

# Water Contamination, Land Prices, and the Statute of Repose

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Dr. Dehring passed away in March 2015 after a long fight with cancer.

## **Introduction**

What is the impact of water pollution on surrounding property values? This question has been addressed in various contexts but most importantly in the context of Superfund sites. Superfund sites are deemed by the federal government of the United States to merit significant and potentially expensive mitigation efforts and often receive federal funds to help offset the cost of doing so.

What happens, however, when the so-called statute of repose expires before the water pollution is discovered? The statute of repose limits how long after the initial activity occurred that one can sue for damages. Statutes of repose were popularized in the 1970s and 1980s as ways of limiting the liability faced by firms for actions that happened some several years if not decades before. In the state of North Carolina the statute of repose was ten years and yet the water pollution associated with a Superfund site in Buncombe County (Asheville) was not discovered until several decades later. Those property owners who felt their property values were damaged by the revelation of this water pollution sought redress in the courts only to find that their claims had no standing because of the statute of repose. The court case eventually made it to the Supreme Court and was decided in 2014 against the property owners.

## **Results**

Our study establishes that the negative impact of surface water pollution, which is easy to observe and trace, was capitalized in vacant property values immediately after the existence of the surface pollution was made public in 1999. Properties impacted by the shallow groundwater contamination fell in price by an average of 17.5%. Furthermore, deep groundwater contamination did not have an impact on property values because it was not revealed until after the statute of repose had expired. The conundrum is that the property values were not affected by deep ground water pollution not because the pollution did not exist but because public knowledge of the pollution did not exist. The long delay in public knowledge of the deep groundwater contamination came about because the mountainous landscape of Buncombe County contains cracks and fissures that do not necessarily follow the surface topography. Estimates by the Environmental Protection Agency suggest that polluted water might stay deep underground for years if not decades and can manifest much further from the original contamination site than surface water pollution.

Figure 1 depicts the area under investigation. The contamination site is situated in the southern portion of Buncombe County and is depicted in the center of the 2.5 mile radius study area. The dots reflect vacant property sales from between 1996 and 2010. The shaded plumes indicate where surface water contamination was detected (the lighter plumes) and where deep ground water contamination was ultimately discovered (the darker plumes). What is interesting about the plumes is that anticipating that deep ground water contamination would follow the same path as the shallow ground water contamination would have been ninety-degrees out of phase. This suggests that property owners who purchased lands located in the dark plumes but before the deep groundwater contamination was public knowledge might well have overpaid for their properties relative to after the contamination was public knowledge and therefore might have standing for pursuing economic damages. This is the goal of our empirical analysis: did the market capitalize negative price effects for shallow ground water contamination after and not before public knowledge of that contamination and did the market not capitalize negative price effects for unknown deep groundwater contamination.

## Conclusions

We find that the market responded negatively to announcements of proximate ground water contamination but did not respond to then unknown paths of deep ground water pollution. Therefore, the statute of repose imposed economic harms on property owners by precluding their ability to seek redress against the company that polluted the area in the first place. While this paper was not directly used in the Supreme Court case, we hope that it's future contribution will be a warning that the context in which a statute of repose is implemented needs to be carefully considered.

Figure 1: The Superfund Contamination Site, the Surrounding Area, and Vacant Property Sales

