



TO: Norman Wright, Director of Community & Economic Development
FROM: Jen Rutter, Environmental Analyst
SUBJECT: Adams County Underground Injection Control Disposal Wells
DATE: January 26, 2017

There are over one million oil and gas wells in the United States that generate a large volume of produced water, which is a byproduct of the activity. The United States Environmental Protection Agency (EPA) regulations prohibit produced water discharges to surface water, so injection of the wastewater deep into the ground is the primary option for its disposal. The wastewater is mainly composed of brine and it is injected thousands of feet underground into a non-hydrocarbon bearing formation or an unproductive or depleted formation. The oil and gas industry has utilized underground injection of brine since the 1930's.

The EPA regulates six classes of injection wells, which also known as Underground Injection Control (UIC) wells. The UIC program is required as a provision of the Safe Drinking Water Act (SDWA) for the regulation of injection wells, including a permit system. An applicant must demonstrate that the well has no reasonable chance of adversely affecting the quality of an underground source of drinking water before a permit is issued. A subset of UIC wells are Class II wells, which are used only to inject fluids associated with oil and natural gas production. The Class II wells are divided into three categories: disposal wells, enhanced recovery wells, and hydrocarbon storage wells. The disposal wells are used to dispose of wastewater generated during oil and gas extraction, including hydraulic fracturing activities.

The EPA oversees the regulation of UIC wells, but the enforcement can be delegated to individual states upon request. The Colorado Oil and Gas Conservation Commission (COGCC) entered into a Memorandum of Agreement with the EPA for UIC Program delegation on August 15, 1989, which allowed the COGCC to assume the permitting, inspection, enforcement, and reporting authority for UIC wells in the State of Colorado.

The COGCC has issued permits for four Class II disposal wells in Adams County, but only two of those are active. The two active disposal wells are located east of Converse Road and each operated by a different company (see attached map). The Cowell #1 well is operated by Tyler Rockies Exploration LTD, had its first injection in 2001, and is located southeast of East 26th Avenue and Price Road. The Totem SWD #1 well is operated by Colorado Interstate Gas Company, LLC, had its first injection in 2009, and is located northeast of East 104th Avenue and Yulle Road. Additional information about disposal wells and the other types of Class II wells can be found on the COGCC website.