



Mitty Advocacy Project

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A Youth Response to Groundwater Contamination

Water is a fundamental human need. Each person on Earth requires at least 20 to 50 liters of clean, safe water a day for drinking, cooking, and simply keeping themselves clean. Since water is obviously essential for hydration and for food production, water sanitation is equally important. A lack of proper sanitation services breeds disease and makes drinking water, a basic human right, non potable—clearly making the contamination a case of human injustice.

As youth, we recognize the importance of water to our day-to-day lives. We need it to grow and develop into functional human beings who are happy, healthy, and safe. So—as it poses a significant risk to our normal development—contaminated water must be avoided at all costs. We also know that the majority of pollution that is affecting our water resources today is caused either directly or indirectly by humans; thus, we need to hold ourselves accountable and accept that it is our responsibility to clean up the damage we cause.

A Catholic Perspective on Environmental Justice

As part of the Brotherhood Campaign in 2016, Pope Francis stated that “Access to safe drinking water is a basic and universal human right, since it is essential to human survival and, as such, is a condition for the exercise of other human rights. Underground water sources in many places are threatened by the pollution produced in certain mining, farming, and industrial activities, especially in countries lacking adequate regulation or controls.” We must stand in solidarity with these underrepresented, rural communities (especially the San Joaquin and Salinas Valleys) in order to rectify this grievous problem.

The Problem

California's water system has constantly been plagued with pollution and groundwater contamination issues even though California Assembly Bill 685, signed in September of 2012, made California the first state to legislatively recognize the human right to water. However, as a State Water Resources Control Board official states to a United Press International reporter in July of 2017, “Small community water systems typically lack the infrastructure and economies of scale of larger water systems, and in some cases cannot afford to treat or find alternative supplies for a contaminated drinking water source.” This lack of infrastructure only emphasizes the problem of





contamination in these rural areas where applied pesticides, animal waste, and fertilizers are able to easily seep into groundwater and pollute drinking water.

These nitrogen-based products have seeped into aquifers within the San Joaquin and Salinas Valleys (two of the biggest agricultural areas in the state), posing a public health risk for approximately 254,000 people living in these areas according to the UC Davis Water Board Project. As evidenced in The Community Water Center's report "Water & Health in the Valley" (2013), the effects of this pollution are tangible: "The effects of the raised nitrate levels in the water of San Joaquin Valley include death in infants younger than 6 months old and the birth of stillborn infants." This toxic contamination can cause severe damage to our bodies, with symptoms of its increased consumption ranging from peptic ulcers and diseases of the digestive system to chronic liver diseases, thyroid conditions, and various types of cancer. Additionally, small communities are often unable to afford filtration systems that would provide them with the clean water they need.

MAP's Solution

The issue of water contamination has clearly been threatened the most fundamental of human rights, and we believe that legislators should adopt a two-pronged approach in order to rectify the issue. First, these rural areas must be supported while changes are being made, and infrastructure changes would allow filtered, clean water to reach these communities. Second, the problem must be solved at its root—farming. The fertilizers that cause the problem must be phased out and replaced with more environmentally sustainable options in order to protect the health of these cities going forward.

Our infrastructure in California is necessarily centered around urban cities which use the most water; however, this neglects rural areas that are receiving contaminated water and do not have the infrastructure to filter it. By connecting rural water systems to urban water systems with filtration devices, our government would not have to invest millions into infrastructure in rural areas. This solution has already been implemented to support California farms using a water conveyance system. Compared to farms in the area, these small towns only use a minuscule amount of water so this amount would not overwhelm infrastructure or require major changes. However, if any additional water pipes need to be constructed under private property (to sustain a greater water flow), tax incentives can be offered to landowners to advance such construction.

Another reason why contamination of groundwater can still occur in these areas is because farms use mostly water-soluble fertilizers that allow for runoff. To reduce this nitrogen leakage, farmers should start using controlled-release fertilizers that will help prevent extensive runoff since they gradually release chemicals. Farmers should phase out water-soluble fertilizers to controlled release fertilizers within 10 years. In 2014, 142 lb/acre/year was the use of water-soluble fertilizers according to an EPA study; this should be reduced by half in 5 years and should be 0 in 10 years





(with checkups to ensure compliance). By attacking this problem through its symptoms and root cause, we can protect rural communities currently affected by contaminated water.

