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# Water Conservation: How We Can Be Less Wasteful with Our Water

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**Abstract**

*Water conservation is a very important topic, especially globally. Climate change has a substantial impact on our access to safe, clean water around the world, and many issues come with a scarcity of water. Climate change is making our rain more variable, drying some places while flooding others. Having a scarcity of water is not a small issue; it can cause more people to become sick or work harder to collect safe, clean water. Millersville is a very sustainable campus, but there are ways to improve our water conservation. Two different water-efficient toilet options could be utilized in different areas of the campus instead of standard toilets and could save the university money in the long term. Water conservation is important for protecting our well-being in the future, and everyone should be aware of its significance.*

## Introduction

Millersville University is a sustainable campus already, but more can be done, especially in water conservation. Water conservation is a big issue around the world, as climate change is affecting our access to water. The United Nations has a list of seventeen sustainable development goals to make our world better. Water conservation relates to the sixth goal of Clean Water and Sanitation and the thirteenth goal, Climate Action. The sixth goal calls for the availability of sustainable water and sanitation management. Specifically, one of the targets under the sixth goal calls for a substantial increase in water-use efficiency and addressing water scarcity around the world (United Nations, 2022). The thirteenth Sustainable Development Goal calls for taking urgent action against climate change (United Nations, 2023).

## Climate Change and Its Effects

Climate change has a significant impact on our access to safe, clean water around the world. Most places are now either receiving too much or too little water. Places that are usually dry are going to become drier, and rainfall is going to become more variable. This is especially felt in agriculture and even more so in cultures that are centered around farming. According to Murtala Iyanda Animashaun et. al. (2020), “the effect of this on the continent of

Africa will be enormous due to its low adaptive capacity, high dependence on rain-fed agriculture, and high sensitivity of their socioeconomic system."(Animashaun et. al., 2020, p. 2) These societies have less ability to adapt to these new climate conditions, so they are going to suffer worse than people in other parts of the world. Since climate change is having significant impacts on our water, clean and usable water is going to become scarcer. Having a lack of clean water limits the amount of drinking water and increases a lack of basic hygiene. Places like Africa, which have sparse amounts of water most of the time, must become selective on how they use their limited amount of water. When water is scarce, sewage systems can fail, leading to people contracting more diseases. In a lot of these developing countries in Africa, it is the women and the children who are expected to fetch water for the family, but since water is becoming scarcer, they will have to travel greater and greater distances to retrieve this water. This labor has an immense toll on these women and children and decreases school attendance for the children.

**What Can Be Done**

Going back to the Sustainable Development Goals, what are some ways we can help with our water scarcity? On a global scale, we could increase our freshwater sources in several ways: identify new water sources or develop and support climate-resilient water sources. However, those can be daunting tasks to take on, so what can be done on the local scale? Saving water resources can be as simple as being more conscious of your water use daily.

There is another way that Millersville University could implement right here on campus, and that is installing water-efficient toilets. Standard toilets unnecessarily waste a lot of water. Today, a standard toilet uses about 1.6 gallons per flush, and nearly 27% of the average American's water use is used by their toilets (Feng, 2020). This is a lot of water that could be used in other areas. There are a variety of ways to minimize the amount of water you use, but two worth highlighting are dual-flush toilets and composting toilets. Dual-flush toilets work by having two options to pick from when you flush, depending on the type of waste. If there is only liquid waste, you can pick that option, and the toilet will only use 0.8 gallons of water per flush instead of 1.6. People typically produce more liquid waste than solid waste. These toilets are also cost-efficient overall. They may cost a bit to install, but you will make up for it by paying less on your water bill because you are using less water. Composting toilets function by using a foam flush, which is a mixture of soap and six ounces of water, to take your waste into a chamber where it can be turned into compost. This kind of toilet uses even less water than the dual-flush toilets and is odorless, quiet, and clean.

If Millersville University were to install these types of toilets on campus, it would not be the first university to do so. Vermont Law School has an academic building, Oakes Hall, with composting toilets installed. The building reports using only 15 ½ gallons per day, even with a peak of 300 people during its busiest periods (Scott, 2016). Millersville University has a lot more students than Vermont Law School, but doing something similar would be possible. Dual-flush toilets do not have many notable, documented uses since they are more commonly used in homes. If Millersville wants to try installing these toilets, some places might be better than others. They can install a few composting toilets in an academic building on campus. Millersville also has the choice of installing dual-flush toilets in a wing of one of the dorm buildings. Dual-flush toilets have the chance of being misunderstood and misused,

so if there are only two students per bathroom, the toilets will not be misused too often. Installing these toilets may be costly, but overall, they will save the University money by not having to pay so much on their water bill. It would also be another reason why Millersville is a sustainable campus.

**Conclusion**

Water is particularly important; we need it to survive, and we should be more protective of it. Climate change is affecting our water greatly. If we want to start small, an effective way to start conserving water is by using water-efficient toilets. Either option, dual flush or composting toilet, will save money overall on water bills.

## References

Animashaun, I. M., Oguntunde, P. G., Akinwumiju, A. S., & Olubanjo, O. O. (2020, July). Rainfall analysis over the Niger Central hydrological area, Nigeria: Variability, trend, and change point detection. *Scientific African*, *8*, e00419. https://doi.org/10.1016/j.sciaf.2020.e00419

Feng, A. (2020, January 20). *Toilets*. PSCI. http://psci.princeton.edu/tips/2020/1/20/toilets-101

Scott, P. (2016, November 8). *Composting toilets: A review of their use in public venues in the U.S.* https://scott.physics.ucsc.edu/toilet_review/pdf/rev_161108.pdf

United Nations, Department of Economic and Social Affairs. (n.d). *Goal 6: Ensure availability and sustainable management of water and sanitation for all.* United Nations Sustainable Development Goals. https://sdgs.un.org/goals/goal6#overview.

United Nations, Department of Economic and Social Affairs. (n.d.). *Goal 13: Take urgent action to combat climate change and its impacts.* United Nations Sustainable Development Goals. https://sdgs.un.org/goals/goal13#overview.

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