

# Fat, oil and grease in pipelines and sewers cost billions in repairs



Photo by Environmental Biotech UK

*A bioremediation system eradicates waste grease and oil, resulting in fewer blockages in the sewer network.*

**T**housands of fat, oil and grease (FOG) related sewer spills every year cost billions of dollars for water authorities worldwide.

More than 100 tonnes of fat are poured down sinks every day in London, England, according to Thames Water, not just in restaurants and cafes, but in ordinary households. The water company says it clears more than 100,000 blockages from sewers on a yearly basis and believes that solidified fat caused more than half.

Speaking on a British Broadcasting Company (BBC) London radio programme in January 2002, Thames Water's Environment and Quality Manager Peter Spillett said, "Hot fat pours down sinks easily, but it quickly solidifies, causing blockages to sewer pipes. The smaller pipes close to customers' homes are most likely to be affected, risking blocked drains and flooding. This can quickly lead to pollution of rivers and streams if fat blocks the main sewer network."

Further evidence comes from the USA. "America's sewers are in a bad way. Three-quarters are so bunged up that they work at half capacity, causing 40,000 illegal spews a year into open water. Local governments already spend US\$ 25 billion a year to keep the sewers running," according to Barry Newman, a reporter at the Wall Street Journal in an article published in June 2001. The Water Infrastructure Network (WIN) warns that it will cost an additional US\$ 20 billion a year for the next 20 years to keep them from falling apart. WIN is a broad-based

A holding pond six months after bioremediation.

"Tree roots, corrosion, cave-ins, bottles, rusty car parts, almost anything will divert sewage on its way to the treatment plant. But the blockages now are almost all enveloped in fat and the main perpetrator is fried food," Newman added.

coalition of local elected officials, drinking water and wastewater service providers, state environmental and health administrators, engineers and environmentalists (<http://win-water.org>).

metaphor, can cause a municipal heart attack. There's also the problem of FOG coating and enveloping pumps in sewer lines, causing overheating and eventual burn out; replacement costs are expensive.

The cost of FOG related issues, above ground and in the sewer network, is hard to quantify, but a look at the effects demonstrates that substantial savings can be made from professional pipeline and drain line management.

On the commercial side, how much does it cost restaurants and fast food franchises in unbudgeted and emergency plumbing call out costs? Drains will be unblocked, albeit temporarily, before blockages reoccur and more money is spent to alleviate the

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*Peter Spillett, Thames Water*

The major problem is that solids stick in fats and pipes slowly occlude. The fat hardens, chunks break off, flow down the pipe and jam in the machinery of underground pumps. That, to use a more digestible

problem. The only winner here is the plumber! Pipe work can be damaged with the overuse of caustic agents, chemicals and rodding, and pouring chemicals down the drain cannot benefit the environment.

The same holding pond (above) before remediation.



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