

NEWS

What caused a record sewage spill in Long Beach, and will it happen again?



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Crews work to address the site of a sewage spill, which discharged millions of gallons into the Dominguez Channel, at 212th Street in Carson on Jan. 2, 2022. Raw sewage first began overflowing on Dec. 30, 2021. Photo courtesy of the LA County Sanitation Districts.

Last week's **major sewage spill** into the Dominguez Channel shows how problems with sewer lines and infrastructure that aren't even in the city can still greatly impact Long Beach residents.

That spill happened when a 60-year-old pipe that was already on a county repair list broke open, letting nearly 9 million gallons of sewage flow into the channel, which led to the closure of the city's entire coastline to swimmers for nearly a week. It was the largest spill for the L.A. County Sanitation District, which has been keeping spill records since 1981.

There are many sewage infrastructure issues facing Long Beach residents, but we can break down what we know.

Are the city beaches that were closed after the spill now open?

Yes, the beaches reopened on Wednesday, Jan. 5, though the city is still maintaining an advisory at the Coronado Avenue Beach. An advisory means bacteria levels there remain outside state standards, and coming into contact with the water may cause illness. For that reason, city officials advise that you avoid swimming at that beach.

You can see advisory and closure information for all the city's beaches at its **Recreational Water Monitoring** website.

What caused the Dec. 30 Dominguez Channel spill?

That cause is still under investigation, according to county sanitation officials. On Jan. 4, the county Sanitation District announced that it had **hired a "third-party expert"** to help in the investigation.

The Los Angeles Times **has also reported** that the pipe that failed was 60 years old and had deteriorated "because of a buildup of sulfuric acid, a natural byproduct of organic material breaking down within the closed systems."

What's the cause of most sewage spills?

There are a variety of causes, but in Long Beach, blockages of fats, oils and grease lead to most sewage spills, according to city and state records. From 2014 to 2018, fats, oils and grease (what sanitation officials call FOG) accounted for 70% of sewage spills, according to the Water Department's current Sewer System Management Plan. But in 2021, FOG accounted for about 52% of the 25 spills in Long Beach, according to an online database maintained by the State Water Resources Control Board.

Other causes include root intrusion, pipe failures and debris that finds its way into sewer mains and other pipes.

Are these spills happening more often?

There's not an easy answer to that. In terms of data, not really. In fact, Bruce Reznik, the executive director of Los Angeles Waterkeeper, which has advocated for clean water in the L.A. area for a quarter century, said the region is doing far better than it did when LA Waterkeeper first formed.

Then, in the late 1990s, there were about 14 spills per 100 miles per year in the Los Angeles area. Today, that number is closer to six spills per 100 miles per year, he said.

But in Long Beach, the auditor's office reported that in the years 2014-2018, city averaged more spills per year than three quarters of other comparably sized cities. While the number of spills dropped sharply in the years 2019 and 2020, 2021 saw 25 spills in the city—the highest number since 2015, according to data collected by the state Water Resources Control Board.

What is the life expectancy for sewer lines?

Sewer lines and facilities everywhere are aging. Spills like the recent one in the Dominguez, and the July 2021 spill at the Hyperion wastewater treatment plant that released 17 million gallons of sewage into Santa Monica Bay have prompted organizations like LA Waterkeeper to ask whether the whole region needs to reinvest in sewer infrastructure.

The line that broke open in Carson is made of concrete, while most of the sewer lines in Long Beach are made of vitrified clay, according to the city auditor's office, which audited the water department's sewer division in 2018. These pipes can generally last up to a century, according to the Environmental Protection Agency.

According to the 2019 Long Beach audit, 59% of the city's main lines and 70% of the lateral lines were installed before 1950.

Does that mean the majority of Long Beach's sewer lines are 70 years old?

Not necessarily. Some of those lines may have been replaced since then, but because of "incomplete data" maintained by the sewer division, the auditor's office wasn't able to determine how many of those lines were repaired or replaced since their initial installation.

And while the city's sewer division does keep a repair list, the auditor's office also found that more new repairs are added to the list each year than the number of repairs the city actually makes, meaning repair list ends up getting longer with each passing year.

Can the big infrastructure bill passed by Congress and signed by President Joe Biden last year help?

Yes, but it's not clear yet how much assistance it can provide. The bill allocates about \$55 billion towards water, including wastewater, but the federal government will distribute the money through individual states, and counties will have to petition for grants.

L.A. County Supervisors Janice Hahn and Kathryn Barger have started that process. In a motion they agendized for the upcoming Jan. 11 Board meeting, they ask the county Department of Public Works to provide a "plan and recommendation to obtain Federal infrastructure funding or other funding to address aging infrastructure within the unincorporated areas and cities served by the District" within the next 30 days.

"The sewer pipe that collapsed in Carson last week was nearly 60 years old," said Hahn. "We need to not only understand why this aging infrastructure wasn't replaced sooner, but how the infrastructure across the system is holding up. Do we have a much bigger problem on our hands? Are there more pipes that need to be replaced sooner rather than later?"

Does climate change also play a role in these spills?

It's very possible, according to Reznik. In terms of rainfall for Southern California, climate change most likely means more intense rain storms. In 2014, UCLA researchers determined that for the rest of the century, "Southern Californians may face an increased risk for floods and will have smaller windows of time to capture local water because, although the average annual precipitation is expected to remain nearly the same as it has been in recent decades, more of that precipitation will be rain, and less will be snow."

It's possible that the considerable rainfall during last week's storm added stress to the pipe that broke on Dec. 30, according to Reznik.

Wasn't one of the goals of the 1972 Clean Water Act to stop all sewage spills into the ocean?

Yes, the law specifically stated that one aim was to "eliminate all discharge of pollutants into the navigable waters by 1985." Obviously that didn't happen, and while sewage spills have been reduced since its passage, much still needs to be done, according to Los Angeles Waterkeeper.

That organization also estimates that every year the LA area sees an additional 100 billion gallons of runoff, containing pesticides, oils, heavy metals and bacteria flow into rivers and oceans.

While Reznik believes the Act's authors were probably overly ambitious in hoping that all discharges into the ocean could end in just 13 years, he also believes that goal could have been reached in 50 years. He said LA Waterkeeper and other coastal watch organizations will mark the Act's 50th anniversary this year by calling on officials to finally deliver on that early promise.



Cause of massive sewage spill under investigation; beaches remain closed

An official said the spill, estimated to at 8.5 million gallons, is the largest since the agency began tracking such incidents in 1981.

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