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Dear friends,

What are the needs of the world? There are many. Wondering about God and wandering through the neighborhoods of Minneapolis, the students of Augsburg's Youth Theology Institute (AYTI) encountered stories of need and action, presence and joy.

By defining vocation as using God-given gifts and talents to meet the needs of the world, we were empowered to see systems-thinking, theological wisdom, field experiences, and relationships as tools for our work co-creating with God. This collection of essays is proof that student leaders are turning knowledge into action as they live into their vocations.

We learned that putting faith and science into action is a process. To do this, we used something called the Engineering Design Process. We defined engineering as **using resources at hand to problem solve and fill a human need or want**. From there, iterations of design-build-test-improve took us through goof-ups, grace and communication glitches. We came out on the other side with solutions, skills and stronger community.

We experienced an abundance of Creation's four interconnected systems — biosphere, geosphere, hydrosphere, and atmosphere. We put these concepts in action as we:

- sculpted the Genesis 1 text with a team
- built a giant watershed modeling pollutants and rain gardens
- navigated 6 steps of the STEM curriculum called "Connect-the-Rocks: Faith, Science & Youth Leadership"
- tasted the aspirin within bark of the aspen tree
- ate June berries on campus; redefined 9 typical weeds as edible plants
- explored climate chemistry through burning of wax
- conducted an energy or water audit on campus
- witnessed biodiversity through seed-saving of native plants
- experienced these systems and spheres around the Twin Cities at Bdote and Fort Snelling, Mill Ruins Park in downtown Minneapolis

We turned to theologians Jeremy Myers, Barbara Rossing and Pope Francis to highlight the false dichotomy between faith and science and emphasize the need for care of Creation. As co-creators with Christ, we work to unravel the mysteries while standing in awe, and wrapped in abundant love. And then we are called to move knowledge into action.

Blessings to your faith community as you lift up student leaders. Prayers for each of the leaders and their action project descriptions published here. And may we all keep listening for that vocational call to serve, using our gifts and talents to meet the needs of the world and in doing so make this world a more just and trustworthy place.

In Christ,  
Heidi Ferris, Chief Grower  
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## Theology and Public Leadership Major

Theology and Public Leadership is an interdisciplinary major that forms leaders for work at the intersections of church and society. Students are equipped with the necessary theological and theoretical frameworks, leadership skills, and the capacity to serve and to lead a variety of communities in their expression of faith and their work for justice in the world. This happens through the disciplined study of theology, Scripture, the social sciences, and ministry. A distinctive element of the major is the combination of practical and theological training: Students will have many opportunities to apply their knowledge and discernment skills in specific ministry contexts including a supervised internship.

Our vision is to see a generation of Christian leaders equipped to lead the Christian church into the public square for the common good. Students earn a Bachelor of Arts in Theology and Public Leadership and are encouraged to combine this degree with a concentration.

### Concentrations:

- Advocacy and Public Policy
- Community Engagement
- Cross-Cultural Relations
- Environmental Stewardship
- Human Services
- Leadership and Management
- Worship and Music
- Youth Studies

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## Required Courses

Theology Core	Ministry Core
Research Methods in Religion	Theological Foundations for Public Ministry
The Bible in Culture and Counterculture	Life and Work of the Church
Martin Luther and the Reformation	The Art of Public Ministry
Contemporary Theology	Internship
Religion Keystone	



## Public Church Scholars

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Students in this pathway will earn a Bachelor of Arts in Theology and Public Leadership from Augsburg University and a Master of Divinity from Luther Seminary. These degrees will be completed in five years in this custom pathway that varies from the traditional timeline and provides access to college for all students interested in pursuing pastoral education.

**Apply now to join the Fall 2020 cohort.** Learn more about Public Church Scholars at [augsb.org/religion/public-church-scholars](https://augsb.org/religion/public-church-scholars).

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## **Styrofoam and Its Harmful Effects on the Environment**

Kelsey Christensen, Saint Cloud, MN

Everything decomposes, even you. It is the circle of life, but now with man-made substances, we are able to make things that don't decay or breakdown normally, and while this may be nice for us during our lifetime, what happens to these items billions of years later when we aren't around to use them? One of the harmful products we see often is Styrofoam. We all know what Styrofoam is and we have all used it at one point. It is very convenient: It traps heat, it's cheap, and it is disposable. But did you know that Styrofoam takes anywhere from 500 to 1 million years to decompose? No human has ever lived that long. So why do we make a disposable, one time use product that lasts for hundreds, thousands, and sometimes millions of years? Not only is it clogging up landfills because it isn't recyclable, but it is also polluting the air. How can a plastic cup pollute the air? The process used to make Styrofoam releases harmful gasses into the environment. Another problem with Styrofoam is it traps pollutants like DDT in it. When animals and microorganisms eventually eat these, it becomes another harmful part of the food chain. The process used to make Styrofoam also exposes workers to harmful chemicals which can lead to all sorts of health problems including cancers and other deadly illnesses. Why then should we be using and making a substance with so many awful repercussions to the environment for little convenience?

Let's back up. Why should we even care about the environment? I won't be around in the future so why not throw everything away now, why not just keep living? The people of the future can deal with these problems, I don't have to. This is the sound of worldwide procrastination. We've all been taking part. It's easier, it's culturally acceptable, and it's convenient, but we all live on this earth, we share it. Shouldn't we take care of something that isn't technically ours? God created the world. That's how the story goes. He made it in seven days, and said it was good. But it hasn't been taken care of. It is being polluted, trashed, and taken advantage of. We were given this land as a temporary home while we live our lives on earth. Being a nice guest, we shouldn't trash the place or take advantage of our kind hosts. We should give back, and show how grateful we are. We should take care of it, so the next guests can enjoy it. It is our job to take care of the land.

My idea to help give back to mother nature is to help stop the uses of harmful Styrofoam. Styrofoam is a common product so it would be a hard thing to take head on, so I will start small in my community. I think it is important for people to understand the harms of the things they are using. Since Styrofoam is used often and in large quantities, I want to try to limit the use of these products. I would like to create a presentation and website, letting people know the harms of products like Styrofoams. I would like to present this information to as many groups and people as possible. I can't make everyone stop using Styrofoam, but I can help them make a choice, and help them understand better options. A few better options would be paper products, recyclable plastics, or biodegradables. Letting people know there are other options that may have slight inconvenience but save the environment even a little, will help make the earth a little greener. That way when we all decompose, the things we use will be reused too.

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## Community Participation in Waste Reduction

Carissa Davidson, Andover, MN

Throw away culture is a major issue concerning modern society. As consumers continue to favor products with one time use, excess trash proceeds to pour into landfills. The promotion of building communities around the ideologies of composting, recycling, and food donations is ideal and should be embraced. Waste reduction will come naturally if people become more self-aware.

Most people can relate to growing up and hearing ‘only take what you can eat’ or ‘take what you want but eat what you take’ and this is because when we ‘bite off more than we can chew’ we tend to leave behind food waste in our path. While people are hungry, food waste should not be a thing. By misusing nutritious and wholesome food, hungry people do not get the food they deserve. Food insecurity is the state of not being able to afford an adequate amount of food to sustain a healthy life. Sometimes people need to make very difficult decisions between buying food or paying bills. In 2013, 48 million Americans, or 14.3 percent of the population faced food insecurity. Food should be feeding people, not landfills (Food: Too Good to Waste). Food is a necessity to survive and it should not be something people need to worry about on a day to day basis. Feeding people who don’t know where their next meal is coming from should become a priority instead of misusing and wasting potential meals for those in need. “In 2015, the United States disposed 37.6 million tons of food waste” (Reducing Wasted Food at Home). By donating the food that would be otherwise thrown away, it can make an immense impact by providing to those who need it. Water, gasoline, energy, labor, pesticides, land, and fertilizers are all part of the food making process, which is all seemingly for nothing when food is wasted (Sustainable Management of Food Basics). More than just a meal is being thrown away. All the work and money that went into the production to make the food is then wasted. By striving towards food sustainably and waste reduction, we can save money, create relationships within our communities, and conserve resources for our children's future. Trying to reduce the waste amount in the present is already difficult. Everyday more goods are manufactured, sold, and then thrown away. This continuous cycle not only results in a bunch of garbage, but also a generation that cares much less for its environment and more about buying the next iPhone. Yet, this is a more pressing issue than most people tend to think. From 1988 to 2016, the United States exported 29.4 million tons of plastic waste to less developed countries, the dirty and mixed plastics were then incinerated, landfilled or left to soak into the already vulnerable environment (Plastic Waste Trade in Crisis). There is so much garbage in the U.S. that some had to be exported, plastics should be recycled not shipped away and then incinerated. Burning trash may seem like a temporary solution. However, the reality of it is that it pollutes and creates more problems in the long run. Burning garbage is dangerous to your health and our environment, and it is even against the law in Minnesota (Don’t Burn Your Garbage). It is crucial that the future children of the earth are kept in mind, as they are the ones who will suffer from the condition that the planet is left in. Whether the home they inherit is full of food insecurity, air pollution, and garbage is up to the current stewards of God’s earth.

It is not unknown that God loves the earth. It was made out of love, passion, and dedication. It is God’s children’s responsibility to take care of the land they were gifted in the way that God would approve of. God told Adam and Eve, “Be fruitful and multiply and fill the earth and subdue it and have dominion over the fish of the sea and over the birds of the heavens and over every living thing that moves on the earth” (Gen. 1:28, NRSV). God gave the people

sovereignty over the other animals, however the meaning of this verse can be debated. It is necessary to determine how God intended for people to 'subdue and have dominion'. Another version of the creation story is that after creating heaven and earth, God noticed that nothing was sprouting and so God created man in his image and gave him the land animals to see what he would name them. "The Lord God took the man and put him in the garden of Eden to till and keep it" (Gen. 2:15, NRSV). The garden of Eden represents a land of peace and labor. Possibly, God originally intended for humankind to be the nurturers, and workers for the plants and animals. Though it is still to be acknowledged that just because humankind are the most influential of the species, the proper way to treat land is with respect. "Anyone who tends a fig tree will eat its fruit, and anyone who takes care of a master will be honored" (Prov. 27:18, NRSV). This is a lesson that most people could learn from. Treating the environment with respect and giving the land the care that it deserves, will produce an abundant amount of fruit. The last significant detail to take into account is that this is God's earth, and we are only inhabitants for the time being. When God is speaking to Moses on Mount Sinai, God says, "The land shall not be sold in perpetuity, for the land is mine; with me you are but aliens and tenants" (Lev. 25:23, NRSV). This shows that God does not want humankind to over step boundaries by claiming the land as their own and declaring rule over it. God claimed that humankind is but visitors and renters. God wanted to get across the point that people have a job: to till and keep. Give nurture and work until the lease is up. In the book of Revelation, there is a city with a tree of life at the center and a river flowing through it on each side, it is said that in this city pain will be no more. Barbra Rossing wrote an entire in depth analysis of Revelation. In every tree, river, and d city we can glimpse into God's holy city of life-giving rivers and trees (Rossing). If more people begin to think of nature like this, as a way to see God's ideal city, then hopefully people will begin to respect the environment more. God intended for humankind to be shepards over a sheep we call earth. So people should begin to look out for the planet's well-being with a more faithful outlook.

Right now when taking a look at the environment, it is most likely not what God would want. With water, land, and air pollution affecting all areas of the world, everyone is going to have to work together if anything is going to change. If everyone could make just a few changes at home, it would make a huge difference. As of 2015, plastic bottles were the most recycled plastic products in the United States, recycling as little as ten bottles will save enough energy to power a laptop for more than 25 hours (Frequent Questions on Recycling). By making sure that in every room there is a trash can, there is also a place to put recycling could be a good way to help the recycling process do its job. Recycling is different in every city. The details can be found on each cities website. A way to reduce garbage waste at home is by composting instead of throwing away leftover food. This is a good option for a multitude of reasons, one is that it lessens food waste. Composting works as a natural fertilizer, enriching the soil and suppressing plant disease while also helping lower your carbon footprint (Reducing Wasted Food At Home). Some cities have a composting service available, and hopefully this will popularize in order to support the trend of lessening food waste. Another example of decreasing food waste is by donating food to a food rescue program. Food rescue programs accept donations of excess perishable and prepared food, then distribute it to agencies and charities that then serve people (Donating Food). The hope would be for individuals and households to eventually be able to figure out the right amount of food to buy so they would no longer have excess food to waste. Direct donations from stores, restaurants, cafeterias, and individuals with food to share are also always appreciated in food banks and food rescues alike (Donating Food). For some companies

that are not able to sell food past a certain date, they could help by donating their excess food to people who need it.

Working together is the most effective way to make a difference. In communities and organizations people reach out to each other for support. Such as the many food rescue programs that are in Anoka county, like ACBC and Second Harvest Heartland. Both are food donation and rescue sites that are taking the necessary steps towards food stability. There is still much to do in order to make significant changes to get people passionate about the topics that are important. In order to build local support, there need to be opportunities that develop a clear message on the benefits of food recovery and recycling. (A Call to Action by Stakeholders). Opportunities could be something like holding a paper drive to raise money for the community and keep paper out of the trash. The community can collect used and scrap paper into bins around the area. Once the bins are full or the drive is over, the paper can be taken to a paper buyer who will then recycle it into new paper (EPA). This project can be used to teach the true wonders of recycling. For example, every ton of paper recycled saves 17 trees from being cut down to make new paper (Scemo.org). Recycled substances can be remade into more than what they were before. Glass for example, can be recycled into asphalt in order to pave roads (Recycling Basics). When recycling, labor and time is saved. Yet, some believe that taking the easy route is the best way to go. Exporting waste is in most cases cheaper than reducing, sorting, cleaning, recycling or reusing it locally (Plastic Waste Trade in Crisis). With the recycling process, jobs are created, resources are saved, and it reduces waste. Making improvements and changes towards a better, more waste free way of living not only keeps the people of this generation healthy and happy, but it also positively affects the future generations to come. When the earth's future is at stake, cost should not be the deciding factor.

The most impactful way to reduce waste would be to do it in community wide areas with projects based on composting, food donation, and recycling as a stimulant to the reduction of waste. Not only is it our duty as God's children to take care of his creation that we have since destroyed, but it is also of great importance to make sure that future tenants will have a home to till and keep themselves.

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## **Reducing Plastic Waste in the Service Industry**

Rachel Erickson, St. Paul, MN

It is no secret that our planet is facing catastrophic destruction. Even when much of the world is oblivious, slow but continuous damage occurs. Small things count in large ways that many either choose not to acknowledge or simply do not realize. Overuse and excessive waste has always been one of the largest issues faced by the service industry, but there are still ways to combat these challenges and preserve the environment.

One item has become prevalent in recent years due to not only environment awareness and education but also through the influence of pop culture, and that material is plastic. There is widespread education about how something we use so often in our daily lives is affecting the planet in detrimental ways but there is also a large presence of this issue on social media and platforms with both miniscule and large followings. There is the trend on social media influencing people to replace plastic straws with metal ones when buying a drink from your favorite coffee shop, or not using a straw at all. This is obviously one step that can help but it is not enough. Many of us do not have the funds or the following to make any drastic change in our society's excessive use of waste but that doesn't mean we cannot do anything.

Think about the plastic straws. What are they used for? They are put into plastic cups with plastic caps, put into plastic drink carriers and plastic bags. Now, replace the plastic straw for a metal one and you are still left with plastic that goes to our oceans, lakes, parks, streets, our whole world. I work in the service industry and have seen firsthand the amount of plastic waste and the excessive use of this material that is known to damage our environment. That is something I would like to change.

Changing this is more difficult on a large scale than on a personal scale. My work has a policy where we cannot use reusable cups that customers bring in because of sanitary reasons, but that does not mean there is no solution. Biodegradable straws and cups are available for bulk purchases and that sounds like it could easily become a solution to the problem, but, the issue that arises is cost. One of the main reasons people cannot live an entirely eco-friendly lifestyle is because eco-friendly products cost more than the regular plastic versions. The end goal of starting a business is to make money. A profit needs to be made for companies to survive. This is where it becomes incredibly difficult for green stores and businesses to even exist. It is about balancing financial sustainability with environmental sustainability.

We can also look at this from a theological standpoint. Greed over the environment. Our world is God's creation and the way we have treated it and disregarded it does not respect our beliefs in God. We are faced with the difficult task of applying the words of the Bible to a modern day world but it is not impossible to do. In Matthew 6:24, it says: "No one can serve two masters. Either you will hate the one and love the other, or you will be devoted to the one and despise the other. You cannot serve both God and money" (ESV). In a modern day world it is difficult to take this passage by its literal meaning. Money is required for basic survival, but, that is not meant to say that this passage cannot hold true.

This passage is meant to bring to light what is important. One's moral code should be able to look beyond greed and wealth and know that the world is bigger than them, that God is bigger than them. God sent us to this earth to be stewards to it, meaning, he wants us to protect the earth and live in the beauty that he created, not to greedily profit and benefit from it. Maintaining the earth we live on is more important than making millions.

Another key theological backing behind the importance of building and becoming green and clean businesses, is that we were put on this earth with a mission, to help it. The creation story in Genesis states just that. “The Lord God took the man and put him in the Garden of Eden to work it and keep it” (Genesis 2:15, ESV). Our businesses should not be damaging the earth we were given. God gave mankind a command to tend or keep his creation.

The Hebrew translation of “tend” is “shamar”. That word means more than just to keep or tend, but rather, “to guard” and “to protect” (Gilmour). The other word that sticks out in this passage is “to work”. Many can twist this into defending corporations who have taken advantage of and profited off of earth’s non reusable resources because it can be seen as permission to take what is there and work over it, but in reality, the passage is telling us to work with the earth not above it. This is when taking a deeper look into the meaning of a word can shift the understanding of it completely. “To work” translates to the Hebrew word “abad” meaning “to serve”. We are here to serve the earth, not to conquer it and serve our selfish desire of riches.

We are stewards of this earth meant to serve and protect it. We are here to work with the earth and God’s creation. For all of human history it has been a battle against greed. We as humans have let greed overpower God’s word and command, but it is not yet too late to right this wrong.

The first step to this process of reinstating stewardship in businesses is to make subtle changes no matter how seemingly small they may be. Working in the service industry, I know I want to make a change. There is an excessive amount of plastic used unnecessarily in my workplace. My work, like most other tea/coffee shops, uses far too much plastic. We put all of our drinks into plastic cups with plastic lids and sometimes into plastic carriers and plastic bags. These are all things that are not difficult to change.

I plan on talking to my managers about the possibility of reusable cups. Many of our customers consume their drinks at the store, so why not give them washable mugs they can bring back and we can sanitize and reuse them? This would not only reduce the amount of plastic used with all the to go cups, but would also save the company money in the long run from not having to order as many large orders to restock these plastic cups.

Another way the non-compostable waste could be lessened is by replacing the plastic cups we would still need to occasionally use with biodegradable ones instead. This idea could be not only applied to the cups but to the straws as well. There is also the issue of plastic carriers and bags for large to go orders, but this can also be simply solved. I plan on proposing replacing the plastic carriers with cardboard ones and/or biodegradable ones so customers can recycle them, or they would at least be compostable. For the plastic bags there are two possibilities. One is that if my work were to replace the plastic carriers with cardboard ones, there would be no need for the bags because the cardboard carriers are far less flimsy and are sturdier than the plastic ones, therefore not needing the extra support or the bags. The second possibility is simply replacing the bags with paper versions.

The problem that makes these changes an obstacle is the cost. When looking at the prices of a paper or biodegradable straw compared to a plastic straw the difference is about 2 cents in cost. This adds up quickly with bulk purchases making it more difficult to afford for smaller companies like the one I work for. The same principle applies to plastic versus biodegradable cups. For a 50 count of biodegradable cups it costs around \$7 whereas for a 50 count of plastics is slightly less, around \$5-\$6. Though this becomes more expensive for the company I believe it is possible to find a solution. As I mentioned before, replacing the plastic carriers with cardboard ones would eliminate the need for plastic bags. That small change could immediately reduce our spending because we are no longer needing that extra product. The money saved could therefore



go towards purchasing biodegradables. Secondly, buying around 15 in store, reusable mugs for customers that do not need to take their drinks to go would be expensive at first, but overtime, we would actually be spending less money because we would not be needing to order new to go cups as frequently. Again, the saved money could be used for purchasing these compostable products.

Though the changes I am proposing are small and logistically cannot happen all at once, even changing just one of these could make a huge difference in reducing our use of plastic. I plan to bring up some of these points to my managers and hopefully make a change in my community that will benefit our environment.

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## Protecting the Water of Life

Katelyn Espe, White Bear Lake, MN

To write this paper genuinely and passionately, I've sat myself down in my porch overlooking the inspiration for my project. I only need to glimpse up from my laptop screen and I can marvel at the beautiful White Bear Lake. However, in the years since I've moved to this lake, I've watched the water level fall to disturbingly low rates, heaps of trash wash onto the beach, milfoil and zebra mussels take over in swarms, development and business bloom directly next to the shoreline, and recently the Water Gremlin pollution incident. In a community that takes so much pride in their lakes, I'm disheartened by the lack of homeowner action in understanding our problems and remedying the harm done to our city. The issue of environmental degradation hits close to home for all of us, since it affects every fundamental aspect of our lives. Pope Francis believes our goal, as Christians, "is not to amass information or to satisfy curiosity, but rather to become painfully aware, to dare to turn what is happening to the world into our own personal suffering and thus to discover what each of us can do about it" (Francis, 18). The pressing issue of water health must be understood and addressed by Christians due to water's invaluable role in faith and creation.

Stormwater runoff easily slips into greater bodies of water without receiving substantial public attention, creating a massive problem for the health of water in communities. During one of our learning sessions at the Augsburg Youth Theology Institute, we constructed a landscape by placing backpacks and water bottles under a tarp. Along the perimeter of our landscape, a line of chocolate syrup signified a road that we decorated with impervious toy buildings and structures. Colorful sprinkles were added to convey various pollutants, ranging from grass clippings to neglected pet droppings. We then used spray bottles to represent a rain event. The pollutants easily slid over any structures and pooled together, soiling the lakes and rivers that formed. Heidi Ferris, founder of Growing Green Hearts, pointed out that we always think of water as carrying contaminants away, but we often fail to realize that 'away' usually refers to the nearest lakes, ponds, and rivers. Stormwater runoff containing "garbage, debris, sediment, chemicals, automotive fluids, fertilizers, leaves, and other pollutants" is the leading water pollutant according to SEH (Ryan, 5). One inch of rain on one acre of land redistributes 27,154 gallons of water that may collect harmful substances while moving towards a body of water, accelerated by smooth surfaces resulting from urbanization (Ryan, 2). Being a crucial resource, water pollution affects drinking water, food growth, and aquatic life.

Our understanding of theology provides an obligation for Christians to dedicate themselves towards creation care. In defining how theologians comprehend God at the Augsburg Youth Theology Institute, we were given five words that encompass unalterable understandings about God: relation, creation, desolation, incarnation, and vocation (Meyers). Together, they weave into the story of faith. These claims, as words of theology, must satisfy the criteria of good news that is for the neighbor. The claim of a creational God indeed falls into both categories. Each day of the first account of creation is recorded with the words "evening passed and morning came" (Genesis 1:5, 8, 13, 19, 23, NLT). When God "had finished his work of creation," he "blessed the seventh day, and declared it holy, because it was the day when he rested" (Genesis 2:2-3, NLT). The Creator intentionally steps back, knowing fully that his world will continue to create with the coming of every evening and morning. God intends for creation to be a fluid and present story—one that involves free-will and participation. Pope Francis

reflects that by constructing “a world in need of development, God in some way sought to limit himself in such a way” that will “draw us into the act of cooperation with the Creator” (Francis, 56). Our invitation to partake in creation will fulfill God’s objective as holy when it is used to serve the neighbor and the environment in which they live by turning the promise of a better future into good news to be celebrated and fulfilled.

An integral part of the environment is water, and therefore it must be made a central concern in the approach towards creation care. Water’s symbolic importance in scripture connects its essentiality in physical survival to our necessity for faith. In Revelation’s prophetic vision for a Christian utopia, a “river with the water of life, clear as crystal, [flowed] from the throne of God and of the Lamb . . . down the center of the main street. On each side of the river grew a tree of life, bearing twelve crops of fruit, with a fresh crop each month. The leaves were used for medicine to heal the nations” (Revelation 22:1-2, NLT). The river of New Jerusalem attains a central role in God’s vision of perfection and unity, supplying life to the healing tree, the city, and its people. Water composes roughly 60% of the human body and 70% of Earth’s surface (“Freshwater Crisis” 5, 7). In its abundant presence, God designed it to be at the heart of our stewardship towards creation care in order to protect the living water of our environment and faith.

As Christians, we must face creation care radically by committing to take on the problems of the environment as our own personal burdens. One issue Pope Francis identified as an obstacle to creation care occurs when “any genuine attempt by groups in society to introduce change is viewed as a nuisance based on romantic illusions or an obstacle to be circumvented” (Francis, 39). Environmental concern has yet to become incorporated into all lifestyles, since it often accompanies sacrifice, motivation, and feelings of ineffectiveness. An old Chinese proverb advises, “The best time to plant a tree was 20 years ago. The second best time is now” (Smith, 3). Efforts may seem miniscule, discouraging, and ridiculed when placed in the scope of global climate change and degradation, but the spirit of faith encourages us to act—quickly, generously, and fearlessly to ensure that the trees we plant today will not be postponed for another 20 years. Barbara Rossing, the Assistant Professor of New Testament at the Lutheran School of Theology at Chicago, inspires creation care by encouraging, if “we can glimpse in every river the river of life flowing from God’s throne in the holy city, then we see ourselves as citizens of a holy city, as stewards or ‘priests’ of earth’s rivers” (136). She challenges Christians to see their home mirrored with New Jerusalem, a New White Bear Lake or New \_\_\_\_\_ that encompasses radical love and responsibility of its people towards creation.

Planting a rain garden composed of native plants benefits the environment and exhibits an easy way to start on a journey towards creation care. In an article published by The Groundwater Foundation, rain gardens are promised to be “effective in removing up to 90% of nutrients and chemicals and up to 80% of sediments from the rainwater runoff” (1). Planted where rainwater naturally drains, these gardens hold and filter water on its way towards larger bodies. The timeline for planting a rain garden depends on location, area, and access to plants, but may be executed by the individual homeowner and designed to fit into their needs. Since my time was restrained with moving into college, I decided to plant a garden in my backyard. This way I can insure yearly maintenance is kept and there will not be any delay in regards to permission and planning. I utilized the “Start-to-Finish Rain Garden Design: A Workbook for Homeowners” guide which outlined the entire process of designing and installing the most effective garden for any yard type. To inspire my community and congregation, I will make an infographic detailing all of the facts and benefits surrounding rain gardens as well as resources to help others plant their own and other steps individuals can take to reduce rainwater runoff

pollution. Since I live on a street with a busy walking path, as we are planting I will have them set out for people to take and encourage them to talk to us about rain gardens and water health. At my church's annual Creation Sunday, I can set up a booth to share information and invite my congregation to join in planting their own rain gardens.

*Your creation, God, is beautiful and holy. Thank you for providing us with water to supply all of our needs and purify our hearts with the promise of a better future for your creation. Give us ears to listen to the needs of the world and eyes to see where it is hurting. Equip us with the strength and diligence to work towards healthier water and a cleaner Earth, and bless each rain garden that is planted to do your work. In your name we pray, Amen.*

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## **Native American Suffering: Hearing the Stories of the Oppressed**

Phoenicia Gamble, St. Paul, MN

How can I make change when it's not my story? This was the question I pondered as I sat in the sweltering sun, listening to Jim Bear Jones, a member of the Ojibwe tribe, tell the stories of Minnesota's native Dakota people. He was an amazing storyteller, leading me and the rest of the Augsburg Youth Theology Institute (AYTI) group all through the path of suffering, sorrow, and pain that is their story. As we moved around the landscape I thought I knew so well, we came to a place called Pilot Knob Point, where condos had almost been built, destroying the native land with it. There, Jim Bear told us that a group of white women had been responsible for standing up for the native land and protecting it. They were the reason that the apartments were not built. I was amazed. I had not expected to see myself in any element of this story. But here were people, people like me who were not a part of the story, but were able to protect it anyway. I felt this as a direct calling to make the voices of those around me heard and to advocate for them. In this paper, I will be outlining how deep the injustices and oppression of the Indigenous peoples is, what the Bible tells us to do about it, and how my community can join me in listening and advocating.

The Indigenous peoples of America have been oppressed since the arrival of the Europeans, who brought with them sickness, guns, and an imperialist mindset. As these Europeans started to make a home for themselves, the well-being of the Indigenous peoples was not their priority. The oppression gained steam as the Native Americans were slowly forced from their homes into smaller and smaller spaces. Even though they themselves are native to this country, they didn't receive full citizenship until 1924. Before, they were only granted citizenship if they disassociated themselves from their tribe, fought in the war, or married into a European family, since "local whites conflated whiteness with citizenship and the concept of being 'civilized'" (Sweet 99). Until 1924, those still clinging to their heritage and stories were unable to have a voice in America. The white male population of America encouraged the concept of "whiteness", especially in reference to those with mixed heritage, with the intention of "essentially [erasing] the Indianness of mixed-ancestry citizens" (Sweet 100). Even after the 1924 Indian Citizenship Act, silencing continued. Even now, as the Indigenous population is reduced to only 0.9% of the American population, we are in need of their stories (National Congress of American Indians). We can no longer push them aside, or call them "white" in order to ignore the stories they have within them. We need to advocate for their visibility and their voices.

In the Bible, when Jesus goes through the town of Samaria, he meets a woman. He asks her for a drink of water, and she is shocked, "for Jews do not associate with Samaritans" (John 4:9, NIV). In their society, it is the Samaritans who should be disassociated with. However, Jesus tells the opposite, saying that "true worshipers will worship the Father in spirit and truth, for they are the kind of worshipers the Father seeks" (John 4:23, NIV). He is breaking the social boundaries with his Father's love, welcoming and advocating for this woman who is disassociated from civilization because of her race. She, being a "true worshiper", is exactly what God is looking for, no matter what background she is from. As Christians, we can make a huge difference by advocating for the lives of the Indigenous peoples, who have been slowly 'disassociated' for too many years. We can follow Jesus' lead no matter the social boundaries in our lives. As a matter of fact, when Jesus' disciples return and see the woman, it says that "no one asked, 'What do you want?' or 'Why are you talking with her?'" (John 4:27, NIV). Jesus is

making a difference just by showing others that she belongs too, just like the rest of them. This is an example of the difference that we can make in our lives, Christian or otherwise.

This is where my congregation can make a difference. Healing Minnesota Stories is an organization that works “towards understanding and healing between Native-American and non-Native peoples” (Russel). Jim Bear Jones is a part of this organization, and he and a member of the Dakota Tribe, Bob Klanderud, lead tours of Minnesota landmarks that have a special place in Native American history. I plan to set up a private tour for the members of my church, so that they too can experience the life-changing stories that Jim Bear and Bob tell. The second step in my plan is to form a book club in my church in order to highlight Indigenous literary works and to further promote the healing that stories bring into our lives. After these elements are in place, my congregation can have a further conversation as a group on how these stories have changed our perspectives so far, and the differences we can make moving forward. Additionally, I believe that this is a project that doesn’t just have to happen in my personal congregation. I hope that by spreading the word, through oral suggestions, meetings and this paper, I will be able to encourage other churches and communities to take these steps towards healing as well.

As the planet we live on cries out for our help, “it is essential to show special care for Indigenous communities and their cultural traditions” because they are our “principle dialogue partners” in protecting the Earth (Francis 99). Together I believe that through healing stories, we can create this bond of partnership, and make the voices of the silenced heard.

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## **Hope for the Homeless: Shining the Light of God into our Communities**

Alicia Goeser, Mahtomedi, MN

It is no secret that homelessness exists all around us. At almost every busy intersection, it is common to see people holding cardboard signs proclaiming cries for assistance. This visible suffering naturally pulls on our heartstrings, making us want to help, but it can be difficult to know how. Everyone has heard that you should not hand out money because it might be spent on harmful habits. Instead of searching for a different way to help, it is easy to avoid eye contact and move on with our lives, but Jesus calls us to care for all of creation, including the less fortunate. During my time at AYT, I learned that there are many ways to serve our neighbors in need as long as we are willing to look into the suffering in their lives and envelop them in the light and love of Jesus.

Homelessness surrounds us, whether we acknowledge it or not. Everyone at some point in their lives has encountered homeless people on the street corners begging for money or food. Personally, every time I drive near the Maplewood Mall, I feel disheartened by the suffering and hopelessness I see in the faces of the homeless individuals there. When the homeless stand out at the intersection with a sign, their “poverty becomes visible, public and open to judgement and action: to be tolerated, avoided, ignored... or intervened into” (Gerrard, 2020). Society finds it easier to ignore and ostracize these people rather than reach out and help them. We do not even take the time to try to understand what they are going through. These impoverished individuals are subject to harsh weather, malnutrition, diseases, dental issues, and feelings of hopelessness and isolation. Instead of helping, we drive right past, trying to avoid eye contact in order to avoid feeling guilty for neglecting a neighbor in need. Society seems to have chosen to believe the stigma that the homeless brought their misfortune upon themselves, so it is their job to find their way out. As Christians, we know in our hearts that this is not true. We know that Jesus wants us to love our neighbor, no matter how hard or uncomfortable it feels.

Even though we believe these people we see on the streets are different than us, we are all united by our Creator, who calls us to care for our brothers and sisters. In Proverbs 19:17, society is reminded that “whoever is generous to the poor lends to the Lord and he will repay him for his deed” (ESV). As children of God, we know that He created us to be in a relationship with one another, without thinking about race, religion, gender, or social status. In the story of the Good Samaritan, Jesus tells a parable about a Samaritan who helps a man who lay on the road, beaten by robbers, even though society said this man should be his enemy. In this parable, Jesus calls us to share His love with our neighbors, the impoverished homeless people. There are so many ways we can share this never-ending love. When we pass our homeless neighbors on the street, we avoid an opportunity to share God’s love because they are of a different social status than us, which makes us uncomfortable. However, Jesus loves everyone, so he wants us to do the same by doing what we can to help the less fortunate. Throughout the bible, Jesus performed many miracles to help the poor or the sick. He restored a blind man’s sight, helped a paralyzed man to walk, and healed the lepers that had been cast out by society. Jesus calls us to follow in his footsteps by caring for those that are cast out by today’s society: the homeless. Whether that is giving money, time, or food, we can all do our part to help those in need.

Even if you want to help, it is often difficult to determine what to give. It is difficult to know if giving money will “benefit the person in need or further exacerbate the root causes of why they’re homeless,” since the person could use the money to satisfy a drug or alcohol addiction (Roemeling). Many people avoid giving to the homeless because they do not know of

options to give other than money, which they do not feel comfortable giving. Homelessness has always weighed heavily on my heart, so I have wanted to help as many homeless people as I can.

One of the ways I plan on helping these people is by educating others on ways they can provide support to homeless people on street corners without giving money. I intend to create an infographic, which uses pictures and words to help make a topic easy to understand. My infographic will explain items people can give, such as granola bars or toothbrushes and travel toothpaste. I will post this infographic in my church and other public places like restaurants for customers to notice and hopefully consider. Some of the ideas on the infographic would include clothing and personal care items, food, and ways to help homeless individuals and families find support from a homeless shelter. For example, in Minnesota especially, cold winters can be hard on the homeless, so giving thick socks, hand warmers, or hats and mittens would help them stay warm (Roemeling). Additionally, people who live on the streets often do not have access to proper dental care, so toothbrushes and travel toothpaste would be a great way for them to maintain dental hygiene. If people want to donate food, they “should be conscious of what they are offering and whether it would be easy to eat” because of the dental problems that many homeless individuals face (Roemeling). Money, food, and clothing provide support for a homeless person, but that support does not last long. Many homeless people need long term care and support to help them get back on their feet. St. Andrews Lutheran Church, my church home, has a program called the Community Resource Center that helps people get back on their feet after losing their job or home. One way to guide them to this long term care would be to tape a card of a local homeless shelter like the Community Resource Center to a granola bar or other snack. Something as easy as telling them of a place to find help or offering a simple granola bar could dramatically change a homeless person’s life forever.

The next part of my plan of action addresses not only the issue of homelessness, but also the problem of food waste. At the Augsburg Youth Theology Institute, we talked about how households, restaurants, and grocery stores throw out millions of tons of food every day. Americans alone throw away approximately 150,000 tons of food every day (Milman). This food could be used to feed the hungry and destitute, but instead the food is thrown into a landfill to rot and further damage our environment. To address this tremendous issue, I plan on communicating with Cub Foods and local restaurants about what happens to all of the food that they are unable to sell that is still edible. I have spoken with the manager of Festival Foods in White Bear Lake about where all of the products that they cannot sell anymore end up. I found out that Festival sends these items to the Second Harvest Heartland, a company that packages and distributes food to the hungry in the Minneapolis-St. Paul area. It warmed my heart to know this local grocery store is doing its part to help the hungry while reducing their footprint on the planet. If a restaurant or grocery store that I talk to does not already have a plan to discard of food waste in an eco friendly way and is willing to partner with me to distribute food to the homeless, I will bring the leftover food back to my church. Then, I will work together with my high school youth ministry group to deliver the food to homeless people in our area. Even these small steps towards reducing food waste can give hope to the hopeless by providing them with fuel to carry on.

Homelessness exists all around us, but it requires courage to care for our neighbors like the Good Samaritan did. Jesus calls us to come out of our comfort zone to help those in need, whether it be by giving money, clothes, or food to the homeless. Even by taking small steps like these, we can all work together to bring impoverished people out of the darkness and into the light of Christ.

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## **Cultivation for Christ: Integrating a Youth Eco-Community into our Church**

Miguel Grados, Minneapolis, MN

In cultivating a life, “what is truly important to cultivate?” you might ask. I feel that cultivating love, spirituality and ecology is of utmost importance, and it is my greatest desire to encourage ecological environmental awareness, especially in relation to young people in our modern culture. During the week I spent at the Augsburg Youth Theology Institute (AYTI), many speakers talked about the preservation of our environment, and how science and faith can intertwine with one another. Inevitably, I really enjoyed my time talking with my new friends I met that week about this and many other topics around the status of our environmental consciousness. What I appreciated most about this experience above others I’ve had, is this: time to think clearly about the world, what’s missing in it, and how to fill in these empty spaces. One of these issues foremost in my mind is this: the lack of our youth’s environmental awareness and discussion, and out of that, how to provide youth with easy and effective ways through faith to incite positive ecological action.

When it comes to my own church (St. Joan of Arc Catholic Church [the SJA ministry]), the EcoSpirits Ministry there has been a positive asset in the “eco-awareness” movement by creating an environmentally conscious recycling program, encouraging the congregation to reduce their carbon footprints with clean energy sources, and reducing the use of plastics whenever possible. I quickly realized our church kitchen had also implemented many eco-friendly practices like providing and using compostable plates, cups, and utensils. In my many years of attending Sunday mass, youth and adults have been served cookies afterwards with good intent: love, kindness, and wholeheartedness for the community -through donations with Cookie Cart! Yet when one realizes that none of those cookies truly bolster us in our physical health nor healthy energy, but rather bring on just a temporary “sugar-buzz”, it encourages them to think about our parish’s healthy eating habits by also providing non-GMO fruit... encouraging healthy bodies!

I’m quite saddened by the state of our world, and especially how it affects our youth. I’ve realized that we all too often grow up with our minds only in the moment: school, drama, personal interests, technology, friends and physical attraction. Eventually we find ourselves at a college, focusing on our studies, paying off student loans and our current lifestyle. Throughout our youth, we often don’t focus on our connection to our environment, nor do we have the mindset to take active care of or even pay attention to the needs of our earth! It seems that as we grow, we actively discard our awareness of our environment to focus on daily life stressors or distractions like computers, television and phones. The important thing to note is that this is rooted within childhood! Environmental understandings and values define who we are.

In American politics, the Green Party of Minnesota follows the ideals of green politics, which are based on four core values: ecological wisdom, social justice, grassroots democracy and nonviolence. This idea originated in Minnesota in the year 1984, and evolved into the Green Party, which was officially founded in 2001 (Ballotpedia). In addition, a third party 2016 presidential electoral candidate named Jill Stein (who entered the race on June 22nd, 2015) was able to claim 3% of the American presidential vote (Ballotpedia [JS])! Now think about how much higher that percentile would be if the children of previous generations were informed early in life about an earth-based consciousness. That 3% statistic could instead have been a 30% force for change had there been more environmental awareness and more environmental involvement. So what do we do? We neglect the key value of environmental

awareness. Also, according to many national sources and thermometer readings, 2019 has had the warmest June ever (Scutti, CNN). My strong belief is that our ignorance about our environment is one of the major factors in this sweltering greenhouse effect, and this profound ecological ignorance is exactly what contributes to our current model of life that's causing our earth and inhabitants to suffer.

After understanding these current destructive versus restorative ways of modern living, we can look toward the greatest commandments according to Jesus: "Jesus said unto him, Thou shalt love the Lord thy God with all thy heart, and with all thy soul, and with all thy mind. This is the first and great commandment. And the second is like unto it, Thou shalt love thy neighbor as thyself" (Matthew 22:37-39, ESV). But we are here at this moment in time for a reason, God helps us see that by providing us with Proverbs 3:19: "The Lord by wisdom founded the earth; by understanding he established the heavens" (ESV). Now think about it like this: if we should love God with all of our hearts, shouldn't we love what he creates with the same passion and zeal? "Laudato si', mi' Signore" – "Praise be to you, my Lord." In the words of this beautiful canticle, Saint Francis of Assisi reminds us that our common home is like a sister with whom we share our life, and a beautiful mother who opens her arms to embrace us. "Praise be to you, my Lord, through our Sister, Mother Earth, who sustains and governs us, and who produces various fruit with colored flowers and herbs" (Francis, 7) . The question we and our young people should be asking is as follows: "Are my choices good or bad for my mother on which I tread upon?" And as important, are they really good for humanity? God's children are more than things: "who is not just something, but someone. He is capable of self-knowledge, of self-possession, and of freely giving himself and entering into communion with other persons." (Pope John Paul, 357) Children will then communicate with each other... and the result is that our youth will be sparked with keen interest and god-given passion in the active healing of our suffering world! I believe that as a populace, we should strive to be stewards of the earth, and we should step up to the task of being our earth mother's caretakers, appreciating our ancestors' roles as caretakers, and being brave warriors for abundance and justice. Why not start during one's youth?

As our Pope Francis stated: "our goal is not to amass information or to satisfy curiosity, rather to become painfully aware, to dare to turn what is happening to the world into our own personal suffering and thus to discover what each of us can do about it." (Pope Francis, 19). We can use what we learn in our youth to our advantage in truly making the world a better place!

I personally find great inspiration and admiration of the EcoSpirits group who are part of my church. I am part of the youth group at church known as CLUB. We meet every other Sunday morning during the school year with attendance of about 60 kids. However, I do find that there's usually no talk of care for our earth. It is imperative to teach and show our youth that we are responsible for the health of our one and only true home - our environment. We as people live only so long, but when we pass on the caring values of respect for our planet to our neighbors (especially the youth), we can make a big difference in the development of our natural world, how we build and create upon it, and help in the preservation of all the world's inhabitants.

I would like to take after the EcoSpirits group and combine this concept with my love for the youth in my community. With the support of the SJA ministry and with the assistance of the EcoSpirits ministry, I would like to start an inspirational youth-based eco-community called Cultivation for Christ! We would be covering many subjects: how our simple actions can cause a positive effect on our planet's health and inhabitants, the history of environmental activism in our time, and many actions that youth can make to manifest a difference in their world. Not only will I create a cooperative blog to record our personal and unified actions for the earth, but I will

also physically engage my group with different activities to incite action on their behalf with their peers... like the building of an earthworm garden for ecology of better soil!

Now when considering how to build an earthworm garden, it comes down to the best selection of earthworms, and it turns out that “to the best of our knowledge, only few studies investigated the biodegradation capability of single or multi-species earthworm cultures” (Khwairakpam and Bhargava, 90). According to this same study, the ideal type of earthworm for the job would be the species *Eisenia andrei*, in addition to a human influence in the form of a month-long precomposting time (Suleiman, 111). This project could be one option, and my current plan includes my becoming a peer minister for CLUB, gathering recruits by peaceful engagement, and hosting youth meetings after periodic Sunday masses. We can manage our spending by budgeting, preparing a spending list for project materials likely needed for the garden: like wood, shipments of *Eisenia Andrei*, soil, temperature management devices, thermometers, and compostables. Afterwards we’d meet up during the week to work together on the garden’s construction while studying curriculum regarding our world and action plans.

In conclusion, education and inspiration regarding the earth and our place in it is vitally important. The quicker we are convinced that we can make a difference in the world, the more motivated we are to have God work through us and make change within it. I conclude with Genesis 1:31: “God saw everything he made, and behold it was very good” (ESV).

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## Where does the Unwanted Food Go?

Paige Halter, St. Louis, MO

Every day at the Augsburg Youth Theology Institute (AYTI), my mind was introduced to so many new ideas. My eyes were opened, and my heart followed as well. I became aware of the people who are often overlooked, and I was presented with situations that I had no idea were occurring. But most importantly, I was able to make connections with those issues, and I had the ability to present solutions in order to benefit all.

One issue that struck me was the concern of food waste, where your food goes when it is “thrown away”, the decision upon whether or not produces looks “good enough” to appear on shelves, etc. Especially regarding the fact that “1 in 7 people in the world are going hungry, whereas 1/3 of all food is wasted, thrown away, etc” (Aid, Food). These frightening statistics are only getting worse as the years go on and little is being done in order to aid the situation. At AYTI I was taught that it was possible for me to make a difference by combining theology and ecological science.

Wasting food is not simply just throwing away what is left on your plate, it’s those bananas that turned brown after a couple of weeks or that carton of milk that was poured down the drain because it’s past the expiration date. It is estimated that a shocking:

40% of food grown, processed, and transported in the US will go to waste. At every level of the supply chain - from farm, to distribution, to food store, to home - food is being wasted. According to The National Resource Defense Council, if we were able to rescue just 15% of the food we waste each year, we’d save enough to feed 25 million Americans. That’s 60% of the number of the population facing food insecurity (Move For Hunger).

So the question that arises is how to stop food waste, and by combining ecology and theology there is a solution. Different ways to reuse unwanted food -such as composting bins and donation drives- will better benefit our environment and society.

God gave us this world as a special gift, for “in the beginning God created the heavens and the earth... and He saw that it was good” (Genesis 1:1-3, NIV). The Earth was created not to be misused, but to hold life and to be cultivated. Wasting food is not treating God’s earth responsibly, as landfills are overflowing with trash and slowly creating a toxic world. Using composting bins to make soil that will help sprout new growth will prove to be beneficial in making a healthier, cleaner environment.

In the story when Jesus fed the 5,000, he had more than enough fish and bread to feed the population, and there was still some left over. “And when they had eaten their fill, [Jesus] told his disciples, ‘Gather up the leftover fragments, that nothing may be wasted’” (John 6:12, NIV). Jesus did not allow any food to be thrown away, in other versions Jesus said “let nothing be lost.” In a time when it is so easy to throw out unwanted food, we must be willing to preserve it, find a new use, or give it away to provide for others instead of tossing it out.

Besides, throwing out food is not doing anything to help the increasing amount of hungry people in this world, where 1/7 people face hunger. Focusing on restaurants, a shocking “95% of the restaurants' waste could be recycled or composted. An analysis from the Food Waste Reduction Alliance found that 84.3% of unused food in American restaurants ends up as trash, while 14.3% is recycled, and 1.4% is donated” (Bell, Shelby). The 14.3% represents what more and more restaurants are doing this day, and that is recycling food by composting it. Composting is beneficial because “instead of dealing with the expenses and hassles of hauling away mostly

food waste to landfill, composting allows a restaurant to divert nearly all its waste” (Bell, Shelby). This proves to be beneficial to our environment because composting reduces the amount of waste in our landfills and turns it into soil that helps produce healthy vegetation.

A different, less ecologically innovative solution would be to donate unwanted food, but it still helps. “Food pantries, food banks and food rescue programs are available across the country to collect food and redistribute it to those in need” (EPA). My church currently already has food bins in which people will place unwanted food, and a few days later it will all get donated to people who need it.

There are so many simple ways in which we can help the world, yet these ways are often overlooked. At Augsburg I learned just how much wasting food impacts a whole society, and I figured that I would inform other people about that. I researched ways to stop this as best as possible, because at AYTI I found that every effort helps. Having a food donation box in a community center or even a composting bin in your backyard is helping. Landfills are overflowing with unwanted food, people are going hungry everyday and don’t know when or what their next meal will be, and the world is suffering. When God looks at the world he created, I believe that he would be disappointed at all the ways in which people struggle everyday. Theology and science can prove that by doing simple things to improve our society, we are slowly helping to restore the beauty of God’s world.

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## It's Bloody Time to Change Now

Ani Holm, St. Paul, MN

I chose the topic many are embarrassed or ashamed to discuss: menstrual products. Many years ago, women used cotton cloths as tampons. They would have to use, clean, and use it again because it was the normal way to take care of your body. As times changed, the way we take care of our bodies have changed. We now have products that could have harmful chemicals in them. We have been marketed to and feel pressure to use products that need to be glamorous versus useful and safe for our sensitive areas. This issue is important to me. The amount of energy and resources that go into menstruation products and bathroom toiletries can be used elsewhere; and in a more sustainable and responsibly profitable way. Factors that impact making this change include affordability, accessibility, convenience, reprogramming how we think about menstruation, and apathy to improve the environment while spending less over time.

Women who purchase single use period products will spend, use, and throw away more than they would need to if they were to buy and use reusable menstrual products. Some places in the world do not have access to basic period products. In some cases, women even drop out of school because they lack adequate period products. It's also unfair for people in developing countries who have limited access to period products. Many ladies have to pause or go without school and/or work because of lack of resources to take care of themselves even though it should be a basic human right.

In *Laudato Si'*, Pope Francis says: "The statements of the popes echo the reflection of numerous scientists, philosophers and civic groups, all of these which have enriched the church's thinking on these questions outside the Catholic Church, other churches and Christian communities and other religions as well have expressed deep concern and offered valuable reflections on issues which we all find disturbing" (10). He claims that Christians are not the only ones who have thought about the impact we have had on the earth and how we must change our habits and care for her. In *Laudato Si'*, The Pope emphasizes that "Bartholomew has drawn attention to the ethical and spiritual roots of the environment problems, which requires that we look for solutions not only in technology but in a change of humanity; Otherwise we would be dealing merely with symptoms" (11). We need to make a change in our actions and habits and not rely solely on technology to fix everything because it cannot fix all of the problems we have made. In *Laudato Si'*, Pope Francis claims that Earth is like a mother we have ignored and abused: "this is why the earth herself, burdened and laid waste, is among the worst abandoned and maltreated of our poor; she 'groans in travail' ( Rom 8:22) we have forgotten that we ourselves are dust of the earth (cf. Gen 2:7); our very bodies are made up of her elements we breathe her air and we receive life and refreshment from her waters" (7).

Influential thoughtful leaders and researchers believe we are hurting the earth. We should make changes to how we treat our home now instead of waiting until it's too late and we have no home in which to live. If many people make small changes that help the earth and save money over time, then we should do it. If you don't want to help the earth, but you do like money, then still do this because you'll have more cash when we stop spending money on toilet paper, pads, cups, forks, spoons, and everything else we use once and throw away. We live in a throw away culture and it's time to change that. That's why I want to help change the world as much as I can by starting my own business.

To address this issue in my community, I will widen an experiment that I have been doing in my own house and family. I have purchased reusable pads and a menstrual cup. I plan

on making an easy to use service that has notes that are to the point on where to buy quality products that don't leak and are easy to use. Then I would sew reusable toilet paper with a washable bag and washing instructions that will come together in a package for people in my community to try. I will ask them to share their experience with me to see how it went. That will help me improve my product and information on my environmental issue and see if it works for people's lifestyles.

Once I see how my idea works and how I can improve, I'd like to make a website and mini store so people can purchase from my website. I would love to expand by talking to local stores in my area to see if they would sell my idea. I might eventually start a non-profit that can help those in need who can not afford to buy these products. I can donate my products that can be distributed across the world to help those who want to help the environment and their wallet.

I understand change is hard and for some, my topic may be considered gross. The time has come for us to step up and start to help the earth by using things that can be reused. Small changes, over time, among many people, will help: like not using straws, composting, and if you are really bold, using a diva cup or reusable menstrual pads. Sadly, not everyone wants to make a change. Then do it to save money over time. We live in a throw away culture and it's time to change that through good ideas and action. If people don't care about the earth, then do it to save money over time.

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## Prairie Grass is Superior

Lydia Houge, St.Paul, MN

The planet is dying and your metal straw is not going to SaVE tHe tUrTleS. Plastic straws only make up 0.03% of all of the trash in the entire freaking ocean (Kellgren-Fozard). The truth of the matter is, most of the people who love to shove their metal straws in your face don't care very much about the planet and even if they really do they are not going to do anything about it unless it fits their aesthetic. Metal straws are just marketing, they don't help the planet all that much and make people feel like they are doing something when they are not. If people actually cared they would stop buying from fast fashion companies and reduce the amount of animal products they eat and take the bus to work. But, most people won't change their lifestyles because a few teenagers told them to. So, what can we do to help the planet that is easy and aesthetically pleasing? Easy, replace your lawn with prairie grass.

Prairie grass has roots significantly longer than most other grass. This has the potential to have a great impact on the way carbon is stored in the soil. When the grass you are using for your lawn gathers carbon through photosynthesis it sinks the carbon into the ground. However, these roots only go a few inches into the soil and as a result it is very easy to release this carbon back into the air. Carbon sinks are a key part in maintaining the balance of carbon dioxide in the atmosphere, historically more than 30% of carbon emissions have been absorbed by trees and grasslands (Carbon Sequential). However, trees take a long time to grow as do their roots. Deforestation is an ever present issue in this 21st century and as of this moment it seems highly unlikely that the companies doing to forest clearing are going to have a huge change of heart and stop what they are doing. So, let's think. What other plants can help to sink carbon into the ground? It should be something easy to maintain, something that grows quickly and preferably something beautiful. Ah ha! Prairie grass! It should be known that trees can store more carbon than grass. But, trees store their carbon above ground in their trunks and branches. This means that if the trees are burned, in say, a wildfire (a realistic concern with the state of the environment) it will release back into the air all the carbon it has stored and then some (Grasslands More Reliable Carbon Sink than Trees). Because grasslands store carbon they gather from the air in their roots, there is no risk of it being released during a natural disaster such as a wildfire. This also means that whoever is maintaining said grasslands could perform a controlled burn in order to encourage new growth without worrying about releasing more carbon into the atmosphere. Overall, grasslands are an extremely effective way of controlling carbon levels without too much work. Also, how cool would it be to step into your backyard and be in the middle of a prairie? As many people who enjoy exploring Minnesota's great outdoors know, the prairie is home to not only many tall grasses but also many beautiful flowers. I think it would be pretty cool to be able to gather a bouquet of wildflowers in your own backyard.

Because I'm sure that many a person reading this paper are probably highly religious and would never, ever do something God didn't want them to, let me explain why y'all should care about the environment via the Bible. When God created humans, God gave them the gift of all of creation to rule over: "Rule over the fish in the sea and the birds in the sky and over every living creature that moves on the ground" (Genesis 1:28, NIV). Now, think about history. Throughout the ages, kings and queens who were just and kind and treated their people well were the ones who were loved and lived for a long time. But, rulers who didn't care about the people and rulers who were selfish ended up dead. Take for example, Marie Antoinette. She did nothing while her people starved and when the revolution came her subjects were like 'yeet, time to die' and she

lost her head. The whole ‘let them eat cake’ is likely a falsehood, historians have theorized that it was said by her cousin and referred to cake not a dessert, but as a sweet bread common at the time. Not the point. The point is that if you do not rule fairly and are not kind to your people you will die a painful death. In addition to the fact that humans should take care of the earth because they want to be good rulers, it should also be noted that God gave humans this position of authority as a gift. They did not have to but they did. I don’t know about you, but when I am given a gift I cherish it. When someone gives you a gift it means ‘I thought about you, I care about you and I want the best for you’. God was thinking only of our wellbeing when they gave us the gift of creation. They were like, ‘dang, these idiots need some help. Maybe this will help them to thrive and have a meaningful existence’. And here we are a good while later, trashing, pillaging and burning the gift of creation. I’m guessing that many people don’t think about the world as a gift from God, either because they don’t believe in said God or because it just didn’t cross their minds that it was a gift. But heres \*tap tap\* the mother freaking \*tap tap\* tea \*tap tap\*, you should care for the earth even if you don’t think of it as a gift from God, because it is the right thing to do. A person with even a little bit of compassion could see that letting the world die, kicking animals from their homes and causing mass extinctions is just not a good thing to do. And so, if you believe that creation is a gift from God, treat it with respect, and if you don’t believe that creation is a gift from God, treat it with respect anyway, because it’s the right thing to do.

The truth of the matter is, the earth is dying. It has been predicted by scientists that we have as little as 12 years before we reach the point of no return. That's not very long. And so, please do what you can to help the earth survive. What it means to live an eco friendly life is different for everyone. Maybe it's not possible for you to take the bus to work, but maybe you could limit the amount of plastic you are using. Maybe being vegan isn’t an option for your family but not driving your car everywhere is. Many people could do as I suggested and replace part (or all) of their lawn with prairie grasses. But above all, we, as a society, need policy change on the part of the government and large corporations. We no longer have time for ‘realistic solutions’, we need to do something big and we need to do it now. Call your representatives, be informed on the larger corporations and how they are treating the environment, vote in elections and with your dollar. Do what you can today, because tomorrow might be too late. Thank you for coming to my ted talk.

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## Tikkun Olam ~ Repair of the World

Amalie Kurth, Tomahawk, WI

I have always known that we are called to take care of our Earth, simply by living in the cleanliness and beauty of the Northwoods. Attending the Augsburg Youth Theology Institute (AYTI) facilitated and encouraged me to think on this topic more intensely. In 1st Corinthians 6:19, the verse tells us that our body is a temple and as God commanded man to take care of himself, he also created the Earth for us to care for and have dominion over.

Destructive processes like overharvesting, use of fertilizer, the expansion of buildings/overexpansion, and throwaway cultures may not be severely harming us now but, we wouldn't want our children to live in a world that is suffering because we destroyed our Earth and did nothing about it. If we don't start understanding that the earth is beyond important and we are continuing to destroy it, life as we know it now could be very different in the future.

While in attendance at AYTI, I was taught to use high order thinking skills by remembering, understanding, applying, analyzing, evaluating, and finally, creating. God tells us to nurture and love our environment but many people either don't understand how to help or want someone else to do the work for them. When we can begin to use the high order thinking skills and create a better environment, then amazing, wonderful things will happen. During my week at AYTI, I recognized that I have the capability to change lives; I don't have to be an adult to make a difference. Even the smallest changes can have the biggest impact. After careful thought, I have decided that in my small town of 3,200 in Tomahawk, Wisconsin, I will challenge myself to make a difference in my environment, community, and the world.

The United States is a very lucky country and has many opportunities and privileges open to us. However, large companies such as Nike and many others outsource to developing countries. Outsourcing saves money for these huge corporations. Companies such as Nike outsource jobs to people in smaller countries to work very hard and are paid little to nothing. Working conditions are horrendous and one of the most disturbing parts is what happens to the products that have errors in them. If any item has a mistake in it, it is transferred to large piles in the middle of small villages and is burned. These piles happen to be very close to where children play. By burning the products, many harmful gases are released into the air causing the children and people who inhabit the area to become very sick.

The fashion industry is one of the most harmful industries as people ask for more and more and throw away perfectly fine products because they want the newest trends. People consume products and don't get the full use of them and instead of reusing these items, they are thrown away. Many people are very acclimated to buying and throwing away perfectly fine products. I learned from Pope Francis's, *Laudato Si'* that we have adopted a 'throwaway culture.' This is described as the consumerism and insufficient use of products that can be used again but are thrown away. Americans purchased five times the amount of clothing in the year 2014 than in 1980. As *Laudato Si'* says:

These situations have caused sister earth, along with all the abandoned of our world, to cry out, pleading that we take another course. Never have we so hurt and mistreated our common home as we have in the last two hundred years. Yet we are called to be instruments of God our Father, so that our planet might be what he desired when he created it and correspond with his plan for peace, beauty and fullness. The problem is that we still lack the culture needed to confront this crisis (38).

The increase of products in the fashion industry causes excess amounts of trash, deterioration of the earth, and an influx of sweatshops.

However, there are some companies that strive to better our planet. Patagonia is one of the companies in the fashion industry that focuses on reducing the destruction of biological diversity. For example, “Patagonia pledges at least one percent of sales or 10 percent of pre-tax profits—whichever is more—to environmental groups. We give at the grassroots level to innovative groups overlooked or rejected by other corporate donors. We fund activists who take radical and strategic steps to protect habitat, wilderness and biodiversity” (Patagonia Website). This company believes that it is part of their responsibility to make a positive impact on our environment. Patagonia also has a sub-organization called The Footprint Chronicles. This organization focuses on making sure that Patagonia products are only made under safe, legal, respectable, equal, and humane working conditions. If we can get more companies like Patagonia in the fashion industry, I think big changes could be made to our environment.

During my week at AYTI, we focused on Pope Francis’s encyclical letter, *Laudato Si’ On Care for Our Common Home*, and there were many passages that caught my attention. The Pope puts the importance of loving and nurturing our Earth in the limelight. He says “the Earth, our home, is beginning to look more and more like an immense pile of filth” (19). I think that the brutal honesty of this sentence opens people’s eyes to see that everything we do today and in the next coming years will have an effect. It’s our job to decide whether it will turn out negatively or positively. I strongly agree that “Human beings too are creatures of this world, enjoying a right to life and happiness, and endowed with unique dignity. So we cannot fail to consider the effects on people’s lives of environmental deterioration, current models of development and the throwaway culture” (Francis, 31). Exercising Pope Francis’s logic, I believe that humans were created in God’s image and although we are all far from perfect, we should all try our best to live our lives through God’s work and preserve his majesty. We are called as Christians to be responsible for our actions, we are not to push away dilemmas that need fixing.

Luke 11:9-10 says, “And so I tell you, keep on asking, and you will receive what you ask for. Keep on seeking, and you will find. Keep on knocking, and the door will be opened to you. For everyone who asks, receives. Everyone who seeks, finds. And to everyone who knocks, the door will be opened” (NIRV). We are not expected to help our Earth alone, it is truly God’s work in our hands and we need to understand that we can’t say we are going to do something to fix our environment and then expect others to do it for us. Cleaning our Earth is a huge task but with God’s help, anything is possible. All we have to do is ask, and we will receive, seek, and we will find, and knock, the doors will be opened to us.

With the support of my family and church, Grace Lutheran in Tomahawk, Wisconsin, I am creating an open community center for new and gently used clothing. I am seeking to help those in need in my community and reducing the amount of perfectly reusable clothing that is thrown away. It is my hope to obtain minimally flawed clothing from companies before they throw them in piles to burn. Consequently, I will be creating “Open Door’s New and Gently Used Clothing.” My goal is to give to those who ask, to find for those who seek, and to open the doors for those who knock. This will be available to everyone and anyone in need. By reusing clothing, people will not be purchasing as much clothing as before. Hopefully, this will reduce the amount of products companies outsource to developing countries, reducing the risks for errors in items that will end up burning in small villages. I aspire to teach my peers how to be teen leaders and how to give back to our community through what I studied and experienced at Augsburg’s 2019 Youth Theology Institute - Stewarding Creation in our Neighborhoods:

Science and Theology in Action. I have the ambition to help the world around me, it is a part of my personal vocation to do what I hope will better our environment.

Just because I am a teen, does not mean I cannot do great things. I hope to implore others to put good into our world as that is what we will get in return. If we continue to put bad things in our world, we will receive bad things in the long run. My week at AYTI taught me to open my heart, mind, and soul to the Lord our God and to know that I might not have all the answers but my Savior does. I know that all the work my new found friends at AYTI and I do will be so worth it in the end. I am so grateful that I had the amazing opportunity to work with a group of people who are so compelled, fervent teen leaders who share the same desire to save our Earth and carry out God's work together. I am so excited to see Open Door's New and Gently Used Clothing help my environment, community, and world!

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## Stewardship and God's Creation

Erin LaMotte, Crystal, MN

In a society of over consumerism what are we doing as responsible Christians to protect and steward God's creation? Unfortunately, our society has become one of waste, overuse, convenience and treating everything we have as disposable just to name a few of today's problems concerning our environment. The earth is not ours to deplete all of its natural resources, overharvest, pollute its water, air and land. God created the earth and all of its abundance to work hand in hand with his people. Yes, we depend on its resources for life but, the earth also depends on us to care for it by using what it has to offer in a responsible way without destroying the very things we depend on for life. We need to find ways in which to reduce the amount of waste we produce as well as the makeup of the materials that we are using, not to mention the methods that are used in the creation of the products that we are using. The earth can of course survive without us, we however, cannot live without the earth's abundant resources. God has entrusted us to steward the earth not to subject it to misuse for our own means. We are merely caretakers of God's wondrous creation to live in harmony within it and it is our duty and responsibility to protect it!

The idea of pollution and overuse or general carelessness with creation is nothing new. Natural areas and tracts of land were designated as wilderness areas, parkland, recreational land and sanctuaries for flora and fauna to ensure the natural state of the land as well as to leave these areas for our enjoyment as long ago as the late 19th century to early 20th century. Mass industrialization was the cause of much of the pollution early on. The United States was growing quickly and there was not much thought or concern for the environment because of the need to keep up with the needs of a growing country. Clearcutting of forests was taking place at a rapid pace as well as the draining of wetlands for farming and the building of factories as well as to make space for housing. Railways and roadways were being built for new modes of transportation further adding to air and land pollution. With a growing population and growing industry, waste was being drained or pumped into lakes, rivers and streams. Mining for building materials such as iron ore for steel, copper for pipes and electrical needs were stripping the land in open and underground mines creating, new wastes of their own to be processed as well as wastes being created by the processing of these raw materials.

To add to the problem came plastics. Invented in the early 1900s, we found many uses for plastics. As bad as plastics are for the environment, they do serve many important functions. The medical field, for one, relies heavily on plastics for medical devices, tools, implantable devices, and machines to save lives. Many other industrial uses for plastic are necessary for today's modern life and are not as detrimental to our environment as are the more recent plastics that have been introduced such as plastic grocery bags, disposable water and beverage bottles, and food packaging. These plastics are being used every minute of every day around the world without much thought of what happens to it after we are done using them. Some of these plastics will be recycled but, unfortunately much of it will end up in the world's waste stream. Plastic grocery bags can remain in landfills for 10 years or more before they start to decompose. Food packaging and beverage bottles will remain much longer, lasting for generations! Today rafts of floating trash fill our oceans, with much of it being plastic bottles. Plastic and its reckless use is, without a doubt, one of our largest pollution concerns. This needs to stop now!

In a relatively short amount of time much of the world's plastic has already polluted the earth's land and oceans. Each year more and more is accumulating and it will not get any better

until we can find ways to eliminate its use and or get all the people of the world to change their habits or demand through purchasing choices products that will not harm our environment. We continue to misuse the earth and at some point we are going to reach a point of no return. We cannot continue down a path of destruction that we are on without experiencing irreversible negative impact. Plastics will not go away in our lifetime. All we can do with the plastics that have already been produced is to recycle them. Fortunately there are some companies that specialize in recycling plastic into useful everyday consumer items. Without eliminating unnecessary plastic altogether, this form of pollution will never go away and never end. Plastic itself is not the only waste that is left after use. The processes, chemicals and components to make plastic also add to pollutants that find their way into our water, air and soil as well. Sometimes it is the unseen pollutants that are worse than the end product itself. The unsightly trash and negative impacts these plastics have on the earth are not what God had in mind when we were created and called upon to care for this magnificent creation. To continue disrespecting and killing God's creation is as blatant of a sin as I can imagine. Not only are we destroying the earth but also everything that inhabits it, including us!

Getting people to change their ways can be a difficult task. People don't always make conscientious decisions concerning their purchases. Many purchases for household items are made out of habit. Today there are some substitutes that can be made in place of products that use plastic or are non-recyclable. We now have garbage bags and lawn bags that are either paper or compostable bags that are plant based and will disintegrate into the ground in a very short amount of time. There are also compostable eating utensils that have the look and feel of plastic but are not, they will also turn into compost. Whenever possible try to find products and product packaging that use glass, paper, cardboard or metal in place of its plastic counterpart. If you are not able to find alternatives to plastic bottles and food packed in plastic packaging, please recycle. Another place that people often overlook is at the check-out. Instead of using the plastic bags provided, opt for the paper which is compostable and recyclable. Better yet, using your own reusable shopping bag eliminates the potential for waste plus it will cut down on the need for pulp from trees and the manufacturing process and waste from manufacturing shopping bags. Since my time at AYTI, I have joined a committee at my church that will evaluate our waste habits within the church and make recommendations on how to cut down and eliminate waste and putting what we have learned into action, as well as researching other ways in which to care for God's creation. Any ideas and methods used in the church will be shared with my congregation so they can also use these practices to do their part within their homes and ultimately pass their practices on to their friends, family, neighbors and so on. I will also find ways to share this information in my community through social media, church forums, and events. My first project will be to introduce using reusable shopping bags with my congregation as well as my local community to eliminate the use of plastic shopping bags reducing plastics pollution. I will start with educating people about the harm plastic bags do to our environment and wildlife and our place in caring for God's creation. My plan is to either make my own reusable shopping bags out of scrap materials and supplies or to purchase them and perhaps personalize them and give them to people to encourage their use or accept a freewill offering or small fee which would be used to purchase more bags or supplies and to also use the funds to purchase compostable products and supplies for our church. I am also thinking of fundraising ideas to bring awareness to ways in which to beautify what God has entrusted us.

We are all part of God's creation. Not just as the human race but all of what God has created. Each part wonderfully made to work together as a whole, together as one, each working together for life. As children of God, we cannot sit idly by watching as we let the earth

deteriorate and be stripped of its beauty. We need to be the voice, hands, feet and eyes of God to speak out for what is right and not allow what we have to be lost. To do nothing is as much a sin as having a hand in its demise. We must do all that we can to fix what has been broken and stop things from getting any worse.

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## Solar Energy for the Individual and Society

Samuel Creed Lange, Owatonna, MN

Picture, if you will, the outside of your house. What gets your attention? Do you notice its color or shape or landscaping? You probably did not focus on your roof. If you did, it wasn't for very long. What if you could improve your home and life by using the roof for something worthwhile? Solar panels installed on a roof provide energy that is good for individuals and therefore good for society. Solar power should be used in our houses because it is better than fossil fuels, demonstrates good stewardship of the earth and is both relatively easy to install and cost effective.

Solar power in modern terms is the conversion of radiation from the sun into electricity. It uses solar panels called photovoltaics (PVs), which are installed on a roof or on the ground near a house. PV panels capture the sun's energy as heat. The heat is transferred to a fluid, which can be used immediately or stored for later use (Barber, 17). If the PV panels receive direct sunlight for part of the day, solar energy can be created. According to NASA, "every 24 hours, enough sunlight touches the earth to provide the energy for the entire planet for 24 years" (Maeda, 21). In other words, the sun produces more energy in one hour than all of humanity uses in a full year (Findley, 12). The sun provides enough energy to meet all our needs when PV panels are installed on or near a house that receives direct sunlight.

People currently use nonrenewable fossil fuels such as oil, coal and natural gas for their energy needs. These sources of energy must be removed from the earth and refined before they can be used, which produces toxic waste products, which means pollution. There have been many oil spills and other accidents over the years that have resulted in wide-spread pollution along with the already constant waste. In addition, the energy from fossil fuels must also be transported to the user, which adds to the environmental impact. The use of fossil fuels creates toxic waste and other pollution.

PV systems "do not create pollution, produce noise, or use any moving parts" while they provide energy (Maeda, 20). The production of PV cells does produce the same toxic chemicals as the manufacturing of silicon chips for computers (Maeda, 39). Once installed, though, they do not pollute during the 25 to 30 years that they last. On the other hand, fossil fuels create pollution throughout their lifetime and use. Although the initial manufacturing of PV panels has negative environmental consequences, their overall impact is exponentially smaller than fossil fuels. Solar energy creates much less pollution than using fossil fuels for energy.

Solar energy is more reliable than fossil fuels to meet humanity's future needs. It is renewable and available nearly every day, rather than fossil fuels which may someday be used up. Further, solar power can be captured on or near the home where it is needed rather than relying on being transported to the home; many things can happen during the transport of fossil fuels that prevent their energy from reaching the consumer. Solar power is a reliable, renewable energy source.

The Bible begins with the story of creation, including when God created the sun: "In the beginning when God created the heavens and the earth, the earth was a formless void and darkness covered the face of the deep, while a wind from God swept over the face of the waters. Then God said, "Let there be light"; and there was light" (Genesis 1:1-4a, NRSV). Later, when the Lord was answering Job's complaints, God said, "Do you know the laws of the universe? Can you use them to regulate the earth?" (Job 38:33, NLT). In other words, God made and controls the sun that gives us light and warmth. Indeed, God established the sun "for ever

and ever-he issued a decree that will never pass away” (Psalm 148:6 NIV). We can depend on the renewable source of energy from the sun because God is in charge of it. God created the sun to last forever, which can provide us with an infinite source of energy.

While God created the heavens and the earth, Judeo-Christian thought emphasizes human responsibility for the earth; Pope Francis wrote that we live in “a fragile world, entrusted by God to human care” (Francis, 55-56) although “nothing ensures that it will be used wisely” (Francis, 71). Over the millennia of human dominion over the earth, we have made many mistakes. One of the many has been the intensive use of fossil fuels (Francis, 21). Fossil fuels create greenhouse gases such as carbon dioxide and methane. These gasses become trapped in our atmosphere and prevent the warmth of the sun that is reflected off the earth from being dispersed into space. As a result, the heat that is trapped near the earth causes what we call global warming. According to Pope Francis, global warming “is one of the principal challenges facing humanity today” (Francis, 22) and that technology based on the use of fossil fuels needs to be replaced without delay with renewable energy (Francis, 110). Clearly, mankind must move away from using fossil fuels for energy to take better care of the fragile earth.

Using solar power is one way for each person to be a good steward of God’s creation. Pope Francis has stated the advantages of solar energy as a means of slowing global warming. While global warming is a multifaceted problem, “local individuals and groups can make a real difference” (Francis, 118). In fact, Pope Francis reminds us that “all of us can cooperate as instruments of God for the care of creation” (Francis, 118). Each household that uses clean, renewable solar energy demonstrates good stewardship of God’s earth.

Solar power can be used in every home in the United States that receives direct sunlight. Even in Minnesota, where the daylight hours are limited during the winter, south facing roofs receive enough sunlight to use solar energy. Interestingly, PV panels work most effectively in cool weather; they convert sunlight to heat energy, which is more efficient when the panels are not hot to the touch. Solar powered homes do need to have a means of storing the energy because of cloudy weather and long nights. Even if a homeowner is not able to replace all their energy needs, adding solar panels to a house will offset some use of fossil fuels.

The process of installing solar power in a home is relatively easy when people use a solar power contractor. There are many companies available; people must do research to find reliable ones and it is recommended that potential buyers get more than one quote for services. A friend recently had both All Solar Energy and Tesla go to his house to evaluate whether solar energy was feasible for him. Both companies began by inspecting the homesite. The limits for installing solar power include:

- Existing vegetation and its potential growth
- Orientation of the home and nearby buildings relative to solar south
- Available area or square footage for the PV panels. (Hren 13)

Once the initial assessment is done, the company’s engineers verify that the project can be completed. They determine the final PV panel plan and installation costs. The contractor handles all aspects of installing the solar energy system. Overall, the process is very easy for homeowners who use good solar contractors.

Solar energy installation used to be extremely expensive. Thanks to government rebates, community incentives and the ability to sell extra energy back to the utility company, it is no longer too expensive for many homeowners. For example, our friend had similar bids from both companies, and his solar energy project will pay for itself in less than 10 years. Although it is a long-term investment, solar panels are a cost-effective way for homeowners to save on their fuel bills over the years.



Solar panels also improve a house's value. In fact, "for every one thousand dollars saved in annual utility expenses, a home's value increases from 10 to twenty-five thousand dollars" (Hren, 12). Furthermore, "installing a PV system adds more to the resale value of a home than upgrading the kitchen" (Maeda, 34). Many homeowners must consider the resale value of their home before they make any improvements. In the late 1970s and early 1980s, "installing solar energy systems was seen as patriotic" (Ramlow, 8). Today, with many people's concerns about global warming, solar panels "provide a highly visible demonstration of the owner's commitment to reducing their effect on climate change" (Barber, 3). Environment-conscious potential home buyers will greatly appreciate the addition of solar panels to a house. Solar panels not only save money on fuel bills, they provide added value to a house.

Solar power provides reliable, renewable, and clean energy, shows good stewardship of our environment and is relatively easy and cost-effective to install in homes. Even if someone does not care about the environment or believe in God, solar energy is a good idea and a wise choice. In the long run, solar energy is good for the individual and therefore good for society. When you picture your house now, I hope you visualize it with solar panels.

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## Science and Theology: Gardenscaping vs. Landscaping

Coco Larson, Eagan, MN

Leaving Augsburg's Youth Theology Institute (AYTI) was an incredibly emotional experience. The week was filled with endless laughter, love, friendships, and a new and deeper understanding of my faith. Throughout the week my journal slowly overflowed with detailed notes on science, theological questions, and multiple ideas that I can bring back to benefit my community.

When I came home I got to share all of the information I had acquired with my family, and the idea of sustainability and taking care of the earth that God created for us stood out to my mother. For about the past year she has been very invested in gardening and how that can benefit not only the people that surround us, but also the earth below us. Gardening is very important in my family's life and I've decided I want to share that with others.

Within this last month I've had the chance to reflect on my experiences in AYTI and how it can benefit my research to help take care of our earth. AYTI was a crucial experience for me to have if I wanted to continue to understand my vocation of trying to take care of the soil we live on. AYTI not only helped me realize this, but it also gave me the tools I need to take action. My goal for my community and congregation is to promote self and community organized gardening. In this paper, I will aim to identify the issue at hand in my community, and how I plan to rebuild from here on out.

My hometown of Eagan, Minnesota, is not your ordinary suburban town. With a population of 66,527, according to Minnesota Demographics by Cubit, we are the 11th biggest city in Minnesota. Eagan has a very rich history... literally. The City of Eagan website tells about how Eagan used to be known as the Onion Capital of the U.S. due to countless onions being planted in our plentiful, rich soil. Over the years the fertility of our soil has decreased due to numerous chemicals infiltrating the ground. These chemicals come from various pesticides from protecting plants, fertilizers to "help" plants grow, and other excess runoff from houses and rivers. Recently as a society we tend to not care about the contents of the products we use. We listen to the booming corporate voice on our televisions and trust that they are taking care of us and our homes. However, we need to take a step back and open our eyes to what is happening on this planet. We need to go outside and investigate our earth for the betterment of our earth. Climate change is at an all time high and if we act now we can, in fact, make a change.

In Eagan, there seems to be a lot of active gardens. However, they aren't *actively* being taken care of. Even with a lot of people who do take good care of their gardens, as a community we are still collectively failing to make an impact on our environment. This is most likely due to the fact that the newer generations do not care as much to help or make an effort. Most tweens and young adults don't know the power they have when they speak up about the topics they believe in. Recently different videos and pictures about fixing climate change have been floating around on social media; but the people posting the pictures aren't doing anything in their real life to help fix said problem. The urge to want to make change is there, it's just time to go out and *do it*.

According to Perfect for Home, a website dedicated to helping the internet make the best choices for homes and gardens, there are multiple benefits to growing your own food on your own turf. These benefits include producing more oxygen, reducing pollution, decreasing global warming, and increasing your health and nutrients. With a regular landscape one would not

receive these benefits, at least not to the fullest extent. This shows that gardening helps us directly to improve the land given to us by God.

In *Laudato Si*, Pope Francis emphasizes that, “Our common home is like a sister with whom we share our life and a beautiful mother who opens her arms to embrace us. This sister now cries out to us because of the harm we have inflicted on her by our irresponsible use and abuse of the goods with which God has endowed her” (7). Pope Francis’ belief is that we have let our Earth and God down by not taking care of the sister and mother the way it has taken care of us. On page 20, he iterates:

“The climate is a common good, belonging to all and meant for all. At the global level, it is a complex system linked to many of the essential conditions for human life. A very solid scientific consensus indicates that we are presently witnessing a disturbing warming of the climate system. In recent decades this warming has been accompanied by a constant rise in the sea level and, it would appear, by an increase of extreme weather events, even if a scientifically determinable cause cannot be assigned to each particular phenomenon. Humanity is called to recognize the need for changes of lifestyle, production and consumption, in order to combat this warming or at least the human causes which produce or aggravate it.”

Using Pope Francis’ logic, I would argue that gardening is a simple, yet effective, way to take on this call that God has given us. We as children of God are called to take care of the Earth created for us, by giving back to the Earth itself. I believe that by taking care of the Earth that God has so carefully designed for us, we will become closer to our Creator as we seek to redeem ourselves for the damage we have caused. We need to love the Earth unconditionally the way Jesus has unconditional love for all of us.

If Jesus were to return to the world in this moment, I believe that he would return to the role of an educator to show us the many blessings we have in this life. We would be drawn back to God’s everlasting love and bring that love back into our soil, trees, lakes, rivers, and anything else we as humans may come in contact with. If we all put in effort, I think our world would significantly change for the better. It would impact our environment in a positive way and provide us with sustainable sources that could last for whatever length of time we needed them to. It is our theological commitment to follow Jesus’ footsteps of loving our Earth, as outlined by Pope Francis in his encyclical letter, *Laudato Si*.

To take action on this process of gardening in homes and communities, I have decided to go straight to my congregation. I am planning to lead a sermon at my church discussing my experience at AYTI and why it has called me to love and care for our Earth. In this sermon I will talk about the concept of Gardenscaping vs. Landscaping and how it will benefit us directly if we all help by putting in the effort. At Mt. Calvary Lutheran Church in my hometown of Eagan, MN, we already have a community and rain garden to help care for the land we have been given. I plan to do research on how those gardens have already helped our community and what more we can do to continue the success we already acquired. I will talk extensively about how Pope Francis illustrates that it is our call from God to take care of this Earth, sister, and mother, the way it has treated us. I plan to educate the people of my congregation on why the need to take action is important if we want to see a positive future for the generations to come. I hope to encourage people to look beyond the corporate mindset and see how we as children of our Creator can help rebuild from the damage we have already caused.

As a youth, my peers and I are the next to inherit this wonderful world. However, we are slowly destroying all the beautiful things that were created for us. Within the past year I’ve really had time to think about my future and if I will even have the future that I want with the

environment we as a society have created. After a week with AYTI, I have learned that I am in no way, shape, or form the only youth that cares extensively about saving our planet. There are many young adults like myself that are driven to make a difference. I feel so blessed to have met these humans, and I can say with confidence that we are slowly but surely on the path to success.

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## How Plastic Affects God's Oceans

Meg May, Savage, MN

Alright, for those of you who may not know there are a lot of animals dying due to plastic consumption around the world. With that being said, there is a change that needs to happen. I'm about to give you the straight facts of why we need to make this change along with the biblical reason to make the change.

If anyone ever goes to any restaurant or any coffee shop and orders an iced drink there is a high chance that it will come with a plastic straw. These plastic straws take 200 years to decompose (GreenZine). Not only do they cause negative changes to the environment, but around a billion plastic straws also end up in landfills every day (GreenZine). Is using a single-use straw that harms the environment worth it? These straws cause other problems for the environment besides pollution, they are destroying our oceans and life in them. These plastic straws and other plastics break down into micro size pieces that get eaten by single-cell organisms which slowly make their way through the food chain and end up in the animals we see. The nano plastics have been killing plankton that other animals eat. Fish may suck up the microplastics that eventually can make their way to the fish's brain. When the plastic gets to their brain, behavioral disorders can develop which can upset the whole ecosystem (Lund University). The Laysan albatross bird is a great example of this. These magnificent birds that may survive with a single mate and not touch land forever are dying from plastic. These birds skim the water with their beaks in order to catch their food. Instead of scooping up fish and squid they are picking up plastic that was mistaken for food. This isn't as much of a problem for adult birds because they can regurgitate the plastic. The chicks, on the other hand, can't, therefore these plastics fill their stomachs and may trick them into being full when they are starving or are cutting holes in their stomach lining (*Laysan Albatrosses' Plastic Problem*). The most known problem of plastic is with the turtles. This problem was brought to the surface after a picture of a sea turtle with a straw stuck in its mouth was released. These plastic straws are getting stuck in their nostrils and in their throats. Turtles have been getting stuck in fishing nets and tangled in other plastic objects that appear to be floating in the oceans (*Sailors for the Sea*). Plastic in the oceans affects animals all over, penguins have been known to get suffocated by pop containers for a long time. The movie *Happy Feet*, which was released in 2006, had a penguin with one of these pop carriers wrapped around its neck, yet no one took into consideration that it was based on a real-life problem. With all that being said we must clean up our oceans for the animals that inhabit them.

Not only do we have to clean up the oceans for the animals, but we must clean it up because this is not our land; we all live on God's land. He created this world for us, but we have been neglecting it and not caring for it as we should. "The Lord God took the man and put him in the garden of Eden to work it and keep it" (Gen. 1:26, ESV). The people as a whole human species have not been doing the one thing we were sent to do: work the land and keep it. Instead, we have been polluting it. We are the only species destroying the earth to this extent, and are also the only ones capable of bringing it back to life. As a whole, we must stop polluting the earth as that was not our calling. "Speak to the Earth, and it will teach you, or let the fish in the sea inform you" (Job 12:8, NLT). We all must go through an awakening and look around to see the damage that we are causing to the earth. We must look at the sea along with all that is in it. When will the time come when we look around and all we see is the destruction we have caused and we no longer see the gorgeous earth that was once given to us. With every day more and

more plastic is ending up in the oceans, and more and more birds, fish, and sea turtles are ending up with plastic-filled stomachs. When will a worldwide revolution start and change will happen? As we wait for the change to come person by person a ripple effect is starting. Although we have destroyed God's land, "the Lord our God is merciful and forgiving, even though we have rebelled against him"(Daniel 9:9, NLT).

As I look around my own community there are changes that I can start. I intend to talk to the pastors and leaders at my church to see what my church has done in the past to start this change, along with giving them more ideas on how to reduce plastic consumption. For example, my church does a pizza dinner every Wednesday during the school year. Every Wednesday they use plastic cups, paper plates, and bowls. I think that we should start using more reusable options- especially cups. Along with that, I think that my church could encourage more reusable straws and other items like cups and plates. With that being said, we do use reusable mugs for coffee on Sundays. I also see changes that can happen outside of my church. For example, I have decreased my plastic usage, especially how many plastic straws I use. I also have been encouraging my friends to ask for strawless lids or simply just not using a straw while out to eat or for coffee drinks. It is the little things that will lead up to big impacts.

So there is everything I know and believe. You can choose to ignore it or you can choose to hear the calling of God and help keep these animals alive and our Earth clean. Restoring the earth is not going to be easy, you have to really make a commitment to changing the earth. My boy Michael Jackson really said it best though:

I'm starting with the man in the mirror  
I'm asking him to change his ways  
And no message could have been any clearer  
If you want to make the world a better place  
Take a look at yourself, and then make a change (Jackson, 1987).

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## **Recycling non-Recyclable Items**

Paulina Mendoza, Anoka, MN

My issue is about recycling items that we throw away in a daily life such as cans, plastic forks, spoons, knives, straws, plastic plates/ cups, Styrofoam and many more. Through the experience at Augsburg Youth Theology Institute (AYTI), I've thought about the damage that we are causing are world. Even if we don't live near an ocean, we are still harming it in lots of ways, such as rivers that lead to the ocean like the Mississippi river, my town really gets involved because I live 5 minutes away from the river, which is pretty close. What my project would be about, is talking to people who are in charge in the community, so that I can see how they are helping and if they are not, try to convince them to recycle not only plastic, but also other items, and put recycling and compost bins in restaurants as well. Overall, helping the environment is a good thing, because then we do not contribute to global warming or cause contamination in any way.

Oceans are being affected because we do not recycle and waste too much when we shouldn't. Yes, we live in Minnesota, but that doesn't mean we don't cause harm. We do have one of the biggest rivers in the U.S and all the trash we drop on the ground gets to the river and slowly makes its way down to the oceans. I found this video in the news about a whale that died and when they opened it up they found plastic bags and that honestly made me mad because of the way we are killing and harming the animals. When you transform something old into something new, it benefits the environment in a number of ways. Materials and natural resources aren't wasted. Energy is saved during the manufacturing process. There is less waste going to landfills. Not to mention, it helps keep wildlife safe. What can be recycled? Paper, plastic, glass, metals, batteries, and electronics. Some things that are not recyclable are: foil drink pouches, chip bags, candy wrappers, dishes, vases, mirrors, plastic straws and utensils, refrigerator and freezer boxes, Styrofoam, pizza boxes, black food trays and egg cartons. What can we do if they are not recyclable?

The problem with this is the we can drop as much trash as we want, but we see the effects every day in our lives. This also affects our communities and animals. If we want the world to be a better place, we (as teenagers) can make a big difference if we speak up to what we think is wrong. We as a new generation have to do something about caring for our environment because it is predicted that in 2050 the global warming would be bad and everything that we know as rivers, lakes, etc. would be covered in sand.

I want to be able to change the amount of trash we use or make something with it so that it doesn't lead to the oceans. Every time I see in the news how many sea creatures are dying it honestly makes me mad and sad at the same time. God created us to be better and to not harm his creation and we are doing the opposite. We need to be the change. We are capable, there are just lots of people who are ignorant and don't care.

I believe that my issue can relate a lot to my religion and my faith. "The earth is our home, is beginning to look more and more like an immense pile of filth" (Francis, 19). In my opinion, I think that this is trying to say that we harm something that was given to us, something we should be grateful for, but instead we harm it. As in this quote, industrial waste and chemical products utilized in cities and agriculture areas can lead to bioaccumulation in the organisms of local population, even when levels of toxins in those places are low (Francis, 19). This also explains what I was talking about in the last paragraph and I think this quote really gets to the point:

Look at the birds of the air, that they do not sow, nor reap nor gather into barns, and yet your heavenly Father feeds them. Are you not worth much more than they? "And who of you by being worried can add a single hour to his life? "And why are you worried about clothing? Observe how the lilies of the field grow; they do not toil nor do they spin, yet I say to you that not even Solomon in all his glory clothed himself like one of these. "But if God so clothes the grass of the field, which is alive today and tomorrow is thrown into the furnace, will He not much more clothe you? You of little faith! (Matthew 6:26-30, KJV).

This gets my attention because it's true; if we are too focused on technology and not on nature, most of the things we do, such as creating or making new stuff harms nature, even if we think it doesn't. I feel God really plays a role on this because likely the earth is asking for help slowly. I pray almost every night for everyone to understand what is going on and to take action. The Bible has much to say about God caring for creation:

You visit the earth and cause it to overflow; You greatly enrich it; The stream of God is full of water; You prepare their grain, for thus You prepare the earth. You water its furrows abundantly, You settle its ridges, You soften it with showers, You bless its growth. You have crowned the year with Your bounty, And Your paths drip with fatness. The pastures of the wilderness drip, And the hills gird themselves with rejoicing. The meadows are clothed with flocks And the valleys are covered with grain; They shout for joy, yes, they sing (Psalm 65:9-13, KJV).

For the land, into which you are entering to possess it, is not like the land of Egypt from which you came, where you used to sow your seed and water it with your foot like a vegetable garden. But the land into which you are about to cross to possess it, a land of hills and valleys, drinks water from the rain of heaven, a land for which the LORD your God cares; the eyes of the LORD your God are always on it, from the beginning even to the end of the year. It shall come about, if you listen obediently to my commandments which I am commanding you today, to love the LORD your God and to serve Him with all your heart and all your soul, that He will give the rain for your land in its season, the early and late rain, that you may gather in your grain and your new wine and your oil. He will give grass in your fields for your cattle, and you will eat and be satisfied (Deuteronomy 11:10-15, KJV).

I believe I'll be able to make a difference by talking to my community and the people that are in charge of the recycling company in Anoka. I have seen so much harm in my community and I feel bad and sad because of how we are not helping. People need to stop being ignorant and pick up their trash and if we aren't able to get the government to put more recycling bins or put another bin to recycle cans, plastic forks, etc. We can start by not using lots of them or not consuming what makes more trash.

All this trash ends up in the ocean and sea creatures are getting harmed. Please, we need to be the change in the world if we want to keep living in it. We need to create things that would help and keep us mainly safe. Not only do we harm the animals, but we also harm ourselves with the air we breathe because it can cause health problems. I've been talking to the Anoka County environmental staff and getting them to put recycling bins in restaurants.

Nature is beautiful as you can see in the following picture. The second picture makes me really mad because how can we do this? If it doesn't fit, it just doesn't okay? Find another place to throw garbage away. We need to do something.






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## **Raising the Percentage and Lowering the Stat**

Taryn Meyer, Caledonia, MN

Have you ever been scrolling Instagram and come across a beautiful picture of God's creation with a statement praising God's work, while later coming across a devastating picture of the Pacific Garbage Patch that says nothing about God's call for us to care for creation? It seems overwhelming to think about how one person could positively affect creation. As I thought about it more, I realized the ocean is filled drop by drop by water and bit by bit of plastic. Even slowing the flow of a few bits of plastic would make a difference if many people did little things.

When I was thinking about what I could do to make a difference, I met with a school custodian who would really like to see more recycling happening. The first question I asked was, "Why don't we recycle at school?" To my surprise, he responded with "They don't know how." I realized that I did not know the ins and outs of recycling in my rural community. After looking at the "Recycler" newsletter for Houston County, I learned that recycling and waste disposal really can be quite complicated. My goal is to educate students, staff, and guests at my school about recycling and composting to help many people do little things to slow the flow of plastic pollution and fulfill God's command for us to be caretakers of the earth.

Plastic is widely used around the world because it is both cheap and durable. However, according to a study done by the University of Hawai'i at Manoa School of Ocean and Earth Science and Technology, plastic can emit methane and ethylene when exposed to sunlight. This is especially concerning because atmospheric carbon dioxide levels are the highest ever and have increased by over 100 parts per million in the past 70 years (Evidence). According to National Geographic, "a whopping 91% of plastic isn't recycled" (Parker, A Whopping 91% of Plastic Isn't Recycled). Of the 8.3 billion metric tons of plastic created over the past sixty years, 6.3 billion metric tons have become plastic waste, and only 9% of that plastic waste actually gets recycled. Essentially, an unbelievable amount of plastic on the planet ends up in the oceans, and it is estimated that by 2050, there will be more plastic in the oceans than fish.

There are currently 41,415 species on the International Union for Conservation of Nature Red List, 16,306 of those endangered (Kasnoff). There are 700 species affected by plastic pollution in the oceans, including the endangered Hawaiian monk seals and Pacific loggerhead sea turtles. Scientists have discovered that ocean debris is now almost entirely plastic, especially microplastics that are ingested by marine life. The plastic also contributes to ocean acidification, which negatively changes marine ecosystems.

Many people would think, "let's go clean up the oceans!" However, you would not start mopping up a mess from a hose before turning the hose off, right? The same goes for plastic in the ocean. "According to NOAA, cleaning up less than one percent of the North Pacific would take 68 ships working 10 hours a day for a year" (Parker, With Millions of Tons of Plastic in Oceans, More Scientists Studying Impact). The hose needs to be turned off before we have any hope of even starting to mop up the mess. Recycling is one way we can at least slow the flow. This is why I have chosen to focus on teaching those in my community, especially my school, on recycling to help raise the percentage and lower the stat.

What does plastic pollution and recycling have to do with theology? God put us on earth to take care of everything on it. "God said to [humankind], 'Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth'" (Genesis 1:28, NRSV). According to Dictionary.com, dominion means "rule; control; domination". To some theologians, however,

dominion in the context of Genesis 1:28 means that humans are to be the caretakers of every living thing on earth. Patriarch Bartholomew has said:

For human beings...to destroy the biological diversity of God's creation; for human beings to degrade the integrity of the earth by causing changes in its climate, by stripping the earth of its natural forests or destroying its wetlands; for human beings to contaminate the earth's waters, its land, its air, and its life -- these are sins. To commit a crime against the natural world is a sin against ourselves and a sin against God. (Francis 11)

It is reasonable to believe that if Patriarch Bartholomew saw the plastic pollution today, he would consider it a crime against the natural world and therefore a sin. By not doing anything about this plastic pollution, we are not fulfilling God's command for us to be caretakers of the earth and everything on it. "All of us can cooperate as instruments of God for the care of creation, each according to his or her own culture, experience, involvements and talents" (Francis, 15). In essence, many people doing little things is more effective than a few people being completely zero-waste.

My goal is to help many people do little things. This will start with educating my school on recycling. According to the Minnesota Pollution Control Agency, there are numerous benefits to having school recycling programs. Some of these benefits include a reduction in waste hauling costs and more effective recycling programs, which in turn could cost nothing or even lead to financial gain. According to the "Recycler", Houston County recycles number one and two plastics, food and beverage glass, office paper, computer paper, corrugated cardboard, cardboard egg cartons, cereal and juice boxes, newspapers (including glossy inserts), phone books, books, magazines, catalogs, and brown paper bags. It is a lot to take in at first glance and may seem overwhelming. That is why I am going to work with both FFA and NHS, along with school staff, to educate and encourage people in my school to recycle.

The first step will be to make signs and banners located near receptacles to inform people what to recycle and what to throw away. I have also applied for the PepsiCo Recycle Rally, which "...is a free nationwide school recycling program for K-12 schools" (Join the Rally). If the application is approved, the Recycle Rally will provide incentives and education for recycling. I have also looked into the Crayola ColorCycle program and discovered that one of my science teachers is already a member, so I will be connecting with her as well. I have talked to my now retired FFA advisor about creating two boxes for compost by our raised bed gardens. My ultimate goal is to eliminate the plastic and styrofoam containers currently being used in ala carte. Doing so will take research to find biodegradable alternatives that are also cost-effective.

As people created in the image of God, God has commanded us to be caretakers for the earth and everything on it. That means we are called to do something about plastic pollution. Plastic is contributing to climate change, endangering marine life, and negatively altering ecosystems. We can help turn off the hose of plastic pollution by many people doing little things. My goal is to educate my school on how to recycle and compost correctly. In turn, we will help raise the percentage of plastic being recycled, lower the amount of plastic ending up in the ocean, and fulfill God's command for us to be caretakers of the earth.

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## Effects of Drought on Food Production

Aamon Naig, Ballwin, MO

"Safeguard creation. Because if we destroy creation, creation will destroy us!" (Pope Francis) Thousands of studies conducted by researchers around the world have documented increases in temperature at Earth's surface, as well as in the atmosphere and oceans (Globalchange.gov). High temperature extremes and heavy precipitation events are increasing, growing seasons are longer, and large wildfires occur more frequently. Hydroponic farming is the solution to climate change related agriculture shortages because hydroponic farming is extremely efficient, and can be practiced anywhere. Hydroponic farming is "the growing of plants in nutrient solutions with or without an inert medium (such as soil) to provide mechanical support"(Webster Dictionary).

Hydroponic farming is extremely efficient because it allows plants to be grown even in dry, arid climates which have been affected by climate change. Hydroponic farming uses about ten times less water than a traditional field crop (Pat Rorabaugh), thus allowing people to grow crops where crops could not traditionally be grown in soil. Establishing hydroponic farms in areas such as Yemen and Latin America would remove peoples' worry about where they are getting their next meal from. These hydroponic farms would also allow for the growth of fresh food to take place all year round. Not only do hydroponic farms use less water than traditional soil based farms, but the growth rate in a hydroponic farm is also 30-50 percent faster than a traditional soil based farm ([www.hydroponics.net](http://www.hydroponics.net)) With the growth rate being so high, people can produce more crops with less nutrients, faster, in the same amount of space. Growing more food, faster, and with less water, is becoming increasingly more important as climate change plays a large role in the way farmers produce the world's food.

Hydroponic farming is a revolutionary way of farming that can be practiced anywhere. The world's largest hydroponic farm is currently in Newark, New Jersey, producing 2 million pounds of lettuce every year (Business Insider). A company called "Freight Farms" is a company that produces shipping container hydroponic farms which are currently in 38 U.S. states and 15 countries (Freight Farms). Having these farms all over the world gives people living in famine stricken regions a source of healthy sustainable food. Being that the hydroponic farms would be in the areas of need, there would be no need to expensively import produce, which would then free up money to be put towards rebuilding those famine stricken regions. In today's world one in nine people are hungry (World Food Program) and as climate change plays an increasingly large role in the way we produce our food, people have to learn to become more resourceful than we have ever been before all while feeding the world.

None of this means anything unless people have reason to help one another, which brings me to the reason why I wrote this. During my time at the Augsburg Youth Theology Institute studying the topic of "Stewarding God's Creation," I was able to open my eyes and see how science and faith are interwoven. To me, the Bible and my faith is a guide to do right by your neighbor, but science and exploration is how I act on my interpretations of the Bible and my faith.

While I was at Augsburg, I was asked what I want to do that will help society and how can I do this. I thought long and hard about this question because there are so many different problems that need to be solved. So they told me to try and solve a problem that truly breaks my heart. I knew exactly what I wanted to do; world hunger.

Hunger is often thought to be something that is far away in regions like Yemen and other African countries. What people don't know is that one in eight Americans are hungry (Feeding America.org). So hunger is also an issue much closer to home that is often overlooked. This brings me back to my topic hydroponic farming; the idea of hydroponic farming is an idea that I think would be able to end world hunger. I address it as a problem solver for famined counties overseas but hydroponic farming can just as easily be practiced in rural Alabama, East Saint Louis, or South Chicago.

My faith is extremely important to me and I act out my faith through my actions and ideas which are supported by science. From the Gospel of Matthew, we see Jesus' stance:

For I was hungry and you gave me food, I was thirsty and you gave me something to drink, I was a stranger and you welcomed me, I was naked and you gave me clothing, I was sick and you took care of me, I was in prison and you visited me.' Then the righteous will answer him, 'Lord, when was it that we saw you hungry and gave you food, or thirsty and gave you something to drink? And when was it that we saw you a stranger and welcomed you, or naked and gave you clothing? And when was it that we saw you sick or in prison and visited you?' And the king will answer them, 'Truly I tell you, just as you did it to one of the least of these who are members of my family, you did it to me.' (Matthew 25: 35-40, NRSV)

This is why I believe hydroponic farming is the way to fight world hunger: it is extremely efficient and can be practiced anywhere. It's not that hydroponic farming is an undoable concept but "like good stewards of the manifold grace of God, serve one another with whatever gift each of you has received." (Peter 1: 4-10, NRSV) To me this means to cocreate ideas and solutions to fight world hunger by using hydroponic farming to help the world. Everyone has a gift that should be shared and should be used to help our neighbors and steward God's creation.

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## Using Sustainability and Theology in the Community: Reducing Single-Use Plastics

Connor Ness, Rochester, MN

When I arrived at the Augsburg Youth Theology Institute, I didn't know what to expect. I was told that I was going to a youth theology program at Augsburg University and I was both excited and scared. I didn't know anything about theology. I knew some things about the environment from prior knowledge on the subject, but not enough to talk about for a long period.

When I left, however, I was blown away by all the things I learned there. I learned about what theology is, how we use theological tools, and also how we as humans affect the environment. One way we humans are negatively affecting the environment is through the use and improper disposal of single-use plastics.

Today, I'll be sharing how the impact of these single-use plastics affect our environment and using the Bible and other texts to explain the theological aspect of this issue. I will also be explaining a project I plan to lead involving this issue and my community.

In the moderately sized city of Rochester, MN, there are a few environmental issues that come to mind, but the main one that is apparent throughout the city and throughout the world has to be the waste crisis, especially the use of single-use plastics. In the U.S. alone, consumers use as many as 500 million straws each day (Bowman). That's a lot of trash filling up our cities and oceans. These straws have horrible effects on the ocean and rivers in my area, including harming the local wildlife.

In Rochester, the Zumbro River flows through the middle of downtown and then spills into the large lake named Silver Lake, and the trash around our city does make its way into these bodies of water. Plastic straws (and other single-use plastics) kill marine life and choke reefs and beaches, never decomposing completely, but instead breaking into bits of microplastics, which eventually enter the food chain (Graham). The marine life around the Zumbro River and Silver Lake are dying because of these microplastics and garbage, which messes up the ecosystem around the city.

The ecosystem around Rochester is extremely connected to the animals that inhabit it. With the waste crisis ravaging through it, the animals are also moving away or are coming less frequently. One example of this is the goose population around Silver Lake, which has been diminishing over the past few years because of people leaving trash around. Geese numbers in the city have dropped since 2007 (Petersen). I wonder how God would feel about these geese being pushed from this ecosystem because of the trash we throw on the ground?

The bible says a lot about the environment and ecosystems in the environment, especially in both Revelation and Genesis. For example, in Genesis 2:15 it says, "The Lord God took the man and put him in the garden of Eden to till it and keep it" (Genesis 2:15, NRSV). The "till and keep" part of this verse is the most interesting as it calls for our vocation as Christians to help keep up the garden that is our world. Walter Brueggemann talks more about this in his interpretation of Genesis saying, "From the beginning of human destiny, God is prepared to entrust the garden to this special creature. From the beginning, the human creature is called, given a vocation, and expected to share in God's work" (Brueggemann). He, in turn, just enforces the point that we need to keep taking care of the planet using our gifts and stop poisoning it with our trash. Through vocation, this can continually be accomplished.

Another book that focuses on the environment is Revelation. The "New Jerusalem" part of Revelation explicitly talks about God's vision for our world. It says, "On either side of the river, is the tree of life with its twelve kinds of fruit, producing its fruit each month; and the



leaves of the tree are for the healing of the nations” (Revelation 22:2, NRSV). This part explains the natural parts of the new city. Previously, we’ve been told from Genesis that we must till and keep the world and if we don’t use our vocation like I said earlier this “New Jerusalem” will not happen. Our vocation to help the planet and keep it in good health is one of God’s plans for the world. So, we must keep carrying on with our mission to do that.

Even Pope Francis has an opinion on this. In his book, *Laudato Si’: On Care For Our Common Home*, the Pope explains how he thinks humans have disrupted our relationship with the earth. He says, “The harmony between the Creator, humanity, and creation as a whole was disrupted by our presuming to take the place of God and refusing to acknowledge our creaturely limitations. This, in turn, distorted our mandate to “have dominion” over the earth (cf. Gen 1:28), to “till and keep it” (Gen 2:15)” (Francis, 48). The Pope is saying that we as humans are trying to take the place of God by feeling like we can own and exploit all things. We as humans must stop this and use our theological tool of creation rather than destruction.

We can completely stop this exploitation through the correct disposal and even the complete banning of single-use plastics and other types of trash. My plan to combat the horrible invention that is single-use plastics by going straight to the source of the plastics in my town. I will be going to many of the major businesses and even the city council to try and persuade them to stop using single-use plastics in their businesses throughout the city.

I will do this over the next year with my local environmental club at school. Using different sponsors from my school and different churches around the area we will come up with a presentation to show restaurant owners and the city council to help persuade them about the dangerous effects of single-use plastics such as the killing of wildlife, pollution of rivers and streams, and disrupting the local food chain.

I will be using my church as a sponsor and also including them in this fight against single-use plastics by making one of the prime focuses of my church youth group sustainability as well as showing them the presentation when it is ready. One of our first days at church youth group will be focused on this as well as helping the rest of the church recycle and compost at church. I hope they will be inspired by my project to be able to do projects of their own or even participate in one of the many climate marches that happen in the city.

Today, I showed you the impact of single-use plastics on the environment in my community, explained how the Bible and Pope Francis view what we should do about the issue, and explained what I am going to do about this issue in my community with my church. Single-use plastics do horrible things to the environment by killing many of the local species, and screwing up the ecosystem of the surrounding area. The Bible says that we should use our God-given gifts to try and fix this issue so that we can try to be like the vision of the New Jerusalem. I plan to try to follow the Bible and use my talents in my community to sway the local city council and the owners of small businesses to stop using single-use plastics in the city and ban them from our local community forever.

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## Living Sustainably: Recycling Plastic

Kirsten Ness, Rochester, MN

Before I arrived at the Augsburg campus, I was nervous. I didn't know what to expect. Now that I am back home, I am so thankful for the experience. My faith went from a place of unsureness to a place of a little more understanding. During my week at the Augsburg Youth Theology Institute (AYTI), I learned about what theology is, looked deeper at what is happening to our planet, and started a conversation about how to improve our communities.

As the weeks pass since my experience at AYTI, I hope to take action in my community. My goal for this paper is to describe an issue that I have noticed in my community, think about how we as Christians should respond to this problem, and to provide a plan for a project that I will lead to solve the issue.

While I was at AYTI in Minneapolis, I noticed how accessible recycling and composting was. Almost everywhere that there was a trash can there was also recycling or composting. As soon as I got back home, I saw how behind Rochester is. There are rarely places to recycle in a public space. For example, every Thursday in the summer Rochester has an event called Thursdays Downtown. There are people selling all sorts of products and local restaurants selling their food. The tents go on for blocks down the street. Of course, if there is food there is trash. While there are plenty of trash cans lining the street, I have yet to see a single recycling bin. It got me thinking about how much poor waste management must be impacting our planet.

Plastic pollution is already known for harming the planet, but it also affects many other aspects of our lives. "The way that waste is managed affects the health of the environment, the livelihood, and well-being of vulnerable populations, and the relationships between governments and citizens" (Waste and Society). Rochester is one of many cities that lacks in public recycling and composting. When several cities and towns around the world lack proper waste management it adds up for a bigger impact. According to "Waste and Society", improper management of waste largely contributes to almost five percent of greenhouse gas emissions around the world.

In today's society when people are done with whatever waste they have, they tend to either litter or throw it in a regular trash can. Because the ocean is downstream from almost any location, much of the plastic waste that is accumulated on the land will end up there (Plastic Pollution). Once it is in the ocean it becomes a danger for marine wildlife either by entanglement in objects or through ingestion. Larger pieces of plastic eventually break down in the water and become even smaller pieces of plastic called "microplastics" (Plastic Pollution). Because this plastic is so small it becomes available to even the smallest sea creatures to ingest. "Studies have found that all kinds of species, including small zooplankton... readily ingest plastic bits and trash" (Plastic Pollution). Spending time on the Augsburg campus, an eco-friendly environment, helped me realize what needs to be changed in my own community and that I can help make that change.

In *Laudato Si': On Care for Our Common Home*, Pope Francis emphasizes the idea that "science and religion, with their distinctive approaches to understanding reality, can enter into an intense dialogue fruitful for both" (45). Pope Francis believes that we as Christians have a responsibility to help change our planet for the better by sparking dialogue about religion and science.

While at AYTI I learned about theology, specifically vocation and our call to action. The Pope explains several ways that we are called to help the planet in *Laudato Si'*, whether it be by creating sanctuaries (page 28) or by starting a conversation and dialogue (page 109). As

Christians, we believe that God created the world for us to live in but not for free. Genesis 2:15 says, “The Lord God took the man and put him in the garden of Eden to till and keep it” (NRSV). We have to work and plow the land, but we also need to watch over the planet and keep it healthy for all the generations to come. Pope Francis says in *Laudato Si'*, “Once we start to think about the kind of world we are leaving to future generations, we look at things differently; we realize that the world is a gift which we have freely received and must share with others” (106).

We as humans also have a responsibility to protect and care for animals and plants. If we continue to pollute and create trash, then we continue to harm God’s beloved creatures. The Pope suggests, “Oceans not only contain the bulk of our planet’s water supply, but also most of the immense variety of living creatures, many of them still unknown to us and threatened for various reasons.”(30). If Christians opened up a conversation about our current environmental crisis, I think that large steps could be done to restore the world that God graciously created for us to live in.

Now, after spending a week learning about the environment and thinking about my call to action, I realize what I want to do to help make my community more eco-friendly. With help from the staff at my church, I plan to invest in recycling bins for my church. Also, to help with education about the environmental crisis, I am going to create posters with information about recycling and what is currently happening to our oceans. Once I can talk more with the staff at my church, I may even speak in front of a group about our environment and what we as a community can be doing to help renourish our planet.

I’ve found the problem, done the research, thought theologically, and made a plan. I feel knowledgeable and prepared to make a difference after spending time learning at AYTII. Now it’s time for me to go out and fix a problem in my community. I hope that you will too.

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## Sun Power

Megan Olafsson, Slinger, WI

The sun is incredibly powerful! It is about 5500 - 6000 degrees celsius or 9932- 10832 degrees fahrenheit and emits three kinds of energy. The sun is about 92.96 million miles away from Earth, and yet takes only eight minutes for its light to reach us (Fact File). And it only makes sense to use the sun's power for our energy. Not only is it logical, but also better for the environment, making solar energy a win win situation. As this paper goes on, there are three things I will be explaining. The first of which is the science behind a traditional energy system compared to a solar energy system. Second, I will discuss our relationship with the earth and God and how we should react. And finally, a personal plan for my church.

Something that has caught my attention is the idea that simply leaving the lights on can create huge amounts of damage to our environment. And while this is a well known fact, people do not have this as a priority or put emphasis on turning off the lights. But just because the damage done is not visible, does not mean it is not important. The power used to keep the lights on is provided by a power station. Those power stations provide energy by burning fossil fuels, which dump tons of carbon into the atmosphere every year. An alternative and less wasteful option is solar power, which is a form of natural energy. One way solar energy can be captured and turned into electrical power is by concave mirrors that reflect the rays onto a black heat absorbing panel. The panel contains pipes where air or water is circulated, which heats up the substance in the pipes. That heat energy is then converted to electric energy by a generator or turbine. By going totally or partially solar, a building then does not completely rely on a power station for energy, thereby reducing the amount of fossil fuels that are used. To be more specific, each two person household puts about 20 metric tons of carbon into the atmosphere each year. But, by going solar, that amount could be cut by three or four tons yearly. This amount is equivalent to planting 100 trees annually (D. Chandler,122).

In my view, God made the earth to provide for all life. God also made people. And God intended for the people and the earth to be in connection with each other. The earth works for us humans, and so we must work for it. And while this is a simple concept, lately people have been forgetting that the earth is not endless. So, it is necessary to give back to the earth. Although the Bible never says anything directly about Jesus caring for the earth, there are many examples of Jesus taking care of people. In the same way Jesus cared for people, we should care for this Earth. One example of Jesus caring for others is in the Gospel according to Luke: "Meanwhile, all the people were wailing and mourning for her. "Stop Wailing" Jesus said. "She is not dead but asleep." They laughed at him, knowing that she was dead. But he took her by the hand and said, "My child, get up!" Her spirit had returned, and at once she stood up" (Luke 8:52-55, NIV). Just as Jesus brought back a girl to life, we should restore Earth's ability to sustain life.

One simple way to care for the earth is to cut down on carbon emissions in the atmosphere. The issue of carbon in the atmosphere is not just a result of leaving the lights on. Leaving the lights on plus other habits in the home, have created about 39% of all carbon pollution in the atmosphere (EnergySage). Extra carbon in the atmosphere has added to the greenhouse effect (heat getting trapped in the atmosphere due to extra gasses, throwing off the natural cycle of Earth). The effects of this is a warmer Earth, more precipitation, rising sea levels, melting of glaciers and sea ice, and undesirable changes to climate patterns that crops depend on.

In my personal life, I want to set an example for caring for the environment. I will design a proposal to add a solar power project to my church. Solar energy is a good option for the church because it can protect the church from increasing energy costs and is low maintenance. The church is also in an open field which provides plenty of sunlight. While cost is an issue, the confirmation class at my church has started fundraising money. The group starts with \$100 every year and provides a service or makes something to sell. The goal at the end of the project is to make the money grow, hopefully enough to install solar panels. What makes the most sense for the church is polycrystalline silicon solar cells. This is the best option because, compared to other types of solar panels, it does not break down when it is covered in snow or dirt, costs less, lasts over twenty five years and they do not require warm weather (EnergyInformative). There are a few companies who install solar panels in the Jackson area. These companies include Current Electric Company, Milwaukee Solar LLC, Convergence Energy LLC and All Energy Solar. We have plenty of companies from which to choose.

In conclusion, harnessing the sun's incredible energy helps both humans and the Earth. It helps humans in the fact that the electric bill is lowered, while still getting heating and light. Solar energy helps the earth because it lowers the amount of pollution in the atmosphere. From a religious view, solar energy is a step towards taking better care of God's Earth and restoring it to what it once was. Solar energy will also hopefully reduce the percentage of carbon emissions into the atmosphere that come from homes. With that being said, I'm hoping to take the lead in helping care for the environment!

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## A Faith Perspective on Environmental Justice

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Environmental issues become social justice issues when some demographic groups are affected more than others. Environmental issues become social justice issues when many people can't drink the water from their faucets while the affluent have private swimming pools filled with the freshest water. Environmental issues become social justice issues when people of color live next to factories and truck routes while white people live where the air smells like trees and grass. In this paper I will explore issues of environmental racism in general and as a specific issue related to my neighborhood and how I plan to help my neighborhood combat it.

There is an ever-increasing number of examples of environmental social justice issues. The Flint Michigan Water Crisis is one. A whole town of people had no access to water in their homes that was not contaminated with lead from early 2014 to early 2017. The population of Flint, Michigan is over 50% African American and largely low income. For comparison, Flint, Michigan has a poverty rate of 41.2% and the median household income is \$26,330 while Minneapolis, Minnesota has a poverty rate of 20.7% and the median household income is \$60,789. ("Flint, MI Data USA") Access to clean water is a basic human right because people need water to survive, but because these people were largely poor and/or African American, they were not seen as a priority. (Flint Water Crisis Fast Facts - CNN)

Gold mining has caused health issues from hazardous chemicals for poor villages located near Goldcorp's Marlin Mine in Guatemala, as well as lack of water from overconsumption by the mine and encroachment on the private land belonging to the locals (Gold Fever). Goldcorp, as a company based in Canada working through Montana, doesn't really have any business destroying land and resources in Guatemala. The Marlin Mine was "developed without adequate consultation and in violation of the rights of Indigenous people" (CAO Assessment).

As a Christian person, I believe it is the job of human beings, especially people who have more to share than others, to look after our planet and the other people around us. One of God's most consistent commandments is to look after the poor and God calls us to follow the ways of Jesus, who cared deeply for the poor and needy and for the earth.

Genesis 1:27-30 says:

So God created man in his own image,  
in the image of God he created him;  
male and female he created them.

And God blessed them. And God said to them, "Be fruitful and multiply and fill the earth and subdue it, and have dominion over the fish of the sea and over the birds of the heavens and over every living thing that moves on the earth." And God said, "Behold, I have given you every plant yielding seed that is on the face of all the earth, and every tree with seed in its fruit. You shall have them for food. And to every beast of the earth and to every bird of the heavens and to everything that creeps on the earth, everything that has the breath of life, I have given every green plant for food." And it was so. (ESV)

God tells Adam and Eve they shall have dominion over the animals and the land, meaning they are to care for the Earth and the animals. A synonym of 'dominion' is 'management', and as Pope Francis says in his book *Laudato Si'*:

The biblical texts are to be read in their context, with an appropriate hermeneutic, recognizing that they tell us to 'till and keep' the garden of the world (cf. Gen 2:15). 'Tilling' refers to cultivating, plough-ing or working, while 'keeping' means caring,



protecting, overseeing and preserving. This implies a relationship of mutual responsibility between human beings and nature. Each community can take from the bounty of the earth whatever it needs for subsistence, but it also has the duty to protect the earth and to ensure its fruitfulness for coming generations (Francis, 48-49).

The earth was made by God and belongs to God, but people seem to have forgotten this and taken it for granted. No one cares when others say “It’s just a tree” or “It’s just an animal” but there would be uproar if God had ever said “It’s just a human”. Just because humans are more capable than other animals and have the ability to use the Earth’s resources in more complex and sometimes destructive ways doesn’t give us a right to. God commanded people to care for the earth. Destroying the earth is destroying something that God has made. It is also not ok to take advantage of other people no matter how poor they are or how different they look, yet these are still big issues today.

Something so beautiful as the earth, carefully shaped by God, should be treated with care and respect. The destruction of the earth is self destruction, but people’s greed has blinded us to that, and they have spread the belief that we were meant to consume the Earth’s resources as fast as possible. The goal has become to increase comfort for ourselves and ignore the problems others face in favor of an ‘everyone for themselves’ social system. This is the opposite of what God teaches us, but the number of people who identify as Christian without even thinking about this is alarming. The Bible has much to say on the topic:

“Whoever oppresses a poor man insults his Maker, but he who is generous to the needy honors him.” (Proverbs 14:31, ESV)

“Whoever oppresses the poor to increase his own wealth, or gives to the rich, will only come to poverty.” (Proverbs 22:16, ESV)

“Do not rob the poor, because he is poor, or crush the afflicted at the gate” (Proverbs 22:22, ESV)

“Then the righteous will answer him, saying, ‘Lord, when did we see you hungry and feed you, or thirsty and give you drink? And when did we see you a stranger and welcome you, or naked and clothe you? And when did we see you sick or in prison and visit you?’ And the King will answer them, ‘Truly, I say to you, as you did it to one of the least of these my brothers, you did it to me.’” (Matthew 25:37-40, ESV)

How disrespectful we are towards the God that gave us life that we can’t even protest the excessive pollution heaped upon poor and minority communities.

My personal experience with environmental injustice derives from the East Phillips neighborhood in Minneapolis, Minnesota. My neighborhood is a diverse community of Native American, Somali, Hispanic, African American, Nepali, and Caucasian peoples. Many of the people here are low income and some are homeless. As such a community, East Phillips has also been plagued with environmental hazards and pollution for the past several decades. “For 25 years, from the late 1930s to the mid-1960s, summer winds blew loose arsenic pesticide dust from a conveyor belt carrying it from railroad cars to the Reade Manufacturing Company, which produced and stored grasshopper pesticides” (Collins). In 2004, the U.S. Environmental Protection Agency tested the yards of East Phillips residents for arsenic. Thirty yards in the area were deemed to have unsafe levels of arsenic and were in need of remediation. One of those yards was mine. East Phillips is home to several other polluting industries, the Smith Foundry, an asphalt plant, a hot tar storage site, asphalt hot-mix storage site for the City of Minneapolis Public Works Department, and a Garbage Transfer Station. The Greenway Bike Trail passes right next to the Smith Foundry and as bikers go by they’re assaulted by the terrible stench

coming from the building. Trucks sit idling in the backed up traffic to get to the Garbage Transfer Station, just adding to the smell.

In 2014 East Phillips heard that the owners of the Roof Depot were selling the property. "EPIC, the East Phillips Improvement Coalition, along with neighbors and other organizations sought to gain control of the 7 1/2-Acre site to prevent its sale to another pollution industry" (Pass).

In 2015 and 2016, EPIC worked on a plan to reuse the old Roof Depot building where the East Phillips Indoor Urban Farm and the East Phillips Neighborhood Institute (EPNI) collaborated to work on the project. This plan was supported by this diverse community and EPIC worked to gain funding for the project and purchase the old Roof Depot site. The plan included an Organic all-year indoor Aquaponic Farm, a cafe, affordable housing, a Community Kitchen, bike shop, and local businesses. "In 2015, the City threatened the use of Eminent Domain and the Roof Depot owners quit talking to us. The City Council voted 9-4 to allow Public Works to purchase the building, which they did, and to convert the site to more industry - the City Water and Sewer Maintenance facility. [At a meeting they said the community would be able to use any unneeded space, if there was any, but] as the meetings proceeded, we struggled to get the community voice heard while the City's space needs at the site ballooned well beyond water yard needs, even including early voting space, guaranteeing that there would be no excess space for the community" (Pass).

At a meeting in mid 2017, Staff Chair Bob Fiddle angrily made a scene to stop State Representative Karen Clark from providing information about how the Cumulative Pollution Legislation she wrote would affect the City's project. Fiddle left the meeting, and since then the City had refused to listen to the community and has not allowed community members to speak at any of their meetings about the project. The community hopes to spread the word to other neighborhoods around East Phillips that are also being affected by the pollution and gain support to fight the City for the wellbeing of our neighbors.

I have written to my city councilperson and several others, including the mayor. Sometimes it's hard for people to speak up because they don't know what to say, so I have designed a postcard for people to send to their City Council and Mayor to protest the city's plan to add more pollution to an already heavily polluted neighborhood. I hope to flood the city's mailboxes and change minds by arming neighbors and friends as well as residents of East Phillips with a way to contact these people without having to know exactly what to say. I plan to print these postcards to bring to neighborhood meetings as well as post where people can get the postcards on the East Phillips Neighborhood Institute website. I hope to get help from friends at Park Avenue United Methodist Church through the Morning Blend Bible Study group and from Little Earth of United Tribes. In addition, the editorial coordinator of my neighborhood newspaper, The Alley, has asked to use my graphic in the next edition of the newspaper. As an artist and a designer, I feel that this is the best way I can use my skills and talents to help my community.

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## Time for a Change

Payton Sears, Rochester, MN

I've been going to my high school now for two years. I have walked by the parking lot there at least once every day. The truth is, it's always littered with garbage. When people leave and come back for lunch, the area gets even messier. Students throw trash out of their cars, and leave it in the parking lot. I frankly don't understand why my fellow students feel that this is appropriate behavior. But then I thought to myself that they may not be educated on the effects that this has on the environment. While at Augsburg, I noticed that they have lots of composting bins for leftover food that students don't finish during lunch. Instead of throwing this food away, they compost it, which is better for the environment. At their campus, they also encourage using reusable water bottles. I know that this isn't an option for everyone at my high school, but if recyclable bins were available, it would be a better option than just throwing the plastic away. I plan on talking with the principal of my high school to make sure students become more educated on the health of our planet, make recycling and composting bins available, and come up with a plan to clean up the everyday litter in the parking lot.

Not many people know what composting is or how it is beneficial. Composting is a great way to collect food waste and give nutrients back to the earth. "One of the advantages of composting is its ability to biologically and thermally destroy human pathogens" (Composting Yields Blend Of Benefits and Challenges). In a study by Grant Clark of McGill University, he was able to discover that the concentration in compost is able to take carbon monoxide out of the air, and process it ("Composting Yields Blend Of Benefits and Challenges"). Many scientists from all over the world have researched effects on different human made pathogens, and discovered that it has the ability to get rid of them. If composting was put in place at schools all over the country, there would not only be rich food for the soil, but it could also eliminate things that are currently destroying planet earth. Likewise, recycling is similar. Instead of incinerating plastic and emitting carbon dioxide emissions, we can reuse them or make them into something new (Gradus). If we can recycle and compost instead of throwing away, people could limit the filling of unsanitary landfills, which are dangerous for human health and the environment (Khan). Trash keeps finding its way into oceans. About 1.25 to 2.41 million tons of plastic is transported by rivers into oceans each year (Kurtela). Microplastics also end up being consumed by fish, which humans consume, which means that humans are consuming plastic as well (Kurtela). Recycling can prevent this problem. Remembering to bring a reusable water bottle, or getting paper bags instead of plastic at the grocery store can also help.

All humans on earth should be concerned about these dilemmas. However, fellow Christians should think about this topic on a deeper level. God calls us to do his work for him: "Let us make man in our image, in our likeness, and let them rule over the fish of the sea and the birds of the air, over the livestock, over all the earth, and over all the creatures that move along the ground" (Genesis 1:26, NRSV). People in the Bible have been cruel to the land, and have gone against God's plan for it. Humans need to work together to not destroy the beautiful land that God gave us to live on and carry out his plan. "The earth dries up and withers, the world languishes and withers, the exalted of the earth languish. The earth is defiled by its people; they have disobeyed the laws, violated the statutes and broken the everlasting covenant. Therefore a curse consumes the earth; its people must bear their guilt. Therefore earth's inhabitants are burned up, and very few are left" (Isaiah 24:4-6, NRSV). Likewise, Pope Francis feels that

people also need to care more about how they treat the earth, so that we may keep God's plan. In his encyclical letter, *Laudato Si'*, he talks about how different things are starting to decline the health and life span of our earth. Pope Francis talks about how "human beings, while capable of the worst, are also capable of rising above themselves, choosing what is good, and making a new start despite their mental and social conditioning" (Francis, 134-135). I believe that that is what we must do; God calls us to take care of the land he provided for us, and even though we often times neglect it, we always have another chance to make things better.

John Marshall is a big school; it has around 400 students in every grade level. I plan to appeal to fellow students, and ask for their help to solve the growing waste crisis at our school. I recently reached out to my principal at JM, and he told me that we are getting recycling bins around the school. Now students will be able to correctly recycle their plastic water bottles they might use throughout the day. Next year, we are having a special hour called Rocket Hour for freshmen and sophomores. In the beginning of the school year, I would like to explain why people should recycle and benefits it has on the environment. Sharing some facts on how the environment is declining in health would also be a wise thing to discuss. After that, I will reach out to the environmental club at my high school, and try to come up with a way to appeal to juniors and seniors, so they will at least be semi-concerned by the topic, and start to throw away their trash in the parking lot. If the problem doesn't improve throughout the year, I had an idea for my youth group at Gloria Dei Lutheran Church. The youth group meets every Wednesday, and I was thinking that we could go across the street to the high school and pick up trash for them once every month. This is a way for my congregation to get involved in the act as well, and hopefully make the parking lot less dirty.

Another way I would like to help in my school is to ask for a compost bin in the bathrooms. At Augsburg they didn't throw away their paper towels, they reuse them with the leftover food from the other compost bins. It might cost more money, but checking with my congregation and seeing if we could take some of the compost from the school might be beneficial for the church garden, and cost wise for the school. The compost from the school could also be used for the school's greenhouse and surrounding landscaping. I could also consult again with the environmental club, and try to reach out to any local restaurants or other companies that may want to take the compost and use it for a garden they operate.

These are just some ways that I want to help with waste management and sustainability in my community. I also have ideas on limiting straws, bringing recycling habits into restaurants, and helping some restaurants create a hydroponics garden system, like the one in Gandhi Mahal in Minneapolis. By the end of the 2019-2020 school year, I plan on helping my high school limit the trash production in the parking lot, correctly use the recycle bins, and come up with an effective composting schedule.

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## **Saving the River of the Water of Life**

Peder Sevig, Chicago, IL

Scientists estimate that there are about 8.7 million species on earth, with only 1.3 million being discovered and classified by humans, all with their own unique characteristics. There are trees, mammals, reptiles and more; and they all have one thing in common: they all need water. Now, you probably didn't need me to tell you that; we all know how important water is. We all have heard that we need eight glasses a day and that only about 2.5% of the water on earth is drinkable. So, you think with knowing all this about how important water is, we'd be a little better at conserving it. Nonetheless, water depletion sits atop the list of our earth's environmental problems, alongside global warming and pollution; and yet, it seems at times that it isn't talked about as much, with global warming seeming to always be in the spotlight. Not that there's anything wrong with that, of course; but I couldn't help noticing that I was the person at the Augsburg Youth Theology Institute (AYTI) doing a project about water. Thinking about this has made realize how our current water problem (or any environmental problem for that matter) can be improved by simply making people more aware of how to conserve water.

The US Water Vision report stated that "There is a water crisis today. But the crisis is not about having too little water to satisfy our needs. It is a crisis of managing water so badly that billions of people - and the environment - suffer badly." The fact of the matter is, even though it may seem that there isn't enough drinkable water on this planet to supply every living thing, there is; the world just needs to manage it better.

The best way that everyone can start contributing to saving water is by changing little things, like turning the sink off so it doesn't drip or taking shorter showers; these things are easy to notice and change. Changing our everyday water habits will greatly impact water conservation in the long run, but we can't only help ourselves. To make the biggest impact, we must inform those around us to change as well as ourselves.

Water is a common topic throughout the Bible; whether is the water of life or healing water or the waters of baptism, water is no stranger to Christian faith. Sometimes it seems difficult to find sections of scripture without some sort of mention of water. Water is important to us as Christians, and though finding evidence of holy and sacred water in the bible is easy, finding scripture that explains our abuse of water is harder. Pope Francis' words in *Laudato Si'* can act as a toolbox for this instead. In his first chapter, Pope Francis addresses the world's environmental problems and when talking about water, he says, "it is not possible to sustain the present level of consumption in developed countries and wealthier sectors of society, where the habit of wasting and discarding [water] has reached unprecedented levels." These seem like words we may hear all too often, but to hear them from a religious official is reassuring in a way.

Pope Francis chose his name after Saint Francis of Assisi, the patron saint of animals and the environment. So it makes sense that he is so avid about our environment. To have a religious leader who cares so much about the world's greatest issue is very important for Christianity and society as a whole.

The book of Revelation was at the center of discussion throughout AYTI, a book that deals a lot with God's creation and more specifically water. We specifically talked about the first five verses of the 22nd chapter of Revelation, a section that talks about "the river of the water of life" with 'the tree of life' on both sides with its 'twelve kinds of fruit, producing its fruit every month' (Revelation 22:1-5, NRSV). God uses water in this text and through many others as imagery for all of God's creation, often describing a 'flowing river' that is a part of all creation.

Through God, all of creation is connected like a flowing river of life, with trees bearing fruit on either side.

My plan for work in my community will involve working with my church's environmental team, led by Dr. Aana Vigen and Dr. Ben Stewart, to change the culture of water conversation in my church by means of educating members of my congregation about water conservation and changing habits in the chores we do around church, like washing dishes and watering plants. My plan to execute this is to first talk to my church council and suggest the idea of having a water conservation informational meeting for any members of my congregation wanting to know more and help out. In this meeting, I will discuss how water habits can be changed in the church, but also how each individual can change their own habits in their own lives.

The next part of this will be implementing change in the church. My idea is to have little signs above all of our sinks, toilets, etc. with a verse connected to water, asking whoever is using it to use it with conserving water in mind.

The last thing I would like to try to do is to implement a rainwater collection system for reusable rainwater. I was inspired by this when I first heard about it at AYTI; I thought "well we have all this water falling from the sky a couple of times a month. . . why not, instead of using drinkable water for non-drinking tasks, like flushing toilets and watering plants, we just use the water falling from the sky?" Now, this may be a little bit far-fetched for a church amid its capital campaign and already has other big plans, but I want to just set it out there as a possibility. Normally, a rainwater collector would be used in plumbing and such, but right off the bat, I think that is way out of our budget, so I'll be taking a bit simpler and less expensive, but still effective route for my rainwater collection plan. The water from our collector will most likely go towards watering our church's garden, which is still a good use for water in a church that has a pretty big garden/yard area.

With a few small steps in educating my church community to think more about water conversation, I do think we as a small church community can make an impact on our city of Chicago, our nation, and in the whole world.

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## How God's Sculpture is Being Destroyed: Silica Sand Mining and Its Consequences

Mya Sistad, Stewartville, MN

When God created the world, he made it perfect in his eyes. He left the earth to us as a gift to “till and keep” as Pope Francis described it in *Laudato Si'*. We were to protect it and keep it the way He intended. It is His sculpture and we as a whole are damaging it. Companies are chopping off mountains to access materials to pump into the ground to extract fuel. It is our job to fix our mistakes.

In Wabasha County, which isn't far from where I live, there was a moratorium placed on silica sand mining in hopes to not further damage the landscape of the county. Silica sand, or frac sand, is primarily used in hydraulic fracking, which is where companies pump silica sand and various chemicals into the ground to fracture the ground apart in order to access fossil fuels. Hydraulic fracking takes place out west, and yes it is a very large issue in our world, but silica sand mining takes place near the homes of many in Minnesota and all along the Mississippi River. Companies are chopping off mountains, or bluffs to be exact, to harvest this material. As a result of this, humans and animals alike are losing their homes. This is happening because companies are buying the people's land to dig up and harvest a material that will cause even further damage to our already broken world.

Now, picture it in your mind- a beautiful picture of Southeastern Minnesota Bluff Country. Giant hills covered with trees and streams and a mighty river flowing through the middle, the Mississippi. You hear birds calling to one another and animals running through the woods and humans hiking through the beautiful trails. You smell the crisp, sweet, clean air that you could almost taste. You see boats out on the river and people sunbathing on the beaches. There are families bonding while fishing. It's a beautiful picture. Now, all of a sudden there is a loud, roaring sound and you wonder what it could be. No, it's not a lion, it's not a tiger, it's not a bear, oh my! It's a convoy of large machinery capable of chopping mountains in half. Your once beautiful day is corrupted by sounds of men yelling orders to one another and saws chopping down trees and giant excavators digging up the ground.

Mining is a loud job and is very annoying, but that isn't the only issue it has on the area. Animals are being forced to find new homes and as a result, sadly, we are seeing more and more animals on the sides of the roads. The waters of the Mississippi are more murky and polluted which is causing issues on the marine life of the river. And that water from the Mississippi flows straight to the Gulf of Mexico which is disbursed to the rest of the oceans. To our eyes, this issue may not seem as threatening as other issues in the world but the not so noticeable issues sometimes have a larger impact on the world than you may think.

As I mentioned in the beginning of this paper, Pope Francis said in his book *Laudato Si'* that God created this world as a gift for us, he also said that it is our job to “till and keep” this world. This means that God had given us this world as a gift to maintain it in His eyes. That doesn't mean that we can't use new innovation. God created us, He also created our own will. We have our own creative look on things. We create and improve His work. We also have the ability to destroy His work, without intending to. Without finding ways to access energy sources we never would have invented new forms of transportation and travel. We as Christians need to think of newer and safer ways of accessing the gifts that this world has for us.

In the creation story it says that God created everything to be perfect. So think of it this way, God is an artist and He sculpted this world and all of us on it. It was perfect and pure. Those machines capable of chopping up mountains won't stop what they are doing unless we stop.

Christians, Muslims, Jews, and Atheists alike can work together as a whole to stop the landscape from changing even more. What needs to happen is for all of us to band together to change how things get done in this world.

Now, one individual can't stop every cooperation from doing what they are told. What I can do is inform others. So, for my plan on fixing the silica sand mining issue is to simply educate. There are many ways of achieving this goal. In our society, social media is a big influence on young people. We don't tend to pick up a newspaper anymore, instead we just hop on Instagram, Snapchat, Twitter, and Facebook to see what is happening in the world. News organizations have seen this and actually have created accounts on these sites to inform the people of global issues. So, what I will be doing is spreading the word on how serious this issue is in the state of Minnesota and the rest of the Mississippi River Basin. I will be posting various facts on Facebook on the consequences that silica sand mining has on the environment.

In conclusion, I have written in this paper the impacts that silica sand mining has on the environment. It chops off mountains and destroys habitats and pollutes water. I pointed out that it isn't just up to people of one religion, but it's up to all of humankind. I have also described my plan on how to inform all people on the impacts that silica sand mining has on the environment and how I will use social media to spread the news.

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## Pearls are a Girl's Best Friend

Riley Ann Smith, Aberdeen, MD

Maryland's entire culture relies on the Chesapeake Bay. The Chesapeake Bay is the United States' largest estuary, which is defined by the National Oceanic and Atmospheric Administration as a body of water "usually found where rivers meet the sea. Estuaries are home to unique plant and animal communities that have adapted to brackish water—a mixture of fresh water draining from the land and salty seawater" (NOAA). This allows plant and sea life to flourish in the small protected outlet, which largely affects the life and culture of those who live around it. From boating and canoeing to fishing and picking crabs, a Marylander's summer relies on the bay. According to the Chesapeake Bay Foundation, "five-hundred million pounds of seafood are harvested each year from the Chesapeake Bay" (Chesapeake Bay Foundation). The creatures of the bay supply food, jobs, and entertainment, but the Chesapeake Bay would be nothing without one particular organism: oysters. One of Maryland's biggest environmental problems is the over-harvesting of oysters from the Bay. These fist-sized bivalves act as natural water filters, and without them, the Bay would suffer weighty repercussions. For example, the Bay would be susceptible to becoming a larger cesspool of algae. This could cause great harm to the local watermen who rely on the Chesapeake. If we continue to over harvest the oysters in the Chesapeake at the current rate, then the ecosystem, economics, and even the main culture of Maryland would suffer monstrous consequences.

The first step to fixing a problem is understating the logistics of the situation. First, we have to look at what the oysters do for the environment. According to Susan Pollack, the author of "Holding the World at Bay," "oysters remove silt and plankton as they pump water through their system. An adult can filter 50 gallons of water a day" (50). The Bay could easily be compared to the human body. Hence, oysters act like our white blood cells by taking the "germs" in the water like sediments or manure pollution, removing them from the water. Without these valuable organisms, the bay is susceptible to its own kind of "diseases" like pollution, or excess phosphate or nitrogen. The excess of these materials encourages a problem called eutrophication, which decreases the Chesapeake Bay's oxygen content and makes it difficult for other organisms to thrive. Since near the beginning of the century, the Chesapeake Bay's oyster population has been very sparse, so low that Pollack says it takes the current population one year to filter the amount of water which before only took two days. This is one of the darkest signs for our beloved bay. If we continue to consume oysters at this rate, then it could be the end of other species in the bay.

Oysters control the private ecosystem of the Chesapeake Bay, and without them, the Bay's water-life is at risk. The oyster's declining population is greatly affecting the health of the Chesapeake Bay. Moreover, overharvesting of oysters is killing the life in the bay; without the oysters to clear out the bay the marine life is slowly suffocating. Due to eutrophication, the Chesapeake Bay's dissolved oxygen is extremely low. Without the filtering services of the oysters, there is an increase of nutrients which can cause algae blooms, which cover the top of the water. Therefore, the photosynthesizing plants cannot get the appropriate amount of light to produce oxygen, which causes them to die. Then the dead plants begin to decompose, and the bacteria that decompose the organic material use even more oxygen. The bay is becoming oxygen deprived. How does this happen? Well, we did it, and we made it worse. We added polluting manure that made its way to the bay. We have used toxic materials that washed from

storm drains into the bay. We overharvest oysters from the Bay. We did this. The Chesapeake Bay is losing its natural filter due to our overharvesting the thing it depends on. Thus, crabs, fish, and even oysters are suffering and slowly suffocating in the Chesapeake Bay.

The deteriorating oyster population is not just a scientific problem, but also a cultural problem. Without the bay everything that makes Maryland special would disappear. Marylanders are extremely proud of their state and our distinguished creations, and we talk about them all the time. For example, even some of my own time in Minnesota with Augsburg was spent talking about Old Bay, Berger cookies, and our different way of saying casserole. The most confusing difference for me was probably their understanding of crabs. For most people from the middle of the country, a crab is big, Dungeness, and only served with butter; I think the butter is the hardest part for me to truly grasp. Whereas to me, crabs are so much more. Crabs are being six years old in Mommom's kitchen holding on to a mallet and watching her separate the apron from the shell, and secretly sneaking meat from the pile she was picking for crab cakes. Crabs are going down to the Aberdeen firehouse Crab Banquet with my dad and picking crab legs while he talks with all his "work guys" and going home stuffed full of crab and the occasional corn on the cob. Crabs are waking up at 4 a.m. and running down to an empty dock to tie crab traps to boat tie-offs and waiting every half an hour or so to pull them. Crabs are sprinkling J.O. seasoning on the layers of the tightly packed steamer every August 6th for my brother's birthday. For us Marylanders, crab is not just food, it's our culture, our Sunday catch up with family, our fundraisers, and our summer holiday celebrations. Sadly, the blue crab will not continue to exist if we do not clean up our mistakes and make strides to increase the population of the oysters. We will watch life as we know it disappear, and instead of teaching my kids how to pick crabs, I'll be telling them stories of what life used to be. We are throwing that away and caring more about our wants and needs than we are about the Chesapeake Bay. If the over-harvesting of oysters does not stop, life as we know it in Maryland will disappear.

According to Exodus, chapter 16, even God disapproves of overharvesting. The Chesapeake Bay's problem can be best understood by the story of Manna in the Bible. During their time in the desert, the Israelites survived on Manna and had strict instructions regarding the collection of the bread-like food. They were to collect only the amount they needed for that day and on the day before the sabbath were to only collect enough for two days so they would not work on the sabbath. Also if they took more than they needed, the extra stored manna would rot away by the next day, God's way of punishing the greedy. Further, Jim Kitchens, a preacher at Nashville's 2nd Presbyterian Church, preached "The story about manna in the wilderness tells us about the temptations that lie ever close to the human heart..." (21). Thus, the manna is the oysters and the foreseeable loss of crabs, fish, and even the oysters themselves is the degrading manna. It's human nature to grab more with fear that one may hit hard times, but if God is for us, who can be against us? God provides. We would have enough food if we began to repopulate the oysters, but that is not what we want. We want money and all the resources possible, and that is one of our biggest flaws. This greed and domination are not what God wants. For example, Ann Fritschel, a professor at Wartburg Theological Seminary, states "The gift of manna indicates that Israel is to build a society where there is no hoarding of necessities" (38). God does not want his people to claim unnecessary items but instead wants all his people to have what they need in a balanced relationship with the environment. We are hoarding oysters, which is directly affecting the Chesapeake Bay and the organisms in the bay. Without a doubt, we are going against God's will, so our manna is rotting away and we're just collecting more. God is looking down at our overharvesting.

We can still fix our greed and help by putting in the effort to save the oysters. First, we

have to acknowledge the easiest way to stop the overharvesting, which would be to stop harvesting them all together. Although being a waterman is not as lucrative and popular as some other jobs, watermen are still important and require protection. Therefore, the idea of banning the harvesting of oysters is not fair to those watermen, who would be tremendously hurt by not being able to do their job. Thus, we need to find other ways to help. The Chesapeake Bay Foundation (CBF) is a leader in educating and putting in the effort to save the oysters' populations. One of the methods to support the Chesapeake Bay is to garden oysters, which is a really easy way for anyone who might have a dock. If one were to grow oysters with the CBF you would place seed oysters in an oyster trap, and grow them until they are about your pointer finger's length. After this, you would return the grown oysters to the CBF who would distribute them into a safe place for them to grow more. This form of conservation is being done in the Inner Harbor and has been successful, and I want to be able to do this in the harbor of Havre de Grace. Not only will this allow for the improvement of the oyster population, but also would allow for a way to steer the community into cleaning the entire Chesapeake Bay. Another solution is for the multitude of seafood restaurants along the bay to recycle their oyster shells. Now, this does not mean throwing them into a recycling bin, but collecting them and giving them back to the CBF. Since the oyster shells have all the nutrients the baby oysters need, the CBF places the shells with the young oysters to encourage growth. I plan to start encouraging the seafood restaurants around Havre de Grace and other local towns to recycle their oyster shells. We all have to work together to replenish the oyster population because all of our actions have gotten us to this point. We'll fix it one oyster at a time.

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## Food Waste: Small Impacts are Important Ones

Carli Vincent, Amery WI

When checking into the Augsburg Youth Theology Institute (AYTI), I was extremely nervous. I was nervous to be surrounded by kids that I had never met, and I didn't know what the upcoming week would entail. My week at AYTI brought me extremely close with 31 kids that I had never met, and it gave me a better understanding of myself, my faith, what I want to be in life, the issues the world faces, and what I can do to help. At AYTI we were taught that we can always make a difference even if we don't know where to start. In this paper I will be describing an environmental issue facing my community, and how I plan to improve the situation.

I am currently employed in the dish room of Lake Wapogasset (also known as Wapo) Bible Camp in Amery, Wisconsin. Wapo bible camp is a Lutheran bible camp that hosts between 200-450 campers and staff on any given week in the summer. It also hosts different family camps and retreats during the school year. One of Wapo's missions is "We value and practice good stewardship of all God has put in our care: resources, facilities, and the whole of creation." I believe this is being carried out most places on camp except the kitchen, where large amounts of food go to waste.

Because I work in the dish room, I see firsthand how much food goes to waste there. The reason why so much food goes to waste is because Wapo's kitchen is a commercial one, so there is a whole host of regulations about what types of food can be served after a certain point, and how long leftovers can be kept. When food can no longer be served it is then thrown into the garbage where it will be put into a landfill. There are not a lot of ways to fix the amount of food that goes to waste, so what can be done is finding different ways to repurpose the food that would otherwise be sent to a landfill. When food is thrown into a landfill, it releases methane gas, which is one of the worst greenhouse gasses as it traps 16 times the amount of heat that carbon dioxide does (Ferris, 2019).

I feel a good way to view this issue through the lens of theology is to look at the beginning, the creation story. Genesis 2:15 says "The lord took the man and put him in the Garden of Eden to work it and take care of it" (NIV). Our God is one of relations, and from the beginning people have been in relation with God, the earth, and each other. Currently, many people have lost their sense of relation with one another and with the earth, and as we live in a throwaway culture this is to be expected. In *Laudato Si: On Care for our Common Home*, Pope Francis describes throwaway culture as, "...our industrial system, at the end of a cycle of production and consumption, has not developed the capacity to absorb and reuse the waste and byproducts." (22) This means that most products are single use, and after they have been used, they are not repurposed and are then thrown away. An example Pope Francis uses is, "... most of the paper we produce is thrown away and not recycled." (22) So many things that are thrown away could easily be reused or repurposed, but we choose not to think about it.

We, as a society, have become so accustomed to just throwing stuff away, but where is "away?" Away is usually a landfill, where most materials can take hundreds if not thousands of years to break down. This means that the plastic fork you used at lunch will be on this earth long after you leave. We are leaving this world in a state of desolation, which is the exact opposite of what we should be doing. God created us to take care of the earth and be creatures of creation, not ones of destruction. The first job given to man was in Genesis 2:19-20a: "Now the Lord God had formed out of the ground all the wild animals and all the birds in the sky. He brought them to

the man to see what he would name them; and whatever the man called each living creature, that was its name. So the man gave names to all the livestock, the birds in the sky and all the wild animals”(NIV). Adam was given the task of creating all the names for all the creatures, and then was entrusted with caring for them. Because we are creatures of creation, we can create solutions to the damage we have caused, or to create ways to stop future damage.

My solution for Wapo bible camp’s food waste issue is to start composting some of the food waste that is compostable. Wapo is building a new dining hall this summer and is getting rid of the old one. I think this could be a great addition to the new dining hall, along with some garden beds that campers could plant fast-growing vegetables in at the beginning of the week and be able to see it sprout by the end. Arugula, for example, sprouts within 4-6 days which would perfect timing for a group of the week-long campers. In addition, food grown in the garden could be used in different meals at camp as well. I believe that this all could easily be worked into the programming at camp, where the campers could learn about composting, and the small things they can do to keep our earth green.

Worm composting is another but more involved option for composting that the camp could choose to partake in. Worm composting is a sped-up version of composting, and the compost usually contains more nutrients than regular compost. Worm composting can take as little as 36 hours to fully compost whereas without worms it could take as little as two weeks. Worm composting is a little more precise process and can require a little more attention than other kinds of composting (Ferris, 2019). If the camp invested in worm compost, then the excess worms could be used for bait by the groups that go fishing. Because the process is so fast, at the first meal the campers could be taught what is compostable and what is not, then they could separate out their leftover food and by the end of the week they could see the compost that their leftovers created. This could be a fun and interactive way for the campers to learn about compost.

The world around us depends on us just as much as we depend upon it, which is why we need to be doing our best to keep the earth healthy for future generations to come. This is one of the many lessons that I took away from AYTI. I feel this message will definitely shape my life going forward, whether it be choosing to have a reusable straw with me every day, composting at my house, or choosing to do things that could maybe have a greater impact, such as learning about my local watershed, planting a large carbon sink garden in my community, or convincing a camp to repurpose its waste. All these things would have varying positive impacts on the environment, which is important because environmental issues are not caused by just one thing. There are plenty of little things we can do in our daily lives that can have a small but important impact on the environment. This is something I hope to bring to my church community, and maybe even further, but I would like to educate people that small actions add up, and anyone can make a difference even if they don’t know where to start.

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