

The Water Isn't Safe:
The Dismal State of Texas Drinking Water Regulation

Grace Nguyen
Water Ethics, Law, and Policy
Jane Cohen
December 15, 2018

Connie Timm is a 73-year-old woman who lives just outside of Livingston, Texas. Livingston is a small, East Texas town with a population of just under thirty-thousand people. Like many of Livingston's residents, Connie lives too far from the city center to be serviced by the City of Livingston's public water system. So, she relies on the Tempe Water Supply Corporation, a private water utility firm, to supply water to her home. For the past twenty years, she has received annual water quality reports that consistently show that her tap water contains concentrations of arsenic (a known carcinogen) that exceed the federal legal limit; Connie's tap water shows concentrations of arsenic at 10 parts per billion (ppb) when 12 parts per billion is the limit set by the Environmental Protection Agency. Additionally, her tap water contains concentrations of bromodichloromethane, dibromochloromethane, manganese, radiological contaminants -226 and -228, and total trihalomethanes (TTHMS) all above recommended health standards [EWG Tap Water Database]. For two decades, the concentrations of these contaminants have not changed, even though the state government is aware of these transgressions.

Even if Connie Timm lived close enough to the Livingston city center to use the public water system, she would still face exposure to high concentrations of contaminants in her tap water. A 2015 assessment by the Environmental Working Group shows that the City of Livingston's public water system has concentrations of bromodichloromethane, bromoform, chlorite, chloroform, chromium (hexavalent), dibromochloromethane, dichloroacetic acid, radiological contaminants -226 and -228, TTHMs, and trichloroacetic acid. Each of these contaminants were measured at concentrations above the standard health guidelines established by the federal government [EWG Tap Water Database]. Clearly, the City of Livingston has a problem. It is a problem shared by rural communities throughout Texas. Tap water

contamination seems to be omnipresent in both public and private water systems, yet the state of Texas has taken no corrective action.

Texas has some of the most contaminated drinking water in the country. Though Livingston is only one town, the condition of its drinking water reflects the severity of drinking water contamination throughout the state. The contaminants in Texas tap water are derived from six primary sources: agriculture, industry, water treatment processes, poorly maintained infrastructure, wastewater runoff, and naturally occurring contamination. In rural Texas communities, agriculture and industry are the most prevalent sources affecting the contamination of drinking water, whether publicly or privately provided. Radiological Contaminants (radium - 226 and -228) and arsenic are two of the most dangerous drinking water contaminants found in Texas drinking water; they originate from the prominence of agricultural production and industry in the state. Arsenic contamination occurs when sources of drinking water are in close proximity to industrial mining and oil extraction sites. Radiological contamination can occur naturally in water sources due to mineral deposits and soil compositions. But, radiological contamination is found almost ubiquitously in drinking water systems throughout Texas, outside of regions where radium levels in drinking water are naturally elevated due to soil composition [National Research Council (US) Safe Drinking Water Committee]. Radium is found in drinking water across Texas due to the “uranium mining [and] oil and gas drilling [that] unearth [radium] from the rock and soil” [Walker].

In 2018, the Texas Tribune published a groundbreaking article titled “Why are Texas’ smaller utilities not cleaning up drinking water.” The article threw a spotlight on the dozens of public water utilities supplying drinking water that contained illegal levels of radiation and arsenic; these utilities serviced tens of thousands of Texans. The Texas Tribune article references

multiple studies by the Environmental Working Group that highlight the severity of Texas' safe drinking water problems. These studies show that "3,500 utilities serving more than 22 million people – about 80 percent of the state's population – reported detectable levels of radium-226 and radium-228 combined" [Cobler]. The EWG additionally identified "37 water utilities serving nearly 25,000 Texans in violation of federal standards for radium" which is classified by the Environmental Protection Agency as "[unsafe] for human consumption at any level" [Cobler]. Another study found that more than thirty drinking water systems, serving fifty-thousand Texans in rural areas, have exceeded the federal arsenic limit for more than a decade [Bernhardt]. And, out of the one hundred community water systems with "the most violations of the so-called Lead and Copper Rule are in Texas" [Collier]. These studies show that Texas does not adequately enforce compliance with the Safe Drinking Water Act in its public utilities, nor does the state provide adequate regulation for water utilities provided by private supply corporations.

The Safe Drinking Water Act was passed by the United States Congress in 1974 to "protect public health by regulating the nation's public drinking water supply" [Office of Water]. This act allows the Environmental Protection Agency to set "national health-based standards" [Office of Water] to protect citizens against the natural and synthetic contaminants found in public drinking water systems. In 1996, the Safe Drinking Water Act was amended. The amendment expanded the Safe Drinking Water Act to regulate the entire process of bringing water from the source to the consumers' tap. The amendment comprehensively addresses issues in the water-provision process by requiring community water systems to release annual consumer confidence reports about the contaminants, health effects, and sources of drinking water; by establishing the Drinking Water State Revolving fund to help states improve water infrastructure, manage utilities, and protect drinking water sources; by requiring water systems to

strengthen protection against microbial contaminants and byproducts of water treatment processes; by implementing source water assessment programs that require states to assess the sources of drinking water and identify contamination risks and mitigation tactics; by demanding water system operators complete EPA-approved certification programs; by giving special consideration and support to small water systems to encourage compliance with the act; and by emphasizing the importance of transparency regarding drinking water contamination [Office of Water].

The national standards for drinking water are enforceable by law. Water systems that do not comply with drinking water quality standards may face legal action or utility fines from the Environmental Protection Agency. Though the Environmental protection Agency has the capacity to enforce the Safe Drinking Water Act, the agency relies heavily on state governments to enforce the water quality standards in the public water systems within the states. The Safe Drinking Water Act allows state governments “[to] exercise primary enforcement authority” over water quality standards, BUT the Environmental protection Agency reserves the right to revoke primary enforcement if the state is not fulfilling the terms of the act [Safe Drinking Water Act (SDWA) and Federal Facilities”]. It is important to note that the Safe Drinking Water Act does *not* regulate water provided by private supply corporations; this responsibility is left entirely to the states.

The Texas Commission for Environmental Quality (TCEQ) is the Texas State agency that is responsible for ensuring compliance with environmental laws, monitoring air quality, ensuring dam safety, and responding to natural disasters that pose risks environmental/human health [“Water Utility Programs Regulated by the PUC”]. The TCEQ has the primary authority to enforce the Safe Drinking Water Act in Texas but completely fails to ensure the compliance of

public water systems. For years, numerous public water systems in Texas have supplied residents with tap water containing contaminants that exceeded the federal legal limits. Though the TCEQ has official documentation of water utilities out of compliance with federal standards, the agency has neglected to intervene or reprimand the utilities [Bernhardt].

The Texas Commission for Environmental Quality is notoriously skeptical of water quality standards set by the EPA, and the agency publicly questions the science behind federally mandated health-guidelines [Cobler]. TCEQ officials have repeatedly described EPA limits on various air and water pollutants — including arsenic — as overly cautious even when the limits are supported by the majority of scientists and public health experts. Former TCEQ chair, Kathleen Hartnett White, was documented saying that the agency “did not believe the science of health effects justified EPA setting the standard[s] where they did,” [Greenblatt, “Did Trump Environment Pick Tell the Truth?”] as a justification for Texas’ lack of enforcement of the Safe Drinking Water Act. However, the scientific community is concerned that the EPA’s legal limits for contaminants in drinking water are *too* lenient because “the EPA is relying on outdated science and outdated studies.” [Walker]. So even if the state had been enforcing these standards, citizens would still be exposed to unhealthy concentrations of contaminants. The Texas Commission for Environmental Quality’s allows public water systems to use deliberately misleading language in the water quality statements and health assessments released to consumers. This reflects the agency’s dislike of federal regulation for drinking water and skepticism of the science supporting water quality standards. For example, the website for the Texas Commission for Environmental Quality provides health information regarding water contaminants that is inaccurate and inconsistent with modern science. For example, the TCEQ’s webpage on radium contamination falsely assures Texans that “radiochemicals do not pose an

immediate risk to the health of anyone who drinks the water” and that “the cost of completely removing the radiochemicals and disposing of the resulting waste safely could make your water too expensive to use” [TCEQ, “Radiochemicals and Drinking Water”]. Under the Safe Drinking Water Act, public water systems are required to release advisory notices when water supplies exceed the maximum contaminant level (MCL) for various contaminants, including radium. The TCEQ website falsely states that receiving an advisory notice “does not mean that people will be harmed by the detected levels.” The TCEQ also says that high levels of contamination are “not an emergency” and “[consumers] do not need to use an alternative water supply” at these times [TCEQ, “Radiochemicals and Drinking Water”]. These statements are categorically untrue, and contradict the EPA’s official statement that radiological contamination in water is not safe for human consumption at any level.

Officials at the Texas Commission for Environmental Quality have a well-documented history of resistance to the federal regulation of drinking water quality. In 2011, investigative reporter, Matt Greenblatt, released a story for Houston’s KHOU-TV news that exposed the TCEQ for deliberately underreporting radiological contaminants found in Texas drinking water. [Greenblatt, “A Matter of Risk: Radiation, Drinking Water and Deception”]. Kathleen Hartnett White, who served as the chair of the Texas Commission for Environmental Quality between 2003 and 2009, ordered staff to lie about radium levels in reports sent to the Environmental Protection Agency. In 2008, the EPA caught the inconsistencies during an audit of the TCEQ and subsequently launched an investigation. The EPA found Texas guilty of violating the Safe Drinking Water Act [Walker]. In 2017, White was nominated by President Donald Trump to serve on the White House Council for Environmental Quality. In a Senate hearing, she denied underreporting water contamination to the EPA, when she had previously “openly acknowledged

playing a role in a scandal where official state policy helped dozens of water systems in Texas avoid cleaning up radioactive contamination of drinking water that exceeded amounts allowed by the EPA” [Greenblatt, “Did Trump Environment Pick Tell the Truth?”].

Michael Honeycutt is another former TCEQ official who served as the head of the toxicology division. While working for the Texas Commission for Environmental Quality, he spent “two decades fighting EPA efforts to put stricter controls on everything from ozone to mercury to hexavalent chromium” [Osborne]. Honeycutt took a ‘pro-industry’ approach to environmental protection that involved “writing permits that allow [industries to] release of chemicals into the environment at concentrations that do not cause harm,” [Osborne]. Michael Honeycutt denied the dangers of tap water contamination via industrial chemicals. He justified the TCEQ’s allowance of industrial chemical releases by stating “essentially everything, even naturally occurring chemicals, can be toxic . . . even water is toxic at a high enough dose” [Honeycutt]. The TCEQ shares Michael Honeycutt’s dismissive attitude toward established water quality standards. These attitudes reflect the larger anti-federal government sentiments that Texas officials often promote, to the detriment of Texas residents.

The Public Utilities Commission (PUC) is the Texas agency responsible for regulating water utilities, both public and private. The PUC works in conjunction with the TCEQ to enforce water quality standards in water systems around Texas [TCEQ, “Water Utility Programs Regulated by the PUC”]. The lack of enforcement of federal drinking water standards results in a lack of urgency for supporting rural water systems and updating old and failing water infrastructure. Many rural Texas communities rely on outdated public infrastructure that uses old water treatment processes and equipment. These systems can do little to prevent the contamination of water, and can actually contribute to water contamination through various

chemical treatment processes [*“Report Card for Texas' Infrastructure 2017”*]. While large Texas cities can afford to maintain public water infrastructure without assistance, rural Texas communities do not have the funding to update their outdated water systems, nor are they receiving support from the Public Utilities Commission. Under the 1996 amendment to the Safe Drinking Water Act, state governments are required to support small water systems to ensure state-wide compliance with the act. The inability to maintain infrastructure is the primary issue faced by small water systems. In an assessment of state water infrastructure, the American Society of Civil Engineers asserts that many local governments “cannot develop the necessary internal expertise to provide the quality of service mandated under current health and safety requirements” and that some local governments “have the expertise, [but] are unable to finance such service without external assistance” [*“Report Card for Texas' Infrastructure 2017”*]. Though there are federal and state programs to help water systems finance infrastructure repairs and updates, rural communities are generally unable to access these programs.

The State Water Implementation Fund for Texas (SWIFT) is a program created by the Texas Legislature to “provide affordable, ongoing state financial assistance for projects in the state water plan” [Texas Water Development Board]. This program has taken billions of dollars out of the Texas ‘rainy day’ fund to support the improvement of water infrastructure throughout Texas. In 2017, SWIFT committed “over \$5.6 billion for projects across Texas” [Texas Water Development Board] but the small, rural water systems with the worst infrastructure and highest rates of drinking water contamination were unable to utilize these funds. The SWIFT program helps communities “by providing low-interest loans, extended repayment terms, deferral of loan repayments, and incremental repurchase items.” [Texas Water Development Board] rather than giving actual funding for infrastructure projects. In order to use this program, cities and towns

must have the credit or bonding capacity to get a loan or secure funding to finance these infrastructure projects on their own. SWIFT provides guarantees for loans to help towns get low interest rates or deferrals on loan payments, which does not help the small towns that are unable to secure a loan in the first place. Most rural communities are unable to obtain a large enough loan to address their infrastructure needs. The inability to update public water systems forces rural communities to choose to drink unsafe, contaminated water or to find an alternative source for drinking water. The Texas government would prefer Texans choose the latter.

The state of Texas actively encourages the privatization of utilities and infrastructure. The Texas Legislature enacted the Public and Private Facilities an Infrastructure Act which allows local governments to outsource the provision or maintenance of infrastructure and utilities to private firms. The legislature justified this act by saying “authorizing private entities or other persons to develop or operate one or more qualifying project may serve the public safety, benefit, and welfare by making the projects available to the public in a timelier or less costly fashion” [TFC, “*Public-Private Partnership Guidelines*”]. The Texas Facilities Commission published a set of guidelines that provide the framework for public-private partnership in the provision of infrastructure and utilities. This document heavily suggests that the private sector is often more equipped to take on infrastructure projects in a “transparent, timely and cost-effective manner” [TFC, “*Public-Private Partnership Guidelines*”]. The state offers financial benefits and incentives to private entities take on infrastructure projects, like the provision of infrastructure for community water systems. The Public and Private Facilities and Infrastructure Act allows local governments to not only partner with private entities but to sell public infrastructure and utilities to private firms. Furthermore, private water supply corporations can apply to become Special Utilities Districts which receive tax exemption from sales and property taxes; interest

rate reduction; and preferred loans and grants [“Private Water Suppliers”; PUC of TX, “Water Division”].

Private water supply corporations are supposed to be regulated under the Public Utilities Commission, the Texas Commission for Environmental Quality, and the Public and Private Facilities and Infrastructure Act (for public-private partnership), but the PUC and TCEQ utterly fail to adequately regulate private water supply corporations – like the Tempe Water Supply Corporation. Even when privately supplied drinking water poses a severe risk to consumers’ health, the state does little to correct it. There are some Texas water supply corporations that have never complied with federal regulatory standards. For example, the Grassland Water Supply Corporation from Lubbock “has never been in compliance with federal standards for arsenic, fluoride or nitrate levels, according to all available TCEQ records dating back to 2003” [Cobler]. Texas has not fined or punished dozens of water supply corporations, like the Grassland Supply Corporation, despite full knowledge of the contamination.

The Texas Public Information Act ensures that government information and records are made available to the public [TX Comptroller]. Although this act requires government information to be available to the public, the process of obtaining government documents is costly and time-consuming. This makes it difficult for individuals to pursue information regarding drinking water quality over time and makes it difficult to research the past actions of agencies like the TCEQ and PUC. It is often easier to access information about Texas drinking water quality through third-party sources like the Environmental Working Group or the Environmental Integrity Project. Additionally, the Texas Public Information Act does not require private entities to disclose information, even if it has an immediate impact on the general public [Paxton, “Public Information Act Handbook 2018”]. The act ensures that private water supply

corporations not required to make information on contamination and health risks available to the public, nor are they required to be accountable to the public in terms of pricing. This means that private water supply corporations are able to change prices at will, and are not legally obligated to disclose water contamination.

For decades, Texas has failed to ensure that its residents have safe drinking water. Across the state, public and private water systems contain unsafe and illegal concentrations of contaminants like arsenic and radium. Texas' dislike of federal regulation and skepticism of safety standards set by the EPA has led the TCEQ to deliberately neglect the enforcement of federal water quality standards. Furthermore, the PUC and TCEQ have failed to provide any real regulation of privately supplied drinking water. The state of Texas is failing its residents by consciously allowing them to drink unsafe water, and Livingston, Texas is a prime example.

The Texas Government MUST be held accountable for violating the terms of the Safe Drinking Water Act. For years the state has chosen not to enforce the federal regulations for drinking water set by the Environmental Protection Agency, but has not faced any real punishment. The EPA either needs to take primacy in the regulation of Texas public water systems or it needs to pursue legal or financial action against the state of Texas for its lack of enforcement. Furthermore, the TCEQ should not be allowed to use less urgent language in contamination advisory notices, nor should it be allowed to release inaccurate information about the health risks of contaminants found in Texans' drinking water. Additionally, the state needs to increase regulations on private water supply corporations. Texas should not be expected to provide water infrastructure throughout the entire state, especially not in extremely rural areas with small populations. BUT, Texas must ensure that these small, rural populations have access to safe drinking water, even though the state is not providing it. Private water corporations

should be held to the same federal drinking water standards as public water systems, especially if the private firms have entered into a partnership with a public entity. Lastly, Texas must make infrastructure funding more accessible to small and rural communities like Livingston. Rather than guaranteeing loans or providing more favorable loan agreements, the states should give grants to communities that need to fix outdated infrastructure. This ensures that communities that do not have the credit to obtain the necessary funding by loan can still provide clean water for their communities.

For 20 years Connie Timm has received the same water quality reports, showing the same levels of contamination, year after year. Nothing has changed, and she is not the only one. The issues with Texas' regulation of drinking water are not exclusive to public or private water systems. Across the state, Every day, Texans are being exposed to harmful contaminants in their tap water, and the state government has done nothing to correct these issues. Texas must overcome its bias against federal regulation and acknowledge the validity of the science behind legal limits for contaminants. Texans throughout the state are relying on the government to ensure the safety of their drinking water. It is time for Texas drinking water regulation to change.

[Word Count: 3200]

Works Cited:

1. "A Matter of Risk: Radiation, Drinking Water and Deception." *KHOU*, KHOU, 8 Nov. 2017, www.khou.com/article/news/health/a-matter-of-risk-radiation-drinking-water-and-deception/490341562.
2. *Public-Private Partnership Guidelines*. Texas Facilities Commission, Dec. 2015, www.tfc.state.tx.us/divisions/facilities/prog/planning/p3/PUBLIC-PRIVATE%20PARTNERSHIPGuidelines12-2015.pdf.
3. *Report Card for Texas' Infrastructure 2017*. Texas Section of the American Society of Civil Engineers, 2017, *Report Card for Texas' Infrastructure 2017*, www.infrastructurereportcard.org/wp-content/uploads/2016/10/FullReport-TX_2017_web.pdf.
4. Accounts, Texas Comptroller of Public. *Solar Power in Texas*, comptroller.texas.gov/about/policies/public-information-act.php.
5. Bernhardt, Courtney *et al.* *Don't Drink the Water*. Environmental Integrity Project, 2016, *Don't Drink the Water*, environmentalintegrity.org/wp-content/uploads/Arsenic-Report.pdf.
6. Cobler, Paul. "Why Are Texas' Smaller Utilities Not Cleaning up Drinking Water?" *The Texas Tribune*, Texas Tribune, 22 Jan. 2018, www.texastribune.org/2018/01/22/texas-drinking-water-contamination-problem-pronounced-rural-areas/.
7. Environmental Working Group. "EWG's Tap Water Database: What's in Your Drinking Water?" *EWG Tap Water Database*, Environmental Working Group, www.ewg.org/tapwater/system.php?pws=TX1870002.

8. Greenblatt, Mark. "Did Trump Environment Pick Tell the Truth?" *WGBA*, 9 Nov. 2017, www.nbc26.com/news/national/trumps-pick-for-key-environmental-role-tells-senators-she-did-not-underreport-water-contamination.
9. National Research Council (US) Safe Drinking Water Committee. "Radioactivity In Drinking Water." *Current Neurology and Neuroscience Reports.*, U.S. National Library of Medicine, 1 Jan. 1977, www.ncbi.nlm.nih.gov/books/NBK234160/.
10. Osborne, James. "Who Is Michael Honeycutt? Controversial Texas Toxicologist Plays against Type in Key EPA Role." *HoustonChronicle.com*, Houston Chronicle, 7 July 2018, www.houstonchronicle.com/business/article/Who-is-Michael-Honeycutt-Controversial-Texas-13054547.php.
11. "Private Water Suppliers." *The State of Texas Water*, Lone Star Chapter, www.texasstateofwater.org/screening/pdf_docs/texas_water_facts/factssupply3a.pdf.
12. Public Utility Commission of Texas. "Water Division." *PUCTX*, www.puc.texas.gov/industry/water/utilities/utilities.aspx.
13. "Radiochemicals and Drinking Water." *TCEQ*, Texas Commission on Environmental Quality, www.tceq.texas.gov/drinkingwater/chemicals/radionuclides.
14. "Safe Drinking Water Act (SDWA) and Federal Facilities." *EPA*, Environmental Protection Agency, 10 Oct. 2017, www.epa.gov/enforcement/safe-drinking-water-act-sdwa-and-federal-facilities.
15. "State Water Implementation Fund for Texas (SWIFT)*." *2002 State Water Plan | Texas Water Development Board*, www.twdb.texas.gov/financial/programs/swift/index.asp.

16. Texas Water Development Board. "Water for Texas - 2017 State Water Plan." Texas Water Development Board, 2016.
<http://www.twdb.texas.gov/waterplanning/swp/2017/doc/SWP17-Water-for-Texas.pdf>
17. The Attorney General of Texas, and Ken Paxton. "Public Information Act Handbook 2018." *Public Information Act Handbook 2018*, THE OFFICE OF THE ATTORNEY GENERAL OF TEXAS. www.texasattorneygeneral.gov/sites/default/files/2018-06/PIA_handbook_2018_0.pdf.
18. "Utili-Facts." Public Utility Commission of Texas, 2015.
<https://www.puc.texas.gov/consumer/facts/factsheets/waterfacts/WaterSupplyFAQ.pdf>
19. Walker, Bill. "170 Million in U.S. Drink Radioactive Tap Water. Trump Nominee Faked Data to Hide Cancer Risk." *EWG Tap Water Database*, Environmental Working Group, 11 Jan. 2018, www.ewg.org/research/170-million-us-drink-radioactive-tap-water-trump-nominee-faked-data-hide-cancer-risk.
20. "Water Utility Programs Regulated by the PUC." *TCEQ*,
www.tceq.texas.gov/agency/other-jurisdiction/water-utility-transfer-to-PUC.
21. Office of Water. "Understanding the Safe Drinking Water Act." Environmental Protection Agency, 30 June 2004.