Ohio Society of American Foresters
- Public Utilities Commission of Ohio
- Biomass and bedding market representatives
- Ohio Organics Council
- Ohio Manufacturing Association
- Sustainable Ohio By-product Synergy Network
- Reclaimed wood and architectural salvage businesses
- Product testing laboratories and quality assurance partners

WW-05. Strengthen Clean Wood Recovery Infrastructure and End-Use Outlets

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Clean wood recovery depends on sorting space, grinding and screening capacity, storage, transportation, contamination control, and clear material specifications. In areas with limited infrastructure or saturated mulch markets, clean wood is stockpiled, landfilled, or routed to lower-value outlets despite potential for compost bulking, biomass, bedding, erosion control, reuse, or manufactured products. Guidance is needed to clarify practical sorting and processing infrastructure, material management considerations, and end use options.

Strategy statement: Develop guidance that clarifies practical infrastructure, material management considerations, and end use options for clean wood recovery. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to outline approaches relevant to sorting, grinding, screening, storage, transportation, contamination prevention, and material specifications for clean wood, brush, pallets, and land clearing debris. The coordinated effort will reflect operator and market perspectives, so guidance supports reliable connections to mulch, compost bulking, biomass, bedding, erosion control, reuse, and manufactured product outlets across varied regional capacities.

Expected outcomes:

1. Clear understanding of feasible infrastructure options for clean wood recovery.
2. More reliable access to various processing outlets aligned with material specifications.
3. Reduced stockpiling or disposal when suitable end uses are available.

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations
- Regional planning entities

WW-05. Strengthen Clean Wood Recovery Infrastructure and End-Use Outlets

Collaborating organizations:

- Municipal public works and parks departments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Arborists and landscapers
- Composting and wood recycling facilities
- Construction and Demolition Association of Ohio
- United States Biochar Initiative
- Ohio Forestry Association
- Ohio Society of American Foresters
- Public Utilities Commission of Ohio
- Biomass and bedding market representatives
- Ohio Organics Council
- Ohio Manufacturing Association
- Sustainable Ohio By-product Synergy Network
- Reclaimed wood and architectural salvage businesses
- Product testing laboratories and quality assurance partners

WW-06. Develop Reclaimed Wood, Reuse, and Value-Added Product Markets

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Reclaimed wood, pallets, dimensional lumber, and salvageable materials lose value when ground, mixed with lower-grade materials, or routed to disposal before reuse pathways are considered. Confidence is affected by inconsistent sorting, grading, storage, de-nailing, material specifications, and buyer connections. These gaps lead to rejected loads, unpredictable market relationships, and missed higher value opportunities. Generators and buyers lack a consistent, practical reference for quality expectations. Clear guidance is needed to support alignment and repeatable connections across diverse regional contexts.

Strategy statement: Strengthen reclaimed wood and reuse market alignment through guidance. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to describe roles, material quality expectations, storage considerations, preparation steps such as grading or de-nailing, and buyer specifications relevant to reusable wood streams. The coordinated approach will integrate operating perspectives from salvage businesses, pallet repair, deconstruction programs, reuse centers, manufacturers, municipal operations, and processors so the guidance remains practical across varied capacities and market needs. The mechanism focuses on shared terminology and quality benchmarks that help participants communicate consistently, evaluate material suitability, and establish predictable connections to higher-value reuse outlets.

Expected outcomes:

1. More reusable wood routed to higher value markets.
2. Stronger buyer-supplier connections are supported by clear specifications.
3. Improved confidence and consistency in reuse pathways.

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations
- Regional planning entities

WW-06. Develop Reclaimed Wood, Reuse, and Value-Added Product Markets

Collaborating organizations:

- Municipal public works and parks departments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Arborists and landscapers
- Composting and wood recycling facilities
- Construction and Demolition Association of Ohio
- United States Biochar Initiative
- Ohio Forestry Association
- Ohio Society of American Foresters
- Public Utilities Commission of Ohio
- Biomass and bedding market representatives
- Ohio Organics Council
- Ohio Manufacturing Association
- Sustainable Ohio By-product Synergy Network
- Reclaimed wood and architectural salvage businesses
- Product testing laboratories and quality assurance partners

WW-07. Establish Lower Grade Wood Quality Safeguards

Statewide priorities supported: Priority 2: Expand Infrastructure and Processing Capacity

Issues addressed: Lower grade clean wood, brush, chips, and storm debris present recurring uncertainty for generators, haulers, processors, municipalities, and market participants regarding feedstock quality, contamination risks, product performance, and end-use suitability. Inconsistent wood quality criteria and expectations lead to rejected loads, misrouting, and diminished confidence among biomass, biochar, and erosion control buyers. Gaps in practical safeguards and acceptance criteria hinder predictable connections to appropriate processing facilities and end users across regions. These conditions increase operational costs, reduce recovery reliability, and elevate environmental and product quality risks for facilities and downstream markets. The absence of clear guidance makes it difficult to determine when lower-grade wood use options are appropriate, limited, or unsuitable.

Strategy statement: Establish quality safeguards and acceptance criteria for lower grade wood use options. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop guidance describing feedstock specifications, prohibited materials, quality testing considerations, buyer expectations, and basic performance and documentation concepts relevant to biomass, biochar, compost blending, erosion control products, pellets, and similar lower-grade uses. The coordinated approach will draw operating perspectives from generators, haulers, processors, municipal programs, utilities, construction and demolition wood processing facilities, and market representatives so the guidance remains practical across diverse use options and regional conditions. Participating organizations may share lessons on contamination prevention and material quality terminology to support consistent decision making.

Expected outcomes:

1. Clear understanding of when lower-grade outlets are suitable under defined safeguards.
2. More informed decisions about biochar and related market options.
3. Reduced risk of inappropriate routing of treated or contaminated wood.

WW-07. Establish Lower Grade Wood Quality Safeguards

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations
- Regional planning entities

Collaborating organizations:

- Municipal public works and parks departments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Arborists and landscapers
- Composting and wood recycling facilities
- Construction and Demolition Association of Ohio
- United States Biochar Initiative
- Ohio Forestry Association
- Ohio Society of American Foresters
- Public Utilities Commission of Ohio
- Biomass and bedding market representatives
- Ohio Organics Council
- Ohio Manufacturing Association
- Sustainable Ohio By-product Synergy Network
- Reclaimed wood and architectural salvage businesses
- Product testing laboratories and quality assurance partners

WW-08. Establish Management Pathways for Difficult or Contaminated Wood Streams

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Treated, painted, engineered, coated, adhesive-containing, hardware-contaminated, mixed construction and demolition (C&D) wood, and other difficult wood streams are unsuitable for most beneficial uses. Without clear management direction, materials may be disposed prematurely or routed into inappropriate pathways, creating contamination, environmental, safety, lower product quality, and market concerns. A decision framework can clarify exclusion, separate handling, limited evaluation, or disposal pathways for contaminated wood streams.

Strategy statement: Establish a decision framework for difficult or contaminated wood streams. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to describe examples of difficult wood streams, contaminants of concern, review considerations, prohibited uses, and documentation expectations that help generators determine whether a material should be excluded, managed separately, tested for limited use, or disposed. The coordinated effort will reflect operational and regulatory perspectives, so guidance remains practical, clear, and adaptable across facilities, programs, and regions.

Expected outcomes:

1. Clearer statewide direction for managing difficult wood streams.
2. Reduced contamination risk for facilities and end-use markets.
3. Improved protection of environmental quality and downstream product integrity.

Recommended convening organizations:

- Applicable state agencies
- Solid waste management districts
- Relevant industry associations
- Universities and extension programs
- Technical or neutral convening organizations
- Regional planning entities

WW-08. Establish Management Pathways for Difficult or Contaminated Wood Streams

Collaborating organizations:

- Municipal public works and parks departments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Arborists and landscapers
- Composting and wood recycling facilities
- Construction and Demolition Association of Ohio
- United States Biochar Initiative
- Ohio Forestry Association
- Ohio Society of American Foresters
- Public Utilities Commission of Ohio
- Biomass and bedding market representatives
- Ohio Organics Council
- Ohio Manufacturing Association
- Sustainable Ohio By-product Synergy Network
- Reclaimed wood and architectural salvage businesses
- Product testing laboratories and quality assurance partners

Yard Waste



The Yard Waste strategies strengthen Ohio's ability to plan for, collect, process, and beneficially use yard waste by improving statewide data, providing more consistent local program tools, coordinating public communication, and supporting targeted access, infrastructure, logistics, and market needs. Because yard waste volumes vary seasonally and management approaches differ across communities, these strategies help build a more resilient system that can respond to service gaps, seasonal capacity constraints, contamination concerns, product-quality needs, and regional differences in collection and processing options. Together, YW-01 through YW-03 support clearer expectations and practical solutions for municipalities, solid waste districts, haulers, landscapers, processors, and residents.

The table below lists each Yard Waste strategy by its strategy ID and title, providing a quick reference before the detailed profiles.

Strategy ID	Strategy Title
YW-01	Develop a Statewide Yard Waste Data and Documentation Framework
YW-02	Develop a Model Municipal Yard Waste Policy and Contract Toolkit
YW-03	Standardize Yard Waste Contamination Control Tools and Coordinated Public Communication

YW-01. Develop a Statewide Yard Waste Data and Documentation Framework

Statewide priorities supported: Priority 1: Improve Data, Measurement, and Decision Making

Issues addressed: Ohio's ability to plan effective yard waste diversion is limited by incomplete and inconsistent statewide information on how yard waste is generated, disposed, composted, mulched, managed on-site, used informally, or beneficially applied. Existing data from landfill reporting, composting and mulching facilities, and local collection programs do not fully capture informal or on-site management practices such as grasscycling, backyard composting, leaf mulching, landscaper arrangements, direct land application, or utility wood chip distribution. These gaps make it difficult to identify where disposal remains high, where access or processing capacity is limited, and how informal or decentralized practices influence diversion, contamination, and end use pathways. More consistent, planning-grade statewide data is needed to support coordinated program development and future infrastructure decisions.

Strategy statement: Develop a statewide yard waste data and documentation framework. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to establish core data elements, document both formal and informal yard waste management pathways, and identify feasible methods for aggregating, comparing, and updating statewide information. The coordinated effort will incorporate reporting perspectives from solid waste districts, municipalities, haulers, landscapers, facility operators, and other participating organizations to clarify how yard waste flows are generated, managed, and directed across Ohio. The framework will support a practical, planning-grade approach to identifying disposal hot spots, access or capacity gaps, seasonal constraints, and informal practices that influence statewide diversion.

Expected outcomes:

1. Improved visibility into statewide yard waste generation, disposal, diversion, and informal management practices.
2. More consistent and practical statewide data that supports planning-grade assessment of access, capacity, and regional needs.
3. Clearer understanding of high disposal regions and informal management pathways to guide future program and infrastructure decisions.

YW-01. Develop a Statewide Yard Waste Data and Documentation Framework

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Regional planning entities
- Universities and extension or applied-research programs
- Technical or neutral convening organizations

Collaborating organizations:

- Municipal and county governments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Local health departments
- Haulers and logistics providers
- Landscapers and lawn care contractors
- Composting and wood recycling facilities
- Municipal public service departments
- Utility agencies
- Ohio Organics Council
- Ohio Green Industry Association

YW-02. Develop a Model Municipal Yard Waste Policy and Contract Toolkit

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Municipalities across Ohio operate yard waste programs with differing ordinances, contracts, accepted material lists, set-out rules, contamination control expectations, routing practices, enforcement approaches, and end use requirements. In some communities, local ordinances or service contracts do not clearly define set-out instructions, accepted materials, source separation requirements, or expectations for directing collected yard waste to qualified composting, grinding, transfer, or beneficial use outlets. These inconsistencies can reduce diversion performance, create confusion among haulers and landscapers, complicate procurement, and result in yard waste being disposed or routed inefficiently even when diversion options exist. Municipalities and solid waste management districts need clear, adaptable tools to establish and maintain effective, locally appropriate yard waste programs.

Strategy statement: Develop a model municipal yard waste policy and contract toolkit. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to prepare adaptable ordinance language, collection contract provisions, procurement guidance, accepted material definitions, set-out expectations, contamination control requirements, landscaper and hauler responsibilities, and feedback or enforcement options suitable for diverse community settings. The coordinated effort will draw on practical experience from municipalities, solid waste districts, haulers, landscapers, processors, and public works agencies to ensure the toolkit reflects real operational conditions and supports curbside collection, seasonal leaf programs, brush management, drop-off sites, subscription services, municipal–private partnerships, and shared regional approaches. The toolkit will be designed for municipalities and districts to adopt or adapt when establishing or updating local yard waste programs.

Expected outcomes:

1. More consistent and clearly defined municipal yard waste ordinances, contracts, and accepted material expectations.
2. Improved alignment between municipal policies, service contracts, set-out rules, contamination control requirements, and end use practices.
3. Stronger municipal capacity to establish and maintain effective, locally appropriate yard waste programs.

YW-02. Develop a Model Municipal Yard Waste Policy and Contract Toolkit

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Technical or neutral convening organizations
- Regional planning entities
- Universities and extension or applied-research programs

Collaborating organizations:

- Municipal and county governments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Landscapers and lawncare contractors
- Composting and wood recycling facilities
- Municipal public service departments
- Procurement and legal staff
- Local health departments
- Ohio Organics Council
- Ohio Green Industry Association

YW-03. Standardize Yard Waste Contamination Control Tools and Coordinated Public Communication

Statewide priorities supported: Priority 4: Strengthen Education, Outreach, and Technical Assistance

Issues addressed: Effective yard waste diversion relies on residents, landscapers, haulers, municipal crews, and facility operators understanding how to properly separate yard waste from trash and other unsuitable materials. Contamination from plastic bags, treated wood, construction debris, rocks, diseased plant material, and invasive species increases processing costs, reduces throughput, lowers product quality, and weakens market confidence. At the same time, participants may be unclear about where collected yard waste goes, how it is processed, or why cleaner inputs matter, creating inconsistent compliance across communities. These gaps limit the effectiveness of local programs and hinder broader trust in yard waste diversion systems.

Strategy statement: Create a coordinated yard waste contamination control and public communication toolkit. Recommended conveners, working in collaboration with participating organizations, will guide a coordinated process to develop standardized accepted materials lists, set-out guidance, plastic bag restrictions, drop-off signage, landscaper and hauler instructions, contamination feedback tools, and facility load screening guidance, paired with clear public-facing messages explaining why clean inputs matter, how yard waste is processed, and how finished products are used in beneficial applications. Participating organizations will contribute operational and communication insights, so materials remain practical for diverse programs, facilities, and service areas. The coordinated approach will support locally adaptable tools that help communities reduce contamination while improving understanding of yard waste diversion practices.

Expected outcomes:

1. Increased consistency in yard waste set-out practices supported by clear operational guidance.
2. Reduced contamination levels through coordinated instructions and public-facing messages.
3. Improved understanding and confidence in yard waste diversion programs among residents, landscapers, haulers, and municipal staff.

YW-03. Standardize Yard Waste Contamination Control Tools and Coordinated Public Communication

Recommended convening organizations:

- Applicable state agencies
- Relevant industry associations
- Technical or neutral convening organizations
- Regional planning entities
- Universities and extension or applied-research programs

Collaborating organizations:

- Municipal and county governments
- Ohio EPA Division of Materials and Waste Management
- Solid waste management districts
- Haulers and logistics providers
- Landscapers, and lawncare contractors
- Composting and wood recycling facility operators
- Local health departments
- Municipal parks, public service, and grounds-maintenance departments
- Community organizations
- Ohio Organics Council
- Ohio Green Industry Association



Appendix A - Stakeholder Event Participants

Stakeholder Event Participants

The tables below identify stakeholders who participated in at least one of the three stakeholder events or submitted comments directly, based on the information participants agreed could be shared. The first table lists participants who agreed to have both their name and affiliation included. The second table identifies additional organizations represented by participants who agreed to share only their affiliation. Nineteen additional participants attended one or more events but requested that their identifying information not be shared.

Participants Listed by Name and Affiliation

The following participants indicated that their name and affiliation could be shared.

Participant Name	Organization
Aaron Messer	Columbus Public Health
Allison DeRoberts	Ohio Restaurant and Hospitality Alliance
Amanda DeLotelle	Miami Valley Meals Inc.
Amy	La Soupe
Amy Long	Keep Hardin County Beautiful
Andy Celcherts	City of Brooklyn
Anne Flaig	Butler County Recycling & Solid Waste District
Anya Obrez	Natural Resources Defense Council (NRDC)
Aryeh Alex	City of Columbus
Bart Morr	Paradise Lawn Care, Inc.
Ben Rosenthal	EvE Waste
Beth Biggins-Ramer	Cuyahoga County Solid Waste District
Bonnie Martens	Clark County Solid Waste District
Brent Dieleman	SCS Engineers
Brian Roe	The Ohio State University
Bruce Bailey	Kurtz Bros Central Ohio
Bruce MacLeod	Synagro
Caitlyn Welty	D&D Ingredients, LLC
Carrie Harshbarger	Ohio Association of Foodbanks
Casey Johnson	The Ohio State University
Cathi Lehn	Rid-All Green Partnership
Cathy Dunn	SCS Engineers
Charity Conn	Ohio Department of Agriculture, Division of Animal Health
Cher Mohring	Hamilton County ReSource
Cherie Snyder	Keep Columbus Beautiful - Department of Public Services

Participant Name	Organization
Chris Jaquet	Rumpke
Chris Loxterman	Lake County General Health District
Chris Massie	Resource Recycling, Inc.
Chris Schaefer	*Not shared*
Chuck DeJonckheere	Hamilton County Public Health
Clara Parrish	The Foodbank, Inc.
Clayton Davis	SCS Engineers
Corey Shaffstall	SES Equipment
Courtney Curtner	The Foodbank, Inc.
Craig Coker	Coker Composting and Consulting
Crissa Cummings	Athens-Hocking Solid Waste District
Dale Arnold	Ohio Farm Bureau Federation
Dana Weitzel	Power Knot
Danna Lotz	Solid Waste Authority of Central Ohio (SWACO)
Darcie Zirkle	Synagro
David Andre	GoZERO
David Celebrezze	City of New Albany
David Murphy	Rumpke
Dawn Collins	Portage County Solid Waste
Dawn Kirchner	City of Kettering
Dawnel Volzke	Hope Charity Inc - Center of Hope
Deanna Bremer Fisher	City of Cleveland Heights
Disu Oshodi	City of Columbus
Dominique Hadad	Green Scope
Elizabeth Ellman	City of Bexley
Elsa Higby	First R
Emma Norbut	La Soupe
Erik Hyden	Last Mile Food Rescue
Erin Oulton	Resource Recycling Systems (RRS)
Florentina Rodriguez	The Agraria Center for Regenerative Practice
Frederick Michel	The Ohio State University
Gary Trinetti	Garick
George Brown	Waste Management
George Hunyadi	Earth Peak Solutions
Hannah Lubbers	Adams-Clermont Solid Waste District
Hannah Sperfslage	SCS Engineers
Hannah Wagner	Ohio EPA
Heather Shieff	Medina County Solid Waste District
Hunter Lyons	Greene County Sanitary Engineering

Participant Name	Organization
Jack Mangan	Hamilton County
Jaelyn Stowe	SCS Engineers
Jaime Shepherd	Montgomery County Solid Waste District
Jake Goetz	City of Toledo
James Hoffer	Ohio Organics Council
Jane Forrest Redfern	Athens-Hocking Solid Waste District
Jeff Phillips	SCS Engineers
Jennifer Bracken	Lorain County Metropolitan Park District
Jennifer Burns	Access to Excess
Jim Ippolito	The Ohio State University
Joe Welker	City of Lima WWTP
John Stock	Ohio Ecological Food and Farm Association (OEFFA)
Jordan Hoewischer	Ohio Farm Bureau Federation
Josh Lutz	City of Columbus
Julia Marchese	Queen City Commons
Julia Parker	MSDGC
Julie Johnson	Hunger Network
Justin Baum	OSU Extension Clinton County
Justin Murdock	SCS Engineers
Karima Samadi	Columbus Public Health
Katie Funk	La Soupe
Katy Rees	City of Upper Arlington
Kelly Bohrer	Montgomery County Environmental Services
Kelsey Boggs	Ohio Penal Industries
Kevin Smith	Hocking County Health Department
Kevin Summerville	Columbiana County Health District
Laura Fauss	Columbiana County Health District
Laura Fay	Olentangy Watershed Alliance
Laura Veldman	Smith Creek
Leslie Strader	Genoa Township
Lou Vega	Mahoning County Solid Waste Management District
Madeline Keating	Natural Resources Defense Council (NRDC)
Maera Flynn	Subject matter expert
Mara Dougherty	Conneaut City Health Department
Marcie Kress	Summit Akron Solid Waste Management Authority (dba ReWorks)
Maria Bonner	Rural Action
Marie Hopkins	Queen City Commons
Mark Bennett	City of Akron
Mark King	Maine Department of Environmental Protection

Participant Name	Organization
Matt Begley	Ohio Ecological Food and Farm Association (OEFFA)
Matt Trotter	EcoDrum
Matthew Tyler	Public Health - Dayton & Montgomery County
Megan Smith	Akron Water Supply Bureau
Melissa Adams	DPHD
Meredith Laidly	The Ohio State University
Michael Mennett	Keep Ohio Beautiful
Michelle Balz	Hamilton County ReSource
Mike Stepic	Rubber City Engineering and Environmental, LLC
Muhammad Mereb	Ohio Department of Transportation,
Nathan Rutz	Rust Belt Riders Composting
Nathan Wilson	Wilson's Sandy Creek Farm LLC
Nicole Gunderman	Hamilton County Conservation District
Nicole Voss	Advanced Drainage Systems Inc.
Patti Donnellan	Lorain County Soil & Water Conservation District
Paul Braasch	Valley View Foundation
Paul Munn	The Mannik & Smith Group, Inc. - consultant to Toledo-Lucas County Port Authority
Phil Cherosky	Ohio EPA, Division of Materials and Waste Management
Quentin Platt	City of Mount Vernon
Quinton Jones	West Virginia Department of Agriculture
Rachel Tippett	Keep Toledo/Lucas County Beautiful
Rebecca Bralek	Summit County Public Health
Riley Brown	City of Cincinnati Office of Environment and Sustainability
Robin Henderson	City of Cincinnati
Rosemary Gramajo Quinones	City of Cleveland
Ryan Yanez	Ohio Dept of Ag Animal Disease Diagnostic Lab
Sara Gallaugher	Solid Waste Authority of Central Ohio (SWACO)
Sarah Moore	Hamilton County Public Health
Scott Perry	Solid Waste Authority of Central Ohio (SWACO)
Shelemiah Crockett	Keep Columbus Beautiful
Sheryl Cunningham	Solid Waste Authority of Central Ohio (SWACO)
Stacey Demers	SCS Engineers
Stephanie Bacher	Great Parks of Hamilton County
Steve White	Steven H. White & Associates, Inc. / NWRA
Thomas O'Neill	JEE Foods
Tim Bierman	Bierman Equipment
Tim DeHart	Triple A

Participant Name	Organization
Tim Pritchard	City of Dayton Office of Sustainability
Tony Staubach	Hamilton County ReSource
Travis Jauert	G.A. Wintzer & Son Co
Tyler Morlock	Morlock Forestry and Habitat Management, Ltd.
William Ray	The Ohio Forestry Association

Additional Participating Organizations

Individuals from the following organizations also participated in at least one stakeholder event, provided input directly to Ohio EPA, or assisted with outreach efforts; only organizational affiliation is listed.

Organization
BREMA Resources / Stone Environmental Engineering and Science
City of Oregon
Darke County General Health District (DCGHD)
Hirzel Farms
Mid-Ohio Regional Planning Commission (MORPC)
Montgomery County
Ohio Craft Brewers Association
Ohio Grocers Association
Ohio Veterinary Medical Association
Orange Village Service Department
Summit County ReWorks
Washington County Harvest of Hope
Youngstown Botanical Garden



Appendix B – Roles for Organizations

The table below provides a quick reference to the organizations that may help advance Ohio's organics strategies. It summarizes likely implementation roles and suggested starting points so organizations can identify where their work may align with the Plan.

Organization Type	Likely Implementation Roles	Suggested Starting Points by Action Theme
State agencies	May help set statewide direction, clarify regulatory and permitting pathways, maintain planning and data tools, align funding, convene partners, and support consistent guidance across material streams.	**Policy, regulatory clarity, and guidance:** OS-01, OS-02, AM-01, AM-04, BS-03, CP-01, DW-01, DW-03, FR-02, FS-01, FS-04, FS-05, FOG-01, FOG-04, DR-01, RR-03, RR-04, RR-06, RR-10, SM-03, SM-06, WW-01, WW-08, YW-03 **Data, planning, mapping, and tools:** OS-05, OS-07, OS-10, AW-01, AW-02, BS-01, BS-02, DW-02, DW-04, FR-01, FS-02, FOG-02, FOG-03, RR-01, RR-02, SM-01, SM-02, WW-02, YW-01 **Infrastructure, collection, processing, and logistics:** OS-06, AM-02, AM-03, AW-03, BS-04, BS-05, DW-05, DW-06, RR-08, SM-04, SM-05, WW-05 **Markets, procurement, product standards, and beneficial use:** OS-04, OS-11, OS-12, OS-13, OS-15, DR-02, WW-06, YW-02 **Funding, pilots, partnerships, and regional coordination:** FR-09, FR-10, FOG-07, RR-09
Solid waste management districts, local governments, and regional planning partners	May lead or support local planning, education, pilots, collection access, service-gap identification, procurement, siting and zoning coordination, regional partnerships, and community implementation.	**Policy, regulatory clarity, and guidance:** OS-01, OS-02, BS-03, CP-01, CP-02, DW-01, FR-04, FS-04, FOG-04, FOG-05, RR-03, RR-10, SM-06, WW-03, YW-02, YW-03 **Data, planning, mapping, and tools:** OS-05, OS-07, OS-10, BS-02, DW-02, DW-04, FR-01, FS-02, FOG-03, RR-01, RR-02, SM-01, WW-02, WW-04, YW-01 **Infrastructure, collection, processing, and logistics:** OS-06, AM-02, AM-03, AW-03, BS-04, BS-05, DW-05, FR-05, FR-06, FOG-06, RR-05, RR-08, SM-02, SM-04, SM-05, WW-05 **Markets, procurement, product standards, and beneficial use:** OS-04, OS-11, OS-12, DR-02 **Funding, pilots, partnerships, and**

Organization Type	Likely Implementation Roles	Suggested Starting Points by Action Theme
		regional coordination: DR-01, SM-04, SM-06
Local planning, zoning, public works, and procurement officials	May participate in zoning, siting, public works, procurement, infrastructure planning, local collection or drop-off pilots, and communication of local implementation options.	**Policy, regulatory clarity, and guidance:** OS-01, OS-02, CP-01, CP-02, DW-01, FR-03, FS-04, FOG-05, FOG-06, RR-03, SM-06, WW-01, WW-03, YW-03 **Data, planning, mapping, and tools:** OS-07, OS-09, OS-10, BS-02, DW-02, DW-04, RR-01, WW-02, YW-01 **Infrastructure, collection, processing, and logistics:** BS-04, BS-05, DW-05, DW-06, FR-04, RR-02, RR-05, RR-10, SM-04, SM-05, WW-03 **Markets, procurement, product standards, and beneficial use:** OS-04, OS-11, OS-12, OS-13, OS-15, DR-02, YW-02 **Funding, pilots, partnerships, and regional coordination:** DR-01, WW-01
Haulers, brokers, transfer operators, and logistics partners	May support collection logistics, identify service gaps, connect materials to outlets, provide movement and capacity data, communicate service or acceptance requirements, and participate in regional transfer, emergency, or hub models.	**Policy, regulatory clarity, and guidance:** AM-01, AM-04, FR-02, FS-04, FOG-04, FOG-08, RR-04, RR-06, RR-10, SM-03, WW-03, WW-07, YW-03 **Data, planning, mapping, and tools:** OS-05, OS-07, AW-01, BS-01, BS-02, FR-01, FS-02, FOG-03, RR-01, RR-02, SM-01, SM-02, WW-02, YW-01 **Infrastructure, collection, processing, and logistics:** OS-06, AM-02, AM-03, AW-03, AW-04, BS-04, BS-05, FR-04, FR-05, FR-07, FOG-05, FOG-06, RR-05, RR-08, SM-04, WW-04, YW-02 **Markets, procurement, product standards, and beneficial use:** OS-13, OS-15, DR-02 **Funding, pilots, partnerships, and regional coordination:** RR-08
Composting, anaerobic digestion, wood, beneficial use byproducts, and organics processors	May provide processing capacity, define acceptance criteria, identify infrastructure and market needs, participate in pilots, support contamination	**Policy, regulatory clarity, and guidance:** OS-01, OS-02, AM-01, AM-04, CP-01, CP-02, DW-01, FS-01, FS-04, FOG-02, FOG-03, RR-04, RR-06, RR-07, RR-10, SM-03, WW-01, WW-03, WW-07, WW-08, YW-03 **Data, planning, mapping, and tools:** OS-

Organization Type	Likely Implementation Roles	Suggested Starting Points by Action Theme
	control, improve material quality, and help build reliable end markets.	05, OS-08, OS-10, FS-02, RR-02 **Infrastructure, collection, processing, and logistics:** OS-06, AM-02, AM-03, AM-04, BS-02, BS-04, BS-05, DW-04, DW-05, DW-06, FS-03, FS-05, FOG-06, FOG-07, RR-05, RR-08, SM-04, WW-04, WW-05, YW-02 **Markets, procurement, product standards, and beneficial use:** OS-04, OS-11, OS-12, OS-13, OS-14, OS-15, DR-01, DR-02, WW-06, WW-07 **Funding, pilots, partnerships, and regional coordination:** RR-08, SM-04
Wastewater utilities, drinking water utilities, pretreatment programs, and septage partners	May support FOG management, biosolids planning, DWTM type characterization, co-digestion evaluation, contaminant source control, receiving capacity, facility data, septage receiving models, and coordination with haulers and regulators.	**Policy, regulatory clarity, and guidance:** BS-03, DW-01, FOG-01, FOG-04, SM-03 **Data, planning, mapping, and tools:** BS-01, BS-02, DW-02, DW-04, FOG-02, FOG-03, RR-02, SM-01, SM-02 **Infrastructure, collection, processing, and logistics:** BS-04, BS-05, FOG-06, FOG-07, RR-08, SM-04, SM-05 **Markets, procurement, product standards, and beneficial use:** OS-04, OS-11, OS-12, OS-13, OS-14, OS-15 **Funding, pilots, partnerships, and regional coordination:** RR-10, SM-06
Agricultural organizations, producers, soil and water conservation districts, conservation partners, and land managers	May support manure planning, nutrient-sensitive targeting, emergency mortality readiness, land-based use evaluation, field demonstrations, product standards, regional logistics, watershed protection, and beneficial use markets.	**Policy, regulatory clarity, and guidance:** AM-01, AM-04, BS-03, DW-01, DW-03, RR-04, RR-06, RR-07, YW-03 **Data, planning, mapping, and tools:** AW-01, AW-02, FR-01, FS-01, FS-02, RR-01, YW-01 **Infrastructure, collection, processing, and logistics:** AM-02, AM-03, AM-04, AW-03, AW-04, DW-05, DW-06, FR-03, FR-04, RR-05, RR-08, WW-04, YW-02 **Markets, procurement, product standards, and beneficial use:** OS-11, OS-12, OS-13, OS-15, DR-01, DR-02, WW-01, WW-06, WW-07 **Funding, pilots, partnerships, and regional coordination:** FR-09, FR-10, RR-03, RR-10

Organization Type	Likely Implementation Roles	Suggested Starting Points by Action Theme
Food banks, food rescue organizations, recipient agencies, community organizations, and food access partners	May improve donation systems, identify infrastructure and service gaps, expand recipient capacity, coordinate logistics, support community access, participate in pilots, provide data, and help match recovered food to community needs.	**Policy, regulatory clarity, and guidance:** FR-02, FS-01, RR-03, RR-06 **Data, planning, mapping, and tools:** OS-05, OS-07, FR-01, FS-02 **Infrastructure, collection, processing, and logistics:** OS-06, FR-03, FR-04, FR-05, FR-06, FR-07, FR-08 **Markets, procurement, product standards, and beneficial use:** CP-01, CP-02 **Funding, pilots, partnerships, and regional coordination:** FR-09, FR-10, YW-03
Food businesses, retailers, institutions, schools, event venues, and large generators	May donate edible food, improve source separation, provide generator data, participate in pilots, reduce contamination, follow food safety and transport guidance, and connect materials to collection, recovery, processing, reuse, or procurement options.	**Policy, regulatory clarity, and guidance:** FR-02, FR-03, FS-04, FOG-04, FOG-08, RR-04, RR-06, RR-07, WW-01, WW-03, WW-08, YW-03 **Data, planning, mapping, and tools:** OS-05, OS-07, OS-10 **Infrastructure, collection, processing, and logistics:** OS-06, FR-04, FS-03, FS-05, RR-02, RR-05, RR-08, RR-10, WW-03, YW-01, YW-02 **Markets, procurement, product standards, and beneficial use:** OS-04, OS-12, CP-01, CP-02, WW-06 **Funding, pilots, partnerships, and regional coordination:** FR-09, YW-03
Universities, extension programs, applied research partners, and technical assistance providers	May conduct research, develop tools and guidance, evaluate pilots, provide training, support material characterization, build data frameworks, and assist with technical decision making across organics management strategies.	**Policy, regulatory clarity, and guidance:** OS-01, OS-09, AM-01, AM-04, BS-03, CP-01, CP-02, DW-01, FR-02, FS-01, FS-04, FOG-01, FOG-04, FOG-07, RR-04, RR-06, RR-10, SM-03, WW-01, WW-03, WW-08, YW-02, YW-03 **Data, planning, mapping, and tools:** OS-05, OS-07, OS-08, OS-10, OS-11, OS-12, AW-02, BS-01, DW-02, DW-03, DW-04, FR-01, FS-02, FOG-02, FOG-03, RR-01, RR-02, RR-07, SM-01, WW-02, YW-01 **Infrastructure, collection, processing, and logistics:** AW-03, AW-04, BS-05, DW-05, DW-06, FR-04, FOG-05, FOG-06, RR-08, SM-04, SM-05, WW-04, WW-05

Organization Type	Likely Implementation Roles	Suggested Starting Points by Action Theme
		Markets, procurement, product standards, and beneficial use: OS-11, OS-12, OS-15, DR-01, DR-02 **Funding, pilots, partnerships, and regional coordination:** RR-09, YW-03
Economic development organizations, chambers, lenders, workforce partners, industry associations, private investors, and philanthropic organizations	May connect organics projects to financing, business development, workforce programs, market-building tools, site selection, infrastructure investment, industry outreach, and public-private partnerships.	**Policy, regulatory clarity, and guidance:** OS-09, DW-01, FR-09, FR-10, FOG-08, RR-06, RR-07 **Data, planning, mapping, and tools:** OS-07, BS-02, DW-04 **Infrastructure, collection, processing, and logistics:** OS-06, BS-04, BS-05, DW-05, DW-06, FR-05, FR-06, FR-07, FR-08, FOG-06, RR-02, RR-05, RR-08, SM-04, SM-05, WW-04, WW-05 **Markets, procurement, product standards, and beneficial use:** OS-03, OS-04, OS-11, OS-12, OS-13, OS-15, DR-02, FS-03, WW-06, WW-07 **Funding, pilots, partnerships, and regional coordination:** RR-09
Industry organizations and trade associations	May convene members, support guidance and standards development, provide training, represent operator needs, promote certification, recognition, or voluntary assurance tools, and help scale implementation partnerships.	**Policy, regulatory clarity, and guidance:** OS-01, OS-02, AM-01, AM-04, BS-03, CP-01, CP-02, DW-01, DW-03, FR-02, FS-01, FS-04, FOG-01, FOG-04, RR-04, RR-06, RR-07, RR-10, SM-01, SM-02, SM-03, WW-01, WW-03, YW-03 **Data, planning, mapping, and tools:** AW-01, BS-01, BS-02, DW-02, FR-01, FS-02, FOG-02, RR-01, RR-02 **Infrastructure, collection, processing, and logistics:** OS-06, AM-02, AM-03, BS-04, BS-05, DW-05, DW-06, FOG-06, RR-08, SM-04, SM-05, SM-06, WW-04, YW-02 **Markets, procurement, product standards, and beneficial use:** OS-03, OS-04, OS-11, OS-12, OS-13, OS-14, OS-15, DR-01, DR-02, FS-03, FOG-08, WW-06, WW-07, WW-08 **Funding, pilots, partnerships, and regional coordination:** AW-03, FR-03, RR-03, RR-09



Appendix C - Strategy Sequencing and Implementation Notes

This Appendix provides suggestions and ideas for the order in which strategies within each strategy set may be implemented. These notes highlight how certain actions build on others, where shared foundations are needed, and which strategies can advance at the same time. They are intended as practical guidance for implementation partners—helping organizations understand logical relationships, technical dependencies, and opportunities for coordination across all fourteen strategy sets. The notes do not assign responsibility or establish requirements; instead, they support thoughtful planning and alignment as Ohio's organics system continues to develop.

Overarching Strategies

These notes summarize recommended sequencing and interdependencies among the Overarching Strategies.

- OS-05 should begin early because the statewide organics resource-shed planning system provides the generator, capacity, hauling, and infrastructure information needed to support siting, partnership development, and regional planning under OS-06, OS-07, and OS-10.
- OS-01 and OS-02 should also advance early because zoning and permitting guidance create the regulatory clarity needed for facility development and public-private infrastructure partnerships.
- Market focused strategies (OS-03, OS-04, OS-09) can proceed in parallel but will be strengthened by the planning outputs and implementation pathways developed through OS-05, OS-06, and OS-07.
- Beneficial-use strategies have important interdependencies:
  - OS-11 and OS-08 provide characterization, performance, testing, and wastewater information needed to support OS-12 product standards.
  - OS-13, OS-14, and OS-15 build from those standards to create regional partnerships, voluntary assurance tools, and a statewide inventory and matching system.

Animal Mortalities

These notes summarize recommended sequencing and interdependencies among the Animal Mortalities strategies.

- AM-01 should begin first because it establishes routing guidance for carcasses under different disease conditions, site constraints, transportation limitations, and approval requirements.

- AM-02 depends on AM-01 to identify regional emergency capacity and pre-screened sites.
- AM-03 can proceed in parallel, addressing bulking agents, agreements, and logistics needed for emergency composting.
- AM-04 can also advance in parallel, clarifying requirements for certified operators and qualified haulers.
- Early work on inventories, stockpiles, MOUs, training, and rosters can begin with existing information and be refined once AM-01 is further developed.
- Shared standards, contact lists, activation procedures, and exercises will help integrate all four strategies into a coordinated statewide readiness system.

Animal Waste

These notes summarize recommended sequencing and interdependencies among the Animal Waste strategies.

- AW-01 should begin first because the statewide manure flow, tracking, and contingency framework provide the baseline needed for watershed targeting, pilot selection, and emergency planning decisions.
- AW-02 builds from AW-01 to identify priority watersheds and align management approaches with nutrient-pressure conditions and processing opportunities.
- AW-03 can follow or proceed in parallel in regions where sufficient information exists to test transportation, staging, aggregation, and processing models.
- AW-04 can begin in parallel, as equine outreach and collection depend heavily on relationship building with decentralized generators.

Biosolids

These notes summarize recommended sequencing and interdependencies among the Biosolids strategies.

- BS-01 should begin first because the statewide biosolids baseline and data-governance framework provide the foundational information needed for later screening, planning, and investment.
- BS-02 depends on BS-01 to identify regional infrastructure gaps and partnership opportunities.

- BS-04 and BS-05 should generally follow or build from BS-01 and BS-02 so composting, digestion, and co-digestion opportunities can be evaluated where conditions show strong need or potential.

- BS-03 can begin in parallel to support communication and public confidence throughout implementation.

Compostable Paper

These notes summarize recommended sequencing and interdependencies among the Compostable Paper strategies.

- CP-01 should begin first because it establishes consistent definitions, acceptance categories, routing guidance, and facility-specific overlays.

- CP-02 should follow by translating CP-01 guidance into generator agreements, training expectations, signage, inspection procedures, feedback mechanisms, and corrective actions.

Drinking Water Treatment Materials

These notes summarize recommended sequencing and interdependencies among the DWTM strategies.

- DW-02 and DW-04 should begin early because standardized characterization protocols and statewide inventory data provide the foundation for evaluating suitability and identifying supply locations.

- DW-01 can begin in parallel to build shared technical understanding and communication tools.

- DW-03 should build from DW-02 by clarifying evaluation criteria for aluminum-based DWTM.

- DW-05 and DW-06 should generally follow or build from the characterization and inventory work so pilot projects and evaluations are designed around well-characterized materials and clear performance measures.

Edible Food Recovery

These notes summarize recommended sequencing and interdependencies among the Edible Food Recovery strategies.

- FR-01 should begin first because the statewide data, mapping, and reporting framework provides the baseline needed for outreach, infrastructure, funding, and policy decisions.

- FR-02 and FR-03 can begin in parallel because guidance and sector-specific participation models support consistent implementation.
- FR-04 should build from early guidance and data work by testing approaches in priority regions or sectors.
- FR-05, FR-06, FR-07, and FR-08 should be informed by the data framework and pilot results, so investments target the strongest needs. FR-09 and FR-10 can proceed in parallel to identify durable funding, policy, and administrative improvements.

Fats, Oils, and Grease

These notes summarize recommended sequencing and interdependencies among the FOG strategies.

- FOG-01 should begin first because consistent terminology supports later data collection, mapping, guidance, enforcement, and education.
- FOG-02 and FOG-03 should follow or proceed in coordination because statewide data and mapping provide the baseline for identifying gaps and opportunities.
- FOG-04 can begin in parallel as a near-term education and source control strategy.
- FOG-05 and FOG-06 should build from earlier data and mapping work to test collection, preprocessing, and regional service models.
- FOG-07 should coordinate with FOG-06 where brown grease preprocessing and co-digestion opportunities overlap.
- FOG-08 can follow BMP and guidance work to establish recognition criteria grounded in consistent expectations.

Food Scraps

These notes summarize recommended sequencing and interdependencies among the Food Scraps strategies.

- FS-01 should begin first because consistent terminology provides the foundation for data collection, education, reporting, grant criteria, and regulatory alignment.
- FS-02 depends on FS-01 to establish a reliable statewide baseline and mapping framework.
- FS-03 and FS-04 can begin in parallel as the data framework develops because diversion models and source-separation education inform early implementation.

- FS-05 should build from FS-01 through FS-04 so depackaging standards can be evaluated with a clear understanding of feedstocks, facility limits, and downstream market protection needs.

Lake Erie Dredge Material

These notes summarize recommended sequencing and interdependencies among the Lake Erie Dredge Material strategies.

- DR-01 should begin first because technical guidance, consistent messaging, and coordinated outreach are needed to build shared understanding among agencies, local governments, project sponsors, and end users.

- DR-02 should build from DR-01 by using its guidance and confidence building efforts to support pilot projects, document successful recycling models, and expand markets for beneficial use.

Raw Rendering Material

These notes summarize recommended sequencing and interdependencies among the Raw Rendering Material strategies.

- RR-01 should begin first because baseline data and the data sharing framework support mapping, pilot selection, infrastructure evaluation, and contingency planning.

- RR-02 depends on RR-01 to identify service gaps, facility locations, acceptance criteria, and infrastructure needs.

- RR-03 can begin in parallel because communication and engagement are needed throughout implementation.

- RR-04, RR-06, RR-07, and RR-10 should build from data and outreach work, so guidance and tools reflect current service conditions and generator needs.

- RR-05, RR-08, and RR-09 should follow or build from earlier strategies so shared-service models and targeted management solutions focus on well understood regional gaps and opportunities.

Septage

These notes summarize recommended sequencing and interdependencies among the Septage strategies.

- SM-01 should begin first because the septage data and service-gap framework provide baseline understanding of generation patterns, hauling burdens, receiving capacity, and vulnerabilities.

- SM-02 depends on SM-01 to build an accurate facility inventory and receiving facility finder tool, though an initial version could begin in parallel using available information.

- SM-03 can begin early because acceptance guidance, training, and co-digestion readiness resources will improve consistency and support broader planning.

- SM-04 and SM-05 should follow or build from SM-01 through SM-03 so pilots and feasibility assessments target areas with the strongest need and feasible partners.

- SM-06 can begin in parallel because a statewide coordination taskforce supports early engagement, funding alignment, and momentum. It can later help update guidance, review findings, and coordinate next steps.

Wood and Forestry Waste

These notes summarize recommended sequencing and interdependencies among the Wood and Forestry Waste strategies.

- WW-01 and WW-02 should begin first because classification and baseline data provide definitions, distinctions, facility information, service-gap analysis, and performance measures for later stages.

- WW-03 can begin in parallel because sorting and contamination-prevention guidance are needed throughout implementation.

- WW-04, WW-05, and WW-06 should build from early classification and baseline work, so aggregation, clean wood recovery, reuse, and value-added markets align with realistic local conditions.

- WW-07 and WW-08 should be informed by earlier guidance so lower-grade or contaminated streams are managed with safeguards, feedstock specifications, and appropriate end-use limitations.

Yard Waste

These notes summarize recommended sequencing and interdependencies among the Yard Waste strategies.

- YW-01 should begin first because statewide yard waste data and documentation identify disposal patterns, access gaps, informal practices, processing constraints, and service needs.

- YW-02 and YW-03 can begin in parallel with YW-01 because communities already need clearer policy tools, service expectations, and contamination control communications.

- Later strategies focused on access models, logistics, infrastructure capacity, disposal restrictions, procurement, and broader diversion should build from YW-01 while incorporating lessons from early toolkit and communication work.