

# New York State Pollution Prevention Institute

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*Implementation Plan for:*

## **Village of Clifton Springs WWTP** *Clifton Springs, NY*

### **Municipal Food Scraps Composting Pilot**

**September 15, 2022**

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## Executive Summary

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The Clifton Springs Wastewater Treatment Plant (CS WWTP) is spearheading the implementation of a Food Scrap Composting Pilot Program to be rolled out in the latter half of 2019. The objective of the Pilot Program is to reduce the environmental footprint of Clifton Springs, by establishing successful food waste collection and composting for Clifton Springs businesses; creating the foundation for a future program that will allow all Village businesses and residents to participate. The CS WWTP has a robust and long-operated biosolids composting program in place currently, and is well positioned to expand this operation to include food scraps from local businesses and institutions. The first steps of establishing the Pilot have already been taken by: meeting with and gaining commitment from the business community and Village leadership, conducting compost trials (the Trial) to refine the food scrap collection and composting process using food scraps from three local businesses, and developing a plan for implementing the Pilot, which is outlined in this document.

Over the course of one calendar year, the CS WWTP will expand their collection and composting of food scraps from the current three businesses to a total of eleven participating businesses, for a total of approximately 4 tons/week of food scraps diverted from landfill. This will be done in a three-phased approach, bringing four businesses on in each Phase 1 and 2, and then expanding the program at each location to include 'front of the house' food scraps as applicable. Food scraps will be collected in either 7 gal, 32 gal, or 48 gal bins by CS WWTP staff, using a flat-bed truck with a hydraulic lift gate. Throughout the entire process of implementing the Pilot, CS WWTP staff will train new Pilot participants on proper source separation and provide follow up feedback and training to the businesses as necessary. CS WWTP will also collect data during the implementation process to monitor progress and quantify success and improvement areas. Over the course of, but also at the end of the Pilot implementation, CS WWTP will evaluate the Pilot, share and celebrate successes with the participants and the community, and make any necessary adjustments before expanding to include additional businesses and residents.

## Introduction

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### Background

Approximately 63 million tons of food is wasted each year in the United States. Although food waste/food scraps come from every step along the food chain (from agriculture down to household disposal), about 40% of this wasted food comes from consumer facing businesses. Clifton Springs

Wastewater Treatment Plant (CS WWTP) has committed to becoming a solution for diverting food scraps from landfill in their own community, starting with the implementation of a Food Scrap Composting Pilot (the Pilot), which will allow 11 local businesses to divert their food scraps from landfill. To prepare for the successful implementation of the Pilot, CS WWTP has worked together with the New York State Pollution Prevention Institute (NYSP2I) and composting experts from Cornell University to conduct composting trials with food waste (the Trial), engage stakeholders, talk with other food scrap haulers and recycling facilities, estimate food waste quantities, and create an implementation plan for the Pilot.

### Objective

The objective of the Pilot is to reduce the environmental footprint of Clifton Springs, by establishing successful food waste collection and composting for Clifton Springs businesses; creating the foundation for a future program that will allow residents and all businesses to participate.

## **Management Overview**

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### Team Members

*Table 1: Team members with key role to be played in Pilot*

<b>Name</b>	<b>Title</b>	<b>Major Role in Pilot</b>
Eric Merkley	Chief Operator, Clifton Springs Wastewater Treatment Plant	Chief Operator/Manager <ul style="list-style-type: none"> <li>• Coordinate hauling services with clients</li> <li>• Manage onsite handling of food waste</li> <li>• Maintain compost piles</li> <li>• Facilitate outreach to business/ residential community</li> </ul>
Employee	Assistant Operator, Clifton Springs Wastewater Treatment Plant	Operations Staff <ul style="list-style-type: none"> <li>• Operate equipment</li> <li>• Log compost status information</li> <li>• Maintain inventory of bins</li> <li>• Train pilot participant staff on source separation</li> </ul>
NYSP2I	New York State funded resource	Consultant <ul style="list-style-type: none"> <li>• Provide brief assistance services where necessary</li> <li>• Train pilot participant staff on source separation</li> </ul>
Local engineering company	Private Engineering Firm	Consultant <ul style="list-style-type: none"> <li>• Provide technical engineering design and environmental design services</li> <li>• Provide consult and grant funding application support</li> </ul>

Timeline

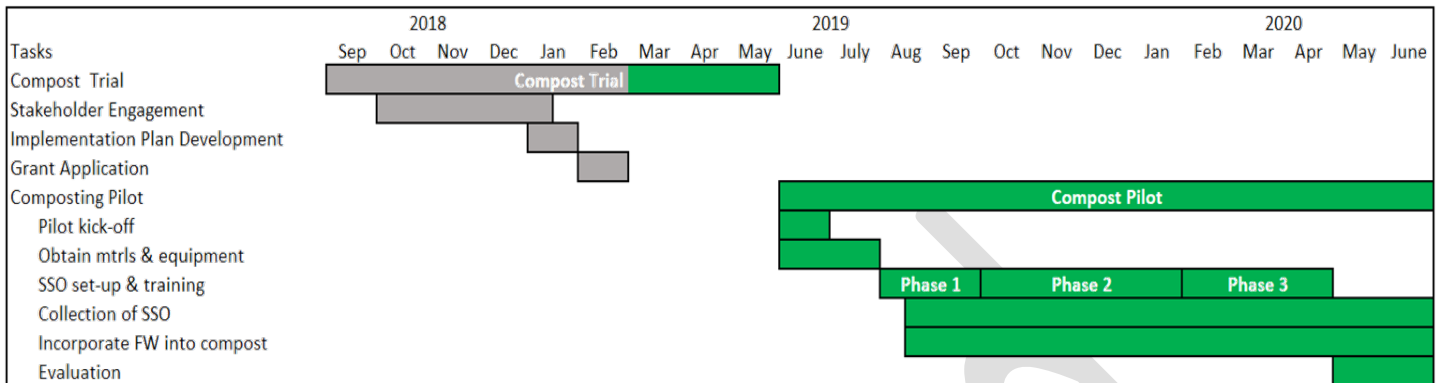


Figure 1: Timeline showing major activities leading up to and comprising the Pilot

- previously completed
- to be completed

## Stakeholders

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### Pilot Participants

CS WWTP has identified a list of businesses in the Clifton Springs area to participate in the Pilot, and has been working to gain commitment from them. As of January 2019, the target businesses are each in one of three stages of commitment: active participants in the compost trial, verbally committed, or have signed a letter of intent, pledging their participation in the Pilot. This information is summarized in Table 2. Copies of the letters of intent received to date are included in Appendix A.

Table 2: List of target businesses for Pilot participation, with Pilot commitment status as of 1/31/19

	Stakeholder Description	Commitment Status
1	Café	Active
2	Full service restaurant	Active
3	Florist	Active
4	Regional medical facility	Verbal Commitment
5	Regional medical clinic	Verbal Commitment
6	Child care facility	Verbal Commitment
7	Housing complex	Verbal Commitment
8	Supermarket	Signed Commitment

9	Limited service restaurant	Verbal Commitment
10	Assisted living facility	Signed Commitment
11	Full service restaurant	Signed Commitment

### Stakeholders

The Pilot will require the support and involvement from municipal staff, government organizations, and community groups. All key stakeholders in the Clifton Springs area have been identified and are listed in Table 2. Prior to the Trial and Pilot, initial engagement with neighboring towns was conducted. During the Trial, a local community organization served as a key stakeholder by offering their members an overview of the Pilot plan. The stakeholders listed below in Table 3 will be asked to share opportunities and updates related to the Pilot with the community as it is implemented. In addition to this outreach, CS WWTP will utilize the stakeholder networks to offer finished compost to residents, when available. An expanded description of how stakeholders will support, and be engaged in the Program is described in the Outreach & Education section.

*Table 3: List of key stakeholders for Pilot participation as of 1/31/19*

<b>Stakeholder Description</b>
Village of Clifton Springs Wastewater Treatment Plant owner, Compost Pilot decision maker
Neighboring town with shared services
Neighboring town with shared services
Active community organization
Regional farmers market
Association of local businesses
Regional school district
Recreation center
Active community organization
Regional library

## **Implementation Steps**

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This section describes the steps that CS WWTP will take to implement the Food Waste Compost Pilot:

1. Pilot Kick-off/ re-engage with stakeholders
2. Obtain necessary materials and equipment

3. Source separation set-up and training at businesses
4. Collection of source separated organics from Pilot participants
5. Incorporation of food scraps into compost process
6. Evaluation of the food waste compost pilot

The timing of each of these activities is outlined above in the Timeline section under Management Overview. Outreach and education regarding the Pilot has already begun and will continue to happen at different stages throughout the Pilot. Because of its overarching nature, the details of the outreach and education plan are included in a separate section at the end of this document, called Outreach & Education.

#### Step 1: Pilot kick-off/ re-engage with stakeholders

- a) Reach out to participants and reiterate timeline and commitment

CS WWTP will communicate to all participants that the Pilot has commenced. Although the participants have already agreed to participate, CS WWTP will review the timeline (ref. Management Overview) and plan for bringing them into the Pilot, to set expectations up-front and make the roll-out as smooth as possible. The Pilot will be conducted over three phases, adding new participants or types of waste (i.e. back-of-house food prep waste or front-of-house food scraps) with each phase. This approach allows CS WWTP to provide the needed attention to each new business starting out. The details of the phased approach are included in Step 3, and a map highlighting each participant by phase was created. [NOTE: The map created has not been attached to this modified Implementation Plan]

- b) Communication throughout the pilot

Clear and consistent communication with stakeholders will be an integral part of implementing a successful Pilot program. Ongoing communication with Pilot participants and other stakeholders is described in detail in the Outreach & Education section below. The communication strategy covers both direct engagement with participants to ensure success, along with sharing progress with the community at large through approaches such as newsletter updates or participating in public meetings.

#### Step 2: Obtain necessary materials and equipment






- a) Order materials and equipment

CS WWTP will need to supplement their existing compost equipment to be able collect and process additional food scraps during the Pilot. Table 4 lists examples of the required items for



implementing the Pilot as well as estimated price, and description of what each item will be used for.

*Table 4: Examples of necessary purchases for implementation of the Pilot*

Item	Example	Qty.	Estimated Price	Use
Light duty truck		1	\$15,000 (used)	To collect filled food scraps bins and deliver clean bins to pilot participants.
Hydraulic lift gate for truck bed		1	\$2,500	Aid in loading food scraps bins on/off of truck bed.
Hydraulic bin tipper		1	\$4,500	Dumping food scraps at compost site after collection
48 gal wheeled tote		20	\$92	Source separation of food scraps at large-scale pilot businesses.
32 gal wheeled tote		33	\$91	Source separation of food scraps at mid-scale pilot businesses.

Item	Example	Qty.	Estimated Price	Use
7 gal bucket with screw on lid		24	\$10	Source separation of food scraps at small-scale pilot businesses and Intermediate collection (e.g. in kitchen) of food scraps at mid and large-scale businesses.
Gamma seal lid for 7 gal bucket		24	\$10	Sealing 7 gal source separation buckets to prevent odor and deter vermin.

b) Create signage for food scrap bins. CS WWTP will:

- Create and provide signs to the pilot businesses to provide clear guidance on what materials can and cannot be included in their food scrap collection bins. The signs will be used in conjunction with employee training both at the beginning of their participation as well as throughout the Pilot as necessary. (ref. Outreach & Education)
- Use example signage provided by NYSP21 initially. Through the pilot, the signs may be edited to address specific items if contamination is an issue at certain locations.
- Design a logo and work with a local decal designer, which has already been identified, to create and print decals that will be adhered to each of the food scrap collection bins before being delivered to the Pilot participants.

### Step 3: Source separation set-up and training at businesses

The 11 Pilot participant businesses (ref. Table 2) will be brought into the Pilot in three phases to allow CS WWTP time and resources to properly train and troubleshoot with each of the new participants. The phases are described below. The process of bringing new businesses into the Pilot will be the same regardless of the phase. These steps include:

- Deliver signs and bins to the participating business at the start of their involvement.
- Train staff on the significance of the program, as well as how to properly source separate food scraps. The delivery of the bins and signs will be coordinated so that staff at the business are available for an initial training at that time. (ref. Outreach & Education)

### Description of Pilot Phases:

- Phase 1

During Phase 1 of the Pilot, CS WWTP will start collecting food waste from a full service restaurant, a supermarket, limited service restaurant, and the food scraps collected from the kitchen area at an assisted living facility. With exception of the limited service restaurant, which resides adjacent to the trial participants, all of the businesses are co-located. Bringing them online at the same time will improve efficiency with training and general oversight during initial startup given their close proximity. The limited service restaurant can also be introduced during this phase. The restaurant is very eager to get started and is in close proximity to the café and the floral shop, both of which were participants in the initial compost trial. The length of this phase is estimated to be 2 months.

- Phase 2

As a part of Phase 2 of the Pilot, CS WWTP will begin collecting from a regional medical facility, a housing complex, a regional medical clinic, and a child care facility. For each location, only back-of-house (BOH) will be collected during this phase. The front-of-house (FOH) food waste will be introduced into the pilot during Phase 3. Training, signage, bin placement, and contamination rates and causes vary between the two areas. Separating BOH and FOH into different phases of the pilot will allow CS WWTP to give the necessary focused attention to each area. For the regional medical facility, the regional medical clinic, and the child care facility, BOH includes all food waste that is generated in or brought to the kitchen area for disposal, (i.e. food scraps from kitchen prep and waste from patient trays). For the housing complex, back-of-house waste includes food scraps from the kitchen. This phase is expected to take place over 4 months.

- Phase 3

In the final phase, Phase 3, CS WWTP will start collecting front-of-house food waste from each of the locations from Phase 2, along with the assisted living facility. At the assisted living facility, FOH will include gathering food waste generated from residents. On a voluntary basis, residents will be able to separate their food scraps into bins placed alongside the trash and recycling receptacles that are co-located in waste collection points along each corridor of the building. The housing complex will also start to include residential food waste during this phase. The regional medical facility, child care facility, and the regional medical clinic will begin collecting front-of-house waste from the front-of-house, i.e. public-facing collection points. This phase should take three months to complete.

### Step 4: Collection of source separated organics from Pilot participants

- a) Pick-up schedule and food waste amounts

Source separated food scraps will be collected from the participating businesses between two and three times each week. Full bins will be replaced with clean bins at the time of pick up (i.e. “bin swap” model). Table 5 below outlines the initial pick-up schedule for the participating businesses, including the estimated weight and volume of food scraps generated weekly. The green highlights indicate the days that CS WWTP will be collecting food scraps at each location.

*Table 5: Food waste estimates and bins required by business, and pick-up schedule (numbers have been modified for publishing and may not add up correctly)*

Participant	Phase	Food Waste (lb./wk)	Volume (gal/wk)	Bin Type (gal)	avg # bins filled / day							# Bins
					S	M	T	W	T	F	S	
Café	Trial	420	50	7 gal	1.3	1.3	1.3	1.3	1.3	1.3	1.3	8
Full service restaurant	Trial	420	50	32 gal	0.3	0.3	0.3	0.3	0.3	0.3	0.3	3
Florist	Trial	180	150	48 gal	0.4	0.4	0.4	0.4	0.4	0.4	0.4	4
Supermarket	1	2000	240	48 gal	0.7	0.7	0.7	0.7	0.7	0.7	0.7	6
Limited service restaurant	1	400	50	32 gal	0.3	0.3	0.3	0.3	0.3	0.3	0.3	4
Assisted living facility	1	400	330	32 gal	1.6	1.6	1.6	1.6	1.6	1.6	1.6	10
Full service restaurant	1	800	90	32 gal	0.4	0.4	0.4	0.4	0.4	0.4	0.4	10
Regional medical facility	2	3000	360	48 gal	1.1	1.1	1.1	1.1	1.1	1.1	1.1	10
Regional medical clinic	2	500	60	32 gal	0.3	0.3	0.3	0.3	0.3	0.3	0.3	6
Child care facility	2	200	20	7 gal	0.4	0.4	0.4	0.4	0.4	0.4	0.4	8
Housing complex	2	420	50	7 gal	1.0	1.0	1.0	1.0	1.0	1.0	1.0	8

*[Method: Food waste estimates were determined by a combination of widely accepted proxy measures<sup>1</sup> and refined, where possible, based on data and anecdotes collected from each business individually. The weight of weekly food waste generation was converted to volume by using average food waste density data available from US EPA.<sup>2</sup> This total volume of food waste was assumed to be generated evenly throughout the week. The number of bins required was determined by the volume of food waste generated over the longest period of time a business would go without a pick-up. The type of bin was chosen based on visits to each location and understanding space constraints and preferences. This number was doubled to accommodate the bin swap model that will be implemented.]*

Although a tentative pick-up schedule has been defined, CS WWTP will take time during the first couple of weeks of each phase to make changes to the pick-up schedule if necessary, i.e. modifications to pick up days, times, and/or frequency. During this review and adjustment period, CS WWTP will offer same day or next day pick-ups if requested until the pick-up schedule has

<sup>1</sup> <https://www.rit.edu/affiliate/nysp2i/food-waste-estimator>

<sup>2</sup> [https://www.epa.gov/sites/production/files/2016-04/documents/volume\\_to\\_weight\\_conversion\\_factors\\_memorandum\\_04192016\\_508fnl.pdf](https://www.epa.gov/sites/production/files/2016-04/documents/volume_to_weight_conversion_factors_memorandum_04192016_508fnl.pdf)

been settled upon. This is a practice used by another organics hauler operating on a similar scale, and has proven to be an effective way for them to accommodate requested changes in an organized way.

b) Pick-up route

Appendix C contains a map of Clifton Springs with call-outs for each of the Pilot participants and color coded by Pilot phase. Also included are waste estimates for each of the locations, which are also included in Table 4. While the initial collection schedule was created in part due to the co-location of certain businesses, Clifton Springs covers less than 1.5 square miles, so adjustments can easily be made with minimal impact to collection efficiency. [NOTE: The map created has not been attached to this modified Implementation Plan]

c) Pick-up logistics

- Locations for bins have been identified at each of the participant business locations. In most cases, the bins will be stored directly next to their trash bins/dumpster. CS WWTP staff will load the full bins onto the truck bed using the hydraulic lift gate, and leave empty clean bins in their place.
- At the time of pick-up, CS WWTP will check the bins for contamination, and take photos of any contamination seen to be used as part of the training. This practice is used by other food scrap haulers of similar size and is effective in helping to change behavior when paired with training.
- CS WWTP will also maintain a log of the weight of food waste collected from each business per pick up. This information will be communicated back to the businesses so that they may share their metrics internally, and periodically the overall food waste diversion will be shared with the Clifton Springs community to garner more support of the program and develop interest from other businesses. (ref. Outreach & Education)

Step 5: Incorporation of food scraps into compost process

The collected food scraps will be brought back to the CS WWTP composting facility (ref. Appendix C for CS WWTP location). CS WWTP currently composts their sludge in an enclosed building adjacent to the WWTP. The existing building, layout and equipment will all be used for the Pilot, as the collected food scraps will be incorporated into the existing compost processes, mixed with wood chips and biosolids.

a) Layout

To accommodate the incorporation of food scraps into the process, CS WWTP has already added a food scrap staging area (Figure 2, Bay 3) to the building layout.

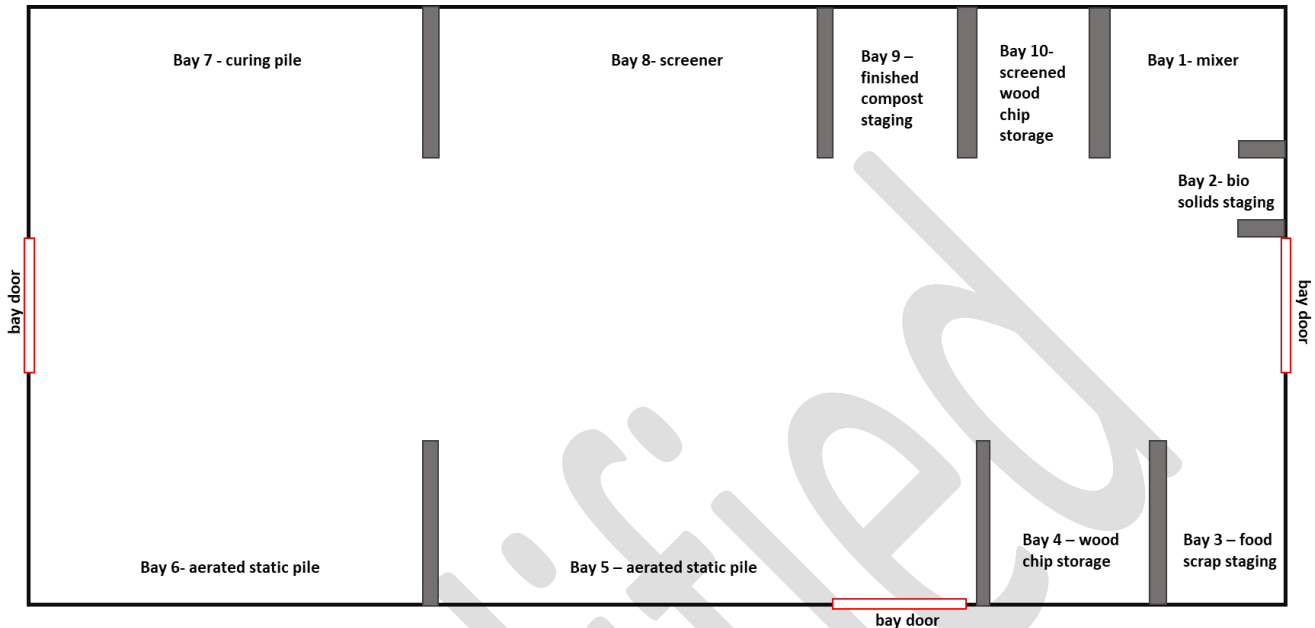


Figure 2: Layout of CS WWTP composting building

b) 'Formula' / proportions of materials

Prior to the Trial with the café, full service restaurant, and the floral shop, CS WWTP was composting its biosolids with wood chips; a high level process map is included in Appendix D. Approximately once per month, sludge from the CS WWTP is pressed and then mixed with wood chips, in a ratio of 2 yards of chips for every yard of sludge. After a layer of wood chips are laid down on the airline, the pile is built and then covered with a layer of wood chips.

The composting process with temperatures and curing times are dictated by CS WWTP's permit for composting sludge. The high level process does not change with the inclusion of food scraps. With the integration of food scraps into the process, minimal changes need be made. The updated process is shown in Appendix D. As the waste is brought onsite, it is set aside in Bay 3 in the food scrap staging area and either covered with wood chips or some of floral waste from the floral shop. This additive acts to lower the materials moisture content and reduce odor. Once a new pile is ready to be built, just as before, a layer of wood chips are laid down on the airline. The food waste/wood chips, pressed sludge, and wood chips are then mixed in a ratio of 1:1:1 until no more food waste remains. Once CS WWTP is out of food waste material to add to the pile, the mixture returns to a 2:1 ratio of wood chips to sludge until a full pile is built. A layer of wood chips on top

completes the build. The same process, which CS WWTP worked with Cornell University to refine during the Trial, will be used during the Pilot as well.

c) End use

Current practice at CS WWTP is to provide the finished compost to residents of Clifton Springs and neighboring towns free of charge. The Village also uses a volume of finished compost on their grounds annually both at the WWTP and on landscaping around the Village. The entire volume of finished compost has historically been used through this method. CS WWTP will also offer the compost free of charge to pilot participants. Between these different end users CS WWTP does not expect difficulty in distributing the entire volume of finished compost. However, the CS WWTP does have additional customers on standby if there is a significant amount of finished compost left.

- The regional school district, which has used compost in the past has use for the finished compost on their grounds and athletic fields.
- Local contractors have also used the WWTP compost in the past, and would be able to use any remaining amount of compost left over.

Step 6: Evaluation of the Food Waste Compost Pilot

Throughout the pilot process and at the conclusion of Phase 3, CS WWTP will take time to evaluate the efficiency and effectiveness of the pilot through collecting quantitative and qualitative information. Collecting data on key measures is beneficial for making improvements to the pilot as well as measuring success.

a) During the Pilot

At the onset of the pilot, CS WWTP will define the key attributes and goals they will track throughout the process to track progress and make changes, options include: total compost generated, total food waste collected, food waste collected per business, number of trainings performed, etc. Communication and information sharing with each Pilot participant will be important during the Pilot process. During regular communication with the participants, CS WWTP will periodically share the results of the company's contribution to the Village's overall goals in order to positively reinforce the effort they are making towards this larger objective. Throughout the process, CS WWTP will also gather feedback from Pilot participants to assess what changes may need to take place before opening the program up to more participants. As described above, especially during the first few weeks of bringing businesses online, important topics to discuss will be: any recent contamination issues (illustrating with photographs), frequency of pick-ups,

size and number of bins, bin locations, needs for additional training, adequacy of signage, any concerns with vermin or odors.

In addition to assessing and refining aspects of the pilot with participants, CS WWTP will evaluate and adjust their internal procedures throughout. Validating that the process is scalable is key. Areas of focus within the process to evaluate will likely include: handling/removal of contamination from businesses, efficacy of the collection process and bin cleaning, processing and storage capacity at the WWTP. As a part of the collection or bin cleaning process, CS WWTP will take weight measurements from each bin and record the information by Pilot business (ref. Step 4, c). Additionally, during this process, CS WWTP will note (primarily through photographs) contamination issues or trends as required, then share the feedback with those businesses as a training tool.

b) Post-pilot

At the close of the pilot, CS WWTP will take time to reflect internally on next steps based on feedback received and observations made. Improvements will be prioritized based on feasibility, cost, etc. The high level plan will be discussed with main stakeholders before moving forward and announcing to the general public. As discussed in Outreach & Education, CS WWTP will celebrate with participants and the community to mark the completion of the pilot. This will include documentation and sharing of the pilot outcomes, i.e. metrics collected, feedback gathered, and changes to be made.

## **Outreach & Education**

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CS WWTP will need to conduct ongoing outreach and education in the business and residential community to engage, recruit and retain participants for the Pilot. Outreach and education strategies in this implementation plan focus primarily on Pilot participants and Stakeholders. Continued community-based training and outreach for a wider audience will be critical to long-term success and should be considered during Phase 3 of the Pilot and beyond.

### Outreach

Outreach is a way to introduce a new topic to an audience using brief introductions. During the Trial, a variety of outreach methods were employed: CS WWTP, with the support of NYSP21, conducted outreach phone calls, sent informational letters to potential Pilot participants (ref. Appendix B) and presented the Pilot concept to a group of stakeholders at a community meeting. In addition, a Letter of Intent (LOI) was sent to the Pilot participants. The LOI (ref. Appendix A)



confirms the participation of the business in the Pilot, outlines the responsibility of the participant and what to expect from CS WWTP moving forward.

CS WWTP will conduct clear and consistent outreach to Pilot participants. In Implementation Step 1, CS WWTP will communicate the Pilot timeline, and announce to Pilot participants that the Pilot has commenced. Depending on the business, this will occur in the first week of either Phase 1, 2 or 3 of the Pilot. Basic training on the significance of the Pilot, as well as how to properly source separate food scraps will be provided to business staff at this time. In the first weeks of the engagement, CS WWTP will need to engage new participants early and often by conducting regular, and when possible scheduled, on-site visits, and offer regular feedback (ref. Education). CS WWTP should also offer additional outreach through on-site visits when a Pilot participant expands their output (e.g. collection expands from BOH to FOH). CS WWTP will also need to continue to request and collect the LOI from remaining Participants (ref. Table 1).

In addition to Pilot Participants, CS WWTP will conduct ongoing outreach throughout the Pilot to key Stakeholders and all Team Members (ref. Table 1), the Village of Clifton Springs leadership, and the neighboring communities to ensure long-term success of the program. CSWWTP will continue to leverage existing municipal and community resources whenever possible. Continued engagement at the community level through neighborhood associations, community groups, and the social networks listed in Table 3 will have a positive influence on long-term participation. This outreach may be conducted through traditional media, mail and e-mail communication, but the likelihood of long-term commitment is greatest using personal contact.

### Education

Educational activities allow messaging and discussions to be tailored to the needs of individuals or small groups. CS WWTP will address emerging questions and challenges of the Pilot by offering, as needed, individual training to Pilot participants. Consistent training will lead to more successful and long-term behavior change- participants will learn to efficiently and effectively divert their food scraps from traditional waste bins to designated food scrap bins. CS WWTP will provide Pilot participants with all the necessary materials (ref. Step 2) and appropriate level of information needed to set the business owners, and their staff, up for long term success.

CS WWTP will offer food waste bins that have standardized decals and will be well marked for easy identification and use. Additionally, as outlined in Step 2, all Pilot participants will be provided signage to post with the food scraps bins as reminders what items can (and cannot) be accepted. CS WWTP, when conducting regular onsite visits (ref. Step 6) will review with participants:

- Their access to clean bins and clear signage

- That they are satisfied with the sizing, locations, and collection frequency of the bins
- Concerns with contamination, odor, or vermin
- Any additional training requirements or requests
- Updates to Pilot progress, e.g. food scraps diverted from landfill to date

As outlined above, CS WWTP will provide consistent review and feedback with Pilot participants; information and materials alone will not lead to substantive behavior change. When challenges arise, CS WWTP will address issues and offer solutions to the businesses that may lead to better outcomes in the future. A variety of barriers (issues) and possible solutions are outlined in Appendix E, and will be referenced by CS WWTP as necessary. [NOTE: The issues and solutions table created has not been attached to this modified Implementation Plan] In addition to offering regular technical support and guidance to businesses related to food waste diversion process, CS WWTP will also consider engaging other community-based marketing and education strategies through:

- Sharing successful educational strategies- peer-to-peer training, employing a staff champion as an internal trainer, sharing Pilot participation with customers.
- Regular communication in Village newsletters and publications- CS WWTP will share the impact the businesses have made by diverting food waste by sharing; the number of businesses trained, the number of staff included in this process, pounds of food waste diverted, and the amount and benefit (environmental and financial as available) the finished compost has had within the community.
- Offering tours of the wastewater treatment plant and composting process
- Creating community or business food waste diversion goals- sharing with staff or creating a competition with other local businesses (ref. Step 6).
- Presenting one or two community workshops for the general public- social diffusion is critical to long-term success; CS WWTP will highlight businesses that have engaged in the Pilot to share their experiences with the new food waste diversion activities.
- Planning and conducting a wrap-up event to celebrate the end of the Pilot, share successes and share future goals (ref. Step 6).

## Conclusion

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The Clifton Springs Wastewater Treatment plant is well-positioned to implement and maintain a successful Food Waste Composting Pilot in 2019. CS WWTP has been operating a sludge composting processes on-site for many years, and, with well-planned purchases and process adjustments outlined within this Implementation Plan, will be able to incorporate approximately 4 tons/week of food scraps from 11 local businesses into their composting process. With ongoing outreach to participants and the community as well as education for the businesses participating, CS WWTP will ensure the success of the Pilot and establish a solid foundation for expanding the Pilot, keeping food scraps out of the landfill and allowing residents and all businesses to participate in the future.

## Appendix

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- Appendix A – Letter of Intent Sample
- Appendix B – Pilot Info Letter Sample
- Appendix C – Business Map (not included in modified version)
- Appendix D – Compost Process Flow Diagrams
- Appendix E – Issues and Solutions Table (not included in modified version)

Letter of Intent  
Clifton Springs Food Waste Composting Pilot Program

Eric Merkley  
Chief Operator  
Clifton Springs Wastewater Treatment Plant  
50 Ladue Avenue  
Clifton Springs, New York 14432

Dear Mr. Merkley,

This letter confirms that the business I represent intends to participate in the Clifton Springs Food Waste Compost Pilot Program, should it be funded in 2019. I understand that by participating, I commit the cooperation of my staff in separating food scraps into separate collection bins (provided by the Village of Clifton Springs), which will be picked up by Eric and his team and turned into compost. By participating, the business I represent will be contributing to the mission of the Program:

*To reduce the environmental footprint of Clifton Springs, by establishing successful food waste collection and composting for Clifton Springs businesses; creating the foundation for a future program that will allow residents and all businesses to participate.*

This letter is not a legally binding document.

Sincerely,

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Business Name: \_\_\_\_\_



**Village of Clifton Springs**  
1 West Main Street  
Clifton Springs, New York 14432  
315-462-5151 FAX 315-462-6235  
TDD 1-800-662-1220

*An Equal Opportunity  
Employer and Provider*

Business  
Address  
City state, ZIP

Dear \_\_\_\_\_,

We are reaching out to share news of a new food waste reduction project in Clifton Springs and to ask for your participation.

The objective of this project is to reduce the environmental footprint of Clifton Springs, by establishing successful food waste collection and composting for Clifton Springs businesses; creating the foundation for a future program that will allow residents and all businesses to participate.

This project is being led by the Village of Clifton Springs, with support of the New York State Pollution Prevention Institute. The project will be implemented in three phases: planning, pilot implementation, and program expansion. Planning is in process now, with a target start date for a pilot in the latter half of 2019. The Village of Clifton Springs will be applying for State funding to execute the pilot. Pending a successful pilot, the program will be expanded the following year.

We are asking for commitment from several businesses to participate in the pilot, so that we have a full list of participants when the pilot gets underway in the fall of 2019. Participation will require collecting food scraps in a separate bin from your trash which will then be picked up by Village staff. Collection bins and pick up service will be provided by the Village. Support from NYS P21 will be available for help (e.g. training) if needed.

To date, the following businesses have committed their participation:

- Business 1
- Business 2
- Business 3
- Business 4
- Business 5
- Business 6

We hope you will consider joining them as part of this effort to keep food out of landfills. We will be following up in the coming weeks to discuss the opportunity further.

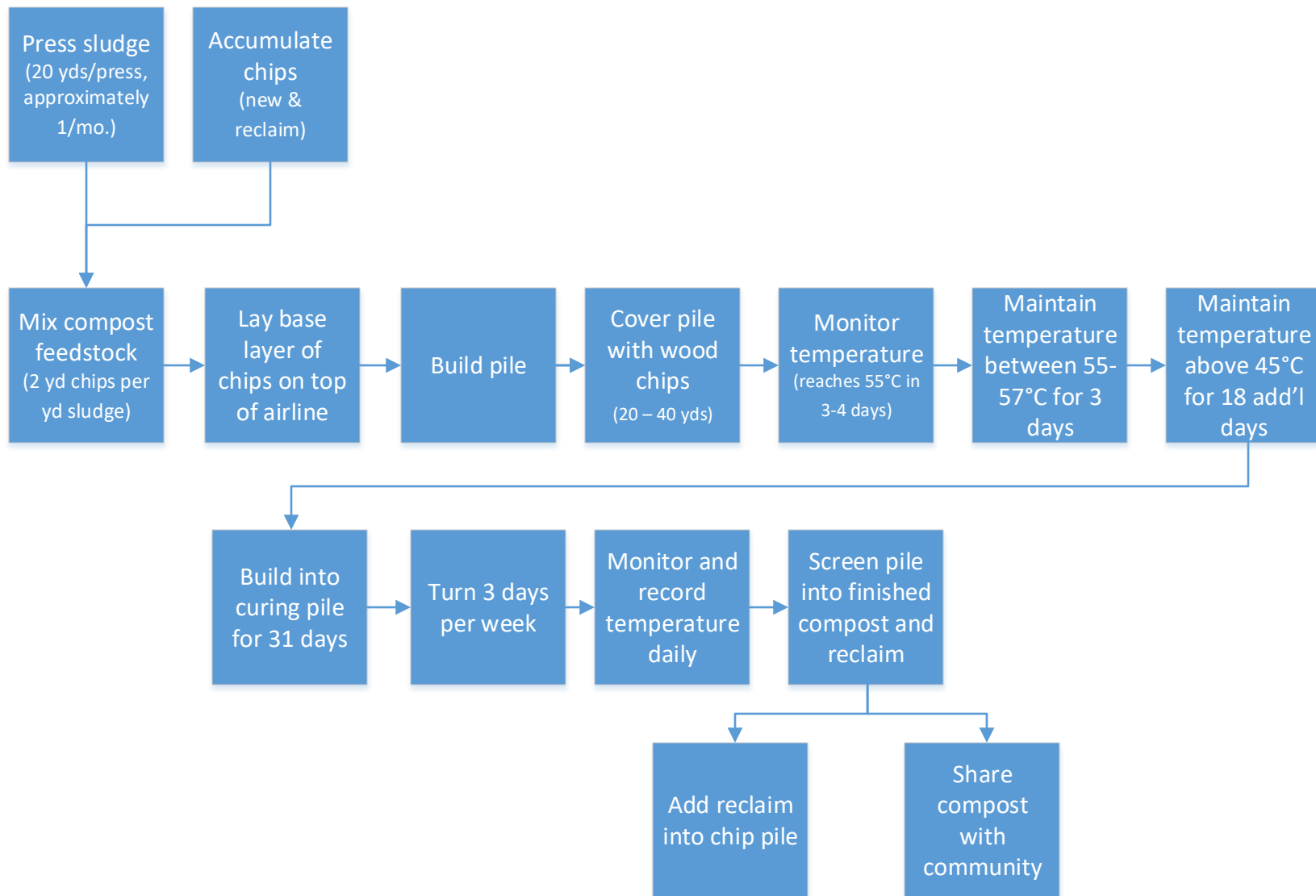
Sincerely,

William Hunter  
Mayor  
Village of Clifton Springs

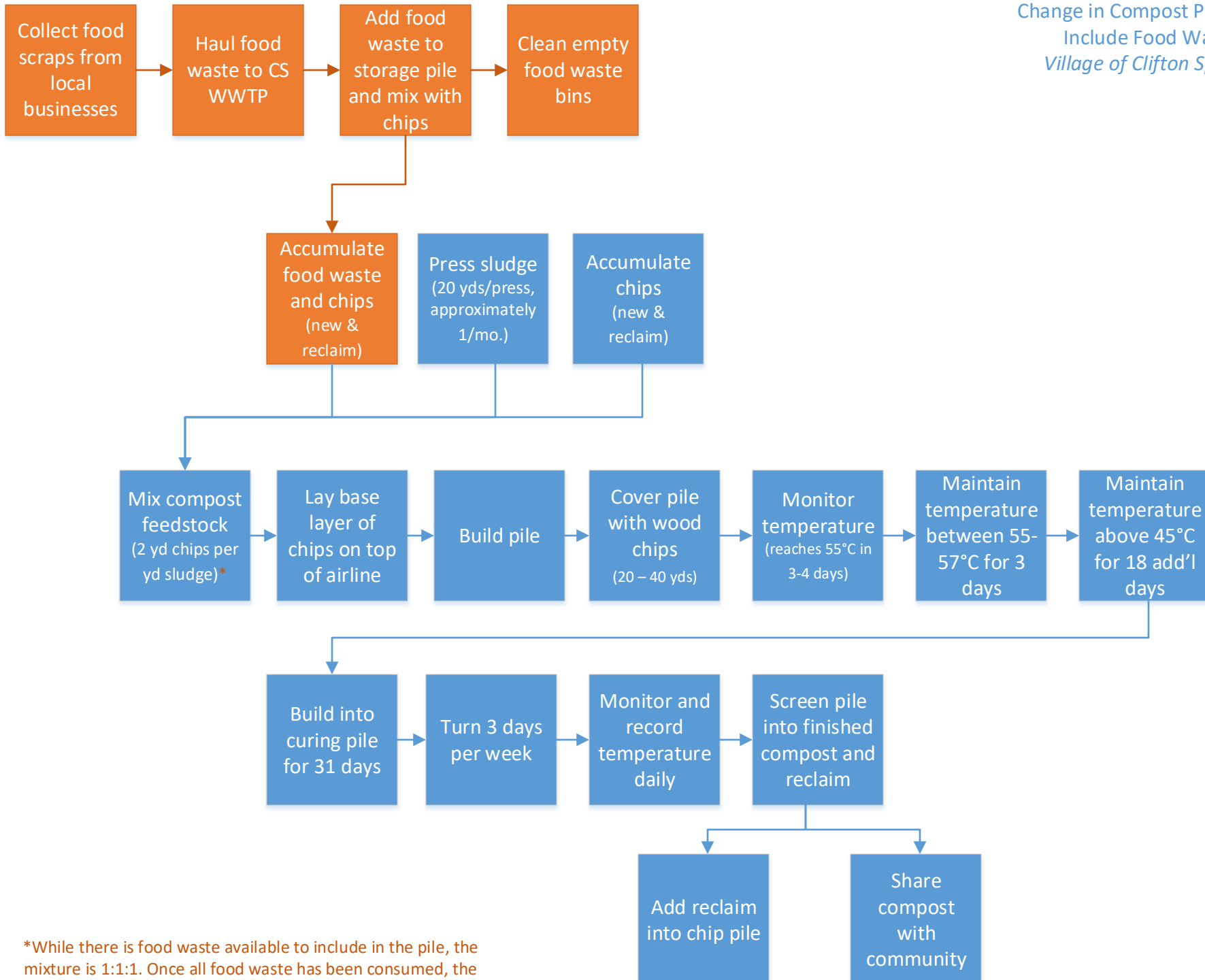
Eric Merkley  
Chief Operator  
Village of Clifton Springs  
Wastewater Treatment Plant

Charles Ruffing  
Director  
NYS Pollution Prevention Institute

Baseline Compost Process  
*Village of Clifton Springs*



Change in Compost Process to Include Food Waste  
Village of Clifton Springs



\*While there is food waste available to include in the pile, the mixture is 1:1:1. Once all food waste has been consumed, the proportions return to 2:1 chips to sludge.