

### **Appendix 3:**

In this document we have collected four accounts of citizens who live today in 2040 to talk about their lives today related to food and food waste, and compare it to how they used to interact with food back in 2018.

#### **Citizen 1:**

I wake up a few minutes before my alarm goes off, and in that time I run through a mental to-do list for today. First I am going to go out to the garden and see if there is any fresh fruit that I can pick for breakfast, I would really love some blueberries! If there is some, I'll pick it, wash it and stick it in the fridge so it can chill before I eat it. I will also pick some fresh herbs to steep for my morning tea. If I see any other fruits and vegetable that I can use as a snack or dinner I will also pick those and bring them in. While I am out in the garden I will stir up the compost and toss in anything from the day before. I'll then go back to my room and get dressed for the day.

Out in the garden it seems to be a good day! There are lots of fruits and vegetables ready to pick. I pick up my basket and start collecting blueberries, tomatoes, green beans, carrots, zucchini, and a handful of mint and basil.

I am fortunate to live a little outside of the city so I have quite a large garden in my yard. My dad and I spent the summer to expand the garden that my parents had built when they moved into the house. Right after my parents got married, there was a catastrophic drought that hit America. They say that life, and more so everyday habits, changed a lot after the drought. They used to go to the grocery store and find foods from all over the world, regardless of the season. There was a constant supply of every possible fruit and vegetable. Food was a lot cheaper and whatever was not used, was often just tossed in the garbage can and sent to landfills. However, after the drought this all seemed to go away. Today, you can no longer get any type of food you want, from anywhere in the world, regardless of the season. I honestly do not know if I would like that. The thought of importing bananas from Guatemala or Colombia seems so strange to me. Food prices started to go up other structural changes were enough for my parents to want to build a garden. This allowed them to produce food for a lower price and be more in touch with food. A few years later, many cities and towns started to encourage, and some even mandated, having personal or neighborhood farms.

One has to be very careful when harvesting the garden. If you pick too early, the food is not at its prime and will have to ripen inside, which never tastes as good as when it ripens on the plant. However, if you pick too late, the fruit and vegetables are often soft and squishy. Picking too few means you may have to go out later in the day to pick more to make sure there is enough for dinner. Picking too many means there will be leftovers, which we try to avoid at all costs. Neither is exactly desirable, so it is essential to think ahead and plan picking accordingly. It is illegal to throw away any food scraps or left over food. If we have food scraps that cannot be used we will compost them. If we have left over food that is still good to eat, we will offer it to our neighbors. Our neighborhood has a very close relationship and swap food and ingredients quite often. A day rarely passes when I do not see one of the neighbors walking down the street with a basket, either collecting from others, or walking around with his/her leftovers for others. If

we cannot get enough food, mostly fruits, vegetables, and herbs from our garden or from neighbors we have to go to the store or local market. My family doesn't like to do this too often because it is a lot more expensive and we prefer the fresh taste of just picked foods.

## **Citizen 2:**

### Day 1

This was the second meal of the day that I couldn't finish, and my mother knew it. We had been sitting at the table for over forty-five minutes, and every bite I took seemed to somehow replace itself on my plate.

"Elise, you know it's not going anywhere," my mother said from across the counter. "And nothing else can fit into the compost bin, so you're either eating it now or tomorrow for breakfast."

Not to be a brat, but leftover eggplant parmesan was not the first thing I wanted to look at the next day. Or really any day. My sister sneered at me across the kitchen as she forcefully fed our dog the rest of her own dinner. Poor thing looked like she was having as much trouble as I was finishing what was put in front of her.

In the last twenty years, the government had taken action against people like me who ate five bites of something and threw the rest away. As much as I resented the initiative, their plans made sense. The droughts that covered the country before I was born were so bad that water couldn't be wasted on anything unnecessary, food waste included, so food waste was the first thing to be banned from landfills. According to my parents, the previous system of garbage disposal wasted so much desperately needed water that people rioted around national administration for change, and change we got. No food could end up in a landfill ever again. To compensate, the government mandated that every household have a garden to grow produce that wouldn't be bought from a grocery store and then thrown out when everyone forgot about it in the back of the refrigerator. Compost bins were disseminated with the stipulation that only a certain amount of food brought under one roof could end up there. The world only needs so much compost apparently. Imported food in grocery stores had become ridiculously expensive to make sure no one bought anything they didn't absolutely need, and meat prices went through the roof when no one could figure out what to do with the animal remains that were banned from landfills. Hence the eggplant parmesan that everyone hated. Most of us had grown up vegetarian because of how expensive and difficult to find meat was. I had only tried chicken once, and it might have been the best day of my life.

A half hour later, I had choked down most of my soggy dinner. My mother had left the kitchen. The opportunity was right in front of me. Grab plate, tiptoe to bathroom. Drop leftovers into toilet, flush, and pray to the sweet lord above that it all goes down smoothly. When I was a child and genuinely did not understand why I had to eat everything presented to me, I would sneak handfuls of food into my pockets and throw it out the window or flush it. Only until my father caught me and explained that if I was caught disposing of my rejects by just throwing them to the wind, my family could be fined the equivalent of my college tuition. The terror that followed that scolding was enough to stop frivolous flushing.

The universe was on my side as the last bites of my hellish dinner swirled down the drain. Sewer rats would eat well tonight. I tucked my plate into my sweatshirt and stepped out of the bathroom. Run to kitchen, rinse plate. Safe.

## Day 2

I woke up excited that day for two reasons: the first was that I didn't have to eat last night's dinner for breakfast, and the second was that it was my twenty-first birthday. I didn't normally care about my birthday, but this one was special. For the first time in my life, I was going to eat at a restaurant.

After the anti-food waste laws were passed, eating out had become incredibly expensive. The food industry itself didn't actually produce that much waste, but the people who ate there would rack up hundreds of pounds of uneaten food per week. To compensate for our wastefulness, dining out was not common because of how pricy it had become.

My parents had agreed to let me take my three friends with me to dinner. They had never been to a restaurant either. We arrived early out of excitement and sat quickly. I looked at the menu and cringed. The least expensive thing I saw was the house salad. \$40. \$40. I understood why this was my birthday present. Last time we were doing this.

## Day 3

My summer job nothing to brag about, working on one of the farms required to produce most of our town's food. That was another law passed after the droughts. Too much food was wasted in the old system of trucking food across the country, so the government had mandated that each county has a certain number of local farms to provide for the town. The gardens each household was responsible for maintaining just weren't able to provide enough for an average family so community farms were mandated too.

I liked working on the farm. It was peaceful and simple work. I wasn't allowed to bring anything home that I might have wanted because of the regulations placed on our farm. Everything had to be weighed, documented, and certified by government officials who would stop in intermittently to make sure that absolutely no food scraps ended up being illegally discarded. Those were the worst days to work.

I'll never complain about my work or my life, but I wonder what it was like before the droughts. I wonder what a wheat farm looked like when we were allowed to grow just one crop on an entire plot of land. I'm sure it was beautiful in the sun. I wonder what it was like to eat when I wanted to instead of not eating for a day because food had gotten too expensive for my poor parents and our garden wasn't doing well or having to eat enough for two people because we accidentally bought too much. I don't think I'll ever go hungry, but the past couldn't plan for the droughts in the past, and I don't know how to plan for something like that to happen in the future.

## **Citizen 3:**

It is the year 2040 and it has been eighteen years since the end of the devastating three-year drought that rocked the entire country of the United States of America. The drought, even though some were able to avoid the effects due to use of sustainable technologies or

access to aquifers, shocked the entire culture of the country, this led to a massive call for better water practices and use. The first result of this was that there was a cease to the use of most industrial farming practices. This came as a result of findings that pointed towards the incredible amount of water needed to upkeep these farming techniques of the early two thousands as the reason for the drought. The largest issue of water use in industrial farming was created due to how the crops were being chemically manufactured so that they would produce more, however they were commonly less nutritious, and would require much more fertilizer and water to upkeep. Another reasoning for this was the industrial use of mono-crop agriculture, in which a plot of land only grows a single crop, which would deny it many of its needed nutrients, eventually leading to an environmental catastrophe. This replicates the Dust Bowl that occurred from 1930 to 1936 throughout the southern plains of the United States, causing farmers to revolt in incredibly large amounts due to the deplorable conditions that they faced without much aid. Along with a care for the conservation of water, the drought also led to a lot more knowledge and interest in the conservation of food, as it became an incredibly important aspect of life throughout its duration to make sure that you never wasted food due to its inflated price. Due to this change in cultural attitude towards food conservation along with protests which broke out throughout the drought, and even after, laws were quickly enacted which made it federally illegal to waste food. This had several consequences, including a further derailment from industrial farming, as it is so hard to achieve without waste. So once industrial farming practices were cut out of the equation there needed to be a replacement. The solution came that each household would have its own personal farm to grow fresh vegetables for the year. This would not only cut down on the harmful industrial farming practices, but would also make it so that the fruit that is eaten in the U.S. is much fresher. This would be true because families would again be getting it from their backyard instead of their food being transported across the country from a large industrial farm. Along with this change came a large movement to make sure that the farms that were popping up in everyone's houses, and along the rooftops of cities, were properly regulated and cared for. This led to large increases in both private composting for larger properties, as well as large municipal composting centers to make sure that any potential food waste could instead be composted and used again. While this had a huge impact on industrial farming, and the lives of those who were gaining wealth due to these practices, these changes had a much less harmful affect for all of us citizens, who were not benefiting from these practices, but were rather being exploited by them (either through our loss of nutrients in our food, or the fact that they were damaging the land for their gain (their being industrial farming)). For us these changes resulted in a much better lifestyle, as we began to get our food from much closer at home, fresh fruit from our backyard, or from the roofs if you lived in a city, as well as fresh meat from more local farms. This meant that we began to receive more nutritious, wholesome food, with the only true downside being that each citizen would have to learn to deal with imperfections in their food, as in the early 20<sup>th</sup> century we had begun to see food as 'bad' if it looked imperfect, and would then be thrown away. This contradicted reality because most food, which is not genetically modified, does not turn out perfect, not each carrot is straight, and not each apple is perfectly red. The only negative impact that could be perceived would be that of the policing of these new laws. For each citizen these laws mean that we must document our personal farms annual growth, as well as the annual use and production of any

composting pile which I would have active. Along with personal care, when living in a city each member of the community/apartment that wants fresh vegetable must work a quota on the rooftop farms. This has been seen by some as a violation of human rights, however in the wake of the drought there was such an increase in care about having local food growth that the overwhelming culture supported these farms. By this I mean that the general feeling of the people of the United States has changed so that most people do not mind this small quota of work in exchange for a system of fresh food that everyone can participate in. There are a few other previously unmentioned affect which the people of 2040 must deal with each day, but as with these other effects, the change in culture brought on by the 2019 drought made it way less important of a problem than it would have been for those living before the drought. The first effect I should mention is that food prices are higher than they used to be before the drought. This is a relatively easy change to deal with because ever since the drought due to food becoming more nutritious, and a general cultural change of attitude. The fact that food waste has been banned, along with the general attitude change to stopping food waste, has made it so that you don't need to spend nearly as much food. This is true because you actually eat a much higher percentage of the food which you purchase instead of buying a ton of unneeded food and only eating a percentage of it. Along with this the food which we eat is much more nutritious due to the use of small nearby farms instead of industrial farming and genetic modification. This makes it so that we need even less food because all of the food which we eat would be much more nutritious and filling. Overall this makes it so that even though the food that we are buying is more expensive, this does not take a toll on our income as we are using less food by avoiding waste and less-nutritious foods. There are also several other small, almost non-factors, that have changed in our lives, for instance, when grocery shopping, the amount of food we buy is naturally recorded by the register as you purchase. This gives information which can be compared to what is recorded when you either drop off food at a municipal composting center, or through your records of your own composting. Again while some see this as an intrusion onto basic human rights, the culture of our day an age accounts for the fact that this world is not perfect and there are some concessions that you must make to ensure that everyone abides by the laws that are put in place to ensure that humans interact well with their environment and ensure that humanity is able to survive on this planet.

**Citizen 4:**

As a citizen living in 2040, it is illegal for me or any other person to throw out food in the trash. Ever since the great drought that forced society to modify and rethink our understanding of and relationship to food, laws and systems have been changed that eliminate food waste and restructure farming and food consumption. Because I've been alive since the late 1900s, it was a significant adjustment that I and my family, and every for that matter, had to make when the laws changed. We went from virtually no regulation around food production, consumption, and waste to a very structured system that now guides most of our food-surrounding behavior. Back before the drought and ensuing changes, I didn't think much about the food I was buying and eating or how much of it was really ending up in the trash. The new composting system we are all mandated to use has made me realize the quantity of food that I don't end up eating, but

having to still not compost too much makes me realize it even more. Before all the changes, my everyday decisions about grocery shopping, eating, and throwing out food were entirely up to me and I didn't give them much thought, but now I have to be careful and calculated about those choices in order to fit the expectations of the new system.

Composting has been relatively easy to do, I compost my food the way I recycle my paper and after enough time it has become a natural and automatic action to appropriately sort my waste. The garbage truck collects my compost weekly so I don't really have to think about it, but it is definitely challenging to not exceed the maximum food waste limits. Because our compost is weighed based on family size, I have to make sure that my family either does not buy too much, or is careful and sure to eat everything we can. I recognize the necessity of carefully producing, eating, and disposing of food, but it is hard for me to always be so calculated with my food decisions, especially when I remember how free and unstructured our food system used to be. My family, like most, has a small garden on our property that provides us with a good amount of food in the growing season, but I do miss the food options we used to have. It is healthier for my family and the environment to eat food that is locally grown, but it limits our options and I can't help but wish I could still have exotic fruit and out-of-season produce. Over time I have definitely adjusted to the less diverse food options, but it is hard to not wish for the past.

My life is certainly different than it was before the drought, considering how much the American food system has changed. Since 2018, we have gone from wasting 40% of the food in the country to approximately zero. Although there are many things that make buying and eating food much less convenient now, the agricultural production system is certainly more sustainable and the elimination of food waste has been extremely beneficial to the environment. In a way, it is crazy to me that we ever wasted food in the ways that we did. Our household garden, community farms, and imports (when necessary) do provide all of the food we need, even if the options aren't as diverse and physically perfect as they were in the past. The way the systems have changed makes food a little bit more calculated, but the changes do work to shape our eating habits in a way that eliminates food waste and ensures sustainable agricultural practices.