



FOCUS AREA 15: Employ a sustainable materials management approach to advance the “3-R’s” – Reduce, Reuse and Recycle •

WHAT AND WHY The management of material resources has long been guided by the “3-R’s” catchphrase – reduce, reuse, recycle. According to the United Nations Environment Programme (UNEP), “Humans are consuming resources and producing waste at a greater scale than ever before, and per capita consumption levels are projected to increase with continued development.” According to NJDEP in their October 2020 Global Warming Response Act 80x50 Report, waste management is the largest source of non-energy greenhouse gas (GHG) emissions in New Jersey. Municipal solid waste (MSW) is responsible for 82% of the total GHG emissions from the waste management sector. This includes GHG emissions from MSW processed and landfilled in New Jersey, and the emissions from MSW landfilled out-of-state. Approximately 30% of the MSW generated is composed of containers and packaging-related materials, and another 25% of food and other organic material wastes.

New Jersey was the first state to adopt a mandatory recycling public policy approach over three decades ago in 1987. The Legislature further adopted recovery goals of recycling 50% of the municipal waste stream and 60% of the total waste stream in 1992. Annual state-wide statistics compiled by the NJDEP have regularly shown New Jersey to meet or exceed the 60% goal. Unfortunately, while recycling has arguably been successful as a public policy strategy, the State and Nation have failed in reducing the amount of waste we produce each year. In 1995, New Jerseyans generated 16.7 million tons of material, which grew to 20 million tons by 2010 and 23.4 by 2018.

The alarming increase in waste generation is not sustainable and must be addressed. The result of increasing waste in our society also contributes to climate change. According to NJDEP’s Global Warming Response Act 80x50 report, “in 2018, the state’s waste management and agricultural sectors collectively emitted 5.7 million metric tons (MMT) of carbon dioxide equivalent”, contributing 6% of total emissions. Further, according to USEPA, municipal waste landfills are the third-largest source of human-related methane emissions in the United States, accounting for approximately 15.1 percent of these emissions in 2018. Nearly a quarter of what is disposed of in landfills is food waste. Food waste reduction and recycling represent a significant strategy to reduce organic waste by diverting edible food to those in need, creating renewable energy and producing compost to replenish depleted soils.

HOW Our region must adopt sustainable material management strategies and practices that engage municipalities, counties, authorities, businesses, institutions and the general public in shifting a mindset from wasteful practices to sustainable material management by embracing waste reduction strategies, expanding opportunities for material reuse, better managing food donation and composting programs, improving existing recycling programs and revisiting and launching essential public education and outreach programs to define better and promote practicing the “3-R’s.”

STRATEGY 15.1: Identify and implement practical and effective waste reduction and material reuse strategies and programs

Our region needs to collectively reduce the amount of waste we generate and decrease the dependence and exploitation of virgin resources. We should also improve how we reuse materials and increase the rate we recycle materials for use in new products manufactured from post-consumer materials. To succeed at these improvements, we need to work collectively to encourage behavioral change. Such change comes about through public education and outreach programs coupled with leadership by government agencies and non-profit groups charged with responsibility for waste management planning and implementation. In addition, our region should work with state and local partners to establish statewide waste reduction goals, develop a comprehensive public education campaign focused on consumer behavior, encourage pay-as-you-go programs, improve hazardous waste reduction initiatives, and expand the single-use plastics ban.

STRATEGY 15.2: Review and update recycling education programs to reduce contamination and expand the range of materials designated for recycling

International markets for recycled materials have all but collapsed, most notably based on public policy decisions and regulatory restrictions imposed by China, which has resulted in the current cost of recycling rising at an alarming rate. The current market crisis has resulted in tipping fees for single-stream recycling in the range of \$75 - \$85 per ton and higher, thus being equivalent to and, in some cases, exceeding the cost of disposal. New Jersey towns have been forced to scramble under severe budget constraints to cover unexpected costs to maintain recycling services for their residents. Our region needs to work with state, local, and federal partners to rebuild domestic markets for recycling through effective public education campaigns, regulatory and legislative changes, improved guidance for local governments, and by establishing incentive programs.

STRATEGY 15.3: Advance sustainable organic material management

Approximately 22 – 25% of homeowners' garbage is food waste. Nationally, the Natural Resources Defense Council (NRDC) estimates that 40 percent of food produced in the U.S. is not eaten. The wasting of food is costly to consumers, but it also has negative environmental impacts. Large amounts of greenhouse gases are emitted in the farming, transporting, manufacturing, and disposing of food that ultimately goes to waste. In New Jersey, significant statewide legislation is now in place to improve organic material management. In 2019 Governor Murphy established the New Jersey Food Waste Task Force in 2019, an interagency body to make recommendations concerning food waste management in the state. In addition, the New Jersey Department of Environmental Protection (NJDEP) completed the first detailed food waste reduction plan for New Jersey. In April 2020, Governor Murphy also signed into law A2371/S865, which requires large generators of food waste (52 tons per year or 1 ton per week) to source separate and compost or otherwise recycle their food waste, provided there is a composting facility located within 25 road miles, and the cost is less than what generators currently pay for disposal. Our region needs to continue working with state and local partners to continue improving sustainable organic material management, expand and integrate food redistribution and donation programs, maximize the development of community gardens, assess backyard, school, municipal and regional composting opportunities and properly manage animal manure.

