

Magdalena Chmiel, Cavan Fitzpatrick, Dylan Cotter
ENGR 110
Dr. JAK, TA Ruby

Our Impact on Hilldale High School and the Surrounding Community

Hillsdale High School is a community leader when it comes to supporting its students. They approach education differently when compared to other schools. Their four house model allows their teachers to create close relationships with their students in order to support them academically and personally. On top of that, they are a leader in supporting and maintaining environmental sustainability goals that will help them go carbon neutral by 2050.

Before the pandemic, some of Hillsdale High School's families were struggling financially to make ends meet. Hillsdale Highschool started their Peace Pantry in 2019, only serving about 30 families on a bi-weekly basis. When the pandemic hit hard, the need amplified, but the school and supporters of their program stood strong, donating in masses to more families than ever before. Since then, it has grown to be able to serve 150 families in need. They also now receive food weekly via curbside pick-up or delivery with the help of many community volunteers. Hillsdale High School has community partners in San Mateo such as the Second Harvest Food Bank and the Mi Rancho Market through which they are able to source food for the Peace Pantry. They also have a few gardens on the campus which, when developed more, would be suitable to grow additional food to support the families in the program. Our project comes into play here, using their existing renewable resource of rainwater to feed the gardens.

The Peace Pantry started with a relatively low number of families, so food from the few small gardens at the school in combination with some gift cards to Target or grocery stores was enough to support them. With the current size of the program now however, that method is no longer feasible. Although they will still likely get the majority of food for the Peace Pantry from their other community partners, our project will alleviate some of that effort and offer a roadmap for other similar sustainable growing methods at the school. Our contacts at Hillsdale High School, Dave Emanuel and JB Luzar, had a vision of the rainwater harvesting system that would be used for sustaining the garden watering and expansion. Their vision reflects upon the school's goals of both supporting their students while doing it sustainably.

Hillsdale High School prides itself on continually supporting methods that decrease their impact on the environment, with our project decreasing their reliance on municipal water sources. By using a naturally occurring water source, they are able to use this water sustainably to grow food for the garden during certain times of the year. From a recent storm on Sunday, data from Weather Underground indicated that 3.84 inches of rain fell in 24 hours. According to our measurements, we estimate that our water collection system during this most recent rain, would have collected up to 2,830 gallons of water. Even if our system is able to collect half of that aforementioned number, the impacts are substantial: Hillsdale High School saves on cost of water by using a renewable energy resource, they reduce their carbon footprint, and they are using the water to sustain those in the community that are struggling in the current climate.

Our project ensures that all goals for the school are met as they expand to grow more food to support the community. We are alleviating the absolute reliance on public water resources by allowing them to use their buildings to collect rainwater, and use it to feed their garden to support their students and families in need. They will be able to grow significantly more food with the expansion of the garden, while decreasing the amount of water taken from public sources using our system. We are able to deliver this value to them because we are a sustainability focused group on both an environmental and people fronts. We know that now more than ever, so many families are struggling. Our partner is ensuring them that the support through their Peace Pantry will be there for them when they need it. They are providing a sense of security for their students that are struggling outside, showing them their continued commitment to both them and their families well being. With the support our partner will continue to give to its students and families, our hope is they will be able to sustain themselves through this trying time. Our group is all in for supporting this mission, and are so excited to be working with them on this common goal.

Sources:

About Smaller Learning Communities / Overview of SLCs. (n.d.). Hillsdale Highschool.

Retrieved October 26, 2021, from <https://www.smuhsd.org/Page/2431>

Peace Pantry. Empowerment Through Action, Hillsdale High School. (n.d.). Retrieved October 26, 2021, from <https://www.etahhs.org/peace-pantry>.

“San Francisco, CA Weather History.” *WEATHER UNDERGROUND*. Retrieved October 26, 2021, from

<https://www.wunderground.com/history/daily/us/ca/san-francisco/KSFO/date/2021-10-25>