

ABANDONED OIL/GAS WELLS

There are an estimated 2-3 million abandoned oil/gas wells in the U.S., with 200,000 in Pennsylvania, 64,000 in Wyoming, 27,000 in the Gulf of Mexico and up to 29 million globally. These wells were abandoned when drillers went bankrupt or stopped drilling because of low oil prices, common occurrences in 2020. Although well plugging and remediation are required by law in most states and on federal lands, there are few dollars available to complete the monumental task because lease requirements for insurance bonding are insufficient and poorly regulated. This regulatory nightmare is a significant source of methane to the atmosphere, accounting for about 8% of the total methane released in the U.S. per day. This amount of greenhouse gas is equivalent to all the emissions from burning oil products in one day. These unsealed wells also contaminate groundwater with drilling / fracking fluids and brine solutions. Well sealing involves filling with clay or cement, reclaiming the surface to vegetation, and removing all equipment and waste materials. A complete plugging and remediation can cost up to \$80,000 per well. A bill is currently stalled in the U.S. Senate which would provide \$2 billion over 5 years for well plugging. Source: Reuters: June 16, 2020; Mother Jones: December 5, 2020.

CEDARS OF LEBANON

The importance of the Cedars of Lebanon forest was heralded throughout history by each civilization that revered and used them. In the Bible the cedars were called "the trees of the Lord" (Psalm 104:16); David used them to build his palace (2 Samuel 5:11) and Solomon to build the Temple (1 Kings: 7:13); and they may have been the site of Christ's transfiguration. These long-lived trees (1000 years +) are a source of national pride in Lebanon today as they adorn the Lebanese flag. Over the last few thousand years, the cedar forests provided most of the wood for buildings, ships, and other necessities in the region, and the forest slowly dwindled from over-use. But recently, the Cedars of Lebanon have been stressed by global warming to an even greater extent, as temperature rise has led to severe drought, fires and the ravages of unchecked insect pests. The ideal climate for the cedars is moving to higher altitudes and most new growth is occurring there, while existing stands at lower altitudes are dying out. Source: NPR: November 22, 2020; Wikipedia.