



Retrieved from: <https://www.swiftcomply.com/blog/fog/insights-from-fighting-the-fatberg-2019/>

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# What is a Fatberg?

- When **Fats, Oils and Grease (FOG)** are poured down drains as liquid, in time, they congeal.
- When other materials like baby wipes, tampons, condoms and diapers are added, they stick to the congealed grease blob, and grow (CBC Radio, 2018).
- This results in a fatberg.
- Fatbergs are enormous solid masses of fats, oils and grease (FOG) along with other products like wet wipes that congeal together. As fatbergs form and grow, waste begins to move more slowly through the sewer. Eventually, the fatberg stops moving all together and starts to backup (Huey, 2019).



# A Fatberg Forms Like A Snowball

- A fatberg forms like a snowball when wet wipes get flushed down the toilet and fats, oils and grease get thrown down the sink.
- Everything congeals together and gradually form a hard mass.
- When fatbergs get large enough, they can clog sewers entirely, sending raw sewage gushing into the streets (Schmidt, A. 2019).



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<https://www.accuweather.com/en/weather-news/dont-feed-the-fatberg-what-are-fatbergs-and-how-do-they-form/338157#:~:text=A%20fatberg%20forms%20like%20a%20snowball%2C%20as%20wet%20wipes%20get,sewage%20gushing%20into%20the%20streets.>



# Why Are Fatbergs Such a Big Deal?

- Fatbergs are a real global issue effecting sewer drains and pipes around the world and pose an environmental danger to the planet.
- The increased use and disposal of fat, oil, and grease has put more pressure on an aging sewer system (Huey, L., 2019).
- Fatbergs are causing disruptions to residents and businesses as clogged sewers and broken pipes send harmful debris and other materials onto the streets, gardens, and household yards.
- The cost to remove fatbergs is astronomical and the time expended to get rid of these globs of congealed matter is lengthy.
- Education is needed so that the public can become aware of this issue and be taught preventive measures to counteract this costly problem. Additionally, proper disposal techniques must become a priority right alongside recycling.



# A Global Pandemic – United States



Retrieved from:

<https://www.ukgreasetrapsdirect.co.uk/clearingthefog/fatbergs-a-global-pandemic/>

The United States has encountered its fair share of fatbergs. Some of the most notable fatberg sightings include:

- Detroit, Michigan: A fatberg was removed which was 100 feet long, 11 feet wide and 6 feet tall. It was a combination of congealed fats, oils, grease and baby wipes flushed down the drainages over a period of time (E., Don, 2019).
- Baltimore, Maryland: A fatberg was discovered in Penn Station in 2017. It weighed 140 tons and was caked in fats, oils and grease (E., Don, 2019).



# A Global Pandemic – Other Countries



Retrieved from:

<https://www.ukgreasetrapsdirect.co.uk/clearingthefog/fatbergs-a-global-pandemic/>

Fatbergs keep making headlines in other countries, too – Australia, Belfast and London, to name a few.

- Australia has experienced sewer blockages caused by massive fatbergs. Wet wipes cause 80% of all blockages.
- Melbourne discovered a fatberg consisting of fat, wet wipes, food, tennis balls, pieces of wood and other debris (E., Don, 2019).
- In the London neighborhood of Chelsea, an enormous fatberg snapped sewer pipes a meter wide (Engelhaupt, 2017).



# The Size of Fatbergs

- Fatbergs start off small, but over time they can become very large.
- Some take as much as a decade to form; others, less time (McCarthy, 2020).
- Some are more than 800 feet long and weigh more than four humpback whales.
- In South West England, a fatberg discovered was longer than six back-to-back doubled-decker busses.
- In a Liverpool sewer, this 84-metre mass is longer than a passenger plane and weighs 90 tons - the same as 13 African elephants (Giordano, C. 2019).



<https://static.independent.co.uk/s3fs-public/thumbnails/image/2019/02/21/14/fatberg4.jpg?w660>



# Environmental Costs & Removal

- The environmental impacts are drastic. Raw sewage bubbling up through the manholes get into the storm drains that goes directly into creeks and rivers (Watling, E 2019).
- It cost time and money to remove fatbergs. It took four hours to remove a fatberg in Australia.
- The U.K. spent about 100 million pounds clearing 300,000 fatbergs.
- New York City spent \$4.65 million in 2013-14.
- Detroit removed a 100-foot long fatberg at a cost of \$100,000 (Watling, E. 2019).
- Baltimore spent \$60,000 in 2017.
- Ft. Wayne, Indiana spent \$500,000 a year clearing grease out of sewers.



Retrieved from:

<https://community.thameswater.co.uk/t5/Thames-Water-Hub/Fatberg-tidbits-and-stats/td-p/103>





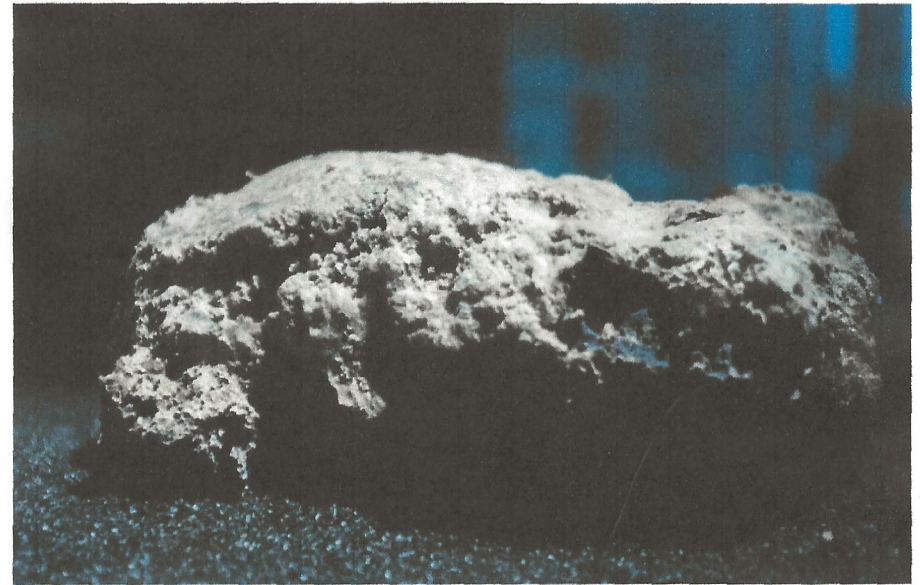
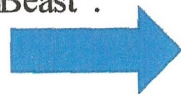
# Education – Why It is Needed

- PBC Today (2019) reports that:
  - 48% of people still pour fat down the drain
  - 85% haven't heard of 'concretebergs'
  - 46% of women flush tampons
  - 20% of men flush condoms
- 48% of people flush wipes labelled 'flushable'



# Fatbergs on Display for Educational Purposes

- A massive fatberg has been on view at the Lawrence Technological Univ. in Michigan, since December, 2019.
- It was found that most of the problems associated with fatbergs is really human-created (Hester, 2020). To teach the public, the exhibit includes informative graphics and text about how ecologically troublesome fatbergs can be (Hester, 2020).
- As the exhibition evolves, the organizers plan to add a game that some students at the university has devised. The purpose of the game is to demonstrate, that if with bad or uninformed choices can feed a fatberg, good ones can starve it ((Hester, 2020).
- The famous mammoth Whitechapel fatberg of 2017 weighing 130 tons and measuring 250 meters long is on display at the London Museum. It is almost as long as London Bridge itself, and is known as “The Beast”.



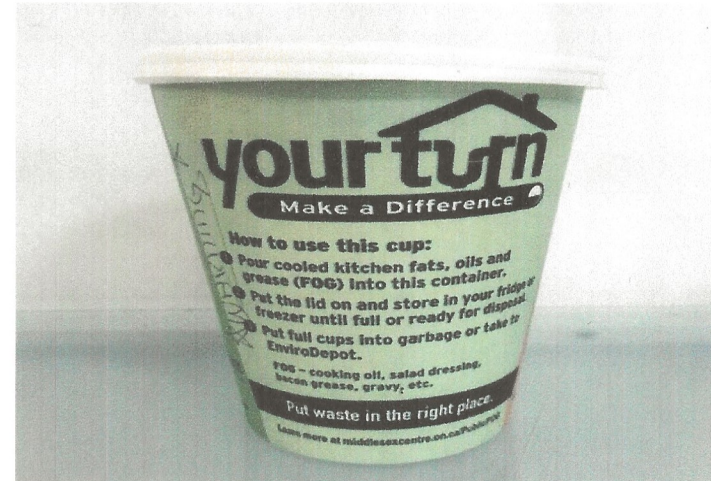
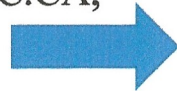
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# Prevention is Key – Proper Disposal of Fats, Oils, and Grease

The proper disposal of fats, oils and grease associated with cooking is just as important as recycling. According to TMYK, (2020), here are some preventive tips:

- Let the oil or grease cool and solidify.
- Once cool and solid, scrape the grease into a container that can be thrown away.
- When your container is full, place it in a plastic bag to prevent leakage and then throw it in the garbage. Not the recycle bin.
- “These cups are saving thousands of dollars a year in London and we haven’t had a blockage related to FOG in over four years” (CBC.CA, 2018).



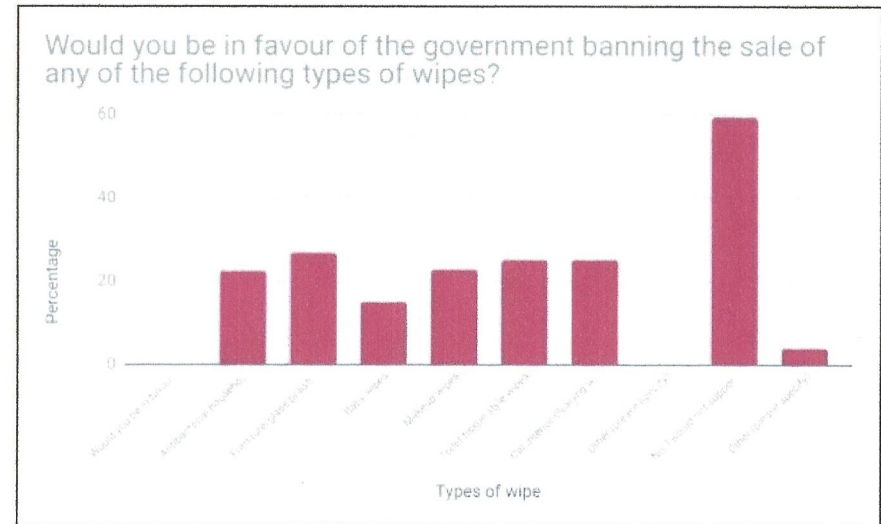
Retrieved from:

<https://www.cbc.ca/radio/thecurrent/the-current-for-may-1-2018-1.4642084/only-you-can-prevent-gross-smelly-fatbergs-from-clogging-up-city-sewers-says-inspector-1.4642816>



# Prevention is Key – So, What is The Deal with Wet Wipes?

- Wet wipes are a major cause of the issue with fatbergs. Though these premoistened toilet wipes are sold as “flushable,” they are pulled from sewer pipes as poorly dissolved.
- An Australian company, Pental, was ordered by the Federal Court in 2018 to pay \$700,000 for misleading its customers into thinking that it’s wipes were flushable (Stein, L. and Miller, D. 2019).
- The chart on the right shows how many people in the UK would be in favor of having the sale of different types of wipes banned



Retrieved from:

<https://www.lanesfordrains.co.uk/commercial/news/fatberg-data-behind-growing-phenomenon/>



# A Beginning to Ending the “WIPES” Confusion

- A new initiative from **Water UK** means wipes that have passed its testing will get a “Fine to flush” logo (Quevatre, C. 2019).
- The ‘Fine to flush’ standard is a detailed, rigorous test which wipes have to go through to prove they can break down like toilet paper (Quevatre, C. 2019).
- It is all about “ending confusion for customers” (Quevatre, C. 2019).



Retrieved from:

<https://www.bbc.com/news/uk-england-46836867>



# Interesting Facts About Fatbergs

- The word “Fatberg” was coined in 2008 (McCarthy, 2020). The word first appeared in the Oxford Dictionary in 2015.
- Fatbergs have been around since as long as humans had sewers – at least since the Roman Empire (McCarthy, 2020).
- Weird things are found in fatbergs, including: condoms, tampons, dental floss, syringes, drugs, bones and false teeth (McCarthy, 2020).
- Fatbergs are dangerous. “Fatbergs work like the clogging of a heart artery. If we don’t move them, they start to build up, and the sewer system has something like the equivalent of a heart attack” (McCarthy, 2020).
- The United States and United Kingdom report the most fatbergs (Engelhaupt, 2017).



[purewatergazette.net/blog/bacteria-vs-fatberg/](https://purewatergazette.net/blog/bacteria-vs-fatberg/)



# The Bottom Line

- In conclusion, fatbergs are a real problem.
- This is a global issue and affects people all around the world.
- The improper disposal of fats, oil and grease (FOG) along with the improper disposal of non-biodegradable wet wipes enable fatbergs to form.
- Fatbergs cause environmental issues and cost time and money to remove.
- Education and prevention is the key to stop this problem. It is important that the public become more aware of fatbergs and to learn proper disposal techniques. Making these disposals a priority, just as was done with recycling, is paramount.
- Laws should also be created to ensure wet wipes be made of materials which are disposable.

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