

Testimony on: Assistance Programs for Building Sewage Backups

Date: October 12, 2022

Dear Baltimore City Health, Environment, and Technology Committee,

Our names are Vennela Avula and Joyce Cheng, and we are Baltimore City residents and medical students at the Johns Hopkins University School of Medicine, living in the neighborhood of Upper Fells. We appreciate you hosting this hearing on sewage backups and for taking this issue seriously.

Health Impacts

As medical students, we are especially concerned about the health of our fellow Baltimore City residents who may experience sewage backups. Baltimore City has a history of sewer overflow issues (1). Exposure to raw sewage is very hazardous, and lingering dampness and bacteria can lead to mold and mildew problems with massive chronic health impacts. Sewage and wastewater contains bacteria, fungi, parasites, and viruses that may cause illnesses involving symptoms such as diarrhea, fever, cramps, vomiting, and headache (2). Examples of diseases linked to sewage in the United States include campylobacteriosis, *E. coli*, encephalitis, gastroenteritis, and hepatitis A (3). Sewage may also contain toxins including organic chemicals, lead, nitrogen, and fertilizers, which are concerning for human health (4).

The diseases related to sewage and wastewater have the potential to cause life-threatening consequences, especially in vulnerable populations such as pregnant women, individuals who are immunocompromised, children, and the elderly (1, 3). For example, pregnant women typically have decreased immune function and increased susceptibility to pathogens such as viruses, some of which have the ability to harm the fetus (1). Infants and children also have more hand-to-mouth contact than adults, and may contract pathogens related to sewage overflow from playing on the ground in their homes or outside (1). Sewage issues may affect more than just the residents of a particular home. Research studies have shown that leakages and sewage overflows have led to outbreaks of disease affecting larger communities through contamination of groundwater or person-to-person transmission (5).

Climate Change

Climate change is projected to bring more frequent and severe rainstorms to our area, and rainstorms are a key cause of sewage backups (6). Another cause of sewage backups related to climate change is rising groundwater due to flooding or sea level rise. Combined with aging sewer systems, climate change has the potential to create a serious sewage public health crisis. For example, sewer backups in New York City have nearly doubled in just the past year due to climate change (7). In response to the threat of increased sewage backups, many cities have included improving their sewer systems in their Climate Action and Resilience Plans (8). We propose that Baltimore take similar steps to ensure the safety of their residents as the impacts of climate change worsen.

Inequity

Sewage backups are an environmental justice issue. Some communities are able to react, respond, and recover while other communities are not well positioned with the resources to do so. Sewage backups, like many other environmental issues in Baltimore, underscore the systemic inequities that exist in our city. It is the responsibility of our local government to work to alleviate these inequities.

An inadequate government response to sewage backups can have a disproportionate impact on minorities and communities of color. Minorities and communities of color often reside in areas with lower quality infrastructure than white communities (9). Moreover, the current sewage program in Baltimore can also exacerbate financial inequity because sewage backups can cost thousands of dollars in damages. Economically disadvantaged Baltimore residents cannot afford to pay those costs upfront and hope to be reimbursed months later.

Changes

We support the following changes, as proposed by Blue Water Baltimore (10):

1. DPW must **expand both the Sewage Onsite Support (SOS) and the Expedited Reimbursement Program (ERP)** to cover **dry weather backups** that are caused by **any conditions** in the public system, in addition to wet weather backups.
 - a. **The City must improve its dispersal of ERP programs.** In 2021, when over 80% of applicants and less than 20% of funds were dispersed, the DPW was not using the fund appropriately (11).
2. **The City must maintain both assistance programs.** The SOS program is meant to provide immediate cleanup support to residents, but the ERP is an important backstop in cases where the City's policies for responding to backups and offering assistance do not happen in practice.
3. **DPW must improve the advertisement of both programs.** Usage of both programs is far too low and indicates that residents don't know these programs exist or how to access them.
4. **DPW must improve the ERP by removing the arbitrary \$5,000 cap on reimbursement and providing reimbursement for both property loss AND cleanup costs.** Residents can face \$10,000+ in damages after sewage backups. \$5,000 is not adequate to provide residents with the full cleanup services and support that's needed. Further, cleanup costs can make up just a fraction of expenses after a sewage backup, which include replacing furniture, appliances, and valuables, and addressing property damage.
5. **DPW must improve the SOS program by providing more protections for residents' property.** Some residents who have used the SOS program reported that contractors threw away their property without any consultation. Contractors must be required to obtain resident permission prior to throwing away property.
6. **DPW should proactively use its hydraulic model to identify residences that may have experienced a capacity-related sewage backup due to wet weather, even if those residents haven't reported a backup to 311.** DPW should conduct proactive

outreach to these residents through door knocking, door hangers, direct mailers, and via water bill inserts to let them know about the SOS and ERP programs every time there is a wet-weather event that may have triggered such a backup.

Given the wide-ranging impacts of this issue, we urge that Baltimore City improve its response to sewer backups. Thank you for your time and consideration.

Sincerely,
Joyce Cheng and Vennela Avula

References

1. <https://www.cleanwateraction.org/sites/default/files/docs/publications/Residential%20Se%20wage%20Backups%20in%20Baltimore%20City.pdf>
2. <https://dhss.delaware.gov/dph/files/sewagefaq.pdf>
3. <https://www.in.gov/health/eph/onsite-sewage-systems-program/diseases-involving-sewage/>
4. <https://www3.epa.gov/npdes/pubs/mstr-ch6.pdf>
5. <https://www.sciencedirect.com/science/article/pii/S0013935121009038?via%3Dihub>
6. <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002614>
7. <https://citylimits.org/2022/09/22/sewer-backups-nearly-doubled-in-nyc-last-year-due-to-climate-change/>
8. <https://dailynorthwestern.com/2020/05/26/city/in-focus-as-climate-change-worsens-combined-sewers-pose-new-issues/>
9. <https://www.nytimes.com/2021/08/25/opinion/environmental-racism-wastewater-broken.html>
10. <https://bluewaterbaltimore.org/learn/threats-to-water-quality/sewage/>
11. <https://www.baltimoresun.com/maryland/baltimore-city/bs-md-ci-sewage-backup-costs-20210512-w6wvnrsuwzhp5hobrjzfbnunui-story.html>