

New Jersey Department of  
Environmental Protection

# Food Waste Reduction Plan

OCTOBER 2023



# New Jersey Department of Environmental Protection

## Food Waste Reduction Plan

### Executive Summary

As established by the Food Waste Reduction Act, (P.L. 2017, c. 136), signed into law on July 21, 2017, the State of New Jersey's goal is to reduce its annual generation of food waste to 50 percent of 2017 levels by the year 2030 (50x30 Goal). As required by the Act, the New Jersey Department of Environmental Protection (DEP), in consultation with the New Jersey Department of Agriculture, has developed a Food Waste Reduction Plan (Plan) to further the state's efforts to reach the 50x30 Goal, including specific administrative and legislative recommendations of actions necessary to support and enhance these efforts.

Food waste – estimated at a third of overall food produced for consumption - not only represents tremendous lost economic value, which is estimated at \$680 billion annually in industrialized countries, but also causes unnecessary environmental burden. Uneaten food results in wasted precious resources including water, land, energy, labor, and capital and further impacts the environment through the rotting of landfill waste.

Only could a mere fraction (one quarter) of the estimated 1.3 billion tons (or one third of food produced for human consumption) of food wasted globally each year feed an estimated 870 million hungry people, with the potential to assist efforts to food insecurity.<sup>1</sup> Additionally, food waste is also the single largest component of municipal solid waste and its decomposition releases significant amounts of methane, a powerful greenhouse gas, deepening our existing climate crisis. Total methane emissions from landfills accounted for 5.5 MMT CO<sub>2</sub>e (million metric tons of carbon dioxide equivalent) in 2019. A 50 percent reduction of food waste disposed in landfills in 2019 by the year 2030 can eliminate 1.6 MMT CO<sub>2</sub>e annually by the year 2050<sup>2</sup> - that's the equivalent of 344,751 gasoline-powered passenger vehicles driven for one year or over 180 million gallons of gasoline consumed.<sup>3</sup> This is before additional emissions reductions throughout the supply chain and additional environmental benefits that would accrue from lessening wasted resources.

As a national leader in recycling, solid waste reduction and climate change mitigation, New Jersey must also lead in food waste reduction through the issuance and implementation of the Plan to move the state deliberately and purposefully toward the

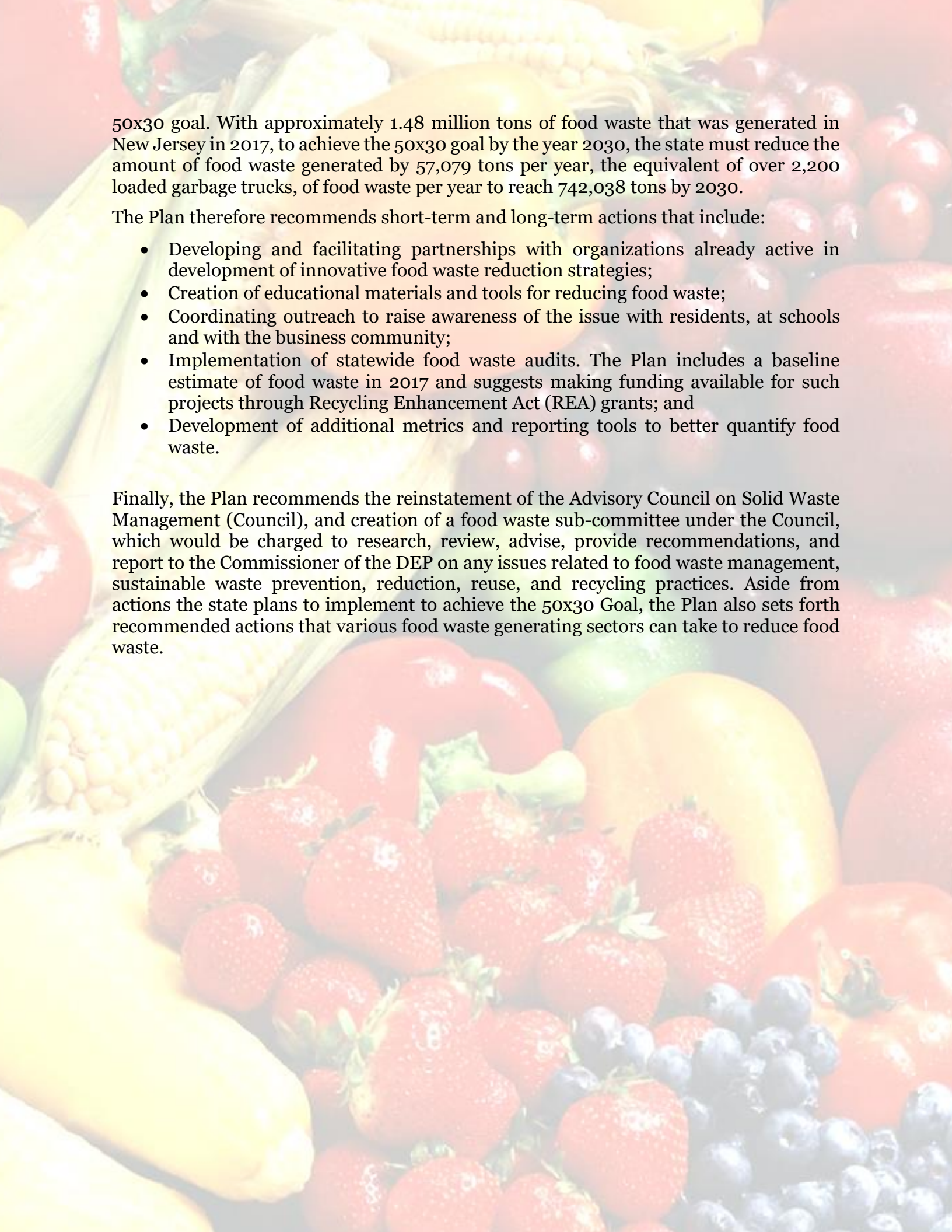
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<sup>1</sup> P.L. 2017, c. 136 p.1

<sup>2</sup> 2020 New Jersey 80x50 Report, p. 101

<sup>3</sup> USEPA Greenhouse Gas Equivalencies Calculator <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>





50x30 goal. With approximately 1.48 million tons of food waste that was generated in New Jersey in 2017, to achieve the 50x30 goal by the year 2030, the state must reduce the amount of food waste generated by 57,079 tons per year, the equivalent of over 2,200 loaded garbage trucks, of food waste per year to reach 742,038 tons by 2030.

The Plan therefore recommends short-term and long-term actions that include:

- Developing and facilitating partnerships with organizations already active in development of innovative food waste reduction strategies;
- Creation of educational materials and tools for reducing food waste;
- Coordinating outreach to raise awareness of the issue with residents, at schools and with the business community;
- Implementation of statewide food waste audits. The Plan includes a baseline estimate of food waste in 2017 and suggests making funding available for such projects through Recycling Enhancement Act (REA) grants; and
- Development of additional metrics and reporting tools to better quantify food waste.

Finally, the Plan recommends the reinstatement of the Advisory Council on Solid Waste Management (Council), and creation of a food waste sub-committee under the Council, which would be charged to research, review, advise, provide recommendations, and report to the Commissioner of the DEP on any issues related to food waste management, sustainable waste prevention, reduction, reuse, and recycling practices. Aside from actions the state plans to implement to achieve the 50x30 Goal, the Plan also sets forth recommended actions that various food waste generating sectors can take to reduce food waste.

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# Acknowledgements

This plan was developed by the Division of Sustainable Waste Management with input from internal and external stakeholders. The DEP recognizes and appreciates all the time, effort, and talents of its staff and stakeholders that participated in this endeavor.

# New Jersey Department of Environmental Protection Food Waste Reduction Plan

## Introduction and Background

### Authorizing Legislation

The Food Waste Reduction Act, signed into law on July 21, 2017, established a goal of reducing the amount of food waste generated annually in New Jersey by 50 percent of the amount generated in 2017, by the year 2030. To achieve this goal, DEP, in consultation with the New Jersey Department of Agriculture, was tasked with:

- Developing and commencing implementation of a plan to achieve the 50 percent reduction goal.
- Holding at least three public hearings during the development of the Plan to seek public input.
- Consulting and coordinating with other governmental entities, private, nonprofit, or charitable associations, organizations, or businesses, such as those in the agricultural, grocery, restaurant, food manufacturer, food supply, food bank, food pantry, and healthcare sectors of the food industry, in developing and implementing the Plan.
- Making recommendations for any administrative or legislative action deemed necessary to further progress toward achieving the state food waste reduction goal.
- Transmitting the Plan to the Legislature in accordance with section two of P.L.1991, c.164 and to the chairpersons of the Senate Environment and Energy Committee, the Senate Economic Growth Committee, the Assembly Environment and Solid Waste Committee, and the Assembly Agriculture and Natural Resources Committee, or their successors.<sup>4</sup>

### Structure of the Plan

This Plan sets forth both short and long-term actions to move the state towards the 50x30 goal while setting forth a key legislative proposal to develop additional, informed and targeted actions to ensure further progress.

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<sup>4</sup> P.L. 2017, c. 136 p.1

The Plan is organized into 11 sections as follows:

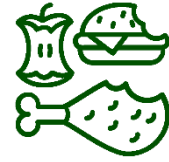
- I. The Food Waste Issue
- II. Eliminating Misconceptions
- III. Plan Development Process
- IV. Definition and Quantification of Food Waste
- V. Scope and Purpose
- VI. Development Principles
- VII. Utilization of Advisory Council
- VIII. Short-Term Strategies and Actions
- IX. Long-Term Strategies and Actions
- X. Sector by Sector Identification and Analysis
- XI. P.L. 2017, c. 136 Interaction with Other Food Waste Legislation

### **Key Legislative Proposal**

This Plan recommends legislative action, further explained in Section VII, which authorizes reinstatement of the Advisory Council on Solid Waste Management (Council). This plan proposes a food waste sub-committee of the Council that would be tasked with developing additional recommendations and opportunities for action necessary to reach the 50x30 goal.

The proposed sub-committee shall be authorized, among other powers, to call/use focus groups/or individuals as subject matter experts to assist the sub-committee in specific areas of their work.





## Section I. The Food Waste Issue

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Food waste management, including the reduction of food loss, represents both a global and local economic and environmental issue. As a leader in environmental progress, New Jersey must address this issue by planning and implementing measures to reduce the wasting of food and ensure deliberate and purposeful progress toward the 50x30 goal of no more than 742,038 tons of food waste generated in the year 2030.

Approximately 1.3 billion tons of worldwide food production for human consumption is wasted every year. If only a quarter of food lost or wasted globally could be saved, roughly 870 million people could be fed.<sup>5</sup> Nationally, less than one-third of the food Americans throw out would be enough to feed the Americans facing food insecurity.<sup>6</sup> Although New Jersey is one of the wealthiest states in the country,<sup>7</sup> nearly 11% of the state's population is food insecure, and 15% of children under 18 face food insecurity.<sup>8</sup>

In September 2015, the United Nations adopted Sustainable Development Goal 12.3, which established a target to reduce food loss and waste by 50% by 2030<sup>9</sup>. In 2014, the G7<sup>10</sup> countries committed to facilitate the exchange of best practices and resources in reducing food waste as part of the G7 Alliance on Resource Efficiency's focus on circular economies.<sup>11</sup>

Nationally, the Natural Resources Defense Council (NRDC) estimates 40 percent of food produced in the U.S. is never eaten by a human being.<sup>12</sup>

That means that Americans are throwing away over \$218 billion worth of food each year.<sup>13</sup>

All this results in more than just wasted food - producing food from farm to table is estimated to utilize<sup>14</sup>:

- Over 16% of the total U.S. energy budget.
- Over 50% of U.S. land.
- Up to 67% of freshwater consumed in the United States.

Furthermore:

- Food waste is responsible for at least 2.6 percent of U.S. greenhouse gas emissions<sup>15</sup> and large amounts of fertilizers are expended in the process.<sup>16</sup>

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<sup>5</sup> P.L. 2017, c. 136 p. 1

<sup>6</sup> NRDC 2017 p. 4 Wasted: How America is losing up to 40 percent of its food from farm to fork to landfill

<sup>7</sup> <https://www.usnews.com/news/best-states/slideshows/10-wealthiest-states-in-america?slide=10>

<sup>8</sup> Feed America, p.32 *Map the Meal Gap 2017*

<sup>9</sup> <https://sustainabledevelopment.un.org/sdg12>

<sup>10</sup> G7 is an informal group of seven countries – Canada, France, Germany, Italy, Japan, UK, and the U.S.

<sup>11</sup> <https://obamawhitehouse.archives.gov/the-press-office/2015/06/08/annex-g-7-leaders-declaration>

<sup>12</sup> NRDC p. 4 Wasted: How America is losing up to 40 percent of its food from farm to fork to landfill

<sup>13</sup> Ibid p. 10

<sup>14</sup> Ibid p. 5

<sup>15</sup> Ibid p. 5

<sup>16</sup> Ibid p. 13

- Most of the uneaten food is disposed in landfills, contributing to 11% of U.S. methane emissions from organic matter.

Many organizations, including NRDC and ReFED, along with the states like California, Oregon, Massachusetts, and others, as well as the United States Environmental Protection Agency (EPA) have recognized the issue of wasted food and have developed information, strategies, and tools to address the issue. In 2015, the United States Department of Agriculture (USDA) and EPA established the United States 2030 Food Loss and Waste Reduction Goal to cut food loss and waste in half by the year 2030. The DEP appreciates the assistance that these organizations and others have provided in the development of the Plan.

## **Food Waste or Wasted Food?**

EPA uses the overarching term “wasted food” to describe food that was not used for its intended purpose and is managed in a variety of ways including donation, recycling, and disposal. EPA determined that using the term wasted food, as opposed to “food waste,” focuses attention on food as a valuable resource that has been wasted, rather than it no longer having any value. While EPA considers the term “food loss” to occur at any time during the food supply chain prior to reaching consumers at the retail level, the agency distinguishes food waste to occur after the food has been made available to consumers.<sup>17</sup> In contrast, the statutory definition of food waste, under P.L. 2020, c. 24, the Food Waste Recycling and Food Waste-to-Energy Production Act, limits food waste to certain pre-consumer waste products and does not include post-consumer food waste. In this Plan, DEP has sought to use the terms “wasted food” and “food waste” to more broadly include not only food that is discarded for recycling or disposal but also that which is produced and never utilized or consumed. The terms “wasted food” and “food waste,” as used in this plan, encompass food loss and waste throughout the food supply chain, whether it is generated during primary production or after the food is issued or sold to the consumer. This Plan focuses on achieving reduction of any wasted food product, at any stage of the food supply chain, in order to achieve the greatest positive environmental impact.

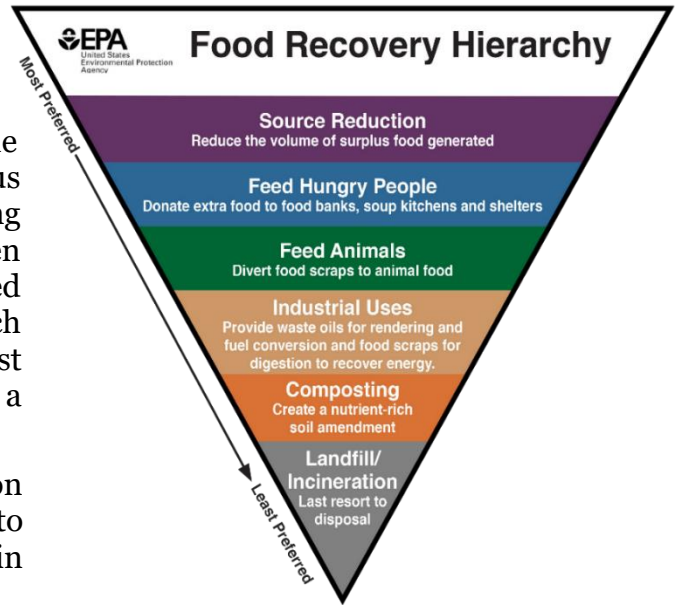
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<sup>17</sup> USEPA Sustainable Management of Food Basics <https://www.epa.gov/sustainable-management-food/sustainable-management-food-basics>

## The EPA's Food Recovery Hierarchy

The EPA's Food Recovery Hierarchy suggests that strategies to combat the problem of the wasting of food should first focus on reducing the volume of surplus food generated. The second focus is to redirect any edible surplus food to feed hungry people. Any remaining food, after these two options have been exhausted, should be dedicated as animal feed and then recycled into a beneficial product such as compost or biogas. The last, and least favorable option is to dispose of food waste in a landfill or incinerator.

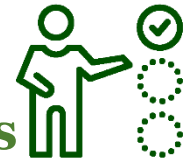
The Plan adopts principals and goals based on the EPA's Food Recovery Hierarchy (as shown to the right) which details the preferred options in the managing of food as a resource.<sup>18</sup>



<sup>18</sup> <https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy>



## Section II. Eliminating Misconceptions



### Food Donation

“Feed Hungry People” is the second tier of EPA’s Food Recovery Hierarchy and the most critical beyond source reduction. While Americans dispose of millions of tons of food, the U.S. Department of Agriculture estimates that approximately 11 percent of American households (about 37 million people) did not have reliable access to enough affordable, nutritious food in 2018.<sup>19</sup> In many cases, the food disposed in our nation’s landfills was edible food at the time it was discarded, creating a tremendous opportunity to address food insecurity as a key aspect of and motivation for food waste reduction.

A common misunderstanding is that donating food beyond its originally intended use or sale is prohibited or confers significant liability on the donor. However, donors are protected under both state and federal law:

- The federal Bill Emerson Good Samaritan Food Donation Act,<sup>20</sup> signed October 1, 1996, protects donors from liability should the product donated in good faith later harm the recipient. The Act covers individuals, businesses, nonprofit organizations, officers of businesses, and gleaners. Donors that act with gross negligence or intentional misconduct are not covered by this Act.<sup>21</sup>
- In 1982, New Jersey enacted its own “Food Bank Good Samaritan Act” (N.J.S.A. 24:4A-1 to 24:4A-5). This Act contains the same protections that a donor or food bank enjoys under the federal Act; however, the New Jersey Act provides greater protections to an owner of agricultural food. Such owners cannot be liable for damages in any civil action or subject to criminal prosecution resulting from the consumption of the food gleaned or donated. Like the federal Act, the New Jersey Act only provides such liability protection so long as the damages are not caused by gross negligence, recklessness, or knowing misconduct.

### Date Labels

Potentially compounding the issue of wasting otherwise edible food is confusion about date labels. The date label terms (e.g., “sell by,” “best by,” “use by”) used by the food manufacturing and processing industry to label their products are an approximation based on food quality and color retention and are not related to food safety or a health-based expiration date or standard. In other words, most date labels give information about food quality and not about food safety. Confusion over the meaning of these terms could contribute to premature and unnecessary discarding of edible food. At the time of

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<sup>19</sup> <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics/>

<sup>20</sup> <https://www.gpo.gov/fdsys/pkg/PLAW-104publ210/pdf/PLAW-104publ210.pdf>

<sup>21</sup> <https://www.chlpi.org/wp-content/uploads/2013/12/Emerson-Act-Legal-Fact-Sheet.pdf>

this writing, New Jersey law only requires dairy products and shellfish to display a date label on the product. Federally, only infant formula requires a “Use-By” date label.<sup>22</sup>

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<sup>22</sup> <https://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/food-labeling/food-product-dating/food-product-dating>

## Section III. Plan Development Process



As the first step in developing the Plan, the DEP researched the current landscape surrounding the issue of wasted food and food loss throughout the nation and internationally by:

- Meeting informally with representatives of the New Jersey Department of Agriculture, New Jersey trade associations, academia, businesses, and other entities across the food production chain, to understand each group's processes and begin the conversation of identifying where food is lost and how its loss can be reduced.
- Communicating with other states that are actively addressing food waste reduction and the EPA.<sup>23</sup>
- Participating in webinars focusing on food waste reduction outreach and education.
- Researching information from various organizations involved in food production and food waste reduction.<sup>24</sup>

DEP also informally engaged a broad range of interested individuals and organizations in the food loss, food waste/food production arena through phone calls, website reviews, email, and informal informational meetings. Through this process, DEP communicated with at least 47 individuals representing approximately 30 organizations in all seven identified sectors (as listed below) prior to developing this Plan.

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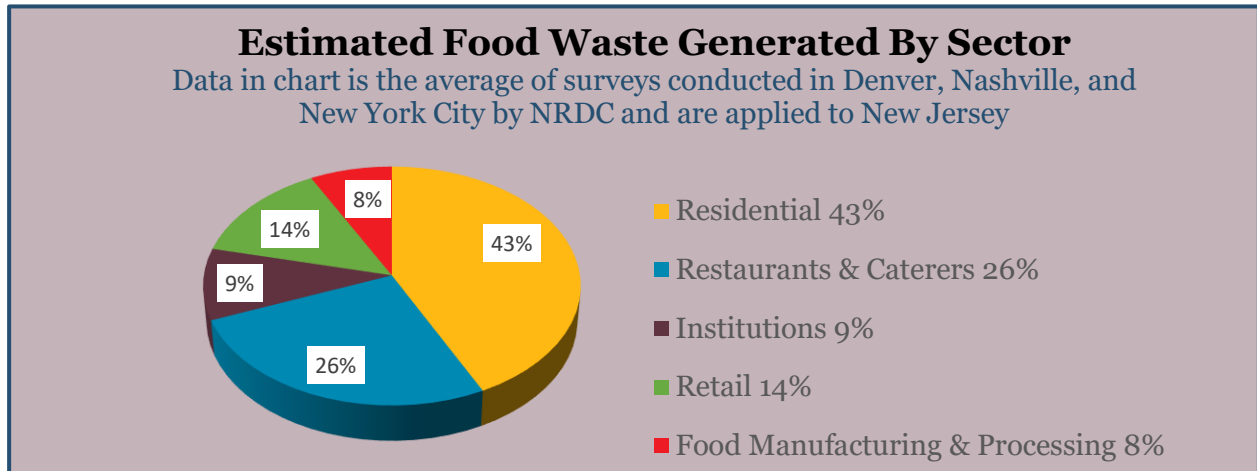
<sup>23</sup> DEP held phone calls with Vermont, Connecticut, Massachusetts, California, Oregon, and the EPA

<sup>24</sup> Such as ReFED, Natural Resources Defense Council, Harvard Food Law and Policy Clinic, and Sustainable Jersey



## Food Waste Generating Sectors

Based on surveys conducted by the NRDC,<sup>25</sup> the following food waste generating sectors were identified, as well as their estimated portion of the total amount of food waste generated.



Due to a lack of available data for New Jersey, DEP will utilize NRDC's data above for planning purposes until New Jersey-specific information is obtained through further research.

The following food waste generating sectors have been identified for use in this Plan:

1. Consumer/Residential
2. Institutions<sup>26</sup>
3. Donations
4. Retail
5. Production/Manufacturing
6. Restaurants, Caterers and Food Services
7. Government

The following topics were discussed at DEP's informational meetings with interested parties within each sector:

- How is the food in a particular sector produced?
- How is food lost or become waste?
- What are the real or perceived barriers to reducing the amount of wasted food?

<sup>25</sup> Estimating quantities and types of food waste at the city level. NRDC October 2017

<sup>26</sup> For the purpose of the Plan, "institutions" consist of hospitals, schools, prisons, government buildings, and military bases where food service tends to be in dining-hall style settings with self-serve style buffets.

- What potential solutions/actions are there to reduce food loss in the near, and long term?
- Where is more research, information, or data needed for each sector?

Based on findings and information gleaned during the informal stakeholder meetings, DEP adopted a structure to categorize and organize the development of a draft plan. The draft plan was developed to:

1. Provide baseline information, format, and status of food reduction efforts to inform a productive public hearing process to receive additional input and produce a final Plan.
2. Receive input regarding actions to raise awareness concerning all aspects of the wasting of food in New Jersey including but not limited to its scope, causes and solutions, as well as its economic and environmental implications.
3. Receive and incorporate additional input, recommendations, and suggestions from a broad and diverse group of interested parties and stakeholders towards a plan to reduce food waste.
4. Propose initial legislative and/or regulatory actions to accomplish the goals of the legislation.
5. Identify possible short-term actions and goals consistent with available resources, identified in Section VIII.
6. Support reinstatement of the Council and creation of a food waste sub-committee to continue the food waste reduction effort.

## Public Hearings and Public Comment Period

As noted above, the Food Waste Reduction Act required DEP to conduct three public hearings to solicit comments on the Plan. DEP conducted the public hearings in September of 2019 at the following locations:

**September 10, 2019 from 9:00-11:00 AM**

Public Hearing Room  
New Jersey Department of Environmental Protection  
401 E. State Street  
Trenton, NJ 08625

**September 17, 2019 from 6:00-8:00 PM**

Atlantic County Utilities Authority  
6700 Delilah Road  
Egg Harbor Township, NJ 08234

**September 19, 2019 from 6:00-8:00 PM**

Environment Center Auditorium at NJ Sports and Exposition Agency  
2 De Korte Park Plaza  
Lyndhurst, NJ 0707

The notices of public hearing were posted in newspapers throughout New Jersey as well as on DEP's Division of Solid and Hazardous Waste's website.

The public comment on the draft food waste reduction plan began August 7, 2019 and ended on September 27, 2019. The Division accepted comment submissions via mail or electronically. A summary of the comments is posted on the food waste reduction website at <https://www.nj.gov/dep/dshw/food-waste/>.



## Section IV. Definition and Quantification of Food Waste



For the purposes of this Plan, food waste or wasted food is any food that is grown or produced for human consumption but ultimately is not eaten by human beings; food waste does not include food that is donated.

### Amount of Food Waste Generated: Quantifying Food Waste

The Act requires DEP to determine the amount of wasted food generated in New Jersey in 2017 to be used as a baseline to compare future food waste generated amounts and to quantify food waste reductions or lack of same.

Based on available data, the 2017 baseline sum of food waste generated is the amount of food waste disposed in landfills or incinerators plus the amount of food waste recycled.<sup>27</sup> As stated above, approximately 1.48 million tons of food waste was generated in New Jersey in 2017. DEP is aware that this baseline number underestimates the actual food waste generated, as it does not include:

- Residential backyard composting.
- Food waste disposed as a liquid poured down the drain.
- Food or organic waste disposed via tilling into agricultural fields.
- Unreported shrinkage<sup>28</sup> from retail, restaurant, or other consumer-facing entities.

Obtaining this data would be difficult because this data is not tracked and would require many assumptions to be made, deeming it unreliable for purposes of estimation. Until reliable data exists to quantify food waste from the above-mentioned sources, DEP will continue to exclude them from the calculation of total food waste generated. For this reason, DEP does not consider this to be a significant data gap.

In 2013, the Mercer County Improvement Authority performed a waste audit to determine the amount of food waste in the Municipal Solid Waste (MSW)<sup>29</sup> stream bound for disposal. Over the course of a year, food waste was separated and weighed at their transfer station facility in Ewing, New Jersey and it was determined that 24.8% of the MSW stream bound for disposal consisted of food waste by weight.<sup>30</sup>

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<sup>27</sup> New Jersey generally categorizes solid waste by the type of generator that produced it or by its constituent parts. Pursuant to the New Jersey law, food waste is identified as a portion of the municipal solid waste (MSW) stream ID # 10 at N.J.A.C. 7:26-2-13(g) or as Vegetative Waste ID # 23. Source separated food or organic waste for recycling is defined as a Class C recyclable material at N.J.A.C. 7:26A-1.3.

<sup>28</sup> Shrinkage is defined as: *the loss of goods for sale because of damage, stealing, etc.*: <https://dictionary.cambridge.org/us/dictionary/english/shrinkage>

<sup>29</sup> MSW is defined as residential, commercial, and institutional solid waste generated within a community at N.J.A.C. 7:26-1.4

<sup>30</sup> 2015 Mercer County Improvement Authority Solid Waste and Recycling Quantification and Characterization Study

Food waste percentages reported by states surrounding New Jersey include:

Connecticut (2015): 22.3%<sup>31</sup>  
Delaware (2016): 21.1%<sup>32</sup>  
Pennsylvania: N/A<sup>33</sup>  
New York City (2017): 21%<sup>34</sup>

Using an average of the above-mentioned percentages (including Mercer County), DEP initially and broadly estimates that approximately 22% of the MSW stream in New Jersey is comprised of food waste.

The definition for MSW generated is MSW disposed (in landfill or incinerator) plus MSW recycled equals MSW generated.

To estimate the baseline of food waste generated in New Jersey in 2017, DEP combined the estimated weight of food waste disposed (as 22% percent of MSW) with the weight of food waste recycled.

Therefore:

- Using data reported by solid waste facilities, the total amount of MSW disposed in New Jersey in 2017 was 5.76 million tons.
- As identified above, it is estimated that 22% of MSW generated in New Jersey disposed in either a landfill or incinerator in New Jersey is food waste. Therefore, an estimated 1.27 million tons of food waste was disposed in 2017 in New Jersey. (22% of 5.76 million tons disposed).
- Total weight of food waste recycled as reported by municipal tonnage recycling reports for 2017 was 216,453 tons.
- Thus, total food waste generated in New Jersey in 2017 equals approximately 1.27 million tons of food waste disposed plus 216,453 tons of food waste recycled equals approximately 1.48 million tons of food waste generated in New Jersey in 2017.

According to the United States Census Bureau, 9.006 million people resided in New Jersey in 2017. This equates to roughly 329 lbs. of food waste (1.48 million tons food waste/9.006 million residents x 2,000 lbs.) generated per resident per year in New Jersey.

Therefore, as an average, wasted food was a little less than 1 pound per day for every resident in New Jersey in 2017.

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<sup>31</sup>

[http://www.ct.gov/deep/Lib/deep/reduce\\_reuse\\_recycle/Data/Average\\_state\\_msw\\_statistics\\_FY2014.pdf](http://www.ct.gov/deep/Lib/deep/reduce_reuse_recycle/Data/Average_state_msw_statistics_FY2014.pdf)

<sup>32</sup> <http://dswa.com/wp-content/uploads/2017/02/Final-Report-DSWA-Waste-Characterization-FY-2016-January-2017.pdf>

<sup>33</sup> No Pennsylvania data available

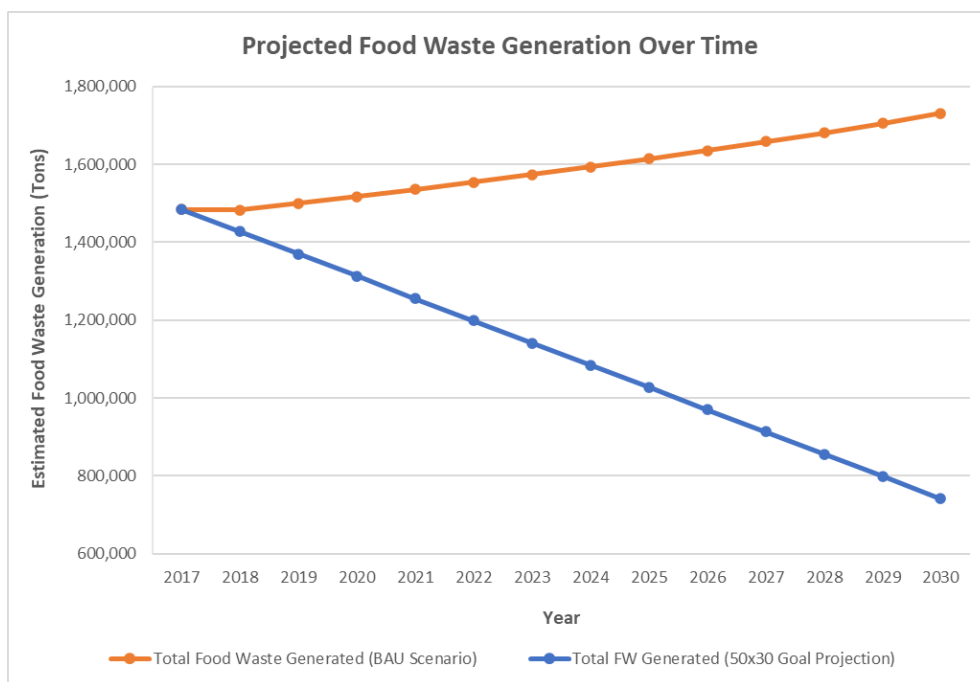
<sup>34</sup> <https://dsny.cityofnewyork.us/wp-content/uploads/2018/04/2017-Waste-Characterization-Study.pdf>  
p. 11

## 2030 Food Waste Reduction Goal

Using the baseline of 1.48 million tons of food waste generated in New Jersey in 2017, in order to achieve the 50x30 goal of a maximum of 742,038 tons to be generated in 2030, a reduction of approximately 57,079 tons of food waste per year would be necessary. Without taking any additional action to reduce food waste, DEP estimates that total annual food waste generation could reach 1.73 million tons in 2030. This estimate is based on the following assumptions:

- Estimated population growth will be 0.43% annually.
- Estimated 1.1 tons of MSW generated per person annually, calculated by using the average of the annual generation of MSW between 2013 through 2017 divided by the population in that year.
- Estimated 58% of total MSW is disposed, determined by calculating the average percent of MSW that was disposed between 2013 through 2017.
- Estimated 22% of MSW disposed consists of food waste.
- Estimated annual increase in total food waste recycled is 1.05%, determined by calculating the average percent increase from 2013 through 2017. Note that the rate of food waste recycling, and amount of food waste that is reported to DEP, will likely increase as the Food Waste Recycling and Food Waste-to-Energy Production Act of is implemented.

Using the above methodology to quantify food waste in the state and by calculating the rate of change from 2017 through 2030, DEP has developed the following chart that summarizes the state's food waste generation goals from 2017 through 2030. As shown in the chart below, taking no additional action to reduce food waste would result in a steady increase in food waste generation.



In 2019, DEP awarded funding to Rutgers University, through a grant established in the Recycling Enhancement Act, to conduct a municipal solid waste composition study. Due to the COVID-19 pandemic, the project experienced significant delays and did not start until February 2021; the study was completed in September 2022. Preliminary findings indicate that the percent of municipal solid waste consisting of food waste appears to be declining. Final results of this study will provide critical data that will help determine the state's progress in achieving the 2030 goal.

## Potential Avoided Emissions

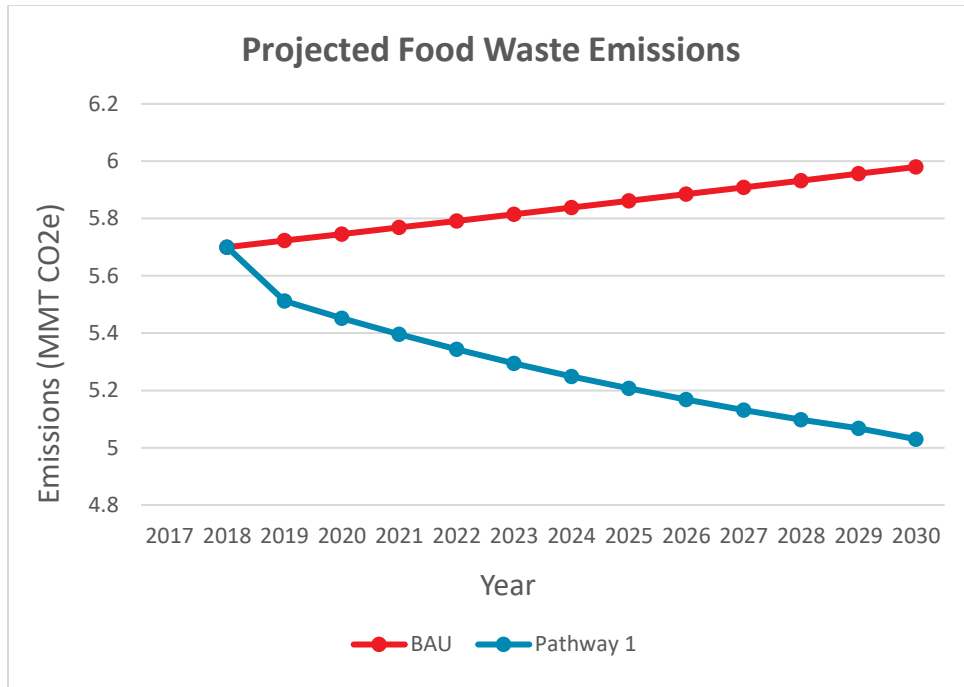
DEP estimates that 0.927 metric tons of CO<sub>2</sub>e is emitted for every one ton of food waste generated. DEP made the following assumptions to calculate the potential methane emissions avoided by achieving the 50x30 Goal:

- Estimated population growth will be 0.43% annually.
- Estimated 1.1 tons of MSW generated per person annually.
- Approximately 83% of total MSW is sent to landfills. Since the 80x50 Report was concerned with downstream emissions from food waste, any food waste that would not generate emissions was excluded. As such, the other 17% of MSW (that is primarily incinerated) is not included for the purposes of the 80x50 Report. It should be noted that this assumption was not used in the above calculations to determine projected food waste generation as it is only relevant to calculating greenhouse gas emissions from landfills while excluding incineration for the purposes of the 80x50 Report.
- Approximately 22% of landfilled MSW (including MSW that is initially sent for recycling) is food waste under a BAU scenario.

The graph below depicts estimated emissions from the waste and agriculture sectors based on findings from New Jersey's Global Warming Response Act 80x50 Report, including those resulting from food waste, if society carries out activities using a BAU scenario compared to a food waste reduction scenario (Pathway 1<sup>35</sup>) achieving the 50x30 Goal.

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<sup>35</sup> 2020 New Jersey 80x50 Report p. 101



By these calculations, approximately one MMT (million metric ton) of CO<sub>2</sub>e (carbon dioxide equivalent) would be avoided in 2030 – that is equivalent to CO<sub>2</sub> emissions from 13,238 tanker trucks filled with gasoline. The potential cumulative emissions avoided between 2018 and 2030 are estimated to be 7.38 MMT CO<sub>2</sub>e – that is equivalent to greenhouse gas emissions avoided by 1,590,163 gasoline powered passenger vehicles driven for one year or CO<sub>2</sub> emissions from 97,697 tanker trucks’ worth of gasoline<sup>36</sup>.

## Other Potential Metrics

In addition to the method described above for estimating food waste generation, other metrics may be explored by the proposed Council to track progress in achieving the 50x30 Goal on a sector-by-sector basis as potential indicators of food loss, each with its own limitations, including:

- Estimating the weight of food donations or food loss, food discarded, or food not purchased.
- Using retail food data to estimate weight of food “left behind”<sup>37</sup>at the store.
- Using an Energy Star<sup>38</sup>-inspired benchmark system:

Entities in each sector of the food chain can measure food waste generated which can be compared to a benchmark system similar to Energy Star. The benchmark system shows the average generation numbers by sector based on a food waste

<sup>36</sup> USEPA Greenhouse Gas Equivalencies Calculator <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

<sup>37</sup> Subtracting weight of goods sold from weight of incoming goods.

<sup>38</sup> <https://www.energystar.gov/>



estimation guide developed by RecyclingWorks<sup>39</sup> in Massachusetts. With the help of a benchmark, various entities can determine their success in reducing food loss relative to sector peers.

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<sup>39</sup> <https://recyclingworksma.com/food-waste-estimation-guide/>

## Section V. Scope and Purpose

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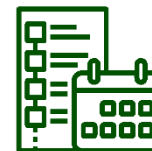


The purpose of this Plan is to set in motion actions that will achieve the 50x30 goal.

This goal can be accomplished by:

- a. Providing information on existing resources and tools to those motivated to reduce food waste.
- b. Identifying how consumer behavior can result in food waste and recommending educational strategies.
- c. Creating and promoting a statewide food waste reduction website as a single repository for information, tools, and contacts.
- d. Researching where (and why) losses occur throughout the supply chain and developing solutions, such as recurring statewide waste composition audits by expanding existing recycling research funding to include food waste reduction. The audits can include determining the type of food waste, sources of food waste and the quantity of food waste present in New Jersey's solid waste stream.
- e. Developing and facilitating relationships between entities that generate excess food and those willing to accept it.
- f. Conducting outreach to industry leads and representative organizations to promote the reduction of food waste at the manufacturer level.
- g. Developing a food waste reduction marketing plan that would use various strategies including social media to inform the general public of the need to reduce food waste.
- h. Adopting legislation to reinstate the Council and creation of a food waste sub-committee to continue food waste reduction planning and execution.

## Section VI. Development Principles



These principles guide and help the Department in the development and implementation of this Plan.

**1. Prioritize attention and actions in sectors of highest potential benefit (i.e., those areas with the largest potential for decrease in food waste).**

The residential sector is responsible for 43% of total food waste generated, as described in the chart shown in Section III of the Plan. While various businesses and institutions contribute to the remainder of food waste and should not be excluded, DEP will work with local governments and NGOs to focus outreach and education efforts towards the general public to capture audiences that will achieve the greatest potential food waste reduction.

**2. Promote existing and available information, processes, tools, and awareness opportunities.**

EPA created a Food Recovery Challenge which highlights demonstrated and emerging practices of food waste reduction. These practices encourage generators in the private and public sector to manage food waste generation more sustainably and to measure amounts of wasted food.<sup>40</sup> Other strategies and actions are identified as appropriate in the respective sector's tool kit in Section X below.

**3. Apply web-based technology, including social media, to identify and provide information and opportunity for those:**

- a. Already pursuing food waste reduction;
- b. Wanting to reduce food waste but needing to know where/how to start;
- c. Needing to understand the tangible, economic, environmental, and societal benefits of reducing food waste in order to start reducing wasted food.

As DEP and others seek to raise awareness of food waste reduction issues, it would be efficient to point all interested parties to one central clearinghouse website as a first step in becoming involved in food waste reduction and achieving the 50% reduction goal.

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<sup>40</sup> <https://www.epa.gov/sustainable-management-food/food-recovery-challenge-frc>

**4. Identify and provide a platform for food waste reduction champions in each sector to inform and motivate their peers of principles and practices of ‘how they do it’ in their sector.**

Most sectors have one or more entities who have recognized the benefits of food waste reduction and have developed varying degrees of practices to achieve it. DEP sees value in identifying ways for those already engaged in food waste reduction to have a platform to encourage their colleagues by sharing their experience and describing the benefits derived from reducing food waste.

**5. Promote the use of waste tracking, analytics, and metrics.**

By encouraging restaurants, institutions, and other food service companies to gather data on food practices and associated losses, this information could drive operational practices, educate staff, and drive food waste reduction public policy.

## Section VII. Utilization of Advisory Council



At present there is no office or agency in New Jersey state government responsible for promoting, coordinating, or pursuing ongoing actions toward food waste reduction efforts in New Jersey. As a result, public and private food waste reduction efforts are developed in isolation, leading to missed opportunities.

The Solid Waste Management Act (P.L. 1970, c.39) established a 14-member Advisory Council on Solid Waste Management (Council) to make recommendations to the Commissioner of Environmental Protection on ways to improve solid waste management and recycling in the state (N.J.S.A. 13:1E-7-8). The Council has not been active during the last decade and appointments of public members have not been made as members' terms have expired.

This plan proposes reinstatement of the Council with a food waste sub-committee that would be tasked with developing additional recommendations and opportunities for action necessary to reach the 50x30 goal. The food waste sub-committee under the Council will provide leadership, continuity and scope in food waste reduction activities, a role that single organizations, entities, businesses, and residents alone could not. The sub-committee will also ensure that efforts are not being duplicated by other organizations and coordinate efforts accordingly.

The purpose of the sub-committee would be to research, review, advise, provide recommendations, and report to the Council on any issues related to waste management, sustainable waste prevention, reduction, reuse and recycling practices. The food waste sub-committee may be charged with:

1. Planning, coordinating and promoting actions to further the 50x30 goal across agencies and economic sectors;
2. Coordinating research to better understand, quantify and address food waste;
3. Coordinating data collection and conduct studies quantifying food waste;
4. Developing and ensuring implementation of an ongoing and robust public awareness campaign targeting all sectors but specifically educating citizens regarding the issue of wasted food;
5. Initiating communication and updates on the issue of food waste through newsletters, state government websites and social media;
6. Connecting and encouraging individuals to harness existing communication, technology, and social platforms for linking users with producers, givers with receivers, food banks, and distributors with available donations, etc;



7. Convening interested parties to exchange ideas of best management practices and opportunities;
8. Coordinating with institutions of higher education to conduct research;
9. Developing and disseminating food waste guidelines and toolkits;
10. Advocating for actions that provide resources and funding for food waste reduction efforts, including but not limited to:
  - a. Supporting small organizations and entities to invest in cold-chain infrastructure (refrigeration during transportation and storage).
  - b. Enabling soup kitchens, food pantries and other food rescue entities to develop websites or other communication methods to solicit donations.
  - c. Supporting gleaning activities through the Gleaning Support Program administered by the New Jersey Department of Agriculture.
  - d. Taking an active role in disseminating and encouraging not-for-profit organizations to seek available grants administered by the New Jersey Economic Development Authority.
11. Furthering inquiry into specific areas through the use of focus groups/or individuals as subject matter experts; and
12. Proposing future administrative, regulatory and legislative actions to the Council.

In lieu of legislative action to reinstate the Council, the DEP may consider development of a Food Waste Reduction Committee via administrative order. An administrative order can be another successful means to bring stakeholders together and achieve the same objectives described above.

## Section VIII. Short-Term Strategies and Actions



The short-term actions identified in this section were selected based on available resources and are ones the DEP intends to complete within six months following the publication of this Plan. It is indicated in this document where an action has been implemented or is in the process of being implemented. Some of these actions, and additional ones, would likely be supported by the food waste subcommittee to the Council or a similarly-purposed Food Waste Reduction Committee, if established, and are identified under the section entitled “Long-term Actions”.

DEP plans to undertake the following short-term actions:

### 1. Create a website and/or app.

DEP has created a website that will be a statewide one-stop clearinghouse designed to present concise, easy-to-understand, practical information concerning food waste and wasted food issues in New Jersey. The website went live in September 2019<sup>41</sup>. In accordance with this Plan, the website will be updated to contain the following information:

- Department contact information for those with a role/interest in reducing the amount of wasted food.
- Suggestions for consumers to reduce the amount of wasted food.
- Links to resources provided by DEP and other state agencies.
- Links to research by various organizations (NRDC, EPA, Harvard University, ReFED, etc.).
- A list of where all food banks, soup kitchens, or other organizations that solicit food donations are located. The list will also include contact information, operating hours, and what type of items are accepted.
- The ability to match donors of excess food with those who can use that food, especially those who operate on a smaller and localized scale.
- A link to the EPA Excess Food Opportunities Map. This interactive map identifies and displays facility-specific information about potential generators and recipients of excess food in the industrial, commercial, and institutional sectors and provides estimates of excess food by generator type.<sup>42</sup>
- The rules and laws that apply to food donation.
- Issues surrounding date labeling including any potential federal and state date labeling initiatives and legislation.

<sup>41</sup> <https://www.nj.gov/dep/dshw/food-waste/>

<sup>42</sup> <https://www.epa.gov/sustainable-management-food/excess-food-opportunities-map>

- All available toolkits in one easy-to-find location.

DEP will promote the website via press releases, social media, and collaboration with our partners (e.g., county and municipal governments, NGOs). DEP's food waste reduction website plays a critical role in raising awareness by providing information on how to reduce and donate food waste.

## **2. Raise Awareness.**

Raising awareness is a critical first step in gaining public interest in the issue of food waste reduction as part of an overall outreach strategy. Using various communication channels (e.g., press releases or social media), DEP intends to raise awareness of the issues surrounding food waste. This action would highlight the environmental, financial, and societal impacts of wasted food and the benefits of reducing the same. Outreach commenced in the fall of 2019 using social media and the publication of the food waste reduction website. The website shall act as a central clearinghouse for all information including events listed in this section.

- Specifically, DEP staff in cooperation with non-government organizations will continue to develop social media videos, press releases, flyers, podcasts, mailers, and posters highlighting food waste issues, such as how much is wasted, where it is wasted, and identifying sources of information to help reduce waste, including any potential financial incentives.
- DEP will create a listserv and periodically send publications highlighting food waste reduction programs and the individuals/organizations that implemented the programs to generators and other interested parties. Additional newsletter items will be developed as the implementation of the Plan progresses.
- DEP will collaborate with organizations including but not limited to EPA, NRDC<sup>43</sup>, ReFED, WasteWise, Sustainable Jersey, Association of New Jersey Recyclers (ANJR) and other states, to share educational material with the general public and businesses that generate food waste.
- DEP will partner with other NGOs at conferences and webinars to educate consumers and businesses about food waste reduction.
- Awareness efforts also must seek to educate New Jersey consumers regarding the date labeling of food and to dispel misconceptions regarding the purpose and use of date labels.

Raising awareness can be performed in many ways that are not necessarily outlined in this Plan and plays a key role in the success of food waste reduction in New Jersey. Raising awareness fits with many if not all short and long-term actions detailed in this Plan.

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<sup>43</sup> Such as Save The Food Campaign

### **3. Work with already established organizations or certification programs.**

DEP will work with organizations that have been active in food waste reduction, to discuss lessons learned and strategies for effective education and awareness.

DEP will work with NGOs and other organizations to recognize food waste as a problem and identify entities and promote/implement steps to reduce food waste. For example:

- NGOs, such as the Association of New Jersey Recyclers (ANJR), Center for EcoTechnology, and New Jersey Composting Council, as well the recommended food waste subcommittee under the Council could coordinate various aspects of raising awareness around food waste reduction such as educational and outreach campaigns.
- NGOs, such as Sustainable Jersey, could help achieve food waste reduction by awarding municipalities points toward higher recognition if they implement source reduction food waste programs or create education and outreach programs.
- Sustainable Jersey and other NGOs could create a program that facilitates municipal or local food donations.<sup>44</sup>
- Sustainable Jersey for Schools could encourage schools to adopt the School Food Waste Guidelines<sup>45</sup> created in response to P.L 2017, c. 210.
- Trade associations, such as NJ Food Council or NJ Food Processors Association, can actively disseminate this Plan and encourage the implementation and adaptation of the toolkits among their members.
- In consultation with the New Jersey Department of Health, food waste reduction methods and techniques could be incorporated into the New Jersey Food Manager's Sanitation Certification Program or other suitable programs.
- Apply grant funding provided by agencies such as EPA through their Sustainable Materials Management program to support food donation outlets by awarding organizations with funds for the infrastructure necessary to manage and distribute donated food to those in need.

DEP has already established relationships with various NGOs, including an Organics Workgroup Education Committee, led by ANJR. This is considered a short-term action because DEP can begin to work on building relationships with various organizations and implementing programs immediately following the publication of the Plan, with the intention to continue working with NGOs on various initiatives for the long term as well.

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<sup>44</sup> Sustainable Jersey created a Community Food Pantry Action as part of their Gold Star Standard in Health Certification in July 2021. <https://www.sustainablejersey.com/actions/#open/action/591>

<sup>45</sup> The guidelines were created following a request from the New Jersey School Food Waste Guidelines legislation. This website is currently under construction; however, a copy of legislation and guidelines will be available online at <https://www.nj.gov/dep/dshw/food-waste/> once available.

#### **4. Review and implement as appropriate methods consistent with initial recycling promotions in New Jersey in the 1990s.**

In 1987, New Jersey was the first state in the nation to mandate statewide recycling. The complexity of starting the very first statewide recycling program was overcome with continued success for over 30 years. Learning from these historical achievements can result in successful food waste reduction and recycling programs in the state.

Under this plan, DEP will review methods that were utilized in the past to promote recycling and composting, including educational programs in schools, identifying successful food waste reduction people/programs, essays, poetry contests, etc. These successful programs will be highlighted in DEP publications, such as newsletters, to raise awareness, spread emerging practices, and encourage stakeholders to actively pursue and implement food waste reduction programs. The newsletter will be distributed through the listserv, social media and posted on the Department's food waste website.

#### **5. Provide guidance and education for date labelling.**

Currently, New Jersey law only requires dairy products and shellfish to display a date label on the product. Federally, only infant formula requires a "Use-By" date label<sup>46</sup>. New Jersey should consider preparing guidance, in lieu of regulations, for food manufacturers to develop standardized date labels to reduce confusion by consumers which will result in less food being wasted unnecessarily.

DEP should also educate consumers surrounding date labels and what they mean. The connection between date labels, food donation, and liability protections should also be presented. Educational materials can be posted on the food waste reduction website as previously discussed in this section.

#### **6. Consider the issuance of an Executive Order addressing food waste**

Consider an Executive Order to direct all New Jersey state agencies to lead by example and develop workplans including strategies and recommendations to address food waste reduction in state government. Such recommendations may include conducting waste audits, implementing educational campaigns for employees, and instituting sustainable food waste management programs.

DEP believes it is important to lead by example and has begun implementing certain strategies to reduce food waste in the workplace. DEP worked with the Center for Ecotechnology, a non-profit organization that helps businesses and institutions reduce waste, to conduct a no-cost feasibility study of its main campus in Trenton to determine the feasibility of instituting a sustainable food waste management program. Because you can't manage what you don't measure, DEP plans to conduct a formal waste audit to identify a baseline of food waste generated prior to the onset of

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<sup>46</sup> [https://chlpj.org/wp-content/uploads/2013/12/date-labels-issue-brief\\_June-2019.pdf](https://chlpj.org/wp-content/uploads/2013/12/date-labels-issue-brief_June-2019.pdf)



reduction strategies. DEP's website and other strategies outlined above will support the Executive Order by providing a hub of information for the public to utilize to effectively comply with the Order.

## Section IX. Long-term Strategies and Actions



Below are potential long-term actions, which require one year or more to complete, and are anticipated to assist in achieving the legislated goal of 50% food waste reduction by 2030. These actions are deemed long-term as they include research, surveying and measuring of food waste generation and will require time and resources beyond what are currently planned or available.

### **1. Maintain a website or app.**

The website will be updated periodically to indicate progress and statistics as the State approaches the 50x30 Goal. New information will be published on the website as it becomes available.

### **2. Raise Awareness.**

As outlined in Section VIII above, raising awareness is a key component of all other actions outlined in the Plan, and will continue to play a role with ongoing and future food waste reduction efforts.

### **3. Implement recurring statewide waste composition audits.**

As noted above, nearly 40% of all food produced is never consumed by a human being. However, in New Jersey, there is little or no information about the composition of the food waste in the MSW stream or a reliable percentage. By implementing systematic and recurring waste audits, DEP will be able to track not only the composition of wasted food in the MSW stream but also where (what sectors) the food waste is coming from, based on disposal information, what percentage of the wasted food would have been edible, etc. With this information, DEP will get a better understanding as to where in the supply chain the waste occurs and will allow for more targeted and effective approaches towards reducing wasted food.

Initial studies may be accomplished through grant funding, including current Recycling Enhancement Act (REA) grant projects focused on food waste audits. DEP will consider the results of these audits when developing future funding research topics. Future and recurring audits may be achieved through REA funds as well as other available funding.

### **4. Research food waste among consumers.**

While the food waste composition audit will quantify the amount of food waste disposed, the audit will not explain the reason why the waste was first generated. As such, DEP proposes that in-depth studies, using food waste diaries and in-depth

interviews or surveys, be conducted on the consumer level to identify why food waste is generated.

REA grant funding may be used in the future to provide opportunities for research in consumer behavior, which may include a consumer survey. In addition to making funding available to institutions for such projects, the proposed Council may be tasked to research and recommend methods to gauge consumer behavior regarding food waste reduction.

## **5. Work with institutions of higher education in New Jersey.**

State colleges and universities can be a tremendous resource in the implementation of this Plan. Institutions of higher education can support DEP in planning for, collecting and analyzing data, conducting waste audits and measurements, and creating and conducting food waste surveys. Institutions of higher education could also be encouraged to develop elective courses that teach students about meal planning, food preparation and storage to reduce wasted food.

REA funds could be dedicated to institutions of higher education for research into the following areas:

- Conduct food waste audits of state-owned buildings.
- Research and develop food waste reduction metrics other than weight.
- Create food surveys that can be used in food composition studies.
- Organize a marketing campaign including creating promotional materials and graphics and identifying distribution channels.
- Develop and expand websites and applications.
- Analyze available data on food waste.
- Work with students studying behavioral science to research consumer behavior in New Jersey as it relates to wasted food.
- Promote and generate a food waste reduction curriculum in K-12 schools.

Projects funded by the REA have already been awarded to institutions that address food waste. To date, these projects include:

- An Institution wide Educational Campaign and Research to Promote Food Waste Recycling and Composting by Kean University
- Sustainable and Scalable Food Waste Solutions for Schools by The College of New Jersey
- New Jersey Leave No Bite Behind by Rutgers Cooperative Extension
- New Jersey Food Asset Inventory and Mapping Project by Stockton University
- Aerated Static Pile Composting Demonstration Project at a Commuter College and On-Campus Technical High School by Bergen County Community College

Future projects may also focus on researching greenhouse gas emissions, and how food waste rescue/recycling programs could be eligible for Regional Greenhouse Gas Initiative (RGGI) funding.

The Department also plans to coordinate with institutions that have implemented food waste recycling programs to understand their experiences and develop best management practices and strategies for managing food waste at other institutions.

## **6. Encourage County involvement through the District Solid Waste Management Planning Process.**

DEP will encourage updates to District Solid Waste Management Plans<sup>47</sup> to include food waste reduction as an integral part of each district's effort to manage solid waste.

Understanding how much food is being wasted, and why it is wasted, is integral in a successful food waste reduction program. District Solid Waste Management Plans could better address food waste once more data becomes available.

## **7. Organize Food Waste Summits, information-sharing events or communication within and between food waste generating sectors.**

Some sectors are unable to share opportunities and information related to food waste reduction. A summit or information sharing event can result in:

- Connecting individuals within and between various sectors.
- Shared knowledge of methodologies used to address the issue of food waste.
- Sharing or exchanging of knowledge, resources, and tools specific to each sector.
- When a sector-specific issue arises, resources, tools, and knowledge can be pooled together to seek a solution.

DEP will:

- Identify sector leaders willing to educate or organize other members in their sector.
- Organize, promote, and, if necessary, host the event.
- Consider the need for an annual or biennial event to continue furthering the flow of information and communication.

## **8. Encourage the use of measuring tools to quantify food waste.**

The Department will review and encourage the use of the best available tools for measuring food waste. The Department will make certain tools accessible on its website.

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<sup>47</sup> N.J.A.C. 7:26-6.1

## **9. Small-scale composting exemptions.**

The Department is considering revising the Recycling Rules (N.J.A.C 7:26A) to allow for small-scale composting exemptions. These exemptions would remove barriers, thus creating greater opportunities for community composting. Although this initiative is focused on diverting food waste from landfills, the educational component ties to raising awareness and educating consumers about the importance of reducing food waste.

## **10. Support food donation outlets.**

DEP recommends improving upon and increasing New Jersey's food donation capacity by enhancing infrastructure at donation outlets and improving accessibility to facilitate increased donations from entities with surplus food.

The Office of Food Security Advocate was established by P.L. 2021, c. 242 to coordinate outreach for food security programs, support grant application processes related to food insecurity, coordinate communication with and between food rescue organizations, coordinate food insecurity programs and initiatives with institutions of higher education, among other things. The establishment of a central governance in food rescue addresses a core opportunity, and supports other opportunities, to address food waste that are described in the NJ Climate Change Alliance Organics Workgroup Sustainable Organic Material Management Workplan. DEP will also consider available funding opportunities for food donation outlets such as food banks, soup kitchens, shelters, non-profit food donation institutions, religious institutions, etc. in New Jersey to assist with maximizing capacity to manage donated foods.

DEP should also work with the New Jersey Economic Development Authority (NJEDA) to consider development of financial assistance programs, such as low to zero interest loans to finance new small and large-scale food rescue facility development<sup>48</sup>.

## **11. Consider developing a New Jersey tax incentive for food donations.**

A federal tax incentive for food donation exists; however, as of 2022, there are no state tax incentives that encourage food donation in New Jersey<sup>49</sup>. Additionally, New Jersey has not adopted the Internal Revenue Code (IRC) provisions covering food donation deductions, so eligible businesses also may not claim the deductions when calculating their New Jersey state taxes. There are, however, several states that do currently offer state level tax incentives for food donation. For example, California offers tax credits for eligible donors that donate eligible food to recipients.

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<sup>48</sup> 2022 Rutgers NJSPL Advancing the New Jersey Sustainable Material Management Plan: Opportunities to Increase Food Security and Reduce New Jersey's Organic Waste, p. 51

<sup>49</sup> Harvard Law School Food Law and Policy Clinic Legal Fact Sheet on NJ Food Donation: Tax Incentives



New Jersey should consider implementing state tax incentive strategies. A strong tax incentive policy could offset the cost of food donation for businesses. State-level tax incentives can help support food producers, connect local businesses with excess food to consumers, and increase healthy options for consumers seeking food donations<sup>50</sup>.

### **12. Research Food Prescription Programs and funding opportunities.**

Food prescription programs are used to prescribe healthy options like fresh produce to patients with specific dietary needs. These programs provide vouchers for patients to redeem at local farmers markets for fresh produce and has potential to reduce food waste if also partnered with food rescue organizations and gleaning organizations<sup>51</sup>.

### **13. Work with the NJ Department of Education to institute a food waste reduction curriculum in K-12 schools.**

A critical effort in the reduction of residential food waste will be to educate students at the K-12 level, who can share what they learn with their families and promote such efforts at home. DEP intends to engage the NJ Department of Education to promote educational materials on food waste reduction for K-12 schools. DEP staff may be available to assist in training educators on the goals and standards of such a curriculum. As part of the Education Committee, established by the NJ Climate Change Alliance Organics Workgroup, DEP is directly involved in developing an organics module to be included in climate change curriculum in schools.

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<sup>50</sup> NRDC 2021 NJ Food Waste Policy Gap Analysis and Inventory

<sup>51</sup> 2022 Rutgers NJSPL Advancing the New Jersey Sustainable Material Management Plan: Opportunities to Increase Food Security and Reduce New Jersey's Organic Waste, p. 38

# Section X. Sector by Sector Identification and Analysis



DEP intends to incorporate short-term and long-term goals into the sector-by-sector identification and analysis section. The initial sector-by-sector identification, analysis, recommendations, and suggested toolkits are intended to identify and develop frameworks and tools to:

- Support those who are already motivated and acting to reduce food waste.
- Provide education, tools, and information to those who would like to reduce wasted food but lack knowledge or access to processes or guidance on how to get started.
- Raise awareness of the benefits of reducing waste food waste and overcome real or perceived barriers from those that need persuading to reduce their waste of food.

Below are the sectors that DEP has identified as the main areas where wasted food occurs. For each food waste generating sector, the current situation is described below, along with possible reasons for wasted food. In addition to describing the sector, a brief toolkit is presented. The toolkit represents actions that an organization, entity or individual can take to reduce wasted food generation. The toolkit is intended to be modified and enhanced as additional strategies and methods are developed to reduce food waste. The identified sectors are:

1. Consumer/Residential
2. Institutions
3. Food Rescue Organizations
4. Retail
5. Production/Manufacturing
6. Restaurants, Caterers and Food Services
7. Government (state, county and municipal)

The below sector-by-sector format/structure is intended, when completed, to identify the current situation, information or knowledge gaps, and opportunities to reduce food waste. Where applicable, toolkits or access to specific practical information about reducing wasted food are presented and, if implemented, could lead to food waste reduction in a particular sector.

DEP will continue to update the content of the affected sector, as additional research is conducted, entities begin to reduce food waste, and stakeholder meetings and public hearings are held.

## 1. Consumers/Residential

This is the largest sector in New Jersey and consists of private households and individuals. According to the “estimated food waste generated by sector” chart in Section III, this sector could account for about 43% of wasted food generated in the state. Consumers are the largest food waste generating group and are part of all sectors. Although a sector might focus on institutions, the individuals who populate that sector are also consumers and residents. The cultural practices and sensitivities of individuals and subsequent marketing strategies to sell to them drive much of the behavior leading to wasted food.

- Current Situation

Through our outreach efforts, DEP is working to broadly publicize the following eight overarching guidance points:

1. Inventory your refrigerator and cabinets before shopping. Up to 55% of food purchases are unplanned, which leads to impulse buying and excessive purchasing which leads to food spoilage.
2. Plan purchases to only buy what you plan to eat – avoid bulk buying unless it will be consumed. Many consumers are tempted to bulk-purchase items in quantities that will never be consumed. However, purchasing in bulk to “save money” only works if that food is consumed. Otherwise, the savings end up in a landfill.
3. Enjoy planned and regular left-over nights to clean out refrigerator. The average household wastes 3.5 pounds of food per week, with fruit, vegetables, and leftovers the most common items.
4. Freeze surplus food right away and keep a list and date of what is in your freezer.
5. Taste and smell food before throwing it away. Date labels are an indicator of food quality, not food safety; therefore, food that is past the “sell by date” is often edible. Studies show that 68% of food discarded in residential settings is potentially edible and discarded food costs the average family of four \$1,800 annually.<sup>52</sup> .
6. Keep track of what and how much you throw away and buy/prepare less of what ends up in your garbage. You discard more than you might think.

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<sup>52</sup> NRDC p. 4 Wasted: How America is losing up to 40 percent of its food from farm to fork to landfill

7. Donate excess food to local food pantries. Not only does this help individuals dealing with food insecurity, but you are protected by Good Samaritan laws.
8. Buy ugly. Consumers want their produce to be free of defects and blemishes and retail institutions want to present fully stocked shelves of perfect quality food during all operating hours. As consumers become willing to purchase “ugly” or imperfect fruit for instance, less perfectly edible food will be needlessly wasted.

- **Gaps & Barriers**

Lack of standardized and clear date labeling leads to disposal of edible food. Consumers mistakenly believe that all date labels are connected to food safety whereas date labels are more commonly a means for producers and manufacturers to indicate prime condition of the item for sale purposes.

DEP can influence consumer behavior through education and raising awareness of food waste. State agencies must lead initiatives dedicated to increasing awareness of food waste and the opportunities consumers have in reducing food waste.

Surveys show that consumers are aware of the importance of food waste reduction, but do not recognize their role in solving the problem.<sup>53</sup> Although it may be challenging to influence consumers, they are a part of every sector and their behavior can be changed with awareness, education, etc.

## **Consumer/Residential Toolkit**

- **Purchasing**

Highlight the financial savings that result by purchasing less food and better managing food purchased by meal planning.

On average, a household of four spends \$1,500-1,800 per year on food that is never eaten<sup>54</sup> and by stressing that fact, education might affect behavior.

Individuals are also encouraged to better plan purchases with the help of lists and better storage of produce, as identified by the EPA.<sup>55</sup>

- **Tracking**

In a toolkit developed by the EPA, consumers are encouraged to voluntarily track their food waste. Consumers may underestimate how much food they waste, and many are not aware of the tools that can help track the waste generation. The Council can encourage tracking by promoting waste tracking apps or other tools to

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<sup>53</sup> ReFED Report 2016 p. 31

<sup>54</sup> NRDC; <https://www.nrdc.org/resources/wasted-how-america-losing-40-percent-its-food-farm-fork-landfill>

<sup>55</sup> <https://www.epa.gov/recycle/reducing-wasted-food-home>

the public which can lead to consumers purchasing less food through better planning.<sup>56</sup>

- **Managing Waste or Donating Surplus Food**

Inform the public of donation opportunities and applicable legal protections. As previously discussed, there are misconceptions about what laws and rules apply to food donations. By educating the public about liability protection, food donations may become a more frequent occurrence. Donations are preferred to disposing unwanted food. Additional tools need to be developed to facilitate connections between donors and recipients.

Encourage residents with surplus homegrown produce to donate to local food pantries, soup kitchens or neighbors.

As a last resort, consumers should be encouraged, where applicable, to compost food scraps at the household level instead of disposing them in the municipal solid waste stream.

## **2. Institutions**

This sector consists of hospitals, schools, prisons, government buildings, and military bases where food service tends to be in dining-hall style settings with self-serve style buffets.

- **Current Situation**

Institutions generate a large amount of wasted food due to the nature of their operations. Many institutions serve food in dining hall settings with self-serve counters. This can lead to customers taking more food than they can eat or taking food that they might not like. The buffet-style service often includes several dishes available to fit dietary or allergy restrictions and to avoid running out of food.

- **Gaps**

It is DEP's understanding that there is an information gap among groups within this sector. Institutions may not exchange ideas, processes, or methods on a regular basis. Regularly occurring conferences focusing on food waste reduction in this sector would be beneficial.

- **Barriers**

One of the most significant barriers in this sector is that food that has been served to customers in a buffet-style setting may not be donated. Prepared food that has not been served can be considered for donation; however, Harvard Law School Food Law and Policy Clinic's Food Safety Regulations & Guidance for Food Donations<sup>57</sup> suggests that cooked food must be kept at a certain temperature,

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<sup>56</sup> [https://www.epa.gov/sites/production/files/2016-02/documents/get\\_smart\\_ftgtw\\_2\\_1\\_2016\\_pubnumberadded\\_508.pdf](https://www.epa.gov/sites/production/files/2016-02/documents/get_smart_ftgtw_2_1_2016_pubnumberadded_508.pdf)

<sup>57</sup> [https://www.fsis.usda.gov/wps/portal/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/safe-minimum-internal-temperature-chart/ct\\_index](https://www.fsis.usda.gov/wps/portal/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/safe-minimum-internal-temperature-chart/ct_index)

which makes it harder to store, transport, and serve donated leftovers. In addition, a high percentage of staff turnover can prevent efficient training and education of food waste reducing techniques.

- Opportunities

Institutions can achieve food waste reduction by simply eliminating trays. In tray-less dining, the customer is unable to load a tray, which reduces the risk of taking too much food which is left uneaten.

By promoting cost savings, DEP can encourage this sector to implement food waste reduction processes and policies.

### **Institution Toolkit:**

In accordance with P.L. 2017, c. 210, the Department has developed School Food Waste Guidelines for K-12 and higher education institutions to help schools reduce, recycle, and recover food waste. In addition to what is included in these guidelines, the Department recommends the following tools for institutions:

- Purchasing

This part of the toolkit could target individuals that purchase food for institutions. The toolkit should emphasize buying local and seasonal produce and the importance of building an agreement with farmers to buy “ugly” produce. Further, the toolkit could encourage procurement of sustainably sourced products that use sustainable and recyclable packaging.

- Tracking

With many already established tracking methods, institutions are encouraged to track food waste generation in their facilities. Tracking can be done by weighing post-consumer food scraps over a period of time. Institutions are also encouraged to track scraps left over from food prep (e.g., how much of the broccoli stem is left after the florets have been removed).<sup>58</sup>

- Managing Waste

Like the consumer sector, institutions are encouraged to pursue methods of disposal other than the regular municipal waste disposal stream. Some institutions are working with farmers who take the food waste and use it as animal feed.<sup>59</sup> This practice, however, requires approval from New Jersey Department of Agriculture.

Where applicable and suitable, food should be donated. An important part of education is to inform this sector of donation opportunities and the legal protections that apply to donations. As previously mentioned, there are misconceptions about what laws and rules apply to food donations. By educating institutions about liability protection, food donations may become a more frequent occurrence and considered a preferred solution instead of merely disposing of

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<sup>58</sup> ReFED: A Roadmap to Reduce U.S. Food Waste by 20 Percent (2016) p.32

<sup>59</sup> Ibid p.66



surplus food. Additional tools need to be developed to facilitate connection between donors and recipients.<sup>60</sup>

### 3. Food Rescue Organizations

This sector consists of organizations that are receiving food donations, such as food banks and soup kitchens.

- Current Situation

It is DEP's understanding that there is not a lack of food available for donation, as these organizations usually have close relationships with grocery store chains or manufacturers who donate unsellable goods. A common challenge faced by these organizations is related to the cold chain infrastructure such as refrigeration capacity restrictions and transportation costs. Another issue is the lack of efficient communication between donors and recipients. Currently, there are no statewide systems that timely allow suppliers with surplus food to easily connect with those needing or wanting food donations.

- Gaps

There is a gap between the amount of surplus food available for donations and the storage capacity of recipients. DEP could have a role in promoting already-established networks of donors and recipients to grow their capacity to store the food they receive.

- Barriers

As previously mentioned, there is an information and transportation barrier between suppliers and recipients. The DEP could have a role in overcoming that barrier by acting as a clearinghouse or repository of information of surplus food available for donation and capacity/needs of recipients.

- Opportunities

As previously identified, lack of available surplus food is generally not an issue in this sector, but rather transportation, storage, and refrigeration capacity restrictions prevent recipients from accepting food donations. A great opportunity exists to improve access to food recipients if the capacity to transport and store is improved.

#### **Donation Toolkit:**

- Tracking

Organizations are encouraged to track food waste to streamline operations and processes.

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<sup>60</sup> Ibid p.44-48

## 4. Retail

This sector covers retail businesses including supermarkets, convenience stores, and other consumer-facing businesses that sell (but not necessarily serve) food products.

- Current Situation

Customers expect fully stocked shelves, year-round availability, and only perfect food items. Date labeling forces stores to discard edible and safe food too early without the opportunity to sell the product at a discount. Grocers tend to not have an “ugly produce” section with discounted produce. Stores do not have capacity to hold food for donation for a long time, which means items will be discarded unless they are picked up or donated the same day. Many stores offer salad and hot food bars which cannot be donated at the end of the day due to health or sanitary restrictions. Obsolete demand and supply forecasting technologies prevent efficient and timely inventory management.

- Gaps

There is an information gap between stores that donate and recipients. Donation matching software could reduce that gap.

- Barriers

Due to the nature of this sector in which stores are required to have fully stocked shelves during all open hours and year-round availability, there will be surplus food generated. Capacity restrictions prevent storage of donation items unless they can be picked up daily. Another restriction is the availability of donation transportation.

- Opportunities

Consumer education campaigns can be a helpful tool to raise awareness of perfectly edible “ugly” produce, packaging, and date label confusion. Retailers can dedicate more shelf space to, and promotion of, slightly out of date products.

### **Retail Toolkit:**

- Purchasing

Improved inventory management and enhanced demand forecasting can help minimize over-stocking of products.<sup>61</sup>

- Tracking

Real-time data about the quantity and quality of inventory on hand and of incoming orders can result in price adjustments of items about to expire. Additionally, using sensors to collect data on product freshness during transit can enable food with shorter-than-expected shelf life to be re-routed during transit to closer distribution centers or stores.<sup>62</sup>

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<sup>61</sup> ReFED Retail Guide 2018 p.15

<sup>62</sup> ReFED Retail Guide 2018 p.16

- **Managing Waste**

As previously mentioned, disposal of surplus food is the least desirable solution. If over-stocking is unavoidable and “ugly” produce is not purchased by the customer, those items should become in-store salad bars or donated. Ideally, a store should establish connections with local food pantries, soup kitchens, gleaning operations, or food banks to ensure timely and efficient deliveries. This can also enable donation of time-sensitive products since the items can be routed directly to the recipient without the use of a distribution center.<sup>63</sup>

## **5. Production/Manufacturing**

Approximately \$2 billion of loss per year is attributed to food wasted by this sector.<sup>64</sup> According to the Bureau of Labor Statistics, food manufacturing “transforms livestock and agricultural products into products for intermediate or final consumption.”<sup>65</sup> In other words, a manufacturing process is implemented which creates a marketable product out of different components/ingredients. Despite the use of automated processes, quality testing and strict processing standards, there is still a significant amount of food waste generated during manufacturing.

- **Current Situation**

Quite a few factors contribute to food waste generation in the manufacturing sector. Over-production, labeling discrepancies, and waste created throughout manufacturing are common sources of food waste. Although the operations are usually highly automated, efforts to prevent or divert waste could still be beneficial.

- **Barriers**

According to the 2016 Food Waste Reduction Alliance Food Waste Survey, several barriers exist which impede food waste prevention and diversion. One common solution that is associated with manufacturing is the donation of any unsellable food. Despite this, regulatory constraints and liability concerns rank as the top two barriers for food donation.<sup>66</sup> In conjunction, food safety concerns and transportation constraints further limit a manufacturer’s participation in food donation. However, the Federal Bill Emerson Good Samaritan Food Donation Act addresses these concerns and serves as a protection for the food donor against civil and criminal liability.<sup>67</sup> To combat misunderstandings between perception and actual regulation, more education for both manufacturers and food banks would be beneficial. Even if food banks can accept diverted products, the issue of food turnover and inconsistent supply/demand in these pantries could result in product disposal.

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<sup>63</sup> Ibid p.19

<sup>64</sup> ReFED: A Roadmap to Reduce U.S. Food Waste by 20 Percent (2016)

<sup>65</sup> Food Manufacturing: NAICS 311 <https://www.bls.gov/iag/tgs/iag311.htm>

<sup>66</sup> Food Waste Reduction Alliance: Analysis of U.S. Food Waste Among Food Manufacturers, Retailers and Restaurants (2016)

<sup>67</sup> <https://www.feedingamerica.org/about-us/partners/become-a-product-partner/food-partners>

Attempts to recycle food waste in the manufacturing sector are also met with barriers. Insufficient recycling options and transportation constraints of waste are common concerns among food manufacturers.

Finally, standardization of date labeling is challenging as no federal standards have been adopted. For this reason, immediate change is unlikely and a continued misunderstanding about date labeling will persist. Until legislation is passed nationwide, the gap between manufactured goods and consumer interpretation of quality will remain.

- **Opportunities**

Food waste generated within the manufacturing process can be prevented or diverted by modifying “sell/use by” labeling, addressing inefficiencies during production, transportation, and storage. Modifying the language of date labels to be clear about the food’s safety would greatly reduce the confusion surrounding food spoilage. Standardizing these labels at the manufacturing level would assist in prevention of food waste at the retail level.

Optimize production of goods within day-to-day operations. Staff can identify portions of the operation which generate unnecessary food waste and thus develop any prevention mechanisms to reduce or eliminate said waste. This prevention mechanism would also train workers and management to track and properly report food waste generation, which can be used for future analysis.

Prevention mechanisms can be supported with the diversion of unavoidable loss. Such diversions include food donation and anaerobic digestion/compost for energy production. Manufacturers can identify local food banks willing to participate in a contractual agreement of food donation over a regular schedule. This initiative would ideally provide unsellable food to those in need and reduce the likelihood of food disposal. Inedible scraps, such as peels or rinds, can be used in an anaerobic digestion/compost alternative to produce energy/organic material as opposed to waste.

### **Production/Manufacturing Toolkit:**

- **Tracking**

A key prevention mechanism involves accurate food waste documentation. The 2016 ReFED report suggests line optimization, which identifies portions of the manufacturing process which could be less wasteful while maintaining efficiency in product development. These encourage manufacturers to analyze existing practices and accurately calculate food waste among each portion of production, which attributes to a better overall measurement. Plus, manufacturers would be incentivized to implement processes which could potentially optimize production and save product/money. If the itemized waste cannot be prevented, manufacturers can then develop a diversion plan, which would continue to be tracked in overall records.

- **Managing Waste**

According to the Food Waste Reduction Alliance 2016 report, the manufacturing sector was responsible for diverting 10.5 billion pounds of food waste away from landfill disposal in 2016. The most popular option, which attributed to approximately 60% of diverted food waste, involved land application. Ranking at approximately 35% of diverted food waste, the second most popular option included animal feed.

Other possibilities included food donation, bio-based/biochemical disposal, co-digestion/anaerobic digestion, composting/aerobic processing, incineration/combustion, or other unspecified choices. However, when broken down by manufacturer size, large and medium sized manufacturers greatly preferred diverting food waste to animal feed, while small manufacturers diverted 90% of their food waste to land application.<sup>46</sup> Despite the difference in preferences among different sized manufacturers, land application and animal feed are substantially more favorable options than disposal.

## **6. Restaurants, Caterers, and Food Services**

- **Current Situation**

Due to food safety standards restricting donation of cooked food, this sector is the second largest producer of wasted food. Most restaurants tend to order what is needed with little or no surplus uncooked food items.

- **Gaps**

This sector is very fragmented with many small businesses. This makes it hard to coordinate statewide reduction efforts or to promote “one-size-fits-all” toolkits.

- **Barriers**

Turnover of restaurants and staff makes it hard to build up institutional knowledge and implement long-term reduction efforts. Additionally, in cases where restaurants do not own their building, the landlord has power over waste reduction efforts like amount of available space for containers and choice of haulers.<sup>68</sup>

- **Opportunities**

Although barriers in this sector make it hard to promote a “one-size-fits-all” toolkit, opportunities exist to educate businesses and highlight success stories with the help of the Department’s food waste website and social media.

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<sup>68</sup> ReFED: Restaurant Guide 2018 p.4

## **Restaurant, Caterer, and Food Services Toolkit**

- **Purchasing**

By designing menus with wasted food reduction in mind, such as reducing the number of ingredients and repurposing food prep trim and overproduction, restaurants can reduce inventory costs and thus reduce food waste.<sup>69</sup>

Restaurants can also introduce multiple portion choices and/or smaller plates as well as working closely with suppliers to adjust pack sizes and order quantities. This would also keep inventory low to ensure minimal unconsumed food.<sup>70</sup>

- **Tracking**

As identified in the institution sector, tracking waste with the help of audits is a tremendous tool to measure and subsequently reduce food waste. By first establishing a baseline, changes in processes can be compared to analyze their effectiveness. The tracking can be done by a hands-on audit which is repeated regularly.<sup>71</sup>

- **Managing Waste**

For uncooked surplus food, it is recommended that a restaurant builds a relationship with local recipients and/or users. A local relationship enables a restaurant to timely and efficiently donate surplus products to those in need. A fully developed food policy program would also inform and allow a business to apply federal tax deductions when donating to qualified nonprofit organizations.<sup>72</sup> For cooked food that may not be donated, it is recommended that this sector follow EPA's Food Recovery Hierarchy to determine how to manage remaining food waste.

## **7. Government**

For local governments seeking to develop and implement food waste reduction policies, Harvard Food Law and Policy Clinic has developed a toolkit for localities.<sup>73</sup> Many of the ideas are already referenced in this plan, but some are more easily adopted on a municipal level, for example food waste reduction in K-12 schools.

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<sup>69</sup> ReFED: Restaurant Guide 2018 p.10

<sup>70</sup> ReFED: Restaurant Guide 2018 p.11-12

<sup>71</sup> ReFED: Restaurant Guide 2018 p.13

<sup>72</sup> ReFED: Restaurant Guide 2018 p.19

<sup>73</sup> Harvard Food Law and Policy Clinic: Keeping food out of the landfill: policy ideas for states and localities. October 2016. [https://www.chlpi.org/wp-content/uploads/2013/12/Food-Waste-Toolkit\\_Oct-2016\\_smaller.pdf](https://www.chlpi.org/wp-content/uploads/2013/12/Food-Waste-Toolkit_Oct-2016_smaller.pdf)



## Section XI. P.L. 2017, c. 136 Interaction with Other Food Waste Legislation

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While DEP has prepared this Plan pursuant to the Act, it should be noted that other legislation exists regarding food waste reduction in New Jersey, as identified below. DEP will work to integrate these and other future legislative actions into the Plan, as appropriate. As additional legislation is enacted, DEP intends to coordinate the actions set forth in the legislation as necessary.

### **P.L. 2017, c. 210 – Voluntary School Food Waste Reduction and Food Donation Guidelines Act**

P.L. 2017, c. 210 was signed into law on August 7, 2017. It required the Department of Agriculture to establish voluntary guidelines to encourage and facilitate the ability of school districts and institutions of higher education to donate excess, unused, edible food. The law also required DEP to establish voluntary guidelines to encourage and facilitate the ability of K-12 schools and institutions of higher education to reduce, recover, and recycle food waste. Both guidelines were to be established in consultation with the Department of Agriculture, Department of Education, Department of Health, and the Office of the Secretary of Higher Education. In accordance with the law, the DEP developed voluntary guidelines for K-12 schools and higher education institutions to reduce, recover, and recycle food waste. At the time of this writing, these guidelines are being updated to include recommendations for how to better utilize food nearing its best-by and expiration dates, which will be published on the DEP’s website upon completion.

### **P.L. 2017, c. 311 – Food Bank Good Samaritan Act**

P.L. 2017, c. 311 was signed into law on January 16, 2018. It required the Department of Agriculture to prepare and publish a guidance document that provides information to farmers, food banks, donors, nonprofit organizations, and other persons on the state and federal liability protections available for food donations, gleaning, and other related activities. The law also amended N.J.S.A. 24:A-3 to extend nonliability protection for food donated directly to recipients (i.e. not distributed through a food bank or soup kitchen first). By extending nonliability protections, this legislation makes it easier for food waste generators to donate surplus edible food that may otherwise not be eaten.

### **P.L. 2019, c. 54 (A4701) - Online Portal to Facilitate Surplus Food Donations Act**

P.L. 2019, c. 54, enacted March 18, 2019, required the New Jersey Department of Human Services to create and maintain an online portal to facilitate collaboration of surplus food donations among nonprofit organizations, gleaners, and food retailers.

### **P.L. 2019, JR-6 (SJR108) – Joint Resolution Establishing Food Waste Prevention Day**

The joint resolution, approved May 8, 2019, promotes the annual “Food Waste Prevention Day”, which falls on Thursday of the third week of September.

### **P.L. 2019, JR-7 (SJR207) – Joint Resolution Urging Large Food Retailers to Reduce Food Waste**

The joint resolution, approved May 9, 2019, urges large food retailers in the State to reduce food waste by upgrading inventory systems; to collaborate with farmers to reduce agricultural food waste; and to educate consumers on the issues and management of food waste.

### **P.L. 2019, c. 92 (A4705) – Department of Human Services Food Waste Task Force Act**

P.L. 2019, c. 92 (A4705) was signed into law on May 9, 2019, requiring the New Jersey Department of Human Services to establish the New Jersey Food Waste Task Force (Task Force) to make, identify, examine, and report recommendations concerning food waste reduction in New Jersey.

Both P.L. 2017, c. 136 and P.L. 2019, c. 92 seek to reduce the amount of food wasted in New Jersey and yet do so by addressing different aspects of the cause of food being wasted. The Task Force established pursuant to P.L. 2019, c. 92 is charged with identifying and examining factors that lead to food waste in the state, and identifying strategies, policies, legislative, and executive actions to: Increase food donations; provide consumers with education on food storage; lower unreasonably high cosmetic standards for fruit and vegetables; cease or significantly reduce the rejection of imperfect-looking food; build statewide systems to distribute surplus edible food to charities; eliminate unnecessary state statutes or regulations that contribute to food waste; and, modify “best by” food labels. P.L. 2017, c. 136 directs DEP to determine ways to reduce the volume of food produced that is ultimately wasted to achieve the 50% reduction goal by 2030 by actively implementing strategies that reduce food waste generation by various sectors involved in producing, distributing, preparing, and consuming food in New Jersey. This focus on source reduction is consistent with the EPA’s Food Recovery Hierarchy as identified on Section 1 Page 9 herein and provides benefits inherent in not producing food that’s ultimately wasted as discussed in Section 1 pages 8 and 9 herein. As such, the Department sees the work of the Task Force as complementary to the work outlined in this Plan. The Task Force has not convened at the time of this writing.

### **P.L. 2019, c. 93 (A4707) - Public Awareness Campaign Relative to Food Waste Act**

P.L. 2019, c. 93, enacted May 9, 2019, required the New Jersey Department of Agriculture (NJDA) to create a public awareness campaign to educate the general public on food

waste prevention by raising awareness regarding the reduction of wasteful shopping and the meaning of date label definitions. In September 2020, the NJDA introduced the More Meals Less Waste campaign to inform residents and businesses about what can be done to prevent food waste. More information about the campaign is available at [www.MoreMealsLessWaste.com](http://www.MoreMealsLessWaste.com).

### **P.L. 2020, c. 24 (A2371) - The Food Waste Recycling and Food Waste-to-Energy Production Act**

P.L. 2020, c. 24, enacted April 14, 2020, requires any large food waste generator that is located within 25 road miles of an authorized food waste recycling facility and that produces an average projected volume of at least 52 tons of food waste per year, to source separate and recycle their food waste beginning October 14, 2021. Recycling falls in the middle of the EPA's Food Recovery Hierarchy and is not a method used to reduce the amount of food waste that is generated. Source reduction is at the top of the hierarchy and is the ideal method for food waste reduction. However, where source reduction is not possible, recycling can reduce some of the detrimental impacts of food waste disposal and the mandate of this law therefore serves a valuable component of an overall food waste management approach.

In addition, P.L. 2020, c. 24 required the DEP to undertake rulemaking to implement certain provisions of this law. One such provision is to develop "a list of actions businesses may take to reduce the amount of food waste they generate to a level below the [52 ton] threshold". At the time of this writing, the regulations to implement this law are anticipated to be adopted by late 2024.

### **P.L. 2021, c. 242 (S3945) - Office of Food Security Advocate Act**

P.L. 2021, c. 242, enacted September 30, 2021, established the Office of Food Security Advocate in, but not of, the Department of Agriculture. The Office helps coordinate the administration of the State's food insecurity programs, advocate for the food insecure, and develop new policy initiatives to combat hunger and facilitate greater access to food relief programs. Food donation is the second most preferred method of managing food waste, behind source reduction, in accordance with EPA's Food Recovery Hierarchy.

## Conclusion and next steps

As knowledge of the cost of food waste and the benefits of food waste reduction grows and evolves, the information, strategies, motivations, and mechanisms behind measurement and reduction will also grow and evolve. The intent of this the Plan is to incorporate food waste reduction awareness, principles, and tools into a strategy that will inform and benefit evolving and changing businesses and cultures, meet new challenges and opportunities, as well as address unforeseen circumstances surrounding the wasting of food. Each food supply sector contains unique and changing challenges and opportunities to improve food waste management and reduce loss.

To successfully fulfill the goals of P.L. 2017, c. 136, DEP encourages legislation that will reinstate the Advisory Council on Solid Waste Management and create a food waste subcommittee that will be tasked with implementing this Plan, coordinate efforts among other state agencies to implement existing food waste legislation without overlapping efforts, and developing future actions intended to set New Jersey on a path towards greatly reduced food waste generation.

By reaching the 50 percent food waste reduction goal, New Jersey will gain environmental, economic, and societal benefits as discussed herein associated with a reduction in food waste.