10 Upper College Drive

Alfred NY, 14802

November 5th, 2018

Dr. Matteson

SUNY Alfred State College

10 Upper College Drive

Alfred NY, 14802

Dear Dr. Matteson,

Within the contents of this binding, please see our official report of the *Central Dining Hall Waste Stream,* in accordance to the required final completion date of 12/5/2018.

Our intention with this report is to display our research and conclusions regarding the waste management practice, specifically located at the Central Dining Hall of Alfred State. Furthermore, our goal is to offer recommendations that will minimize the waste produced within the CDH.

If you have any questions regarding the following content, I encourage you to reach out to any one of the Trash Titans. We hope that this report will be found satisfactory, and a building block for future students to improve and expand upon.

Respectfully yours,

Trash Titans

Enclosed; Technical background report on CDH waste streams

**Report on**

**[Central Dining Hall Waste Stream]**

submitted to

Dr. Matteson

Professor at SUNY Alfred State College

Alfred NY, 14802

December 5th, 2018

By

The Trash Titans

This report examines the current waste volumes and management procedures at the Central Dining Hall of Alfred State. A collection of management and student interviews formulated the following Waste Audit, which includes a visual diagram of the flow of waste. Finally; we propose several recommendations that will help reduce the amount of food waste produced at the CDH.

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**EXECUTIVE SUMMARY**

This report provides an analysis and evaluation regarding the efficiency of the waste streams in and around the Central Dining Hall Building (CDH) on Alfred State University’s campus. Research methods that were used includes surveying the students as well as ACES employees,

Our findings showed that the Central Dining Hall was in fact producing more waste than they potentially could be. The students that were surveyed unanimously said that they had seen many other students wasting food in the CDH as well as stating that there is in fact a waste problem regarding this specific building. The management that had been surveyed said that there was a possible system that was going to be used to track and record the amount of waste being disposed, but it was never implemented.

The management also stated how all of the kitchen staff takes all non-meat items that were leftover from the day and the Agricultural students take it to be composted our farm. They also said that the students themselves could help cut down on excess waste if they simply didn’t overfill their plates with food. Along with this, we were informed that the students not only throw out extra food, but their plates and silverware as well.

“*The amount of plates, silverware, bowls ect. that are thrown in the trash each day is ridiculous! I have ordered for this semester alone over 2000 forks – the students steal or throw it away. “*

Our suggestions would be to fully follow through with the waste tracking system to have a much better idea of what is being wasted. We thought that the composting of the leftover non-meat items was a fantastic idea and believe it should be extended to the entire building so that even the student’s leftover food can be used as compost. Using the waste tracking system, you could then determine what the waste consists of, and with this information, deal with the contents accordingly as opposed to losing revenue from lost eating supplies.

**Report on**

**[CDH Waste Stream]**

**I. INTRODUCTION**

For this project our group is investigating the waste stream of the central dining hall on the main campus of SUNY Alfred State College of Technology. With the intent to propose solutions to minimize the food waste that is generated within the Terrace. For a college that has been recognized by national award for outstanding food and style, any outstanding amount of food waste is concerning. To accomplish this, we’ve been setting up interviews with faculty and students, and also tracking the transportation of the waste as it moves around campus.

**II. INTERVIEWS**

This project is focused on the waste streams around SUNY Alfred State college of technology. The focus for our group is towards the Central Dining Hall. The target data body at the Central Dining Hall consisted of management faculty and students that occupy this location. Interviewing students and faculty provides vital perspectives on the waste management in the dining hall. We sought answers to questions such as how much waste is produced, where the waste goes, what is done to minimize waste?

**MANAGEMENT INTERVIEWS**

The most important target for information on the CDH waste stream is the faculty and management that are in charge of the Terrace. Our goal with interviewing management is to obtain information that could help us propose solutions to help minimize food waste. This information could be about how much food waste is generated, what kind of food is being wasted the most, how is waste separated, and where does this waste go. Allison Gibbs, Central Dining Hall Supervisor provided answers to the following questionnaire.

**Management Questionnaire**

1. **What department within ACES or Alfred is responsible for CDH Waste**

**Management?**

*Transportation removes cardboard/recyclables, dumpsters.*

2. **Does the department analyze the ratio of food produced/thrown out?**

*We don't look at that, we do record tons picked up daily, weekly, monthly.*

*They looked at system of weight and track that, but it was never implemented.*

3. **On average, in whatever measurement possible, how much food is thrown**

**out? (Per Day/Week/ or Month etc.)**

\*\*\*

4. **How does the ACES department know how much food supplies to order?**

*We have a software program that helps us with our ordering process. There are several steps to this.*

*A. Write menus*

*B. Enter menus into the system*

*C. This will generate our orders, production work, post cost paperwork, advanced prep*

*D. The manager and the production supervisor then go through the paperwork and put in order and into several different notebooks for the General employees.*

*E. The Generals do the prep daily for the next day. They have to report everything they use, the amounts and what they have left after the meal.*

*G. All of this data is then transferred to a Post Cost Worksheet.*

*F. The manager does orders weekly. They use the info from the Post Cost sheets to see what was prepared and what was left over. We also report if we ran out of an item. The Post cost sheets give us a general idea of what to order.*

5. **In what ways is the CDH garbage separated?**

*Paper/Landfill/Recyclable cans and bottles*

*Recyclable plastic containers, metal cans, and glass (in the kitchen)*

*We try to put all food waste in the garbage disposal at the dish machine.*

*All food waste in the kitchen (NON MEAT ITEMS ONLY) are put in compost bins .*

*The Ag students pick it up daily and take it to a compost area at the farm*

6. **What does ACES/Alfred do to minimize waste?**

*We utilize leftovers in the kitchen*

*We follow recipes prepared according to the number of students expected*

*We compost*

*We recycle*

*We try to order only what we need for recipes*

*We try to minimize the use of paper supplies – if we use them most products are earth friendly –(these products are very expensive)*

*Our take-out containers we use are reusable – not going to the landfill*

*We recycle all cardboard*

*Our students could help just by doing a few small things-*

*Don’t overfill your plates with food – you can come back for more – they throw away so much food*

*The amount of plates, silverware, bowls ect. that are thrown in the trash each day is ridiculous! I have ordered for this semester alone over 2000 forks – the students steal or throw it away.*

7. **How would you change the way or encourage better ways for Alfred to**

**handle the food waste?**

We recycle, compost, use garbage disposals and encourage students to do the same.

\*\*\* Indicates no response

**STUDENT INTERVIEWS**

Students are the secondary target for obtaining information on waste streams at the Central Dining Hall. The goal with interviewing students is to obtain information to help us learn more about the waste that is generated around the Terrace from first hand experience and a different perspective than faculties point of view. Students and peers could provide information such as what kind of food they throw out the most, where do they throw out the food, what kind of food they stay away from etc. This information could help us propose new ways to minimize waste by directing us to the source of what food is not being consumed.

**STUDENT INTERVIEW QUESTIONNAIRE #1**

* Do you visit CDH?

-Yes

* What is your least favorite food?

-Pizza

* Do you recycle while you are there?

-No

* How much food do you waste?

-Miniscule amount

* Do you often see others wasting food?

-A majority of the time

* Do you think that there is a waste problem?

-Yes

* What would you do to fix food wasting problems?

-make food people want to eat. Make food surveys to see what people want to eat. Awareness and portion size signs.

**STUDENT INTERVIEW QUESTIONNAIRE #2**

* Do you visit CDH?

-Not often

* What is your least favorite food?

-Anything frozen

* Do you recycle while you are there?

-yes

* How much food do you waste?

-none

* Do you often see others wasting food?

-Yes

* Do you think that there is a waste problem?

-Yes

* What would you do to fix food wasting problems?

**-**Composting, donating food, regulation food that's produced.

**STUDENT INTERVIEW QUESTIONNAIRE #3**

* Do you visit CDH?

-Yes

* What is your least favorite food?

-Majority of the food isn't good

* Do you recycle while you are there?

-yes

* How much food do you waste?

-about 1 full plate per week

* Do you often see others wasting food?

-Yes

* Do you think that there is a waste problem?

-Yes

* What would you do to fix food wasting problems?- better quality food, go back to home cooking style (made from scratch).

**III. WASTE AUDIT**

A waste audit is an in depth analysis of waste management in its current state. It consists of an analysis of the management and student interviews. The reader should view this section to see the strong/weak aspects and gaps in the practice. The intended use of this section is to expand on answers to the questionnaire.

**RESULTS**

Conducting the various interviews yielded valuable information. We draw our conclusions directly from the answers to the questionnaire. In the following section we explore the qualitative measures ACES takes to minimize waste.

Our questionnaire was formulated to provide a thorough description of the existing measures ACES takes in preparing, handling, and discarding of food. Allison Gibbs, Central Dining Hall Supervisor was kind enough to provide a detailed look into the dinning system.

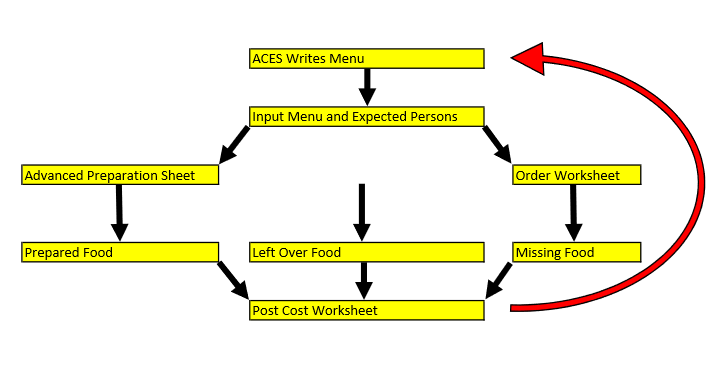
First, ACES create a Menu for the week based on approved recipes. Most of the computations for ingredients and supplies are done by a software. The weekly recipes and a count of expected persons are put in. The software generates an Order Sheet and a Preparation Worksheet, as well as a Post Cost Worksheet to be filled out at the end of the week. The Post Cost Worksheet analyzes three factors, prepared food, left over food, and missing food. ACES reuses recipes and will use the previous Post Cost Worksheet to revise the future Menu and Order Worksheet. Coherently reducing excess supplies and increasing satisfaction.

In addition, ACES with the help from Alfred State participate in the expected waste management procedures. Paper, Metal, Plastic, and food waste are all separated and recycled accordingly. The food waste is compiled in bins, picked up daily by the Agriculture students and taken to a compost pile at the Alfred Farm.

Student interviews record a minor amount of personal food waste while attending the buffet. However, indicate other people are wasting food. With that we are unable to confidently quantify the legitimate amount of food waste, but it is fair to conclude there is a notable amount of waste experienced.

Student and management concerns revolved around the type of food and limiting portions. Our group took this angle into consideration when developing our conclusions.

**WASTE FLOW CHART**



**IV. CONCLUSION**

After investigating the waste stream in the Central Dining Hall and specifically The Terrace, we, the Trash Titans have yielded very important data. Through brief and extensive interviews with ACES faculty and staff, and a student sample body here at the SUNY Alfred State College of Technology campus. For a college that has been recognized by national award for outstanding food and style, any outstanding amount of food waste can be improved upon. We propose several ideas that when implemented into the schools can reduce the excessive amount of waste generated.  
  
One reason for most of the excess waste is due to the nature of the buffet style dining. ACES analyzes this with their Post Cost Worksheet most effectively with popular recipes and adjusts their Ordering Worksheet effectively. However, our concern is with the need for such large quantity of food produced. Customers enjoy piling food on their plate, but some of this food that isn’t eaten. It is reported by the student body and the CDH Supervisor Abbey Gibbs. An implementation of the With the collected data and statistics, we’d be able to determine how much food is usually consumed, and we limit the production of food. We could also take the excess, uneaten food, and donate it to charities within the community promoting the activity on campus. Another possible solution could be that not only do employees produce less food, but they serve the food for you. This could potentially prevent anybody from putting more on their plate than they could eat. If they want a second serving, they can return for another helping. Also *displaying* less food is another possible option. When people come to the Terrace without thinking they put excessive food on their plates. But, with less food on display, people will feel obligated to take less food, and this could reduce the servings of food thrown away. In addition, the students we interviewed also had some effective suggestions. One of them suggested raising awareness about waste. Putting up a sign in front of the terrace or on tables reminding students about portion size could be an effective method.

**V. SOLUTIONS**

Upon doing research, we’ve made note of something important. **A major reason for most of the excess waste is because of the food that’s being wasted by students**. Due to students’ tendency to “bite off more than they can chew”, they often end up throwing away the food they don’t eat.

People come to the Terrace hungry, and often without thinking, put excessive food on their plate. But, with less food on display (not necessarily in ready), people will feel obligated to take less food, and this could reduce the servings of food thrown away. Over time, the food production could be lowered, and from there, we’d be able to see what works and what doesn’t production-wise.

In addition, the people we interviewed also had some effective suggestions. One of them was to encourage people to consume less food and return if they want more. By putting up a sign in front of the terrace, this could be much easier to spread awareness for. Alternatively, another idea could be that employees serve the food for you. This prevents anybody from putting more on their plate than they could eat. If they want a second serving, they can return after they’ve eaten their first.

Another issue with waste, are the students throwing out plates and silverware on accident. Following up on the signs encouraging recycling, we could use plastic utensils. Likewise, we could encourage the use of paper or plastic plates. Having a recycle bin next to the trash cans could ultimately serve to help preserve waste in the long run.

Furthermore, we could take the excess, uneaten food, and donate it to charity. A great way to kickstart this would be to make it a known activity on campus. This could give students that want to get involved in helping others a chance to apply for jobs producing food, in the knowledge that it won’t be wasted.