



Mercy and Fracking

What It Is

Fracking is another name for “hydraulic fracturing,” the process of breaking up shale underneath the Earth's surface to extract natural gas supplies and sometimes oil. Wells are drilled vertically into the ground then rotated horizontally at a 90-degree angle into shale rock.

A mix of water, sand and various chemicals is pumped into the well at high pressure in order to create fissures in the shale through which gas can escape. Over the past several decades, U.S. industries have injected more than 30 trillion gallons of toxic liquid deep into the Earth.

Shale formations throughout North America and in parts of South America, Europe, Africa, Asia and Australia are all ripe for exploitation, spurring concern by the Sisters of Mercy around the world. Mercys have spoken out against fracking in Argentina, Australia, England, Ireland, Newfoundland (Canada), New Zealand and the United States, and have joined together in research and advocacy through Mercy International Association’s Global Action Network.

Concerns are most focused on the chemicals and huge quantities of water required in the fracking process, concerns echoed by some bishops and statewide Catholic public policy organizations in the U.S. "I think the public needs more information than is presently being provided about the chemicals in this mix that is being injected into the earth to release the gas and oil," Bishop Paul D. Etienne of Cheyenne, Wyoming was quoted as saying in an [article on fracking published by Catholic News Service](#).

Blessed John Paul II, Pope Benedict XVI and Pope Francis all have addressed the need to protect the environment, saying that the health of the earth and its inhabitants must not be sacrificed in the pursuit of short-term economic gain. And the U.S. bishops' Committee on Domestic Justice and Human Development in May 2013 reaffirmed the moral principles from the bishops' 1981 statement on energy, "Reflections on the Energy Crisis," as a framework for examining key energy issues, including fracking.

Fracking poses a number of challenges related to the Critical Concerns of the Sisters of Mercy of the Americas, especially reverence for Earth, commitment to nonviolence, response to racism and particular concern for women. The following summarizes those threats...

"To reverence Earth and work more effectively toward the sustainability of life and toward universal recognition of the fundamental right to water."

Land directly damaged for fracking in the United States totals 360,000 acres, through operations in 17 states, according to a [report by the Environment America Policy and Research Center](#). The destruction of forest and farmland for well pads, pipes and drills affects wildlife habitat and fragments wild and pristine areas. Lands of great beauty with mountains, lakes, rivers and creeks, forests and parks are being transformed into industrial zones. Currently there are 80,000 fracking wells, plus processing and waste disposal sites, across the country.

Fracking also has begun in Neuquén, Rio Negro, Chubut, Mendoza, La Pampa and Entre Rios in Argentina, and it is planned to be rapidly extended due to the discovery of large oil and gas fields. A Mercy justice advocate reports that the mass media, government officials and companies there have tried to hide the practice's potential seismic consequences and the great pollution risks posed by the toxic chemicals it uses on water basins, soil and air.

Fracking also uses inordinate amounts of water, and renders that used water toxic to all beings. It takes, on average, 4.4 million gallons of water to drill and frack a well -- at the same time that the lack of access to clean water impacts 11 percent of the world's population and is the leading cause of death and disease for children under age five.

Pollutants can enter drinking water at several different points in the fracking process, through leaks, spills of fracking fluid, well blowouts, the escape of methane and other contaminants into groundwater, and the long-term migration of contaminants underground. Recent flooding in Colorado caused damage to over a thousand wells, with chemicals mixing with floodwater across a large swath of the landscape. Clearly, fracking chemicals that are poisonous to people and animals could pollute farms and drinking water supplies in many catastrophic weather events.

Concerns about the impact on global warming are also growing. Although shale gas has been heralded as the cleanest form of fossil fuel when burned, fracking's primary impact on the climate is through the release of methane, a far more potent contributor to global warming than carbon dioxide, the usually cited culprit. A 2011 report by the United Nations Environment Program stated that it is as urgent to cut methane emissions as to cut as carbon dioxide emissions in slowing climate change. The study says methane is 105 times more powerful than carbon dioxide in the short term and has quicker climate impacts.

The US Environmental Protection Agency's greenhouse gas inventory shows that natural gas is the largest source of methane in the U.S. and accounts for 17% of total U.S. climate change pollution. Most of the methane loss comes from leakage during drilling as well as during flowback of the fracking fluid. More loss of methane occurs during compression of the gas and during pipeline transport. Federal government estimates affirm that more than one million tons of methane is emitted annually from shale gas production.

*"We are scandalized by the increase in the impoverishment of peoples
{and} the pervasive denial of basic human rights"*

In 2010, the United Nations General Assembly expanded the United Declaration of Human Rights to include the right to clean water and sanitation. The right to water places responsibilities upon governments to ensure that people can enjoy "sufficient, safe, accessible and affordable water, without discrimination." It also expects Governments to take reasonable steps to avoid a contaminated water supply.

Yet according to the [Natural Resources Defense Council](#), "Fracking is a suspect in polluted drinking water in Arkansas, Colorado, Pennsylvania, Texas, Virginia, West Virginia and Wyoming, where residents have reported changes in water quality or quantity following fracturing operations." And in at least four states that have nurtured the nation's energy boom, hundreds of complaints have been made about well-water contamination from oil or gas drilling, and pollution was confirmed in a number of them, according to a review by the Associated Press of data in Pennsylvania, Ohio, West Virginia and Texas. Additionally, fracking has been linked to earthquakes in Ohio and to concerns about air quality, according to the NRDC.

Individuals and communities often lack the information necessary to gauge the impact of fracking on health and safety. This is contrary to the Rio Declaration on Environment and Development (1992), which states that each individual shall have appropriate access to information concerning the environment including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes.

In the United States, regulations on chemical reporting remain a mixture of state and national policies that vary by industry. Even in states with disclosure laws, companies can omit information in the interests of protecting intellectual property. Federal and state responses to the threats to water resources are mixed. At the federal level, regulation is insufficient due to explicit exemptions for the hydraulic fracturing industry. Known as "the Halliburton Loophole," fracking is exempt from the Safe Drinking Water Act, the Clean Air Act, and the Clean Water Act granted by the Energy Policy Act of 2005. The EPA started a multi-year research into the impacts of fracking on water resources, but the final report is not expected until later in 2014.

"To deepen our response to the unrecognized and un-reconciled racism past and present"

There is an abundance of evidence that environmental resource decisions disproportionately affect people of lower socioeconomic status. Poor white, black, Latino and Native communities bear a heavy price. Toxic factories, oil refineries, pipelines, hydro fracking and other polluting industries are typically carried out where the people cannot afford to put up a fight because they cannot afford to move, lose their jobs or farms, get arrested or deported. Hydro fracking wells are installed on the land of people who need money, and often local residents don't even reap any benefits.

In North Dakota, more than 500 fracking wells are now pumping oil on the Fort Berthold Reservation and another 1,600 to 3,000 are planned for the next five years, jeopardizing the remaining 400,000 acres of Native American land holdings. Mandaree, located on the Fort Berthold Reservation, is mostly poor: two-thirds of the population lives three families to a house. A survey of Mandaree residents intended to gauge their views on the oil boom had some pretty clear results. Ninety-two percent of the people said they fear drilling-related spills and 84 percent said they do not receive adequate information on environmental impacts to air, water quality and land.

In Fort Worth, Texas, people living in the East Rosedale Street area were not even aware of the purpose of the survey flags before the fracking began in their neighborhood, where English is rarely spoken and poverty is a given. One woman in another low-income community reported that "White people fight back when they see something wrong being done in their neighborhoods because they believe the system is just," but "Black people already know that the system is stacked against them so they are less likely to get involved—that's why the frackers started here." Most affected homes now have an 8-inch natural gas pipe buried under their front door.

Residents and workers living near fracking sites suffer from health problems such as headaches, eye irritation, and respiratory problems including asthma, nausea, the lung disease silicosis, and cancer. Many of the chemicals used in the fracking process are proven toxins. Others are endocrine disruptors, man-made chemicals that, when absorbed into the body, mimic hormones or block hormones and disrupt the body's normal function. They have been linked to infertility, ADHD, autism, thyroid disorders and diabetes. Even childhood and adult cancers have been found to be linked to fetal exposure to endocrine disruptors.

"To act in solidarity with women seeking fullness of life"

Less reported so far have been the social costs of fracking, especially in towns that have seen a seemingly overnight growth in a transient workforce – and the creation of housing units sometimes called “man camps” -- and long work hours for local residents who have found employment in the industry.

The mayor of Dickinson, North Dakota, for instance, blamed the oil boom for large increases in crime over one year, including at least a 300 percent increase in assault and sex offense cases. In Bradford County, Pennsylvania, where more than 700 fracking wells have been drilled and 300 of them operational, rapes and domestic abuse are on the rise, primarily among gas industry families, according to the executive director of the Abuse and Rape Crisis Center.

The U.S. Department of Justice has actually [issued a request for research](#) into the impact of the growing oil and natural gas industry in the Dakotas and Montana on domestic violence, dating violence, sexual assault, and stalking. “The growing oil industry in the Dakotas and Montana has generated tremendous opportunity and economic development. However, anecdotal information from meetings with public and private service providers and community members has revealed that the oil industry camps may be impacting domestic violence, dating violence, sexual assault, and stalking in the direct and surrounding communities in which they reside,” the grant notice states. “Topics of particular interest discussed at these meetings include the issue of sexual assaults and lack of available shelter or safe housing options for victims of domestic violence.”

"To work for systemic change"

In the United States, fracking regulations are left to the individual states. In some states, such as Pennsylvania and Ohio, the industry is well developed, while in other states, such as New York and Maryland, legislators and regulators have been cautious in allowing natural gas development. Vermont has banned fracking, and some towns in other parts of the country are banning drilling as part of their authority to oversee local land use.

For more information, [EarthJustice](#), a non-profit public interest law organization, provides updates on the status of fracking in many states and lists anti-fracking advocate groups that you can join. And you will find [here](#) an animated explanation of the fracking process and the concerns associated with this process.

Also consider [joining the Sisters of Mercy Earth advocates](#) to receive occasional emails about opportunities to contact federal officials about fracking and other environmental concerns.