Village of Hastings-on-Hudson

2021 Organics Waste Management Plan



Photo courtesy of Hillary Murnigham, 2017

Table of Contents

Credits and Acknowledgements	2
Executive Summary	4
Background Introduction Goals & Objectives Community Engagement	5 5 5
Part 1: Village Organics Program: Current Operations Background Residential Food Scraps Program Organic Waste Program for Government Buildings Yard Waste Program	7 7 12 13
Part 2: Education and Partnerships Partnerships Education	15 15 17
Part 3: Organics Strategies Considerations Strategies	20 20 20
Part 4: Organics Recommendations and Future Considerations 1. Waste Less Food 2. Promote Food Recovery and Food Donation 3. Improve Yard Waste Pick-up 4. Promote Compost Bins for Residents and an Educational Campaign on Home Composting 5. Improve Food Waste Drop-Off 6. Expand Curbside Food Waste Pick-up 7. Investigate Establishing a Municipally-run Food Waste Recycling Facility	22 24 27 28 30 31 32
Part 5: Summary of Recommendations	34
Conclusion	37
Appendix	38

Credits and Acknowledgements

This document was prepared collaboratively by volunteers from the Organics Management Plan Committee, along with volunteers from Village Boards and Commissions, including the Climate Smart Communities Task Force, the Conservation Commission, and the Zero Waste Advisory Task Force. The authors would like to thank the Westchester County Office of Energy Conservation and Sustainability, the Westchester County Department of Environmental Facilities, Hudson Compost Services, Sustainable Westchester, and the Greenburgh Nature Center. In addition, the authors would like to acknowledge the Scarsdale Conservation Advisory Council for their early leadership in spearheading innovative organics waste management practices.

Lastly, many thanks to the Village of Hastings-on-Hudson staff for providing the local information necessary for the completion of this report. In particular, we would like to acknowledge the following:

- Nicola Armacost, Mayor
- Mary Lambert, Trustee
- Morgen Fleisig, Trustee
- Georgia Lopez, Trustee
- Thomas Drake, Trustee
- Mary Beth Murphy, Village Manager
- Mike Gunther, Superintendent, Department of Public Works

Executive Summary

Wasted food and other organic waste is a major generator of greenhouse gas (GHG) emissions. Diverting such wastes is a key strategy for mitigating climate change and has other important benefits. In response to community interest in waste, organics diversion, and climate change, the Village of Hastings-on-Hudson has developed this Organics Management Plan to provide strategies and recommendations. The goal of the Plan is to reduce the amount of organic waste destined for disposal by preventing its generation and increasing reuse, recycling, and composting. Such reduction is a significant component in the local, state, national, and international effort to avoid the most dangerous climate change scenarios, which requires that by the end of this decade GHG emissions be in sharp decline, and with policies in place to continue the decline to net zero by mid-century.

In recent years, the Village's citizens and government have instituted a variety of programs for managing organic wastes. These include local and regional composting of wasted food scraps, composting of yard waste both through pickup and by encouraging in situ leaf mulching, and food pantries that direct surplus food to hungry families. Most of these programs are managed in partnership with other local government and private entities. The programs are supported by the Village government and staff and other regional governments. Vigorous efforts on public outreach with websites, flyers, events, and so forth have been underway for years.

With so much infrastructure already in place, many of this Plan's proposed actions address expansion of the existing programs and improvements in their efficiency. The Plan proposes a number of additions, suggests types of data that should be gathered, and points to additional possibilities worth investigating. While adoption has been swift among certain segments of the population, the majority of residents and local businesses do not currently participate directly in all of the programs, so many of the proposed actions involve messaging strategies, public outreach, and education to increase participation. Many of the recommendations are consistent with recommendations made in the Village's Comprehensive Plan (2011) and Sustainability Plan (2010). The specific initiatives are enumerated in a table, see Section 5 below.

Background

Introduction

Every year over 80 billion pounds of food are wasted in the United States, and 43% of all food waste occurs at the household level. The volume of household food waste has been increasing in recent years; it is estimated that the U.S. wastes a third of all food produced for human consumption. In Westchester County alone, it is estimated that we dispose of over 185 tons of food waste annually.¹

The long-term goal of New York State is to reduce waste disposal to 0.6 pounds per person, per day by 2030 through waste reduction maximization, recycling, resource recovery, and significant reductions in the amount of waste destined for a municipal waste combustor or for disposal at landfills. There is also time pressure to reduce waste disposal as the NYS
Food Scraps Law becomes effective in 2022.

Goals & Objectives

Establishing an Organics Management Plan is not only timely and legally informative, it is also an important step in mitigating climate change. Food waste typically represents the largest component of municipal solid waste and in the United States, landfills are the third largest source of methane emissions. Methane is the second most powerful greenhouse gas (GHG), and pound for pound, its impact is 25 times greater than carbon dioxide over a 100-year period. Wasted food is one of the largest generators of GHG emissions globally.

This Plan is also a valuable tool for the Village in its organics management decision-making process. The Plan will help identify opportunities and needs for organics waste management and help develop a strategy for implementing selected alternatives.

Organics waste prevention and diversion are key strategies to reduce GHG emissions, which in turn will mitigate climate change. This Organics Management Plan provides strategies and recommendations for reducing the Village's waste stream and thereby lowering GHG emissions

Community Engagement

Hastings-on-Hudson is fortunate to be a community with a large number of residents who already possess a relatively high degree of knowledge and concern about climate change and its impact on the world. Residents are actively engaged in addressing conservation issues and can be expected to mobilize to address serious climate threats. For these

¹ Woodard and Curran Engineering: Westchester County Food Waste Study Report, January 2020.

reasons, our engagement strategy is focused on energizing residents to make changes that will have meaningful impacts, not only around general organics and climate change awareness, but also on the deeper and more detailed climate mitigation strategies stemming from a close analysis of our food use at every step of its lifecycle.

Community-level involvement is critical to help ensure that solutions are both practical and sensible. The authors sought feedback from key stakeholders throughout this document's planning process (see Credits and Acknowledgements). Historical community-based plans were reviewed and assessments made about how the Plan might fit into the larger objectives of the community.

The goal of reducing organic waste has been a focus of the Village's Conservation Commission since it was formed in 1972. In December 2018, the Zero Waste Advisory Team (ZWAT) was formed as a sub-committee of the Conservation Commission to give the issue greater attention. The Climate Smart Communities Task Force was formed in November 2019, and its program guidance materials helped inspire this plan. Members of these groups came together to begin work on the Organics Management Plan in earnest in November 2020. The ZWAT discussed the Plan at its February 2021 meeting and again at its April 2021 meeting.

To document historical and current operating conditions, the authors consulted Village Staff, the Board of Trustees, and volunteer community leaders. They also obtained data, input, examples, and lessons learned from both Westchester County personnel and leaders from neighboring communities. Lastly, they researched relevant online resources and industry-wide best practices to guide the development of program recommendations.

Feedback for the Plan was also sought individually from key stakeholders and a representative cross-section of residents. A survey was distributed to the Department of Public Works (DPW) employees and meetings were held with Village officials. These stakeholders helped identify strategies to engage interested parties in the planning process, provided education, and marketed critical programs. The Plan's authors met with the Mayor on April 22nd and the Village Manager on May 21st to solicit initial feedback. Draft Plans were presented for feedback to Village staff, the Conservation Commission, the Climate Smart Communities Task Force, and the Village Board of Trustees in May and June. The Plan was posted on the Village website in June 2021 for additional public feedback and was ultimately adopted by the Board of Trustees on June 15th, 2021.

Part 1: Village Organics Program: Current Operations

Background

The Village of Hastings-on-Hudson is located in Westchester County in the southwest part of the town of Greenburgh, New York. It is situated on the eastern bank of the Hudson River, about 20 miles north of midtown Manhattan. According to the 2010 US Census, the Village has a population of 7,853, with 78.1% owner-occupied homes.

The Village of Hastings-on-Hudson has a relatively long history of participation in food-waste reduction and composting activities. Over the years, the Village has partnered with organizations and government entities such as Sustainable Hastings, Greenburgh Nature Center, Westchester County, Sustainable Westchester, ICLEI, EPA's WasteWise, and Hudson Compost Services, to encourage reuse, recycling, and composting. Currently, the Village runs three related programs: a Residential Food Scraps Program, an Organic Waste Program for Government Buildings, and a Yard Waste Collection Program. These programs are promoted on the Village website and via Village social media channels. Education and outreach has historically been volunteer-led, buoyed by grants, and aimed primarily at the residential sector.

Residential Food Scraps Program

Since 2007, the Village Conservation Commission has served as an outreach partner for various organizations, including most notably Sustainable Hastings (no longer in operation), the Greenburgh Nature Center, and Sustainable Westchester, with regard to promoting and selling backyard composters and bins. Much of the early progress made was due in large part to the work of Hastings resident Elisa Zazzera and other dedicated volunteers.

In 2018, The Village piloted its Residential Food Scraps Program. This pilot allowed residents of the Village to drop off food scraps into 65-gallon toters, which were made available every Saturday at the Hastings Farmers' Market. Volunteers staffed the operation and helped composters learn the rules.



Early volunteer community compost leaders

The Hastings Department of Public Works (DPW) initially piggybacked on the Town of Greenburgh and delivered the toters to Greenburgh's food waste site at Ardsley's Anthony F. Veteran Park. By August of 2018, however, six 65-gallon toters worth of food scraps were being collected on a weekly basis, and the collection site moved to the Hastings-on-Hudson Zinsser Commuter Parking Lot, where two 2-yd dumpsters were installed. Eventually residents were able to deposit food scraps unmonitored at the Zinsser Commuter Parking Lot. Volunteers from the Conservation Commission spot-checked for contamination.



Village commuter lot site

The Village contracted with Suburban Carting to cart the food waste directly to the Kingston based Ulster County Resource Recovery Agency (UCRRA), an organics recycler, where it is processed into compost. UCRRA works with a farm in New Milford, CT to turn the organic waste into usable compost products for residential and commercial use. To facilitate the process, Suburban Carting uses the GOHBio 1001 Series Organic Waste Decomposition Machine, which speeds up decomposition



Ulster County Resource Recovery Facility

In May of 2019, the Program again outgrew its location and the food scraps drop site was moved to the DPW yard, located at 12 Southside Avenue. With help from the Town of Greenburgh and a grant from the Greenburgh Nature Center for food scrap handling equipment, the program continued to grow. By the summer of 2019, the number of toters being picked up had increased to twelve. The DPW drop-off site was renovated in 2021 to make the site more appealing and to accommodate a larger capacity. As of spring of 2021, residents are filling 22 toters weekly. The site is open seven days a week from dawn to dusk.





Southside DPW Food Scraps Drop-off Site (original site on left, current expanded site on right)

In 2019, educational initiatives also expanded. Tote kits were sold through the Hastings Parks & Recreation Department during office hours. Volunteers educated local building managers and superintendents on food scrap collection and composting. To educate the building managers and superintendents of two of Hastings' large apartment complexes, volunteers arranged their visit to an apartment complex in Scarsdale that collects resident-generated food waste.

In 2020, as a result of the increasing number of villages collecting food scraps, Westchester County established the County-wide Residential Food Scrap Transportation and Disposal (RFSTAD) program. Under this program, the County now manages the food pick-up, carting and transfer of the Village's food scraps. By aggregating the waste, the County was able to contract with Suburban Carting at a lower rate, thereby reducing costs for all participating Villages.

Currently, an estimated 400 households have adopted the food scraps drop-off program and deliver food scraps to the village's DPW yard. An additional estimated 10% of residents actively collect food scraps and compost on their own property, although exact figures are hard to determine. In 2019, the Village generated 57 tons of food scraps; by 2020, that number had grown over 90% to 109 tons. Below is an example of a recent educational flyer on composting distributed to residents.

Food Scrap Recycling It's Easy!

HERE'S HOW TO DO IT:

- 1. COLLECT your food scraps in any countertop pail. You may line your pail with a compostable bag (optional) - no plastic bags!
- 2. TRANSFER your scraps into a larger pail. Most households will fill a countertop pail a few times per week, so a larger bin is handy for weekly storage and to transfer scraps to the drop-off. Anything that holds 5-6 gallons and has a lid will work
- 3. BRING your transport bin to a Food Scrap Drop and empty it into the collection.

All material collected is brought to a commercial composting facility where it is turned into compost.

STARTER KITS AND BAGS:

Tote kits and compostable bin liners are available for purchase wholesale at:

- Hastings James Harmon Community Center. 44 Main St. Hastings-on-Hudson
- Greenburgh Parks & Rec Office @ Anthony Veteran Park
- 11 Olympic Lane, Hartsdale
- Greenburgh Nature Center, 99 Dromore Road, Scarsdale.

Kits are \$20 and include

- One 2-gallon countertop pail,
- one 6-gallon home storage & transportation bin, and
- one roll of 25 compostable bags for the countertop pail.

Extra compostable bin bags

2-gallon pail bags: \$2/roll, 6-gallon bin bags: \$5/roll, You can also buy BPI-certified compostable bags at your local supermarkets.

QUESTIONS? Email:

FoodScrapRecycling@greenburghny.com

ACCEPTED ITEMS:

- ALL FOOD, including:
- Fruits & Vegetables (remove stickers & ties)
- Meat, Poultry, Fish & Shellfish (bones & shells ok)
- Dairy Products, Egg Shells
- Bread, Pasta, Rice, & Grains
- Chips & Snacks (no plastic packaging)
- Nuts & Seeds
- Coffee Grounds (paper filters ok)
- Tea Bags (no staples)
- Leftover, Spoiled & Expired Food (cooked ok)
- **Paper Towels & Napkins**
- COMPOSTABLE BAGS (no plastic bags!) and compostable serviceware (check fine print carefully!)

ITEMS NOT ACCEPTED:

- Anything Plastic. Plastic bags, plastic utensils, plastic packaging and wrappers are never allowed in the bins. Plastic does not biodegrade and therefore will contaminate the compost. Use only compostable bags, paper bags, or no bags.
- Baby/Hand wipes are never allowed in the bins. They are synthetic and do not biodegrade.
- Pet waste.
- Standard-Issue Food Containers, regular paper coffee cups, plates, ice cream cartons and milk cartons are lined with plastic film. Check containers for certification.
- If unsure about an item, please check with us before **putting it in the bin.** Contamination can ruin a whole dumpster full of carefully collected food scraps, causing the entire load to be incinerated instead

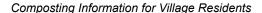
DROP-OFF LOCATION AND HOURS:

- Ardslev Anthony F. Veteran Park Parking Lot (11 Olympic Lane Ardsley, NY 10502). Bins open 8am-8pm daily
- Hastings-on-Hudson

DPW Yard - Southside Ave. 7 Days, dawn to dusk (914) 478-2170 Ext. 629 or email below

Contact Hastings Recycling:

Conservationcommission@hastingsgov.org



The Village's compost webpage is kept updated with relevant policies, information and resources. Currently, the Program accepts meats, cheese, bones, shells, and fruits and vegetables raw or cooked, plus small plain wood items such as popsicle sticks, bamboo skewers and paper products for food handling, as well as certified compostable plastic bags and feathers.

To offer curbside food waste pick-up, the Village also has partnered with Hudson Compost Services (HCS) — a startup founded by a Hastings High School graduate that is working to make composting simple, efficient, and hassle free.





Hudson Compost Services Operations

Organic Waste Program for Government Buildings

In 2020, the Village government developed an Organic Waste Program for Government Buildings. Compost bins and instructions for composting were placed in the kitchens and eating areas of three government buildings—Village Hall, the James Harmon Community Center, and the Library. The food scraps are picked up once a week and delivered to the DPW food scraps site on Southside Avenue.







Examples of compost bins in government buildings

Note: this program was on hiatus during the Covid-19 pandemic since government buildings were shut down. It was recently reinstituted.

Yard Waste Program

The Village has several different programs that are designed to reduce the climate impact of residential lawn maintenance. It facilitates composting, encourages climate-smart lawn care and generating community support for holistic landscaping. Partially as a result of these initiatives, the amount of yard waste collected by the Village actually declined from 2019 to 2020 from 390 tons to 336 tons.

The Village's curbside collection of yard waste for composting runs from April to November, with pick-up on Wednesdays. The Village requires that yard waste be left curbside in the paper lawn and leaf bags. Twigs and branches must be bundled and tied, and bundles cannot weigh more than 40 lbs or be longer than four feet in length. The DPW collects organic debris curbside and takes it to the Southside lot in Hastings. From there it is taken to a transfer station in Yonkers and then to compost facilities in Upstate New York or Connecticut. It is estimated that on average, approximately 10-20% of Village households participate on any given yard waste pick up day. In total, yard waste diversion in the Village's residential sector has averaged around 287 tons per year. An inestimable but notable portion of yard debris is managed in situ by backyard composters and mulchers.



Village DPW workers picking up curbside yard waste

In 2018, a group of volunteers in Hastings and neighboring communities initiated a "Love 'Em and Leave 'Em" campaign," a climate-smart approach to lawn care that encourages using less fossil fuels, recycling more organic matter, and better supporting local wildlife. This later became a <u>Westchester County initiative</u>. The campaign encourages residents to rake leaves into wooded margins of their yard, to create scrub piles by raking some leaves and branches together to provide winter cover for birds, small animals, and insects, or to mulch fallen leaves directly into lawns. This "free" fertilizer can be used as mulch on landscape beds or for providing needed "browns" for composting food scraps.

In a related effort, a group of volunteers under the purview of the Conservation Commission established the Healthy Landscapes Initiative in 2020. This initiative also encourages greater awareness of the environmental impacts of landscape practices, the "Love 'Em and Leave 'Em" approach to landscaping, which minimizes the use of leaf blowers and returns accumulated yard "waste" back to the soil. Coupled with the work of the Hastings Pollinator Pathway project (HPP), an initiative spearheaded by members of the Conservation Commission and the Climate Smart Communities Task Force, an increasing number of Village residents are growing pesticide-free, pollinator-friendly native plant gardens and thinking more holistically about healthy landscaping. The HPP encourages keeping or mulching leaves, eliminating pesticides and planting native plants. Besides its website, the HPP curates an Instagram and Facebook page and sends an email newsletter monthly to over 160 residents.



Pollinator Pathways Logo

The Village continues its educational initiatives and to closely track data related to waste and compost in order to make informed and effective organics management decisions.

Part 2: Education and Partnerships

Partnerships have been a key component of Hastings' efforts to prevent waste generation and increase reuse, recycling, and composting.

Partnerships

The Village has a long history of partnering with community groups to promote composting and waste reduction. As far back as 2007, the Village began working with the Greenburgh Nature Center (GNC) to offer worm bins and outdoor compost bins to Villagers. An example of the Village's promotion of this program can be found on the Village's website.



Example of GNC promotional information

The Village participates in <u>Sustainable Westchester's Zero Waste Program</u>. This program promotes the free, <u>one-stop waste and recycling website + phone app</u> "Recycle Right," which allows residents to assess what items are recyclable or compostable. Villagers who download and subscribe to the Recycle Right app learn more about local waste disposal regulations. The app also reminds users of DPW pickups and alerts them to any schedule changes. Sustainable Westchester's Zero Waste program also generates announcements on zero waste news and initiatives related to food waste reduction (e.g. the Village food scrap program).

Since 2017, the Village has partnered with the Town of Greenburgh in its <u>community food</u> <u>scrap recycling program</u> and joined <u>Westchester County's residential Food Scrap</u> <u>Transportation and Disposal (RFSTAD) Program.</u>

WHY RECYCLE FOOD SCRAPS?

- Food scraps are one of the largest components of trash sent to landfills and incinerators—but food scraps are not trash; they are a resource.
- The Town of Greenburgh incinerates our municipal waste in Peekskill, where the carbon in our food is released as CO2. If food is landfilled, the anaerobic bacteria that eat it release methane. Both CO2 and methane are greenhouse gases that contribute to climate destabilization.
- Composting food scraps turns that story around!
 Composting food scraps produces a useful, valuable product that gives back to our nutrient life cycle, resulting in cleaner soil, water, and air.

WHAT IS COMPOST?

- Compost is an enriching soil amendment. When purchasing a bag of potting soil or observing a landscaper putting down "dirt," yoi Scale document down ipost.
- Compost benefits our landscape by maximizing plant growth, preventing soil erosion and reducing the need for water, fertilizers and pesticides.
- By recycling your food scraps you are both reducing waste and creating compost a double win!

THANK YOU for your participation in Greenburgh's Food Scrap Recycling Program!

THERE IS NO CHARGE TO DROP OFF FOOD SCRAPS.

CONTACT FOR HASTINGS FOOD SCRAPS & RECYCLING PROGRAM: Conservationcommission@hastingsgov.org

Town of Greenburgh

Food Scrap Recycling Guide

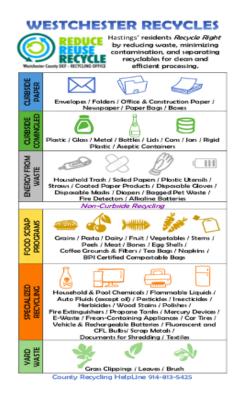






Example of Partner Educational Flyer

The Village has partnered with the County on New York State's 2019 "Recycle Right" education campaign to educate residents on recycling and composting. In this campaign, the County promoted the terms "Grasscycling," or leaving clippings on the lawn, and "GreenScaping," to reduce lawn and yard maintenance.



Example of Westchester Educational Flyer

Through the efforts of its Conservation Commission, the Village has, on several occasions, partnered with Hastings High School around composting efforts. At its Back to School Night events, commission members helped the high school students sell composting equipment, promote food waste reduction and educate parents about composting.

Education

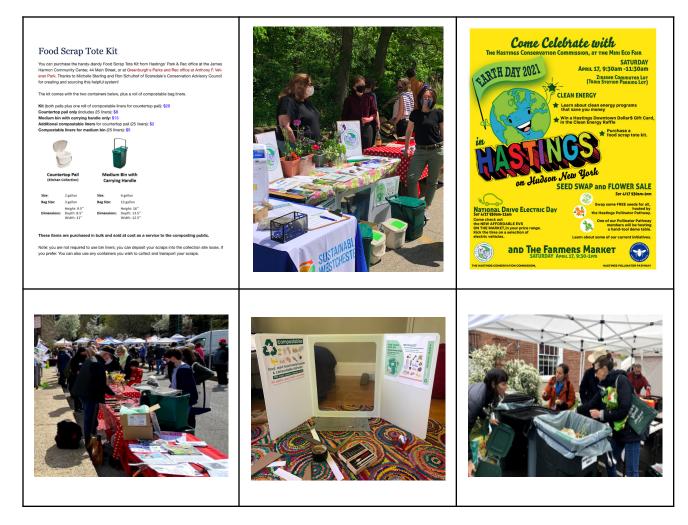
The Village of Hastings-on-Hudson website contains a number of pages with information related to waste recycling and composting. This includes related volunteer opportunities for residents.

Village Online Resources:

- Lawn and Garden Waste
- Municipal Solid Waste
- Recycling
- Recyclopedia Website (and app)
- Waste and Recycling Information
- Zero Waste Advisory Task Force

In addition to online resources, the Conservation Commission and the Zero Waste Advisory Task Force hold events, send emails, and produce flyers on a regular basis to educate residents on the benefits of organics waste prevention, reduction, and reuse.

The Conservation Commission and other resident-led environmental groups and committees table at the Hastings Farmers Market and other community events to inform attendees about food scrap recycling, backyard composting, and other environmental concerns. Compost bins are regularly sold at all events.



Examples of flyers and educational materials on composting, as well as events where compost bins were sold.

Many Village-sponsored events that address organics and compost education have been held over the years, including, for example, the Conservation Commission's Compost Carnivals, Earth week lectures, virtual teach-ins, and the ongoing Farmers' Market educational program. The first Compost Carnival was held in the fall of 2018 and aimed to engage kids ages 4-9. It offered a hands-on sorting game, demonstrations of compost in varying stages, tote kit sales, and special guests. A subsequent Carnival was held in the spring of 2019.

In 2020 and 2021, Elisa Zazzera offered zoom lectures entitled "<u>Talking Trash</u>," which covered food waste reduction and reuse. On April 19, 2021, as part of the Village's Zoom-a-Palooza! Earth Month series, Lindsay Cohen, Director of Sustainability Programs at GNC addressed "<u>Composting, Food Scrap Recycling, and Food Waste Reduction 101</u>," including pre-consumer and post-consumer waste concepts and tips and techniques for preventing and reducing wasted food. Furthermore, on April 28, 2021, the Village promoted a presentation by Lori Fontane "<u>Eat/Grow/Love: Food in a Time of Climate Change</u>" on the environmental and human health dangers of current food systems and the harms of food waste in our environment.

Part 3: Organics Strategies

Considerations

In developing this Plan, the following steps were completed:

- Assessed current Village conditions and collection services.
- Reviewed the Village Code.
- Ensured broad community engagement by consulting a range of stakeholders, including: Hastings' more vulnerable residents, the Department of Public Works, Village Management, school representatives, restaurants, and other commercial entities.
- Reviewed related plans, such as the Village's Comprehensive Plan and Sustainability Plan.
- Addressed key concepts, including the EPA's food recovery hierarchy (see below), as well as on-site composting, diversion potential, and source reduction.
- Assessed Greenhouse Gas Emission Impacts from the <u>Village's annual energy</u> <u>benchmarking reports</u>.
- Collected relevant data and evaluated plans from neighboring communities in search of proven best practices.
- Prioritized the higher levels of the food recovery hierarchy.

Strategies

The strategic goals of the the Village of Hastings-on-Hudson Organics Management Plan can be summarized in the 5 E's:

Educate

Educate the community about the connection between reducing waste and mitigating climate change

- Leverage educational tools that can be used to reduce food waste at the source.
- Use stakeholder interviews, surveys, and advisory committee feedback to inform recommendations.
- Explain the benefits of home or small community onsite composting vs commercial composting.

Engage

Engage the community, Village staff, and organizational partners to create and implement projects aimed at reducing waste and our carbon footprint:

- Leverage partnerships.
- Develop an engagement plan specific to local businesses focused on preventing wasted food and promoting techniques to reduce the volume of surplus food in the community.
- Engage the public through an ongoing campaign to promote waste prevention and encourage food donation.

Engineer

Leverage the latest hardware and software platforms, including use of innovative technologies, to decrease the Village's waste stream:

- Identify the latest relevant tools, from community onsite compost systems, to stronger bins, to software for data capture, to apps and alert / reminder programs.
- Keep abreast of emerging scientific developments and best practices.

Enact

Enact laws, policies and regulations that help achieve waste reduction goals:

- Research relevant legislation to achieve goals.
- Work with key stakeholders to draft resolutions to meet food waste prevention goals.
- Find solutions, local options, and best practices.

Evaluate

Evaluate the status and effectiveness of planned activities, require ongoing reporting and conduct periodic reviews:

- Review progress in implementing organics initiatives on an ongoing basis.
- Discuss and evaluate campaigns and initiatives to understand why certain actions, programs, and/or projects have succeeded or languished.
- Evaluate all projects and programs as a necessary step to determine effectiveness.

Part 4: Organics Recommendations and Future Considerations

In light of the documented strategies mentioned above, the authors of this Plan researched and analyzed a number of recommendations that fell within its scope.

Recommendations are broken into seven sections: (1) Waste Less Food, (2) Promote Food Recovery and Food Donation, (3) Improve Yard Waste Pick-Up, (4) Promote Compost Bins for Residents and an Educational Campaign on Home Composting, (5) Improve Food Waste Drop-Off, (6) Expand Curbside Food Waste Pick-up, and (7) Investigate Establishing a Municipally-Run Food Waste Recycling Facility.

To determine our recommendations, many factors were taken into consideration, including budget, data, support, resources, and general costs. Funding approaches to implement the recommendations were not evaluated as part of this Plan. Feedback on these recommendations will continue to be gathered from the community. Updates and necessary changes to the Plan will be made on an ongoing basis.

1. Waste Less Food

The Environmental Protection Agency (EPA) uses the term "wasted food" instead of "food waste" for food that was not used for its intended purpose because it conveys that a valuable resource is being wasted, whereas "food waste" implies that the food no longer has value and needs to be managed as waste.² The Village should follow the EPA's lead and move towards the use of "wasted food" as a foundation of a multi-faceted educational campaign to educate people on wasting less food.

It is vital to focus on waste prevention to reduce the volume of surplus food in the community. The EPA estimates that in 2018 in the United States, more food reached landfills and combustion facilities than any other single material in our everyday trash: wasted food was 24 percent of the total amount of material landfilled and 22 percent of the total amount combusted by energy-recovery incinerators. Food overall is responsible for about 11 percent of GHG emissions every year.³ It is important to consider the GHG emissions associated with the entire life-cycle of food use: food often travels thousands of miles to get to local markets, roughly 45 trillion gallons of water are used every year to irrigate crops, and millions of pounds of pesticides and fertilizers are used to produce it. Consequently, wasted food also wastes all the material inputs that went into its entire life-cycle.⁴

² EPA's Sustainable Management of Food Basics

³ EPA's Greenhouse Gas Emissions

⁴ World Resources Institute: Reducing Food Loss and Waste



EPA's Food Recovery Hierarchy Pyramid

Develop a multi-faceted educational campaign to prevent wasted food

A targeted campaign should focus on educating consumers on the extent and impact of wasted food. The top priority of the food hierarchy is to reduce the surplus amount of food generated. The campaign should target the residential sector and the focus should be on waste prevention techniques (see below). The Village should work with residents to capture more data and cite local statistics to monitor the success of the campaign.

Food waste reduction tips include: planning ahead for grocery shopping by taking stock and making a list, intentionally purchasing imperfect produce that might otherwise be discarded, eating leftovers, and understanding true expiration dates. Additionally, proper food storage and preservation techniques (dehydration, freezing, canning, fermentation, etc.) can have a significant impact. See the Appendix for additional food waste prevention resources.

Messages should focus not only on the environmental benefits of food waste reduction, but also on conservation benefits - using less water, land, gasoline, energy, labor, pesticides, and fertilizers and most importantly to many residents: saving money.

The Village should work to identify and build a list of online food waste prevention resources, which can be promoted on the Village website. The Village should leverage its communication channels (eblasts, website, social media, etc.) to promote food waste prevention tips and techniques. In addition, the Village should continue to partner with local organizations like Sustainable Westchester and Greenburgh Nature Center, and organize gatherings and presentations on ideas and techniques to further prevent wasting food. Evaluation of this food waste prevention campaign will be necessary on an ongoing basis.

Investigate a "Pay as You Throw" pilot program

A promising way to incentivize waste prevention is through differentiated trash billing. In this model, sometimes called "Pay as You Throw" (PAYT), when residents and municipalities waste less, they pay less. In PAYT programs, residents and municipalities are billed for trash either per container or by weight, and enjoy cost reductions by taking proactive measures to reuse, reduce, and recycle. Just as with other utilities, residents pay for how much they use.

While effective PAYT programs need to be custom designed based on the conditions and needs of a specific municipality, they are a proven method of reducing waste and increasing recycling. Natick MA was able to increase recycling by over 40% while saving the Town more than \$4 million in disposal fees.⁵ PAYT programs can create a new source of revenue for funding waste disposal costs and related educational programs. Costs of disposal are also spread more fairly among village residents.

The Village should research additional examples of PAYT programs in similar sized municipalities. It should investigate different models, such as charging by bag, or volume, or different sized containers, or a hybrid model. Should Sustainable Westchester move forward with its PAYT program, the Village should consider becoming a pilot partner.

Support and educate the public on legislation to reduce wasted food

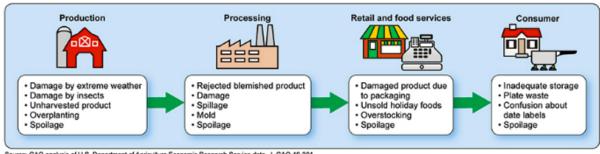
The Village should help lobby for legislation to promote the recovery of surplus food. Congresswoman Chellie Pingree introduced HR4184, the Food Recovery Act, which is a comprehensive piece of legislation aimed at reducing food waste and promoting food recovery. The bill was reintroduced in 2017 in both the House and the Senate (<u>H.R. 3444</u>, S. 1680).

2. Promote Food Recovery and Food Donation

Food gleaning (donating excess food instead of throwing it away) has been an important form of social welfare for well over 2,000 years. Today, 40 percent of usable food in the United States goes uneaten⁶. Losses occur in farming, production, packing, processing, distribution, retail, food service, household use, and during disposal.

⁵Pay-As-You-Throw: 20 Years Later, Natick, MA

⁶Natural Resources Defense Council: <u>"Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm</u> to Fork to Landfill," 2017



Source: GAO analysis of U.S. Department of Agriculture Economic Research Service data. | GAO-19-391

Gleaning (sometimes called food recovery or rescue) is the practice of collecting high-quality food that would otherwise go to waste and distributing it to people facing hunger. Gleaning not only provides an important and needed resource to the community to feed more people, but can also reduce GHG emissions by helping divert food waste from landfills and incinerators. Gleaning is second from the top in the food recovery hierarchy and is therefore a preferred method of reducing food waste.

Donating usable food to food banks is an important goal. The most established donation options available in the Village are the Hastings Food Pantry and the neighboring Dobbs Ferry Food Pantry.

The Hastings Food Pantry is located at the James Harmon Community Center at 44 Main Street and run by the Hastings Youth Advocate. It plays a vital role in providing food access for vulnerable people. The Pantry is stocked through individual donations, as well as through the support of local organizations such as Family-to-Family, Kids Can, and Doorknob Dinners. Food drives are periodically conducted by organizations such as Hastings Scouts, Hastings Teachers Union, and religious organizations. The Food Pantry supplies foods to approximately 40 families per month in the Village. Donors can order food directly to the Pantry through Amazon prime. Food drives have been more successful with easy donation procedures.

Founded in 2011, the <u>Dobbs Ferry Food Pantry</u> is run out of the South Presyterian Church at 343 Broadway, in our neighboring community of Dobbs Ferry. The Dobbs Food Pantry solicits the support of residents and regular volunteers, and on average also feeds 40 families a week. During the pandemic that number grew to over 100 families. The Dobbs Pantry runs fundraisers and other programs to raise awareness and support for its operations.

Sacred Heart Church, at 18 Bellewood Avenue in Dobbs Ferry, runs an additional but smaller food pantry, and several other food pantries operate out of churches in northern Yonkers, including the Metropolitan AME Zion Church, which is currently running a mobile food pantry throughout north Yonkers.



Example of Food Pantry Educational Flyer

All of these food pantries typically accept donations from residents and organizations, although occasionally they partner with restaurants and commercial businesses for larger donations.

Increase support for local food pantries

Due to the pandemic, food pantries have seen substantial growth in families seeking food assistance in the past year. Currently, donations come from both families and businesses, but there is potential for growth in donations, especially from businesses.

The Village should better understand current operations of the Food Pantry and how to increase the Program's effectiveness through communications with its residents. The Village can promote these programs through its website, at events, in its email blasts, and potentially to all new residents in the Village. It can also promote organizations like Family-to-Family that facilitate food and monetary donations to these food pantries. By partnering more closely with these organizations, the Village can increase the effectiveness and success of these food pantries.

Promote a residential gleaning education campaign

The Village can help educate residents on the environmental benefits of and need for food gleaning, through working more closely with the food pantries in the area (Hastings Food Pantry and the Dobbs Ferry Food Pantry) and other potential donation options.

Residents, especially community gardeners, might be more likely to donate if the process is encouraged and simplified on the Village website. Gleaning campaigns or food drives can be encouraged through the schools and local religious institutions. Lastly, residents may not

be aware that they can donate directly to the Village Food Pantry via Amazon and a promotional campaign would serve to publicize this information. Sustainable Westchester's Recyclopedia and Recycle Right app could also be updated to include gleaning options to help residents consider this practice.

Partner with local grocery stores, farmers market and CSAs

Building on Mayoral messages and the Village Crawl (an annual December public event that raises awareness of the Food Pantry), the Village can investigate additional effective ways to help facilitate donations from local grocery stores, the Farmers Market, and the Community Supported Agriculture (CSA) program to the food pantries. The managers of grocery stores or other businesses (e.g., bakeries) may want to participate in donating food but might not be sure how best to do so. The Village can facilitate this participation, troubleshoot, and highlight and promote businesses that have participated. The Downtown Advocate may be helpful towards this goal.

Hastings has partnered with Stoneledge Farm to <u>offer a local CSA</u> program, which is run out of Grace Church at 78 Main Street. Neighboring programs include a <u>Dobbs Ferry CSA</u> and a <u>Scarsdale CSA</u>. Stoneledge Farm already offers a donation of 1 box per 10 shares, which is donated to HoH Food Pantry and San Andres Church in Yonkers, and individuals are encouraged to give excess produce to the Food Pantry. Individual members may be encouraged to give more, and neighboring CSAs may also consider increasing their donations.

The Village has also partnered with the Hastings Farmers Market, which provides some food donations to the Food Pantry.

The Village should help educate Foodtown and other local grocery stores on federal and state Good Samaritan Food Donation laws, which protect businesses from liability. Similarly, the Village should familiarize the grocery stores with New York State's recently passed Excess Food Act, which requires supermarkets and grocery stores to donate excess food to charity. This law takes effect in June of 2021.

3. Improve Yard Waste Pick-up

Rebrand the term "yard waste" and create an educational campaign for its reuse

As we are increasingly aware, yard waste is not really "waste" at all, but a vital component of a healthy yard. Because transporting yard waste to be composted elsewhere is both wasteful and produces unnecessary GHG emissions, yard waste recycling should be part of a comprehensive waste management strategy. To amplify the vital role yard waste

management plays in mitigating climate change, the term itself should be rebranded to imply regeneration and sustainability.

The Village can promote home composting or yard "waste" recycling on its website and through educational information it makes available to residents. Residents should understand that leaves, sticks, branches, and even dead or dying trees are a natural and important part of the life cycle of plants, and that letting them break down in situ allows them to return important nutrients to the soil. The Village should also consider promoting the "Love 'Em and Leave 'Em" campaign on a more regular basis.

Evaluate establishing a compost yard waste site on Village property

Yard waste can be chipped into mulch for fuel or made into a finished compost that can be sold or given away as a recycled yard waste product. Some municipalities find that chipping and composting are the most economical and environmentally friendly methods of disposing yard waste. Once it is converted into compost, organic waste can be used to mulch landscaping, enhance crop growth, enrich topsoil, and provide other benefits. Compost and mulch are in demand by home gardeners, landscapers, and commercial nurseries.

The Village should investigate the potential for a stand-alone yard waste compost facility or a compost facility that combines yard waste with food scraps (see section 7 below.)

Investigate a "Pay as You Throw" model for yard waste

The Village should research and analyze making changes to the yard waste program where residents would be charged for yard waste removal in conjunction with a "pay as you throw" program for trash.

4. Promote Compost Bins for Residents and an Educational Campaign on Home Composting

Composting is a critical measure to address food waste and efforts to expand and institutionalize composting education is an important goal. Robust educational efforts and outreach to residents and businesses is needed to highlight the environmental benefits of reducing and diverting organic waste and to promote the programs that facilitate composting. Education and outreach also provide an immediate and lower cost option to increase diversion, particularly at the residential level. Ongoing evaluation of these campaigns and programs will be necessary.

Develop and promote a composting education campaign

Currently it is estimated that less than 20% of Hastings residents compost. The Village should investigate how to effectively promote behavioral change around composting (e.g. What kind of education might increase adoption? How big are factors such as cost of bins,

bin size, and curbside pick-up schedule and cost?) Current efforts could be further developed, supported, and institutionalized to ensure both older and newer Village residents are made aware of the Residential Food Scraps Program and Hudson Compost Services. The Village should undertake a resident composting survey, conducted as part of the public campaign planning process. Special attention should be paid to the larger apartment complexes in Hastings where backyard composting is not possible.

Additional information on composting should be made available more prominently on the Village website, as well as in Village buildings such as Village Hall, the Community Center, and at the DPW compost site. Composting and the sale of compost bins could be promoted at community meetings, public events, through surveys and flyers, and through social media. The Village could consider holding a composting speaker educational program in conjunction with national composting week.

Westchester County's Department of Environmental Facilities recently opened a Compost Demonstration and Education Center, CompostED, that is located next to the County's Household-Material Recovery Facility. This small-scale compost facility acts as a demonstration site for local municipalities on the composting process and offers educational programs for residents, municipal officials, and students. The Village should consider leveraging Westchester County's CompostED program to educate residents. The Village can offer discounted trips for school children and/or families to the facility.

The Village should further promote the Recyclopedia, which is a component of its Recycle Right app, and the County's Recycling Help Line at (914) 813-5425, as well as other relevant composting resources listed in the Appendix. The Village can encourage its DPW workers to attend relevant training.

Expand partnerships to sell discounted food scrap and compost bins

The Village could expand its partnership with the Greenburgh Nature Center and Sustainable Westchester to offer a continual, year-round sale of backyard compost bins from qualified dealers. Westchester County plans to expand its program to sell compost bins at cost to residents and may also be a potential source of low-cost, year-round food scrap and compost bin sales for residents.

Expand compost education to local businesses

The Downtown Advocate could help increase education on composting to businesses in the Village. In restaurants where kitchen trimmings from restaurants or cafeterias are not composted, the Village should facilitate food scraps pick-up for delivery to the DPW food scraps site when and where possible, or connect the restaurants to Hudson Compost Services (HCS). The County is also partnering with local farmers' markets to set up collection bins. If this happens, the Village should consider joining this program.

5. Improve Food Waste Drop-Off

As described earlier in the Plan, the Village has had a Residential Food Scraps program with a food scraps drop-off site in place since 2017. Since 2019, its location has been at the DPW site at 12 Southside Avenue. Currently 22 toters are picked up weekly by the Suburban Carting company and brought to the Ulster County Resource Recovery Agency in Kingston, NY. The Village has also partnered with HCS to offer a curbside pick up program. HCS delivers its food scraps to the DPW site as well.

Improve education and communications for residential food scrap program

The Village should commit to a food scraps education and communications campaign. It should consider channels such as the web site, social media, as well as in person tabling at well populated events, such as school events, Foodtown, and the Farmer's Market, in order to speak directly with the target market (i.e. family food shoppers and influencers).

In order to determine an effective communications strategy, it would be helpful to better understand how many Village residents, staff, restaurants, schools, and institutions are collecting food scraps, and how many are delivering to the DPW site. The Village should consider conducting a community survey to ascertain use, and make a special effort to include new residents and those living in apartment complexes, so as to help raise awareness of the site, and what is and is not allowed at the site. With more data, the Village can better craft its messaging, tailor its communications, update its resources, and track results.

The DPW site currently has one sign that describes items accepted and not accepted for composting. While the current signage is clear, the Village might consider exploring whether additional signage, or perhaps a bulletin board, kiosk and/or banner, could be helpful at the entrance and next to the food scrap bins. Some educational goals of the signage include: information on what is done with the food scraps, how compost is produced, what is done with the compost, tips on food waste prevention, and gleaning.

The signage could also include messaging around keeping the site clean. Reports of untidy conditions at the DPW site have been a recurring issue, and there are concerns that people other than Village residents are using the facility during off-hours, since the site is not gated or locked. Further research is needed to determine how to keep the site tidier. Since at least part of the DPW site is on MTA property, the Village should contact the MTA to determine whether it is possible to gate and lock the site. Lastly, artistic elements (murals or drawings from the kids, for example) might be integrated to beautify the site and to encourage site visits.

Expand residential food scraps program to businesses

The Village should investigate expanding its residential food scraps program to the commercial sector. Educational materials should be developed to encourage local businesses to transport their compost to the DPW site, or to hire HCS to bring it for them. Data should be captured on what percentage of businesses are composting—and to what extent—to provide baseline metrics.

Work more closely with composting partners

To assess the effectiveness of this program, regular feedback from its partners would be helpful, including HCS, Suburban Carting, Westchester County, and UCRRA. A feedback mechanism for issues should be established. Exact tonnage on a monthly basis is not known, nor what percentage of food scraps might be contaminated, or what the repercussions of contamination may be. More information and improved feedback is needed to better understand and evaluate the current program.

The Village should consider more educational events with partners such as free compost demonstration seminars, in which attendees are given a free or discounted under-sink food scrap collection bin or discounts on backyard compost bins.

Conduct an assessment of food scrap collections at government buildings

Assessing the amount and composition of the waste generated by local government operations is an essential step in establishing a baseline from which to measure waste diversion and reduction improvements over time. The audit should assess whether it is effective to cover carting food scraps generated at government buildings. Based on the results of the audit, The Village should consider expanding the food scraps collection program from the current three government buildings (Village Hall, James Harmon Community Center, and the Library) to all government buildings.

6. Expand Curbside Food Waste Pick-up

Curbside pick-up of food scraps encourages participation by residents who don't have time or are reluctant to cart their food waste to the DPW site. The Village has partnered with Hudson Compost Services (HCS) to provide this service locally. HCS began its operations in 2019 and currently services 64 households in Hastings. Upon sign-up, HCS provides new members with an HCS outdoor bin, indoor bin, roll of liners, a flyer including what you can and cannot compost, and is currently offering one free month of pickups. HCS offers monthly (\$6/wk) and yearly (\$5/wk) payment options.

Along with the Village, The Town of Greenburgh has also partnered with HCS to deliver food scraps to designated composting drop-off sites. HCS is expanding to additional villages within the Town of Greenburgh.

Help promote and expand Hudson Compost Services (HCS)

The Village should promote HCS on its website and through its regular communications channels. Through regular meetings, the Village can help HCS build its client base and provide feedback on the state of the Village facilities, as well as the County's carting program.

In May, 2021, HCS conducted a short study to determine the density of food waste. The study measured the weight of three 27-gallon bins filled with food waste that HCS collected. Each 27-gallon bin had a tare weight of 6 lbs. The average weight of each bucket filled with food waste was 106 lbs, resulting in 100 lbs of food waste per 27 gallons. These observations led to a food waste density average of 3.7 lbs/gallon.

At the time of the study, HCS was servicing 58 Village households. During pickups, they filled nine 27-gallon bins of food waste at an average capacity of 80%. This results in 195 gallons of food waste picked up, or 3.36 gallons per home. After factoring in food waste density (3.7 lbs/gallon), HCS determined it was hauling a total of 721.5 lbs of food waste per week, and that each home was producing 12.43 lbs of food waste per week. At this scale, the expansion of HCS pickups to 150 homes in Hastings would result in a collection of 1,864 lbs per week, equating to over 48 tons diverted from the Village's waste stream per year.

Collect and analyze data on the curbside pick-up program

The Village should pay attention to pricing and participation rates for HCS. Regular analysis of the program will help to determine if the program continues to meet the needs of Village residents. If the Village decides to pursue a "pay as you throw" waste program, it may want to consider piloting its own curbside food scraps program to allow control over pricing to effectively disincent trash disposal.

7. Investigate Establishing a Municipally-run Food Waste Recycling Facility

Processing food scraps into compost as close as possible to where they were created is the ideal scenario, as it minimizes GHG emissions generated by the pickup and transport of the food scraps and keeps valuable compost for the Village to use. Currently, food scraps generated in Hastings are taken to a transfer station in Mamaroneck once a week, from where they are transported an estimated 93 miles to the UCRRA commercial compost

facility in Ulster County. This means that returning our waste to the land currently costs a minimum of 4,836 transport truck miles a year. UCRRA sells the compost at \$30 per ton.⁷

The creation of a local food waste recycling facility would not only lower costs over time, reduce CO2 GHG emissions, and generate income, it could also potentially capture fugitive gas such as CO2 and methane that would otherwise contribute to greenhouse gas emissions. There are two ways we could consider processing food waste: either aerobically, by composting, or anaerobically, by biodigestion. The anaerobic digestion process consists of biological processes in which biodegradable material is broken down by microorganisms in the absence of oxygen. The end product can be combusted to generate electricity and heat, or can be processed into renewable natural gas and/or transportation fuels.

In order for the Village to process food waste within Hastings either aerobically or anaerobically, several major milestones are required. The Village would need to identify sufficient space, placate concerned neighbors, draft a detailed plan, and eventually purchase or construct a facility. Start-up expenses may include building materials and labor, equipment, and resources for additional data collection and analysis, as well as eventual construction and building costs. All these elements vary with the type of processing done.

The Village should investigate appropriate technologies, the costs associated with these options, and estimate ongoing operational costs and revenues from the facility in order to price the cost of a pilot. The Village should survey stakeholders and assess partnership opportunities with neighboring municipalities or institutions (for example, Andrus nursing home and Children's Village, two private institutions that have open land). It should consider best practices for a village of our size, and estimated quantity of food scraps.

The Village should investigate the CompostED small-scale food scrap composting demonstration and education site to learn what would be entailed by initiating a similar project in the Village.

32

^Z UCRRA Compost for Sale

Part 5: Summary of Recommendations

The following recommendations are for consideration for the Village management and leadership, and do not imply obligation or commitment. Recommendations are separated into short-term (one year or less), medium term (1 to 3 years), and long-term recommendations. While many individuals will be consulted, informed and accountable for these actions, the main groups responsible for implementation are listed below.

Short-term

VM=Village Management, DPW=Department of Public Works

Recommendation	Responsible
Construct a kiosk or Bulletin Board at the DPW Southside Ave food scraps / compost site.	VM/DPW in conjunction with the Conservation Commission
Develop an educational and communications campaign to prevent wasted food.	Conservation Commission and the Climate Smart Communities Task Force
Investigate a "Pay as You Throw" pilot program.	VM/DPW in conjunction with the Conservation Commission
Support and educate the public on legislation to reduce wasted food.	Conservation Commission / Board of Trustees
Increase support for local food pantries.	VM/DPW in conjunction with the Conservation Commission
Promote a residential gleaning education campaign.	VM/DPW in conjunction with the Conservation Commission
Rebrand the term "yard waste" and create an educational campaign for its reuse.	VM/DPW in conjunction with the Conservation Commission
Investigate a "Pay as You Throw" model for yard waste.	VM/DPW in conjunction with the Conservation Commission
Develop and promote a food scraps and composting education and communications campaign.	VM/DPW in conjunction with the Conservation Commission

Expand partnerships to sell discounted food scrap and compost bins.	VM/DPW in conjunction with the Conservation Commission
Expand residential food scraps program to businesses.	VM/DPW in conjunction with the Conservation Commission
Conduct an assessment of the current food scraps / composting program at government buildings.	VM/DPW in conjunction with the Conservation Commission and the Climate Smart Communities Task Force

Mid-term

Recommendation (Category)	Responsible
Roll out independently, or participate in a Pay As You Throw Pilot program with Sustainable Westchester.	VM/DPW in conjunction with the Conservation Commission
Partner with local grocery stores, the Farmers Market, and Community Supported Agriculture (CSA) to promote food recovery and food donation.	VM/DPW in conjunction with The Farmers Market, and CSA
Expand compost education and food scraps program to local businesses.	VM/DPW in conjunction with the Conservation Commission, the Downtown Advocate, and local businesses
Improve education and signage for DPW food scraps drop-off site.	VM/DPW in conjunction with the Conservation Commission
Work more closely with composting partners to improve food scraps drop-off.	VM/DPW in conjunction with the Conservation Commission, and relevant partners.
Help promote and expand Hudson Compost Services (HCS).	VM/DPW in conjunction with the Conservation Commission and HCS
Collect and analyze data on the curbside pick-up program.	VM/DPW in conjunction with the Conservation Commission

Long-term

Recommendation (Category)	Responsible
Investigate and create a yard waste composting site on Village property.	VM/DPW in conjunction with the Conservation Commission, the Climate Smart Communities Task Force, and potentially HCS
Research and implement a municipally-run food waste recycling facility on Village property.	VM/DPW in conjunction with the Conservation Commission,the Climate Smart Communities Task Force, and potentially HCS

Conclusion

The initiatives proposed in this Organics Management Plan can bring significant benefits. More efficient management of wastes has economic value for individuals, businesses, and municipal operations. More subtly, increased participation in common enterprises such as composting and feeding the hungry can enhance the community spirit that underpins all social life. Above all, every reduction of the total of GHG emissions will result in a corresponding fractional reduction of the future global temperature and will diminish the risk of disastrous impacts from climate change.

The Plan is intended to provide a practical guide for the Village to leverage in the coming years. The Village plans to take a flexible, iterative approach, periodically reviewing progress and accomplishments and updating the Plan as needed. The knowledge built from outreach efforts will help inform how the Village communicates to specific groups about organics management, as well as how to integrate organics management into existing programs and initiatives. While the current scope of this report is limited to organics management, it is the hope and intent to broaden its reach in subsequent revisions to include broader waste management and recycling in the Village.

Appendix: Resources

- 14 Ways Consumers Can Reduce Food Waste
- 16 Tips for Restaurant Food Waste Reduction
- 17 Ways to Reduce Food Waste in Your Restaurant
- 2015 VILLAGES OF DOBBS FERRY & HASTINGS-ON-HUDSON DPW SHARED SERVICES/CONSOLIDATION FEASIBILITY STUDY
- 2016 US EPA Food Too Good to Waste Guide
- Beyond Love 'Em and Leave 'Em Expanding Climate Smart Yard Care Practices
- Community-Based Social Marketing
- Composting at the Hastings Farmers Market
- Connecticut Department of Energy and Environmental Protection's Pay as You Throw Program
- Dobbs Ferry Food Pantry
- EPA: Sustainable Management of Food
- FDA: Tips to Reduce Food Waste
- Hastings Compost Services
- Hastings Food Pantry
- Hastings Residential Food Scrap Program 2007-2020
- Household Material Recovery Facility (H-MRF)
- Latimer Announces Next Steps on Food Scrap Recycling Program
- Natural Resources Defence Council's 2017 Report on Wasted Food
- New York State Composting and Organics Recycling for Municipalities
- New York State Home Composting
- Suburban Carting Composting Services
- Sustainable Westchester Recycle Right
- Westchester County Food Waste Study Report