

Posh homes in Boston may be rotting to the ground

In some of the historic city's most picturesque neighborhoods, simmering problems have been exacerbated by depleting groundwater levels



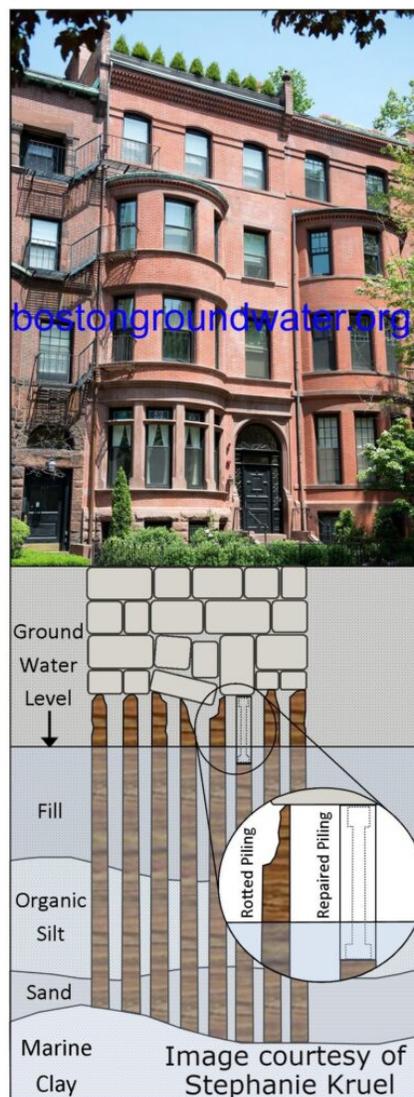
Phil Roeder / Getty Images

BY [LILLIAN DICKERSON](#) |

When people think of Boston, visions of brick streets, gas lamps and 19th century row houses come to mind. Picturesque neighborhoods like Beacon Hill, the South End and Back Bay have garnered notable

residents over the years like John Kerry, David Lee Roth, Uma Thurman and Carly Simon.

However, it's not exactly news that historic neighborhoods like those found in Boston can sometimes bring structural challenges, despite their beauty. As [groundwater](#) levels have gradually depleted over the years, wooden piles — structural supports pervasive beneath many of the city's late 1800 and early 1900-era homes because of the city's location above filled land — have begun to rot, causing other damage throughout these homes.



Boston Groundwater Trust



Christian Simonelli | Boston Groundwater Trust

“Groundwater levels must remain above the top of piles,” Christian Simonelli, executive director of Boston Groundwater Trust, told Inman. “If exposed to air, they can start to rot. It can take months, it can take years — it’s multifactorial.”

Simonelli explained that modern conveniences to [urban](#) infrastructure like pavement and sewers have contributed to depleting groundwater levels, making keeping the groundwater table up a challenge. Simonelli estimates that about 6,000 buildings in the city are constructed above wood piles, expanding throughout multiple neighborhoods.



Closeup of a Wood Pile | Boston Groundwater Trust

“When these buildings were constructed, we didn’t have a lot of the paving, sidewalks, tunnels, sewers that we have today. That took away the source of groundwater replenishment by [blocking water from getting back into the earth through] paving and added things that take groundwater away [through absorption].”

Once wooden pilings begin to rot, homes settle, cracks can form in walls and bricks, doors can become inoperable, floors cease to be level and windows can even blow out of their frames. Some homes have even been condemned over the years as a result of the settling.



Koby Kempel | LinkedIn

Developer and CEO of Pegasus Luxury Homes Koby Kempel purchased a former carriage house in Beacon Hill in 2011 for \$2.5 million, according to the [Wall Street Journal](#). However, Kempel later learned that the wooden pilings of the 1900s-era home had been rotting for years. As a result, Kempel ended up investing hundreds of thousands of dollars in repairs before he could even begin renovating the remainder of the house according to his original plan.

“The only thing that was holding the building [up] was the fact that it was connected to the adjacent buildings,” Kempel told the *Wall Street Journal*. “It was almost leaning on those party walls.”

Repairing pilings — a process called “underpinning” — is quite extensive and costly. The process involves digging under the building,

cutting away the rotted piling section below the lowest expected future groundwater level, replacing it with steel and encasing the steel in concrete. For a typical three- or four-story home, Boston Groundwater said this can cost upwards of \$250,000.

Unfortunately for unsuspecting out-of-state buyers, Massachusetts is a “buyer beware” state — home sellers do not have many disclosure requirements, although they are required to truthfully answer questions. Therefore, if a buyer isn’t apprised of the not-infrequent wood pilings issue, they’re unlikely to ask or be made aware of the possibility of a structural problem by the seller or their broker. Furthermore, if a buyer did purchase a home with wooden pilings damage, insurance would not likely cover the costs of repair.



Marc Savatsky | LinkedIn

In Boston’s competitive market, it can also be unrealistic to expect a seller to allow potential buyers the time and effort to dig a test pit to see if there’s any sign of rotting pilings, especially if other competing potential buyers are willing to waive an inspection.

“In this competitive market, the [seller](#) isn’t likely to allow us that luxury,” Marc Savatsky, a developer in Boston’s South End, told the *Wall Street Journal*.

Buyers in the know, however, are wary of certain neighborhoods because of their reputation for having unstable wood pilings.

“I work with lots of clients who will avoid certain neighborhoods because they don’t want to worry about the pilings,” Beth Damon, a senior associate at Boston Proper Real Estate, said.



Beth Damon | Boston Proper Real Estate

However, for some agents, it’s still a small margin of buyers who consciously ask about, or are concerned with, potentially damaged wood pilings.

“I’d say 10 percent of the time [clients mention wood pilings],” Damon said. “It’s more in Beacon Hill that people talk about it.”

“It may be something we’ll start talking about more ... with the articles [about rotting wood pilings] that are coming out,” Damon added.

During the 1980s, the degradation of four buildings in Back Bay with rotting pilings led to their [demolition](#) and replacement with a parking lot. The Boston Groundwater Trust was founded not long after in order to combat problems related to the groundwater levels and pilings, and the situation seems to be gradually improving, although Boston residents still encounter problems.

“I think there’s certainly some buildings that are still at risk, the older buildings,” Simonelli said. “We can’t go back in time... but coming from where this topic was 30 to 35 years ago, we’re in a lot better place than we were back then.”

When asked if the situation might ever reach the point where the city would need to do a complete infrastructure overhaul, Simonelli suggested the monumental effort would be in vain.

“It would be a gigantic and futile task,” Simonelli said. “Some of [the buildings] have different heights of pilings [underneath]; not all these buildings were constructed at the same time. At the time they were built, the ground level water was higher.”

“We essentially have to play the hand that we were dealt,” Simonelli added.

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