

### **Project Proposal**

The Town of Stratford will engage with Park City Compost Initiative, Inc., (PCCI) to operate a food scraps compost program in an area adjacent to the existing municipal transfer station.

In accordance with DEEP's CMMS, Objective 1.4, the goal of this proposed program is to reduce the volume of waste entering the regular municipal solid waste cycle by separating food scraps that will then be turned into finished compost through natural aerobic processes completed onsite. The Town will benefit fiscally from reduced tipping and shipping fees while also obtaining nutrient-rich compost that can be shared with individuals as well as municipal agencies. Further, there is an environmental justice benefit for Stratford residents due to the reduced NOx emissions from the nearby waste-to-energy (WTE) facility (Wheelabrator, part of WinWaste).

Currently, the Town allows both residents and commercial operators to bring waste products (trash and recycling) to the transfer station. The Town also collects leaf and yard waste at that location for transfer to a third party operation. These leaves will be incorporated into the compost process to the fullest extent possible with the aim of reducing shipping costs and maximizing value of the composting operation. The Town is also considering reconfiguring its transfer station operations to increase efficiency in addition to incorporating the compost activity as part of regular services.

The Stratford Transfer Station is located at 165 Watson Boulevard, in an industrially zoned area, and is wholly owned and operated by the Town of Stratford. It is accessible by Connecticut RT-113 (also known as Lordship Boulevard) and in vicinity to I-95. Additionally, the facility is distant from any residential activity by more than a third of a mile. The proposed composting operation will be located in the corner of the parcel as outlined in the attached site plan. This operation will be installed when an appropriate legal agreement is reached between the Town and PCCI. Further, Zoning, Local and DEEP permitting steps will also be addressed by PCCI with Stratford guiding the process.

### **Project Need**

The Town of Stratford has had intermittent conversations with representatives of PCCI for multiple years. PCCI had recently approached Town leadership about initiating operations in Stratford and fortunately, the Town had already identified the transfer station as the most preferred location for such activities. Both parties have agreed to pursue this opportunity to establish a large-scale food scraps operation in Town, with particulars to be discussed and determined. The pending deadline of the MMI grant has added urgency to the ongoing discussions, but all remain in agreement this is a project that should be brought to fruition due to the broad benefits.

### **Project Site Control**

The Town has full site control of the transfer station at 165 Watson Boulevard. It remains a Town goal to provide composting on this site considering it is a valuable use of the available space, in the public interest, and aligns with ongoing state efforts enhance materials management.

Through discussions between the Town and PCCI, it has been determined the site will need the following to achieve maximum efficiency:

1. Establish a firm ground cover to assist the collection, moving, and distribution of compost materials;
2. Acquire and place sufficient cement cubes (aka mafia blocks) to define the collection, mixing, and curing areas of the operation;
3. Install a fabric structure over the receiving/mixing area;
4. Purchase a commercial grade shredder to reduce the labor needed to process bagged food scraps and to accelerate the aerobic stage of composting via smaller sized scraps and more thorough mixing - this can also be used for grinding leaves and sticks, as well as potentially corrugated cardboard that has been contaminated by the single stream recycling process that would otherwise then be incinerated;
5. Devise a traffic flow that will allow for both residential and commercial drop-off of food scraps - the permitted use of the truck scale and accounting will be determined for food scraps vs solid waste;
6. Determine appropriate competitive tipping fees for food scraps only.

PCCI had previously designed operations layouts for proposed sites in Bridgeport, which serves in part as the foundation for this plan. PCCI is also active in the Connecticut Compost Alliance and has conducted numerous compost operation site visits including New York City (Big ReUse) and New Haven to extend their Master Composter Certification learning and best practice transfer, which inform this plan.

### **Diverted Materials Data**

The Town of Stratford currently sends approximately 27,000 tons annually to the Wheelabrator trash-to-energy site in Bridgeport. This includes all forms of MSW, except for leaves and yard waste. Using a baseline of over 20 percent of food scraps comprising all MSW, the Town could expect to divert as much as 5,000 tons per year from the residential WTE pathway with commercial tonnage as an added increment.

### **Project Feasibility**

There are a variety of components considered by the Town and PCCI in regard to project feasibility. To start, Stratford residents are familiar with operations at the transfer station and acknowledge its efficiency through consistent utilization of the facility. The transfer station has no residential area within close proximity and therefore, we do not anticipate any contention from the addition of a composting operation. Furthermore, the goals of this program reflect the Town's Plan of Conservation and Development, specifically Objective 1.9, "Facilitate public composting of yard waste, food scraps, etc. through site selection and necessary investments to implement a town wide public composting program." Residents have shown their ongoing support for other "green" efforts from the Town – this includes various ongoing grant projects wherein residential feedback has been positive. Such projects include the development of the first-ever town wide urban forest management plan, tree inventory, and canopy assessment – all of which are being funded with a blend of Federal and State grant dollars.

Further, the Town is currently in the planning stage for the installation of a new community garden, thanks to grant funding from the CT Department of Public Health, and through public outreach for that

project, residents have shown an interest in composting. The Town will also be designing and installing an arboretum within an Environmental Justice community, also funded with grant dollars. Stratford is on its way to becoming a municipal leader in the realm of “green” and adding a composting program aligns with ongoing efforts to make Stratford more resilient, sustainable, and environmentally conscious.

Partnerships for operations will need to be pursued more specifically, but PCCI already has executed on a small-scale pilot program in the Black Rock neighborhood of Bridgeport. Additionally, PCCI has established credibility through grants received from local and state organizations (including SustainableCT) and consistently partners with the Bridgeport Parks, Aspetuck Land Trust, Beardsley Zoo, Bridgeport Regional Business Council (BRBC), MetroCOG, and the Black Rock and East End Neighborhood Revitalization Zones (NRZ) and others to understand composting and make it available for soil remediation. PCCI has also had discussions with potential haulers to gauge the volume and complexities of the commercial side of the waste stream.

In short, it is likely that a municipal scaled operation will be successful in Stratford due to building within an existing facility and its operations, expanding the “green” efforts, and general need for a composting program in Town. Additionally, the collaboration between the Town and PCCI showcases a unified effort to bring this operation to fruition. Lastly, the career and compost operation experience of PCCI’s Executive Director and the Board Chair’s additional familiarity with state and local government further the likelihood that the compost program will thrive in Stratford.

### **Site Plan**

6. The drafted site plan is included as an attachment to this application. The drafted plan includes multiple holding bays for the composting process and timeline, with the largest being the curing bay. Further, there is a section within the site plan for the wood chips pile and then a larger area for the leaf pile. This plan has been coordinated between PCCI and Stratford’s Public Works Department. This plan intends for there to be ample space for material movement in addition to establishing a flow for the composting process itself. There is also a setback implemented within the plan to ensure proper leveling and stabilization for the rest of the site while not impacting the general operations of the transfer station.

There is future opportunity to re-organize the Stratford Transfer Station once the composting program is well under way. The newly added program can help to inform future re-organization of the station to ensure efficiency and cohesiveness for users.

### **Complementary Effort**

7. The Town’s intention to incorporate the compost program into the overall waste services speaks to the complementarity of the existing and future program. As food scraps composting has become an ever-larger piece of the MSW solution, Stratford has been seeking a way to work in a means to offer this service to its residents. The Town is understanding of the benefits to the community in terms of healthier soils, reduced dependence on the 30-year-old Wheelabrator facility for the area, and acknowledges there is opportunity to set an example of how mid-sized municipalities can make aerobic composting function within the borders of their towns. Through setting an example, it is plausible to believe other communities will take note and implement their own practices. This will further enhance the effort on a larger scale, bringing the state’s intentions of adding efficiency to in-state waste removal

closer to fruition. The macro-issue of waste disposal in Connecticut cannot be solved by a singular community, but communities can look to others for inspiration and Stratford is primed to take on that role through this project.

### **Residential Use**

8. Approximately 17,000 households in Stratford will have access to the composting facility. In addressing the roughly 30 percent of overall MSW that comes from food scraps, steadily increasing the rate of participation will go far in reducing that figure. The Town is confident this program would be utilized due to consistent public input noting desires for a program such as this. Further, through other grant projects, primarily the current community garden installation project, residents have shown great interest in learning more about food systems and the Town sees opportunity in expanding that community education through to food scrap composting, which will align with this project. We have an eager community looking to contribute, learn, and apply their efforts to bring benefit to all.

As noted previously, the commercial side of food scraps source separation will need further exploration. PCCI has held preemptive discussions with businesses in the area to gauge their interest in participating in the composting program, however, encountered a number of businesses that either have already begun separating their food scraps or are interested in doing so.

### **Environmental Justice**

9. A number of benefits linked to environmental justice result from the establishment of a municipal-sponsored compost effort. The low capital basis for setting up an aerobic food scraps composting facility is an important factor in determining the feasibility of a scaled program, as capital investment would be minimized, therefore, increasing the likelihood of continued municipal support and allowing for such funds to be directed elsewhere in such Environmental Justice (EJ) Communities – or not taken up at all and assisting the long-term budgets of municipalities. Generally, in establishing such program, there is opportunity for flexibility in funding which benefits the Town and its taxpayers.

Furthermore, the opportunity to remove significant tons from the incinerator in Bridgeport should yield significant benefits to the region as a whole, as well as the communities and neighbors both adjacent to the WTE facility and downwind from the same. CT DEEP showcases the designated EJ Communities on their [mapping tool](#) wherein there are numerous EJ Communities within Stratford and Bridgeport either in close vicinity or direct vicinity of the WTE facility. Rates of asthma and respiratory illness are particularly high in these areas, and any reduction in airborne waste will serve to ameliorate the health of residents in the area. For example, the Federal Government's [Climate and Economic Justice Screening Tool](#) notes the community of WTE facility is in the 98<sup>th</sup> percentile for asthma and 99<sup>th</sup> percentile for low-income. This data informs the need for such communities to be prioritized for environmental justice-geared efforts. This project would allow for impact to go beyond the project boundary as Stratford's efforts would also be benefitting residents of Bridgeport.

Particularly, residents of PT Barnum apartments in Bridgeport (adjacent to the Wheelabrator operation) and those downwind (including residents in the South End/East End of Bridgeport and in the west side neighborhoods of Stratford) are likely to benefit as well. Reducing the NOx emissions from burning gas and food scraps can help reduce medical episodes. Additionally, improved soils as a result of an infusion of finished compost (essentially a soil probiotic) can be placed into parks, community gardens, yards and

other public lands, adding further to the environmental justice component while also underscoring a potential remedy to decades of industrial damage from chemical fertilizers, pesticides, and other harms. Stratford is currently home to one of the largest U.S. Environmental Protection Association superfund sites in the region wherein [Raymark](#) (brake plate) waste is being remediated on public and private properties across Town. In having this experience, the Town can truly acknowledge the benefit that comes with environmental justice and our residents are also appreciative of this line of work as many have benefitted directly from such efforts.

While not a major job producer, this operation provides potential employment opportunities to local residents with minimal job skills and/or returning citizens. PCCI, as part of its mission, is dedicated to hiring such individuals. It should also be noted that Stratford unemployment over the last three years has trended higher than the national average:

### Unemployment - Current, City-Level in Stratford, CT

Source: City Health Dashboard; Data from Local Area Unemployment Statistics, U.S. Bureau of Labor Statistics., 202112



Stratford had an estimated 5% of the labor force who were unemployed in December 2021, compared to an average of 3.8% across the Dashboard's cities.

City or census tract value    Dashboard-City Average    Present when value is better than Dashboard-City Average    Better Outcomes

Department of Population Health, NYU Langone Health. City Health Dashboard. <https://www.cityhealthdashboard.com/>. Accessed December 3, 2024.

### Unemployment - Current, City-Level in Stratford, CT

Source: City Health Dashboard; Data from Local Area Unemployment Statistics, U.S. Bureau of Labor Statistics., 202212



Stratford had an estimated 3.5% of the labor force who were unemployed in December 2022, compared to an average of 3.3% across the Dashboard's cities.

City or census tract value    Dashboard-City Average    Present when value is better than Dashboard-City Average    Better Outcomes

Department of Population Health, NYU Langone Health. City Health Dashboard. <https://www.cityhealthdashboard.com/>. Accessed December 3, 2024.

## Unemployment - Current, City-Level in Stratford, CT

Source: City Health Dashboard; Data from Local Area Unemployment Statistics, U.S. Bureau of Labor Statistics., 202312



Stratford had an estimated 4.8% of the labor force who were unemployed in December 2023, compared to an average of 3.7% across the Dashboard's cities.

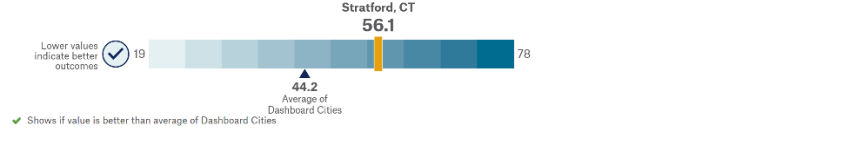
City or census tract value    Dashboard-City Average    Present when value is better than Dashboard-City Average    Better Outcomes

Department of Population Health, NYU Langone Health. City Health Dashboard. <https://www.cityhealthdashboard.com/>. Accessed December 3, 2024.

Ozone-related air pollution hits Stratford and Bridgeport particularly acutely during the summer months as the graphics below indicate. Highway truck traffic also plays a key role in these data figures. See data below:

### Air Pollution - Ozone in July 2022

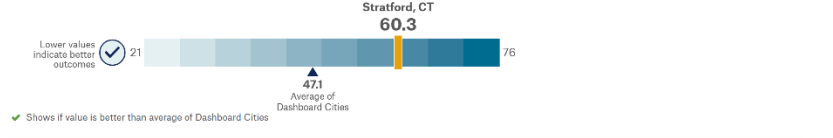
Stratford had an estimated average ozone concentration of 56.1 ppb in July 2022, compared to an average of 44.2 ppb across the Dashboard's cities.



Department of Population Health, NYU Langone Health. City Health Dashboard. <https://www.cityhealthdashboard.com/>. Accessed December 3, 2024.

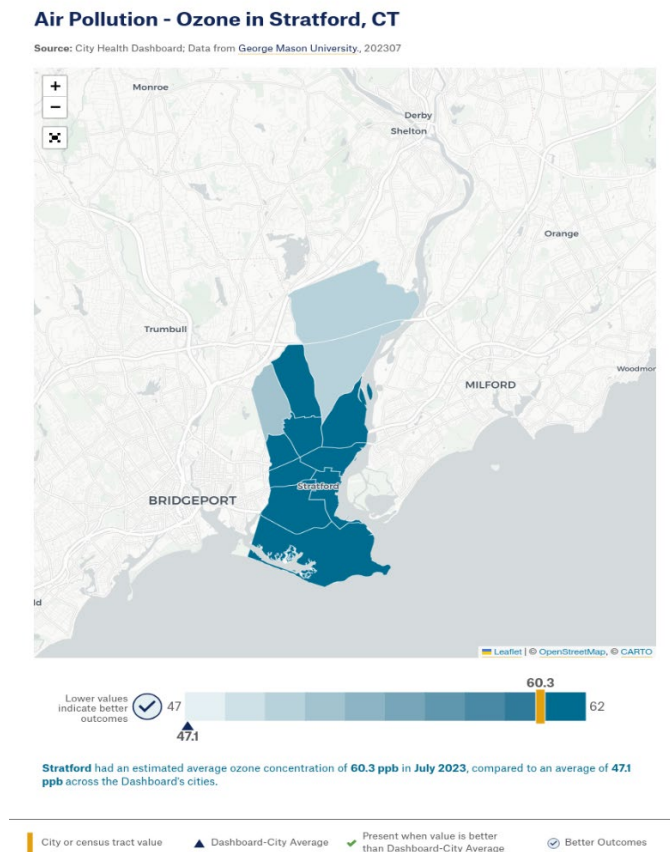
### Air Pollution - Ozone in July 2023

Stratford had an estimated average ozone concentration of 60.3 ppb in July 2023, compared to an average of 47.1 ppb across the Dashboard's cities.



Department of Population Health, NYU Langone Health. City Health Dashboard. <https://www.cityhealthdashboard.com/>. Accessed December 3, 2024.

The ozone, as the map below indicates, is worst in the southern half of the city, including the proposed site location.



Department of Population Health, NYU Langone Health. City Health Dashboard. <https://www.cityhealthdashboard.com/>. Accessed December 3, 2024.

These data points are a starting point to consider how air quality may be improved through reduced GHG emissions in Stratford and beyond. Environmental Justice is prevalent within this effort.

### Data Gathering

10. PCCI will manage most of the data gathering, with assistance from the Town. While operating on a small-scale community compost basis, PCCI has demonstrated a consistent pattern of recordkeeping in terms of volume of food scraps collected and cubic yards of compost produced and distributed in addition to monitoring the quality of the finished product by sending samples out for testing at universities such as Maine and Penn State. Such practices would be extended and automated on the larger scale. The portions of leaves and wood chips (informally known as “browns”) have similarly been tracked.

On a scaled basis, the Town and PCCI will use a truck scale to document the mass of food scraps being provided and tipping fees avoided, at the new tipping fee rate of \$87/ton which is 23% higher in FY25 versus recent fiscal cycles due to the new multi-town agreement.

Any available municipally collected leaves/sticks, collection of which is already established within Town waste operations, will be incorporated in the aerobic compost process therefore reducing transfer and tipping costs at the third party leaf operation. As a result, the Town is likely to reap an economic savings since the leaves will no longer need to be trucked and tipped at the third-party leaf operation.

It is intended the Town will charge a competitive rate (currently ~ \$70/ton) for commercial food scraps collection, then the Town can anticipate additional revenue from the commercial tipping fees in addition to savings of up to \$400,000 based on an annual rate of 5,000 tons of municipal collections diverted from the regular MSW. Reduced wear and tear on regular garbage trucks as well as less tonnage managed by labor will yield other, though less readily identifiable, municipal savings.

### **Impacts to Operating Costs**

11. As noted above, the economic opportunity to Stratford includes tipping fee collection for commercial food scraps, tipping fee avoidance on municipal food scraps of as much as \$400,000 annually based on the diversion of residential food scraps from the municipal waste stream in the town. Other benefits are likely to accrue.

First, as a non-profit, PCCI is a mission-driven organization looking to “do the right thing” by reducing the impact of Wheelabrator operations while extending its usefulness and benefit to the broader region. For one, since lower volumes of wet material will be burned at the WTE, less natural gas will need to be burned in the front end for achieving temperatures necessary to reduce the wet food scrap laden MSW to ash. In brief, it is more efficient and cleaner to burn dry MSW as opposed to wet. With the 2022 closing of MIRA, the State of Connecticut is now more dependent on the continued viability of Wheelabrator. This operation would be an important step to extending the life of the Wheelabrator facility (<https://westcog.org/regional-services/regional-waste-management/>).

Further, as the success of the Stratford/PCCI collaboration comes to pass, we anticipate that other SW Connecticut municipalities will look to initiate their own operations that will reduce cost and impact of shipping wet MSW around their own communities as well as shipping food scraps to remote upstate operations. The benefits of fewer trucks on the road, particularly in a region with significant EJ presence and designation, will be broad and impactful.

Because finished compost includes the benefit of higher moisture retention, these communities will also reap the fiscal savings from less watering and plant loss and lower dependence on labor to maintain public spaces. Such costs may be difficult to enumerate, but are certainly appreciable.

### **Grant Funding and Uses**

The grant funding request for this project is \$554,583. The Town of Stratford would be providing an in-kind match to the project, totaling \$452,360. See related project budget for details.

PCCI has experience with various forms of grant funding that might be utilized for this project:

- SustainableCT Matching grant (to crowdfunding): approx. \$14,000 for operations and community engagement around composting and food scrap diversion.
- Private foundation and individual grants/donations: average ~\$8,000/year for small community composting operation for PCCI.



A larger scale municipal operation would require additional capital equipment and site improvement (see attached preliminary site plans). The Town seeks to keep the operation simple, focusing on mechanical mixing of food scraps, aerobic processing, and distribution of finished compost. This approach will help ensure a low-cost operation and efficient use of grants and municipal capital.

### **Project Timeline**

Project Start –

1. Reconfiguration of current site to begin food scraps operation: design and implementation by March 2025
2. Permitting:
  - a. Local: Zoning compliance, approx. eight weeks; local business operation, approx. four weeks.
  - b. State: (post-award notification - MMI grant program: notification by January 2025) DEEP Permit application, including EJ program – approx. eight weeks

Ongoing, to be completed by March 1:

Engagement with commercial, institutional and other partners in the food scraps arena: local schools; agreements with BlueEarth, Curbside, adjacent municipalities and commercial haulers such as All America Waste, and others; outreach to local businesses, especially those subject to CGS § 22a-226e, as amended by PA 23-170 and PA 24-45, such as grocery stores, which requires source separated organic materials (food scraps) to be diverted from the MSW stream.

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