Orphan Wells Are Threatening Illinois Communities

New map shows the location of all 4,050 currently documented orphan wells in the state. Pending federal legislation will invest nearly $5 billion to plug and clean up these and the more than 81,000 other documented orphan wells across the country.
The Trouble with Orphan Wells

Since 1853, more than 150,000 oil, gas, and injection wells have been drilled in Illinois. The vast majority of these wells are in the Southern part of the state. Unfortunately, this resource development has left a toxic legacy for countless communities and landowners where oil and gas companies failed to clean up after themselves. This history has left a devastating environmental legacy of unplugged wells, the scale of which is just beginning to come into focus.

After oil and gas wells are done producing, they must be properly closed to prevent air and water pollution, protect the health of the surrounding communities, restore the property values of the landowner, and in addition, prevent high-priority, climate-forcing methane emissions. When this does not occur because of operator bankruptcy, the state can step in and plug the wells themselves, but because of funding limitations, Illinois has not been able to keep up with the backlog.

Hundreds of thousands of wells across the country were not plugged by their operators and remain open to groundwater and nature, some for a century or more. These “orphan” wells have no solvent owner of record, so the cleanup liability falls on the states, federal agencies or Tribe. Unfortunately, only pennies on the dollar have been available to properly clean up these wells.

How Do Orphan Wells Impact Communities

When a well is left unplugged, it can leak oil and other toxic chemicals, endanger water wells and other sources, contribute to air pollution and emit methane - a powerful greenhouse gas. Orphan wells also dramatically impact local communities and economies by threatening the health and well-being of residents and decreasing property values - which lowers funding for local schools, police departments, and other public services.

Where Are The Wells

To better understand where the documented orphan wells are eligible for closure funding under the REGROW Act, EDF partnered with researchers at McGill University to develop a first-of-its-kind geolocated dataset. Our research turned up approximately 81,000 such wells across 28 states. Illinois could receive about $213M to plug the 4,050 currently documented orphan wells in the state. The promise of the REGROW Act is essentially to make all these dots disappear, with significant environmental, public health and quality of life benefits for surrounding communities and for the climate, while creating or retaining tens of thousands of oilfield services jobs.

A Down Payment On A Big Problem

The EPA estimates that emissions from inactive, unplugged wells, of which documented orphan wells are a subset, range from 7-20 million tons of CO2 equivalent per year in the form of methane, and any reduction in methane emissions has an outsized short-term positive impact on the climate. This is equivalent to taking anywhere between 1.5 and 4.3 million cars in the United States off the road for a year. Despite all of this, a full accounting of wells with no solvent owner of record might be close to a million. There is also a large population of wells that are low- or non-producing which are likely to be orphaned in the future. The REGROW Act is a critical down payment in plugging these wells but we must also pass meaningful policy reform related to financial assurance and fees, idle well management and well transfer.