2035: Since the advent of CCD, negative consequences have been found that were not immediately noticeable. One of these was the brown field occurrence. The infertile soil led to the natural increase in the soil economy and led to soil being traded internationally. On a community level there were shifts towards composting waste and foods that havent been eaten, or food scraps. By the year 2035 the soil economy was expanded and was becoming larger than the oil economy. Trade agreements were made, the most notable being an international trade agreement that soil can be traded for food in quantifiable amounts. The goal here is to spur countries to support each other by sharing resources and supporting the nitrogen cycle. In the mid 2030s is when alternative pollination methods began to pop up around the world and the increased amount of alternative pollination methods as well as pollinators combined with policy came to full effect.

#### 2030-2035

### Citizen 1a

Since 2030, I have switched my focus to environmental engineering because of the government incentives to be involved with helping solve the problem, being, how to pollinate on a large scale without relying on bees.

As a family, we like to take vacations, and since the onset of CCD, vacationing in certain countries has been warned against, due to less than ideal conditions. North America was not hit too hard, but there are areas like Central America that are dangerous to travel to. We, as a family, try not to plan too far in advance with these things; month to month is safer because if work changes for me, I have to make sure I am around to help. We are close to reaching another milestone with our alternative to bees and if I am needed I cannot say no. It is my duty as a US citizen to help out.

### Archivist 2

Massive nationwide efforts were established to ensure the awareness of reusing food waste on farms. This was very successful in allowing crops to be grown not per the crop rotation cycle. On a local scale, small community organizations began pollinating specific plants on their own in efforts to alleviate pressure on farmers and to help spread awareness. In other areas of the globe, research was being done on alternative pollinators, such as bats, non-bee insects, and other small animals.

#### Scientist 2

...As we attempted to attack this gap in nutritional resources from a medical standpoint, we also continued to evaluate it from a bioengineering standpoint; how can we facilitate the

pollination of key crops without bees? While artificial pollination was attempted several ways, and by several different organizations, the most wholly environmentally conscious and sustainable solution is to encourage the populations of other pollinating insects, protect their habitats, and use them as pollinators. Our system focuses on the use of insects in their natural climates, pollinating plants and crops that are, as often as possible, native to the environment. This system also protects the environments necessary to maintain the health of other pollinators. Essentially, we reestablish the natural codependence between insects and plants, protect the environment in which occurs in naturally, and do our best to facilitate this relationship while benefiting from the 'fruits' of our labor.

2040: By 2040 the world is nearly fully recovered. Only through major changes was the world able to succeed. Pollination technologies like the pollen tower, which spreads pollen over large areas of land, took off regionally. The main reason the CCD crisis was able to be controlled was by diversifying pollination methods and changing the way that we live our everyday lives. The lasting changes gave way to closing the nitrogen cycle further, as well as creating a focus on nature over commercialism with farms giving land for habitat to local animals. Even in the school curriculums and the "Hot Buzz" political pushing, there was a shift towards more sustainable solutions being taught, with an emphasis on awareness of systems outside the house.

### 2035-2040

### Citizen 1a

This year, 2040, has been, like the previous years, that we, as a global population are recovering. Ever since the colony collapse disorder fully occurred in the early 2020's the world has slowly been driven closer and closer to the brink of complete chaos. Smaller countries were overthrown, larger countries contested with each other, all over food and arable soil. It is almost ironic that, as a species, we have come so far to be thwarted so voraciously by such a primitive need for food.

In Pennsylvania, I have always had many local farmers around that I had never actually talked to. I have taken this for granted, and it was not until recently that I started to discuss with them the effects of CCD on them and theirs. I have developed relationships with these farmers and my family even goes to volunteer almost weekly to help assist in any way to make sure that they are able to pollinate their gardens or feed their animals. For a farmer to buy their feed for their livestock costs them much more than when I was in college, it is almost unaffordable, but with community service programs in place to help them operate, it becomes affordable. Since the CCD crisis, there has been a slow rise in local farming movements, and at the very least the entire population of the country started to take food more seriously and not for granted. No one wasted half a meal, or threw out excess. Even soil became more valuable, so we have been composting and selling soil to local produce farms and with the sheer volume of people doing this, the nitrogen cycle for the soil (replenishing the soil's nutrients) has actually improved all across the country, making soil issues not as large, and the ability to grow crops that are not naturally grown together possible.

## Archivist 1

A combination of these factors contributed to a new way of life for humans. This new way of life was mandatory due to the eradication of all bee species'. A starved bee exposed to poor weather conditions and climate patterns combined with incessant harmful pesticides is a recipe for extinction. Humans have put themselves in this horrible situation and have been forced to find a solution and plan to continue a life without bees. We crafted this chair from selfish decisions and are forced to sit in it for the rest of eternity unless the population of bees regenerates.

### Citizen 2a

# Living Day to Day

Roughly twenty years after the collapse of the entire bee population, the world is still in

recovery mode. Each and every day gets a little easier, but something feels missing that we used to have pre-2018. Being 42 years old now, I feel as if I have lived two separate lives; one with the bees and one without. I honestly still miss using every ounce of explosive energy I had by running away from them if one of those little buggers landed on my arm. You truly don't know what you got till it's gone. We were spoiled with the natural and free acts of pollination the bees had so generously provided us with.

In the past twenty or so years, the United States has made numerous attempts to create an end all solution to the pollination crisis. Most were band aid fixes that proved unsustainable and required a new solution. Countries all over the world looked to each other for help. Some regions coordinated together while others became enemies. This very complex situation caused many small conflicts to break out. More wealthy and developed countries attempted to provide some form of assistance to the rather undeveloped countries, but could only do so for a period of time before we needed to focus on our own problems within borders. I don't know too much since all of the information updates I receive are from the media.

As far as day to day living, my habits have changed tremendously over the past couple of decades. Grocery shopping always requires a tactical plan. Before the crisis, I would go to the store and pick up whatever I wanted, whenever I wanted, no matter the time of year. The thought of how or when that box of fruits was picked never once crossed my mind. This caused a sense of entitlement and spoiled-ness that I no longer have. Currently when I go to the grocery store, fruits are infrequent and the prices of such have absolutely skyrocketed. For this reason, I do not eat many fruits anymore. The only fruits I eat are the ones in my self-made garden in the backyard of my house. I self-pollinate the strawberry and blueberry bushes by hand. It is quite labor intensive, but worth the time and effort.

Instead of sitting back hoping for a permanent change to occur, I have adapted to donating my time to local farms. I have been visiting three farms a week for the past ten years and work with a group of volunteers who help pollinate the gardens and fields. For a small family farmer,

it is difficult to keep up with the pollination techniques that are so valuable for generating healthy food. I would hate to see these farmers go out of business. I also get a small portion of the foods every two weeks to bring home to my own family. If there are any positives

gained from this epidemic, this crisis has helped bring people together. It is not something one person can fix, which is why I have loved volunteering in the past ten years.