MES Water Savers Project #1248

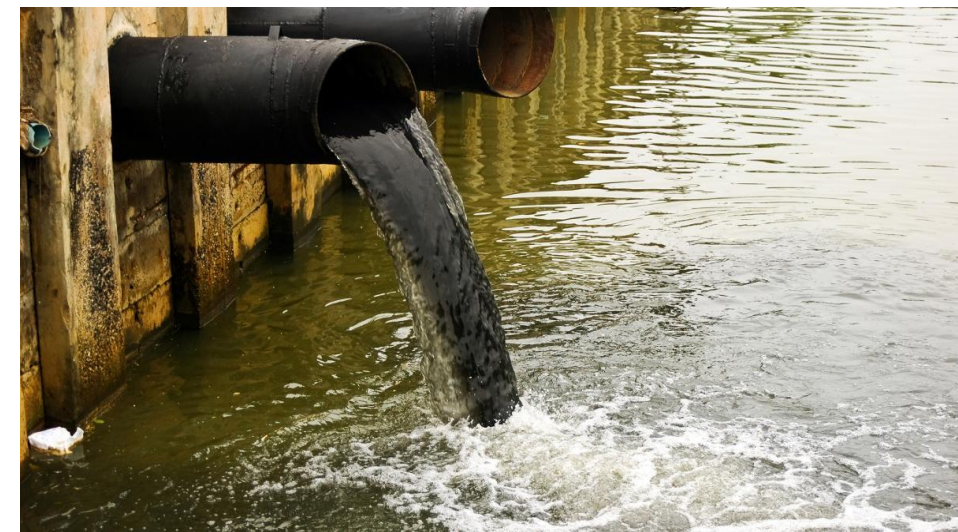Sydney, Jojo, Leevi, jazmyn, Aprilynn, Carsyn, Brynlee

Source for image

What is Water Pollution?

Water pollution occurs when a body of water is contaminated by harmful substances (often chemicals or microorganisms,) making it unsafe for humans and the environment. When people drink unhealthy and polluted water, they can become incredibly sick and can experience side effects, with some being more dangerous than others.

Why are we interested in this topic?

One of our reasons on why we are interested in this topic is that we would like to spread the word about what water pollution is and how we can prevent it. This is because water pollution is a major problem for lots of people and can cause people to drink unhealthy or contaminated water. Drinking unhealthy water can cause many issues including vomiting, stomach pain, nausea, abdominal cramps, dizziness, lung irritation, and even diseases and illnesses like cholera, hepatitis, and cancer. As you can see, these are serious issues and can affect your health severely. So, we as the green team are helping by spreading the word about water pollution and ways that we, as a community, can stop water pollution.

What did we use for our project?

For our project, we used many digital resources. Some digital resources we used include:
- [Google Slides](#) for making the presentation.
- [Google forms](#), for making the survey.
- [STLP website](#) for looking at things for STLP in general.
- [Google Docs](#) to write down information and to share ideas.
- Google (specifically the AI Overview/LLM/Gemini) for gathering information.
- NRDC
- The Louisville Water company website.
- Outreach specialist form Louisville water speaking with us

What did we do to share and expand our project?

Of course, we had to find a way to share our project with others in order for our project to be efficient. Some things we will do and have done to share and spread the word about our project include: creating surveys, posting our projects on social media school accounts, putting up posters around school and neighborhoods, discussing and presenting about water pollution to different classes, and making a website.

- Making a [survey about water pollution](#) for students to take.
- Making a [slideshow about water pollution](#) to tell others about water pollution and ways to stop it.

Susan Johnson an Outreach Specialist from The Louisville Water Company came to our school to speak with us about The Ohio River and how we can protect our water source. Here in Louisville we have a water tower and water pumping station. It provides us with the purest water for our city. Susan showed us how water pollution travels through a watershed. You may not think that pollutants can travel and reach the Ohio River, but they can and do. Through drains on the streets and in public places. Also through other bodies of water that drain to the ohio. After speaking with us, she has given us better knowledge on our pollutants. Do you know what the main pollutant is? You guessed it, WASTE/TRASH.

We know that one of the biggest problems with water pollution is waste. Waste is abundant and everywhere. Based on this survey graph 60% of surveyors said that they prefer bottled water. That means that most people that responded are putting that much more trash into the world adding to the waste problems. It will also save you money by not buying bottled water.
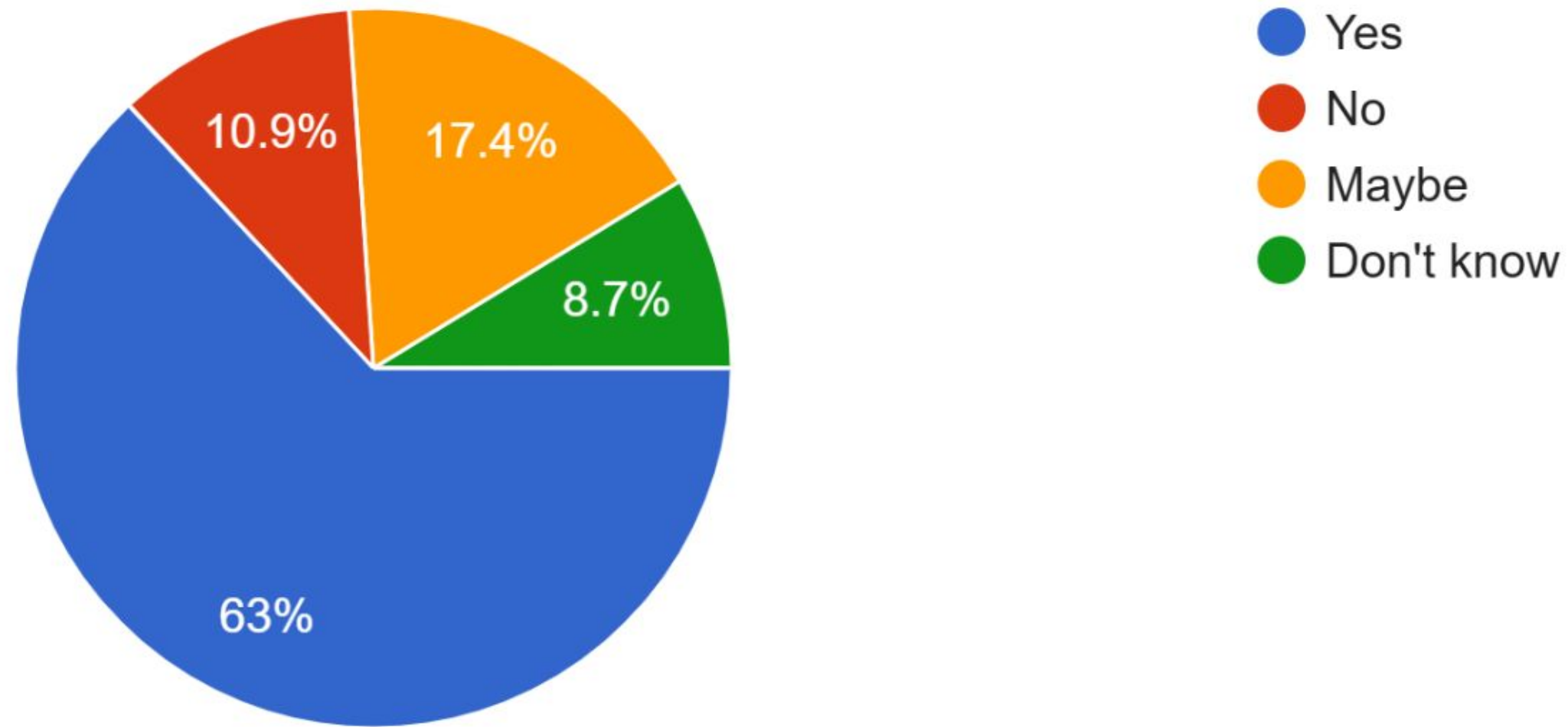

- **The Louisville Water Tower and Pumping Station.**
- **Source The Louisville Water company**

- **Drains in our streets and public areas**
- **Source The Louisville Water company**

Do you think water pollution can affect human and animal health? (¿Crees que la contaminación del agua puede afectar la salud humana y animal?)

46 responses

Legend:
- Yes
- No
- Maybe
- Don't know

Pie chart values:
- 63%
- 10.9%
- 17.4%
- 8.7%

Who helps purify our water?

The people who help purify our water is the Louisville Water Facility. The Louisville Water Facility has been around since the year 1860. The Louisville Water Facility supplies us water as well as fire protection. They make sure that the water is fresh and that it is safe for human consumption. The Louisville Water Facility is located at Crescent Hill Filter Plant, which is in Louisville, Kentucky. The Louisville Water Facility gets their water from the Ohio River. To get the water from the Ohio River to the Louisville Water Facility they use a technology called the Riverbank Filtration Technology. To make sure that the water is healthy for people and other living things (such as animals, and plants,) they do a variety of things. One thing they do is that they source water protection by supplying and monitoring the water. Another thing they do is that they add coagulation, which helps bind together natural clay and particles. They also do sedimentation, which settles mud, sand, and debris to the bottom of the water and gets removed. These are just a few examples of things the Louisville Water Facility does in order to make sure that their water is 100% healthy. Because they do these procedures, the Louisville Water Facility is no.2 of 19 for healthiest and

What is a example of water pollution? (The Flint Water Crisis)

Of course, we know what water pollution is now, but what is an example of it? Well, a good example of water pollution is The Flint Water Crisis. The Flint Water Crisis was a water crisis that started on April 25th, 2014, and ended on February 1st, 2019 in Flint Michigan. This happened due to the city changing it's drinking water system from the Detroits system to the Flint river so that they could save money. When they did this, the water dispersion pipes corroded and caused things such as contaminants (a polluting substance that makes something impure) to get into the drinking water. This made the water change to unusual colors and it made the water polluted. The water was so unhealthy that whenever you drank the water, you would get side effects from drinking it such as affected IQ levels, and physical health problems. Also, about 99,000 people were exposed to dangerous amounts of lead when drinking their water. To fix this problem, they had to do quite a few things, including changing back to the Detroit's water system, distributing water filters to people, replacing lead service lines throughout the city, and testing as well as monitoring the water quality.

Source NRDC website and google overview

What are the main causes of water pollution

There are many major causes to water pollution. Some of these include the following:

- Untreated sewage and wastewater from homes and industries.
- Agricultural runoff containing fertilizers and pesticides.
- Industrial waste discharge.
- Oil spills
- Urban runoff carrying pollutants from roads and parking lots.s
- Improper disposal of solid waste.
- Grease (a thick oily substance.)
- Debris (material mainly consisting of rock) from roads.
- Pharmaceuticals (medicinal drugs)
- Radioactive substances
- Sedimentation (the process of settling or being deposited as a sentiment.)
- Thermal pollution

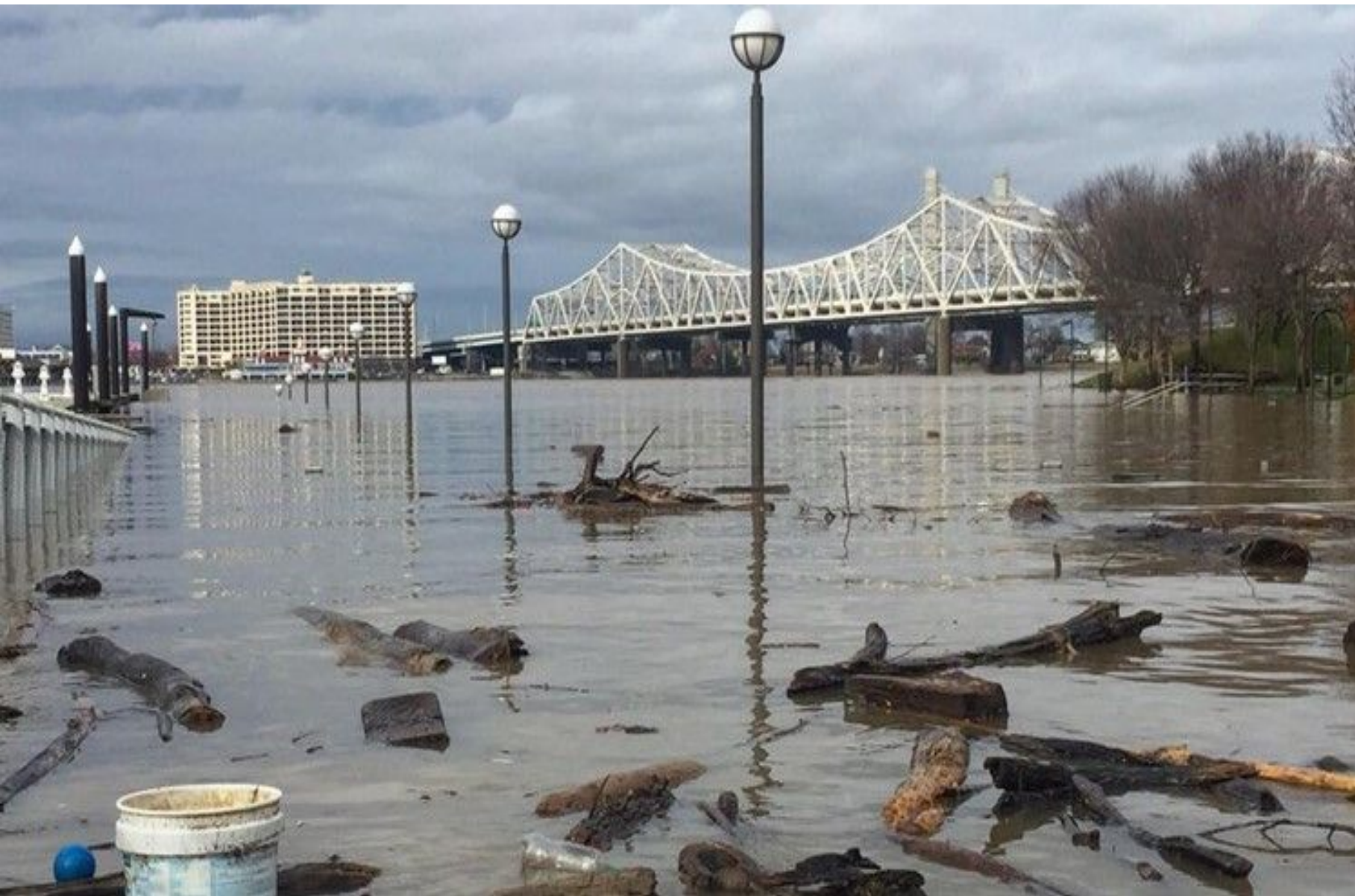There are other causes to water pollution however these are the main causes.

What are ways we can stop water pollution?

There are actually many ways we can stop water pollution. A few examples are:

- Disposing waste properly.
- Using water efficiently.
- Reducing chemical use in water.
- Using salt wisely.
- Maintaining a septic system (a wastewater treatment system.)
- Washing your car carefully.
- Cleaning up spills.
- Not flushing medicines.
- Putting water filters in lakes and oceans.
- Disposing items instead of putting them in the water.
- Maintaining vehicles to prevent leaks.
- Avoiding pouring things like chemicals, fats, and oils down the drain.

Excursion/Experiment 1:

Showing the difference between contaminated river water and filtered tap water.

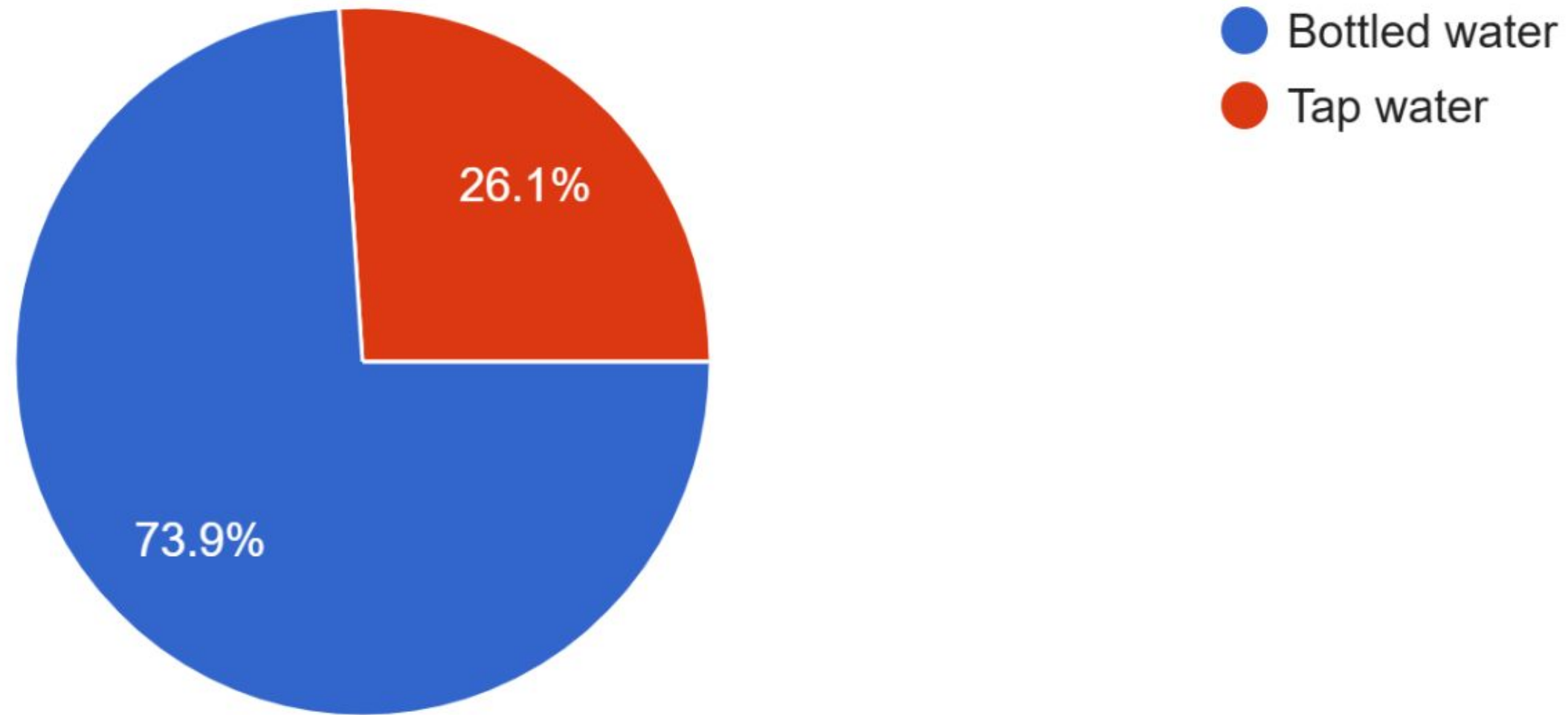Ohio River water during flood 2025.
Source: WHAS11

Pure Tap is best!
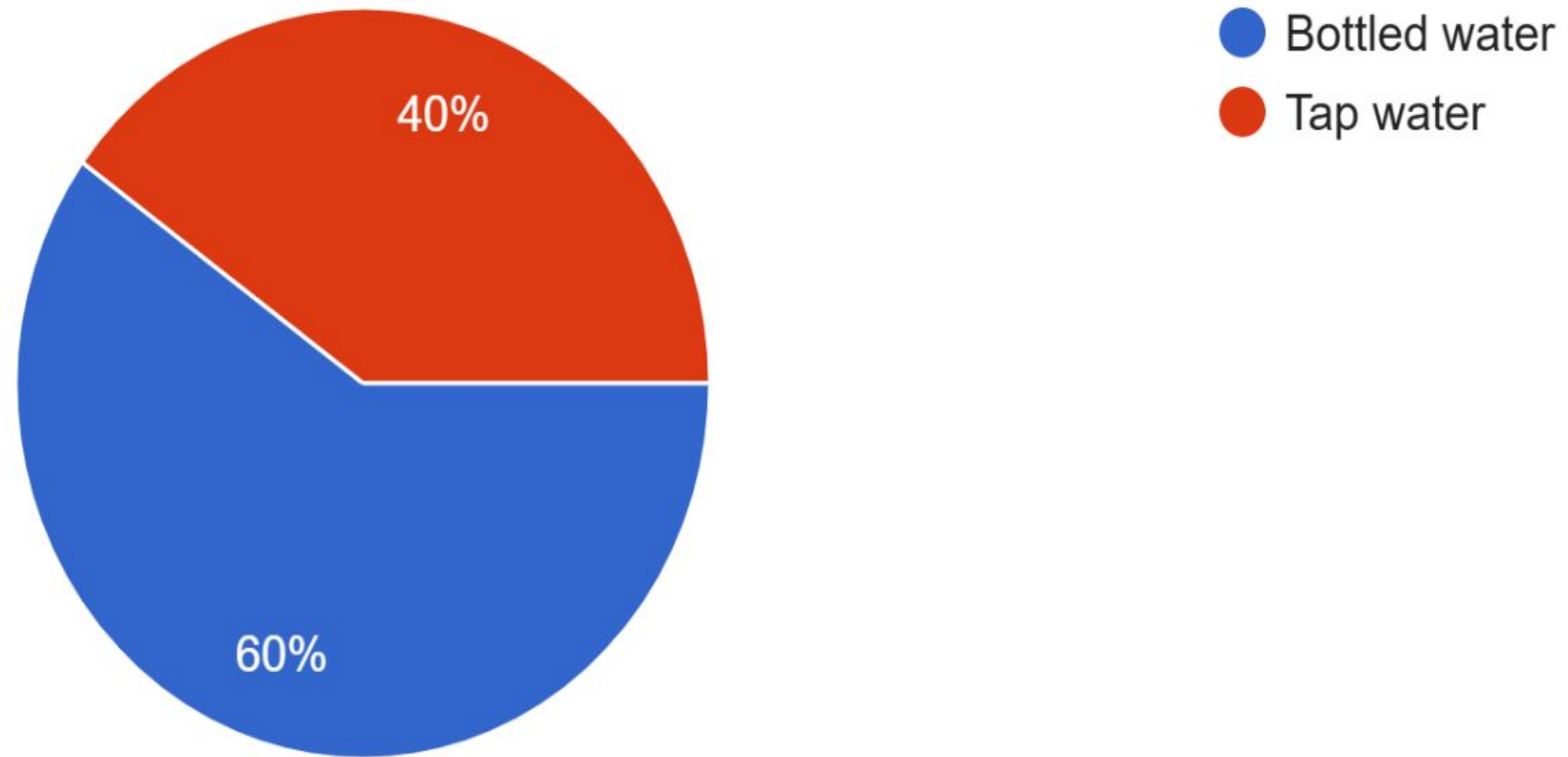
Louisville Water Company

Do you think bottled water or tap water is healthier? (¿Crees que es más saludable el agua embotellada o el agua del grifo?)
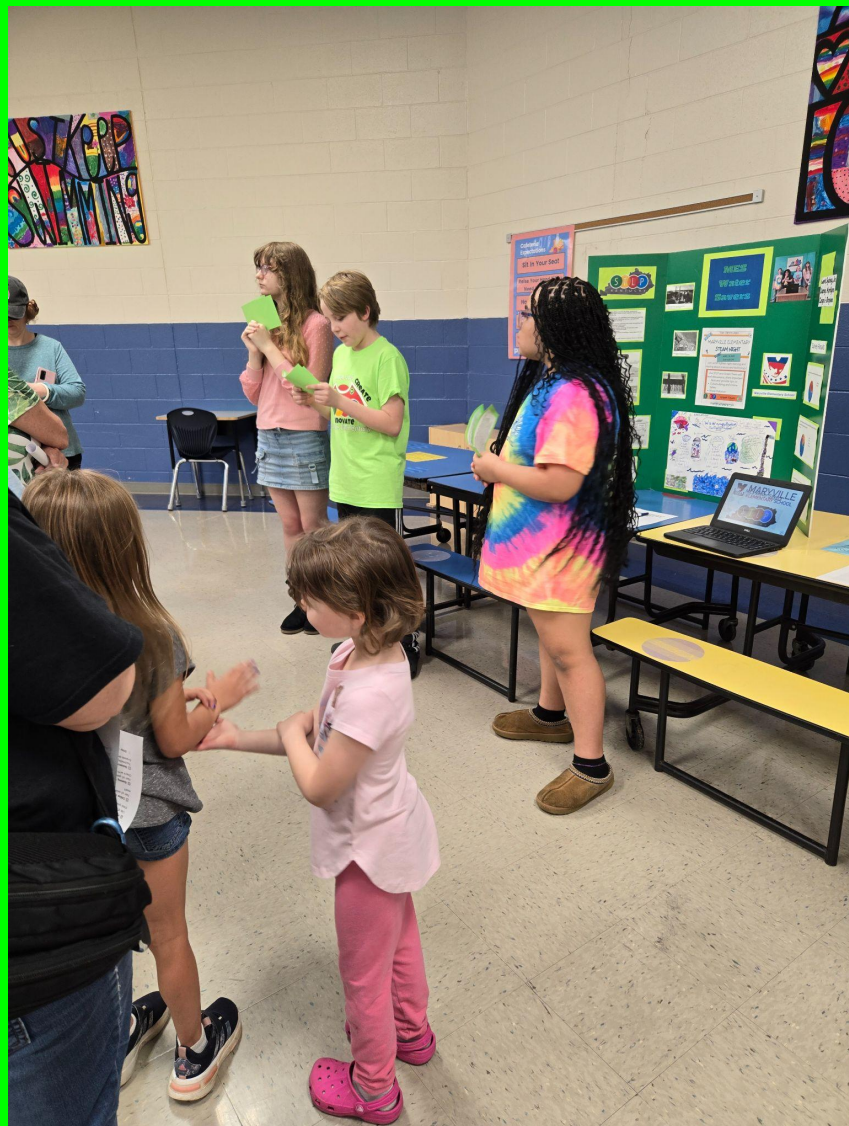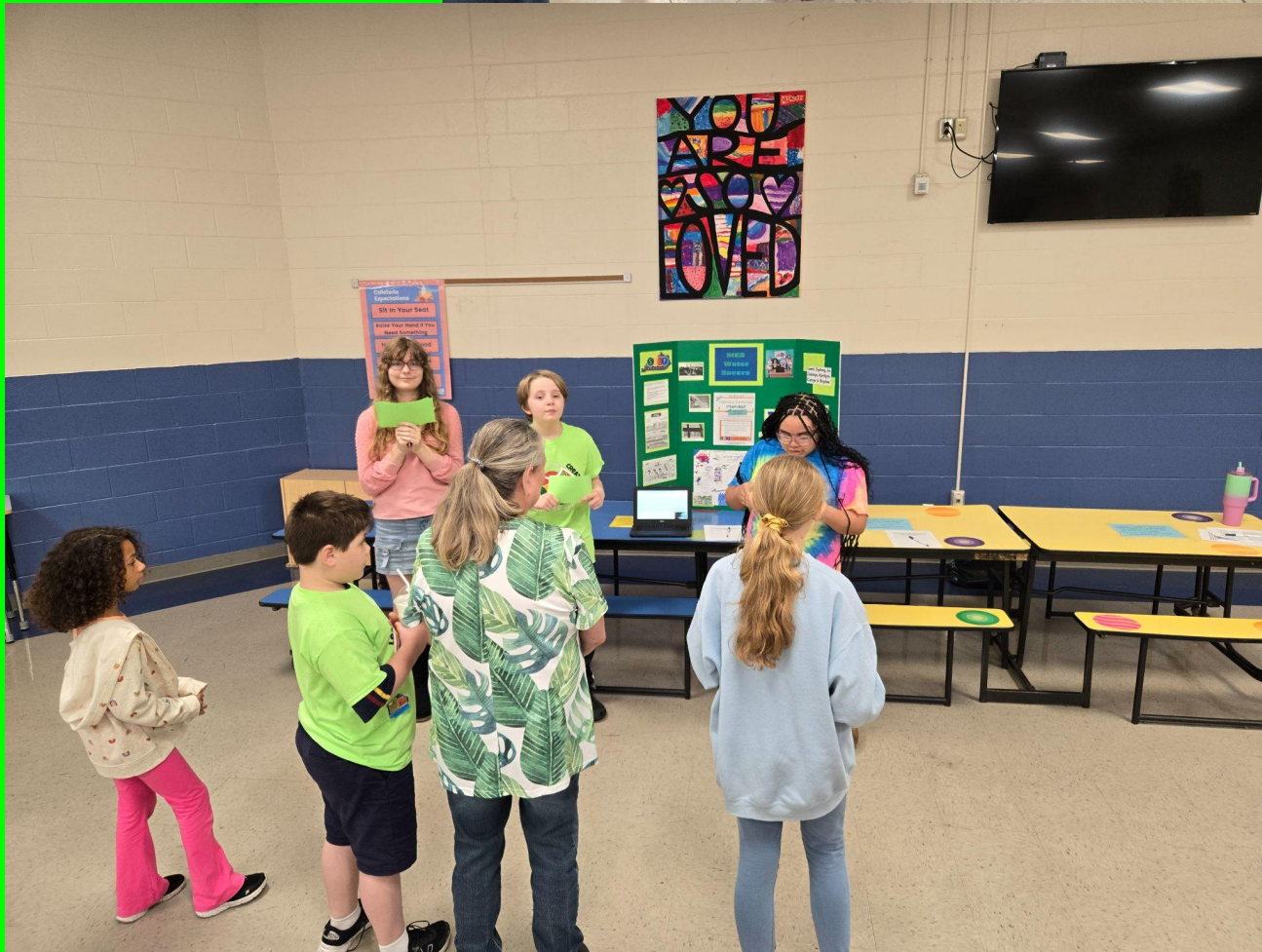
46 responses

- Bottled water
- Tap water

26.1%

73.9%

Do you prefer bottled or tap water?(¿Prefieres agua embotellada o agua del grifo?)

45 responses

- 🔵 Bottled water
- 🔴 Tap water

40%

60%

STEAM/Family night at school where we had the opportunity to reach the community about our project..

MES Water Savers