

Environmental Justice Case Study in St. Clair Township, Michigan

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ABSTRACT

In St. Clair Township, Michigan, residents have filed a lawsuit against fossil fuel companies for negligence and unlawful contamination of their community. Our master's capstone team worked to support St. Clair Township residents in their fight for a healthier community in partnership with Freshwater Future and Families Reclaiming Our Environment. We sought to re-engage community members exhausted by a 40-year struggle and organize existing data detailing incidents from the 1980s to present day. These project objectives were met through hosting a community engagement event, conducting a survey to understand residents' sentiments towards the facilities, and synthesizing records into a comprehensive timeline. The community engagement event acted as an opportunity to meet residents and learn about their concerns, shaping the survey. Survey results revealed that although almost all respondents are aware they live near these facilities, only slightly more than half had prior knowledge of the facilities before moving into their current residence. Results also showed that a majority of residents have been or are concerned about water and air quality near their homes. About 48% of respondents have or are experiencing health issues that might be correlated with the air quality near their home. Residents also described long-standing frustration with the companies and government agencies, who they feel have failed to address the pollution from these facilities. At the same time, our archival process has begun telling the four decades long story of St. Clair Township and its relationship with these local fossil fuel facilities. While still a work in progress, the timeline has begun to piece together evidence showing how residents have been and still are overlooked in the decision-making processes of these harmful facilities. The timeline has also begun teasing apart the complicated relationships between regulators and jurisdictional complexities that have perpetuated this problem for far too long. Through this report, we provide multifaceted evidence that the petrochemical facilities in St. Clair Township harm a rural frontline community's health and quality of life and that government actors have failed to intervene. We make the case that environmental justice movements fighting petrochemical pollution must pay increased attention to previously overlooked sites within a massive geography of fossil fuel infrastructure.

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CHAPTER 1: INTRODUCTION

On an early April day in 2014, a terrible smell emerged in Venessa Davis's neighborhood. It smelled like petroleum, and although Ms. Davis and her neighbors in St. Clair Township, Michigan were used to occasional odors coming from the crude oil tank farm and pipelines across the street shown in Figure 1, this was worse than anything they had experienced in recent memory. Between April 1st and 3rd, the nearby Marysville Fire Department conducted several HazMat release investigations around the facilities, reporting crude oil odors but strangely finding no air quality readings of concern. When the fire department contacted Sunoco Logistics Partners L.P., hereinafter referred to as Sunoco, the company that owned the tank farm facility at the time, staff initially reported that there was no unusual activity and their routine investigations had shown no problems. It was only on April 3rd—when the smell had been hanging in the air for several days—that Sunoco discovered crude oil on top of the floating roof of Tank #43. By the morning of April 4th, 90,000 barrels of crude oil sat on top of the failed roof, releasing odors and toxic pollution into the air. It wasn't until nearly three weeks later that the Michigan Department of Environmental Quality (MDEQ, later restructured as EGLE), finally conducted an official investigation. The tank had been emptied by that time, and the inspector found the facility to be in full compliance with their air quality permits. Throughout all of this, the community surrounding the facility had no idea what was happening. Authorities failed to communicate the incident to residents, even as strong, sickening odors lingered in the air for months.

The facilities in question are located on Murphy Drive in St. Clair Township, Michigan, adjacent to Marysville and Kimball Township. The tank farm, which stores crude oil before it is transmitted to Detroit or Sarnia, Ontario, consists of six aboveground storage tanks. This facility is owned by Energy Transfer, formerly Sunoco. There is an unloading station on site, where trucks arriving from various locations dump their loads of crude oil to fill the tanks. A pipeline metering station next door, owned by Enbridge, pumps oil and gas through Line 5 and Line 6B, which pass under nearby residents' properties. Seven families live on Murphy Drive, which directly borders and faces these facilities, with many more residents living within one mile of this facility. In an otherwise rural community, these homes lie within areas zoned for heavy and light industry; many residents were unaware that the facilities existed when they first moved in. The neighborhood is regularly plagued by foul odors that cause nausea, headaches, and breathing problems, as well as contaminated water runoff that pollutes the land and water. These local impacts are exacerbated by major air and water pollution originating from a nearby refinery, other industrial facilities, and Chemical Valley, a massive petrochemical industrial region across the St. Clair River in Canada.



Figure 1. Map of St. Clair Township and Kimball Township residential homes in relation to petrochemical facilities.

Since the 2014 roof failure, Ms. Davis has been fighting for a clean and healthy environment in her neighborhood. Over the past ten years, she and her neighbors have contacted authorities at every level (from local officials to federal regulatory agencies), reporting ongoing odors, air quality concerns, and water pollution. She has sought explanations for the complicated and worsening health problems that she and her family are facing, and she has uncovered government documents revealing a long history of neglect and disdain from local officials and company representatives. In 2016, Ms. Davis and 18 neighbors filed a lawsuit against Enbridge and Sunoco, which is ongoing to this day. More recently, she has formed a grassroots organization with her neighbors called Families Reclaiming our Environment (FROE) to raise awareness about the local impacts of the fossil fuel industry and advocate for change.

Our student team first met Ms. Davis in January 2023, after the non-profit organization Freshwater Future (FWF), who has been providing support to FROE since 2021, connected us. For the past 16 months, we have partnered with FWF and FROE to support St. Clair Township residents in their fight against fossil fuel companies to ensure a safe and healthy living

environment with clean air and water. In partnership with Ms. Davis and FWF, we identified two primary problems for the project to address. First, there was a lack of digestible and coherent information available on the impacts of St. Clair Township's fossil fuel facilities. While Ms. Davis had accumulated years of documents, research, and personal stories, there was an urgent need to synthesize this data into a comprehensive resource for both residents and authorities. Second, there was a lack of engagement around this issue in the broader St. Clair Township community. While a small, dedicated group of residents have been fighting the companies for years, community participation has waned as the court case drags on and large-scale chemical release incidents have faded from people's memories. Therefore, in addition to the research and evidence gathering, it was critical for us to help build a broader base of support for FROE. These two problems required a coordinated, two-pronged approach of evidence synthesis and community mobilization. With this context in mind, we set two primary objectives for our capstone project:

1. Synthesize records and data into a living document library and timeline that clearly lays out the evidence of environmental harms, which residents can continue to update in the future and use in communicating with authorities and the public.
2. Re-engage local residents in this fight via outreach and organizing, including learning about resident's previous and current experiences with the facilities of interest through survey distribution.

To achieve these objectives, we completed four main deliverables, which we present in this report. First, we conducted a literature review and power analysis examining the regulatory and legal landscape, reviewing potential environmental and human health impacts, and drawing on the experience of other communities to situate this case in the larger landscape of environmental justice and anti-fossil fuel movements. This analysis is presented in Chapter 2 as well as the conclusion of this report. Second, we reviewed, archived, and synthesized hundreds of documents into a living library and developed a detailed timeline of events. These documents included inspection reports, public hearing meeting minutes, regulatory documentation, and internal communications between government agencies, company representatives, and residents. By synthesizing and organizing these records, we contribute to a comprehensive accounting of the environmental injustices that have occurred in this community. The results of this effort are reported in Chapter 3 of this report. Third, we co-developed a community engagement strategy with FROE. This included a community engagement event to kick off our project in June 2023, as well as a door-knocking campaign. These efforts are described in Chapter 4. Finally, we conducted a survey of residents in order to analyze awareness, perceptions, and perceived health impacts of the facilities. This survey allowed us the opportunity to better understand community members' lived experiences, concerns, and priorities in order to inform FROE's future actions. The results of this survey are also presented in Chapter 4.

In rural and exurban communities like St. Clair Township, residents face potent environmental health concerns from fossil fuel production, storage, transport, and processing. Yet despite an increased federal and state push for environmental justice initiatives, these rural and exurban communities are often overlooked and de-prioritized by regulatory agencies and public health institutions because they are less visible and perceived to affect fewer people. There are particular challenges associated with facilities that are too small to be regulated and may emit pollutants that fall below official standards/regulatory levels but still have very real impacts on the people who live next to them. A lack of data and disinvestment in civic infrastructure further contribute to residents' struggles to gain attention or meaningful responses.

This study tells the story of how one of these communities' residents' health and quality of life deteriorate due to one set of fossil fuel facilities and show the potential of grassroots coalitions to build power against the massive fossil fuel industrial complex. We present this case study in the hopes that it will provide comprehensive and multifaceted evidence that fossil fuel facilities in St. Clair Township are causing significant harm to community members and that government agencies have failed to respond appropriately

CHAPTER 2: SETTING THE SCENE

2.1 Petrochemical Industry in St. Clair Township and Beyond

Situated in the heart of the Midwestern United States, St. Clair Township, Michigan, emerges as a significant focal point in the discourse on environmental justice. Against the backdrop of petrochemical infrastructure, the community grapples with the longstanding repercussions of industrial pollution, corporate indifference, and regulatory inadequacies. St. Clair Township is a civil township situated within St. Clair County, with a total population of 7,144 individuals across an area of 38.4 square miles (US Census Bureau, 2022). The demographic composition of this population predominantly identifies as white (96.2%), with approximately 20% falling within the age bracket of younger than eighteen years old and 20% aged sixty-five and over (US Census Bureau, 2022). Moreover, while 95.4% of residents possess a high school education, only 23.2% hold a bachelor's degree or higher (US Census Bureau, 2022). The specific area of interest for this report is the vicinity within a 5-mile radius centered around Murphy Drive. Within this zone, there are 11,646 households, with a per capita income of \$52,183 (EJScreen, n.d.). Notably, 29% of these households are classified as low-income (EJScreen, n.d.). Furthermore, the average life expectancy in this area is reported to be 70 years, with 16% of the population identified as persons with disabilities (EJScreen, n.d.).

In the intricate web of power dynamics surrounding FROE's struggle, fossil fuel corporations like Energy Transfer, Sunoco, and Enbridge wield formidable financial and political influence, leveraging their resources to thwart opposition and shape regulatory frameworks in their favor (Appendix C). Energy Transfer is a prominent Texas-based investment grade master

limited partnership with an extensive network of over 120,000 miles of pipeline across 41 U.S. states (Business Overview, n.d.). Since its establishment in 1996, Energy Transfer has grown significantly, boasting a market capitalization of approximately \$30 billion by the end of 2021; with total revenues of \$40.6 billion reported for the year, Energy Transfer transports approximately 2.8 million barrels of crude oil daily (Business Overview, n.d.). Over the years, Energy Transfer has undergone strategic acquisitions, including the acquisition of Sunoco in 2012 for \$5.3 billion, leading to the formation of Sunoco L.P. Energy Transfer further expanded its operations by acquiring Susser Holdings and the General Partner of Susser Petroleum Partners L.P. for approximately \$1.8 billion, later merging with Sunoco Logistics Partners in 2017 and consolidating Energy Transfer Partners and Energy Transfer Equity in 2018 to form one unified entity known as Energy Transfer (Energy Transfer, 2012). Sunoco Logistics Partners L.P., a master limited partnership of Energy Transfer Partners, is a significant player in the wholesale motor fuel distribution and refined products transportation sector. Operating over 12,000 miles of pipeline systems across 21 states, after its acquisition by Energy Transfer in 2012, Sunoco shifted its focus to field distribution and midstream services (Sunoco Pipeline L.P., n.d.). In St. Clair County, Sunoco owns the Tank Farm at 250 Murphy Drive and real property on Gratiot Avenue in Marysville.

Enbridge Inc., a Canadian multinational pipeline and energy corporation headquartered in Calgary, is one of North America's largest energy infrastructure companies. Established in 1949 as the Interprovincial Pipe Line Company, Enbridge operates extensive crude oil and liquids transportation systems spanning over 17,800 miles of active pipelines across North America (Enbridge Quick Facts, n.d.). With a market capitalization of approximately \$83 billion and reported revenues of \$44.9 billion in 2021, Enbridge owns and operates real property in St. Clair County, including the Metering Station at 215 Murphy Drive in St. Clair Township, along with two oil pipelines, Line 5 and Line 6B, which pump through the Metering Station (Enbridge's Economic Impact on Michigan, n.d.). With their vast economic clout, these companies employ top-tier legal representation, lobby policymakers, and influence public discourse to maintain dominance (Appendix C). In contrast, St. Clair Township residents, with limited financial means and political connections, face an uphill battle challenging these corporate giants, underscoring the inherent power imbalances engrained in environmental justice struggles .

The regulatory landscape surrounding fossil fuel facilities in St. Clair Township is characterized by fragmentation and complexity, allowing companies like Enbridge and Sunoco (Energy Transfer) to exert significant economic and political influence. These facilities, including storage tanks and pipelines, fall under the purview of various local, state, and federal agencies, including the Michigan Department of Environment, Great Lakes, and Energy (EGLE), leading to jurisdictional challenges and regulatory gaps. Odor complaints, for instance, are often shuffled between agencies without resolution, further entrenching the power dynamics favoring the fossil fuel industry. This regulatory maze has spurred multiple legal battles, including *Venessa Davis v. Sunoco Pipeline Limited Partnership*. In December 2016, Ms. Davis and eighteen other plaintiffs filed a complaint in St. Clair County Trial Court against Sunoco,

alleging a claim for nuisance and negligent nuisance based on the allegation that Sunoco failed to properly maintain its underground storage tanks, leading to contamination of their properties, thus violating state and federal laws, regulations, and industry standards by failing to properly inspect, maintain, and report leaks and spills promptly (*Davis v. Sunoco Pipeline Ltd. P'ship*, 2016). In the ongoing legal battle, Ms. Davis and fellow St. Clair Township and Kimball Township residents argue that Sunoco (Energy Transfer) and Enbridge exploit regulatory loopholes and jurisdictional differences to evade accountability. Similar battles have unfolded in other jurisdictions, highlighting the tension between local, state, and federal regulations and reflecting a broader pattern of industry influence and the challenges communities face seeking justice against powerful corporate interests.

At a broader level, the pervasive influence of fossil fuel companies underscores the entrenched reliance on oil and gas within our society's capitalist economy. This dependency extends to residents and local governments alike, who often rely on these companies for employment opportunities and revenue, fostering a reluctance to oppose them, even among progressive politicians. These dynamics vividly illustrate systemic flaws within our society. However, amidst these challenges, grassroots organizations like FROE, bolstered by allies such as FWF, offer a beacon of hope. Through strategic partnerships and coalition-building efforts, these groups possess the potential to amplify their voices and exert pressure on decision-makers. The injustices faced by communities like St. Clair Township resonate globally. We hope this project will draw attention to the power imbalances and systemic issues, as well as empower the residents of St. Clair Township. By contributing a new case study within this broader context, our capstone group aims to connect with existing movements and initiatives, shedding light on and learning from shared experiences. Through collaboration and solidarity, we endeavor to pave the way towards a more just and sustainable future for all.

2.2 Chemicals & Health Impacts

The facilities we focus on in this project include a crude oil tank farm, unloading station, pipeline metering station, and pipelines. In general, petrochemical extraction and processing operations emit a wide range of dangerous pollutants, including particulate matter, polycyclic aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs) (Ragothaman & Anderson, 2017). Communities living near oil refineries have higher rates of cancer, respiratory diseases, adverse reproductive outcomes, neurological problems, and other health conditions (Domingo et al., 2020; Marquès et al., 2020). Because of these known risks, most government regulations and academic literature on petrochemical pollution focus on fossil fuel production (e.g. drilling, fracking) or oil refineries; there is less information available on storage facilities and pipelines, particularly smaller storage facilities that may not face as much regulatory scrutiny. However, the storage and transportation of fossil fuels also creates significant pollution and health problems (Donaghy et al., 2023; Ragothaman & Anderson, 2017). While the community we work with faces major air pollution from nearby oil refineries in both Marysville and across the St. Clair River in Sarnia, Ontario, we focus here on potential health impacts

arising directly from the local tank farm and pipeline facilities in St. Clair Township. These storage and transport facilities may emit different types of pollutants compared to processing facilities like refineries, and can cause their own serious health impacts, especially when combined with environmental exposures from the surrounding industries.

The most common type of air pollution from petroleum storage facilities is VOCs, particularly aromatic hydrocarbons such as benzene, toluene, hexane, ethyl benzene, and xylenes (BTEX) (US EPA, 2017). BTEX often co-occur and are associated with a wide range of health impacts including acute respiratory irritation, lung damage, increased risk of leukemia, liver and kidney damage, and a variety of neurotoxic effects (Davidson et al., 2021). Toxicology studies suggest that the neurobehavioral effects of BTEX chemicals include impaired motor function, loss of coordination, impulsivity, deficits in learning and memory, and altered neurotransmission (Davidson et al., 2021). While many studies have focused on the acute effects of these compounds in occupational settings, a growing body of evidence demonstrates that even chronic lower-level environmental exposure—such as that faced by frontline communities—is associated with adverse health outcomes (Bolden et al., 2015; Montero-Montoya et al., 2018). For example, individuals with exposure to ambient, outdoor BTEX concentrations experience higher rates of reproductive and developmental health impacts, cardiovascular disease, and respiratory problems such as asthma (Bolden et al., 2015).

In addition to BTEX chemicals, hydrogen sulfide (H₂S) is a major chemical of concern at the St. Clair Township tank farm and pipeline facilities. H₂S is an acutely poisonous gas associated with petroleum. When inhaled at high doses, H₂S causes severe respiratory distress and nervous system damage, including coma and potentially death (Agency for Toxic Substances and Disease Registry, 2016). Such an acute incident occurred at the study location in 1988, when high levels of H₂S were released during an oil spill at the St. Clair Township facility and five nearby residents were hospitalized. At lower doses, acute symptoms of H₂S exposure include eye and nose irritation, headaches, nausea, breathing problems, and fatigue (Agency for Toxic Substances and Disease Registry, 2016). In addition, long-term exposure to low concentrations of H₂S, well below current regulatory limits, can cause respiratory, ocular, nasal, and neurological health effects (Batterman et al., 2023). In particular, studies have shown that chronic low-dose exposure to H₂S can cause central nervous system dysfunction, including problems with memory, balance, hearing, and neurological function (Kilburn et al., 2010).

Many of the chemicals released by petrochemical facilities cause strong odors, such as H₂S' "rotten egg" smell, which can be detected miles from the facilities producing them (Motalebi Damuchali & Guo, 2020). Odor detection thresholds—the concentrations at which a chemical smell becomes noticeable—are often below established toxicity thresholds that are proven to cause long-term health effects (ATSDR, 2017; Piccardo et al., 2022). Nonetheless, odors themselves can cause health effects even when the substances causing them are present in amounts below these toxicity thresholds (ATSDR, 2017; Piccardo et al., 2022; Schiffman & Williams, 2005). Persistent environmental odors can cause dizziness, nose and throat irritation, headaches, coughing, and exacerbation of respiratory conditions like asthma (ATSDR, 2017).

H₂S odors specifically have been shown to have health effects even at very low concentrations (Schiffman & Williams, 2005). It is therefore important to consider not just whether air pollution concentrations meet established toxicity thresholds, but the impacts of chemical odors even at extremely low concentrations.

In addition to the toxic air pollution and odors discussed so far, chemicals including metals, PAHs, and per- and polyfluorinated substances (PFAS) from fossil fuel operations can also contaminate the surrounding soil and groundwater, further exposing frontline communities to health risks. Finally, people living around petrochemical infrastructure may also suffer health impacts from chronic noise and light exposure. Noise exposure is associated with not only hearing loss and tinnitus, but with sleep disturbance, psychological stress, cognitive impairment, and cardiovascular health impacts (Moudon, 2009). It is not just the environmental exposures themselves that cause harm, some research has found that community *perceptions* of hazardous pollution and health risks can influence the development of physiological health symptoms and disease (Orru et al., 2018). Living around chronic environmental contamination causes both community-level and individual-level psychological stress, which can lead to long-term health impacts and impair the community's capacity to respond to contamination (Couch & Coles, 2011; Schmitt et al., 2021). All of these exposures and experiences interact and compound one another, creating complicated and disproportionate health risks for frontline communities such as the ones in St. Clair Township.

2.3 Historical Trends & Environmental Impacts

Local Water Quality

Residents in St. Clair Township obtain water from various sources (private wells, city, or bottled), as reflected in the survey. Still, it is important to note that the city's water supply is sourced from the St. Clair River (USDA, 2021). In the most recent water quality report published by St. Clair Township, the water quality of the St. Clair River is considered highly susceptible to contamination based on "geologic sensitivity, water chemistry, and contaminant sources" (USDA, 2021). Despite the river's high susceptibility to contaminants, the pollutants found in this report were not concentrated enough to pose a health risk to St. Clair Township residents. It should be noted, though, that there were contaminants that were close to the threshold for action/response set by the United States Environmental Protection Agency (EPA) (USDA, 2021).

Chemical contaminants coming from oil storage, pipeline, and offloading stations in St. Clair Township have been able to contaminate this highly susceptible water supply via runoff from these facilities, as shown in Figure 2. These contaminants could run into surface water following rainstorms or from facilities manually flushing out water from their properties. For residents using private wells—which many of the homes directly bordering the facilities have—runoff can also contaminate their groundwater. In Figure 3, a resident of St. Clair Township is shown lighting their water on fire due to contamination of their well water.



Figure 2. Water is being flushed systematically from Energy Transfer’s Property to a neighboring residents property.



Figure 3. Ms. Davis, a St. Clair Township resident, lighting home water supply on fire due to contaminants present in the water.

St. Clair Township is not the first in Michigan to be at risk of water contamination from oil operations, specifically Enbridge operations. As discussed later in this paper, on July 26th, 2010, an Enbridge pipeline was ruptured in Marshall, Michigan and released more than 1 million gallons of crude oil into a small tributary that flowed into the Kalamazoo River (US EPA, 2016). Enbridge took years to clean up the spill (US EPA, 2016). Although there were no “significant fish kills,” major restoration was required for the river and riverbanks (Kalamazoo River Watershed Council, n.d.). While Enbridge did significant work to restore the river and surrounding vegetation, the clean-up was not perfect; for instance, there was friction with residents regarding the removal of a dam and oil still remaining in the water (Kalamazoo River Watershed Council, n.d.). St. Clair Township faces similar risks with Enbridge and Energy Transfer regarding the St. Clair River, groundwater, and the local water supply.

Local Air Quality

As mentioned, a major concern in this case study is elevated BTEX (VOC) levels in the area, which cause adverse health effects discussed throughout this report. While human health is discussed throughout the paper, it is important to consider how wildlife is also affected by BTEX VOCs associated with storage and offloading facilities, such as the ones in St. Clair Township. It has been found in early studies that more intense exposures to BTEX chemicals create a higher risk of kidney and/or liver damage to animals (Davidson et al., 2021). Because of the few studies showing how the chemicals negatively impact lab animals, more observational research should be conducted to better understand how humans and wildlife will be affected at different exposure levels (Davidson et al., 2021).

The levels of VOCs, specifically BTEX pollutants in the atmosphere, are projected to increase with time (Davidson et al., 2021). This will increase exposure to the chemicals and their associated adverse impacts. Exposure level is one of the most important factors in assessing risk and was measured at different levels in the prior studies mentioned. Regarding the St. Clair Township community, many residents live across the street from fossil fuel facilities. They are likely at a greater level of exposure to these air pollutants than residents living a couple of miles away. For community members in St. Clair Township residing near the facilities, this means that in addition to the predicted rise of VOCs in the air over time, there is also an accelerant (the facility) that will increase the exposure and associated adverse impacts at an even faster rate to residents (Davidson et al., 2021). It is difficult to consistently know the specific exposure levels of the VOCs that residents in St. Clair Township experience, as the nearest EGLE air monitoring station for VOCs is located in southwest Detroit, about 57 miles away from the facilities of concern (EGLE, 2021).

Studies such as Thawatchai and Chaiklieng in Thailand are being conducted to begin understanding the exposure risks of BTEX chemicals in relation to fossil fuel storage and offloading facilities (Thawatchai & Chaiklieng, 2019). This study in Thailand assessed the hazards that BTEX exposure at oil storage facilities poses to facility workers, nearby residential areas, and other community members (Thawatchai & Chaiklieng, 2019). One of the study's clear findings is that based on exposure levels, workers in close proximity to tanks should be wearing personal protective equipment (PPE), and a "health surveillance" program should be implemented (Thawatchai & Chaiklieng, 2019). As VOCs rise in the air at fast rates due to accelerants like storage and offloading stations in St. Clair Township, more studies like the one in Thailand will likely need to be conducted to understand further the effects of increasing exposure levels of BTEX in the atmosphere, particularly for nearby communities that may have lower-dose but longer term exposure than workers.

Local Soil Type

St. Clair Township has several features in common with soils across St. Clair County, MI. According to the United States Department of Agriculture's Official Series Description on St. Clair soil conducted in 2001, the soils found in this region are characterized in the following ways:

- Generally, the soils are "very deep, moderately well-drained soils."
- The textures throughout the different horizons remain somewhat consistent as "silt loam, silty clay loam, or clay loam; silty clay or clay where severely eroded."
- The soils are considered "moderately well drained" in this region. The "potential for surface runoff is medium on the gentler slopes to high on the steeper slopes"... "[and] permeability is slow."
- A lot of the soils in the area have been converted to crop ranges for "corn, oats, wheat, soybeans, clover, and alfalfa."

Because of the increased chance of drainage and runoff in these soils, the water in St. Clair Township is at a greater risk for contamination. Contaminants not flushed out of the soil will also deter the growth of crops in the region, harming farmers financially.

2.4 Legal & Regulatory Research

In December 2016, Ms. Davis and eighteen other plaintiffs filed a complaint in St. Clair County Trial Court against Sunoco, alleging a claim for nuisance and negligent nuisance (Appendix B). The plaintiffs allege that Sunoco failed to properly maintain its above ground storage tanks, leading to contamination of their properties, thus violating state and federal laws, regulations, and industry standards by failing to properly inspect, maintain, and report leaks and spills promptly (*Davis v. Sunoco Pipeline Ltd. P'ship*, 2016). Sunoco argued that the complaint was preempted by the Pipeline Safety Act (PSA), which requires a federal standard of care to be pleaded for claims related to interstate pipelines and facilities, and asked the court to decide the case in their favor without a trial (*Davis v. Sunoco Pipeline Ltd. P'ship*, 2019 Mich. App. LEXIS 5251 (Mich. Ct. App., Sept. 6, 2019), 2020). The trial court denied Sunoco's motion for summary disposition but required plaintiffs to file an amended complaint to "mirror federal standards." In June of 2020, the St. Clair County Circuit Appeals Court found that the state and local regulations, Mich Admin Code R 336.1901 and St. Clair County Ordinances, 75, § 2(a)(3) (Appendix B), which the plaintiffs relied on were not related to pipeline safety and therefore not preempted by the PSA (*Davis v. Sunoco Pipeline Ltd. P'ship*, 2019 Mich. App. LEXIS 5251 (Mich. Ct. App., Sept. 6, 2019), 2020). The appeals court decided that the trial court's dismissal of some claims in the plaintiffs' second amended claims was incorrect, and the plaintiffs' nuisance claim was reinstated (*Davis v. Sunoco Pipeline Ltd. P'ship*, 2019 Mich. App. LEXIS 5251 (Mich. Ct. App., Sept. 6, 2019), 2020). In 2021, the Supreme Court of Michigan declined to review the case further, stating that the issues raised did not warrant their attention (*Davis v. Sunoco Pipeline Ltd. P'ship*, 2021). However, the case remains ongoing and additional details will emerge soon.

Meanwhile, approximately 300 miles northwest along the same pipeline that runs through Murphy Drive, a complex legal saga has been unfolding since 2019. This case involves Line 5 operations in the Mackinac Straits, embroiling Michigan Governor Gretchen Whitmer, Enbridge, and the people of Michigan. Initially, the People of Michigan sought to revoke the 1953 easement for the pipeline operations, alleging violations of public trust for which the easement should be voided (*Michigan v. Enbridge Energy, Ltd. P'ship*, 2021). However, in 2021, Enbridge contended that state jurisdiction did not apply, asserting federal jurisdiction and maintaining operations. Despite persistent efforts by Michigan to terminate the easement, Enbridge countered with federal claims against Governor Whitmer, citing the Supremacy Clause and the PSA (*Michigan v. Enbridge Energy, Ltd. P'ship*, 2021). The U.S. District Court consistently ruled in favor of federal jurisdiction, emphasizing interstate and foreign commerce considerations (*Michigan v. Enbridge Energy, Ltd. P'ship*, 2021). Against this legal backdrop, The U.S. Department of Justice (DOJ) has recently attempted to intervene in the Line 5 case brought by

the Bad River Band of Lake Superior Chippewa against Enbridge. In June of 2023, a federal court deemed Line 5 a “public nuisance,” warning of its potential to contaminate drinking water, harm wildlife, and damage the regional economy, yet the court disregarded over a decade of trespassing on the Band’s land by permitting Line 5’s continued operation until June 2026 (*Line 5 Pipeline: Tribal Groups Respond to DOJ’s Amicus Brief*, 2024). Despite acknowledging Enbridge’s lack of legal right to maintain its pipeline on tribal land, the DOJ has yet to propose a remedy to stop the harm to the Band, leaving the issue unresolved (*Line 5 Pipeline: Tribal Groups Respond to DOJ’s Amicus Brief*, 2024). Numerous stakeholders including the United Nations Permanent Forum on Indigenous Issues are calling on the U.S. and Canadian governments to formally weigh in on the issue and ultimately shut down Line 5 (*Line 5 Pipeline: Tribal Groups Respond to DOJ’s Amicus Brief*, 2024). The upcoming 2024 presidential election carries significant weight in determining the fate of Line 5, highlighting the pressing need for the Biden administration to swiftly address the growing risk of a potentially catastrophic spill, imperiling the Bad River Band, neighboring tribal nations, and over 40 million individuals dependent on the Great Lakes, including St. Clair Township. This legal case, situated along the same pipeline that passes through the St. Clair Township facilities, could have major repercussions for the operation of the Murphy Drive facilities and for the jurisdictional issues at play in Ms. Davis’ lawsuit.

Contemporary nuisance suits such as the Bad River Band of Lake Superior Chippewa Line 5 case and Ms. Davis’ ongoing lawsuit draws parallels between historical smoke nuisance suits of the nineteenth century, illuminating the dynamic evolution of judicial attitudes toward environmental harm. As the United States underwent industrialization, the burning of dirty coal in new factories led to pervasive air pollution, characterized by dense, black smoke in cities; in response, citizens formed grassroots organizations, advocated for local government regulations, and initiated nuisance lawsuits against factory owners (Markey, 2022). Initially, judges dismissed smoke nuisance claims on technical grounds; the success of cases dependent on the industry involved while suits against traditional industries like slaughterhouses faced judicial skepticism, those against newer industries like mills and factories encountered a lack of understanding about the nature of pollution (Markey, 2022). Overtime, judges adopted a rudimentary balancing doctrine to reconcile environmental harm with economic benefits. However, by the turn of the 20th century, courts in states heavily affected by smoke pollution such as Pennsylvania and New York, shifted towards a standard of prima facie nuisance holding that no court ought to “refuse to protect a man in the possession and enjoyment of his property” even when it may destroy industry (Markey, 2022). Ultimately, the transition from disregarding smoke nuisance lawsuits to embracing them was driven by three primary factors: increasing pollution expenses, a shift in public sentiment, and advancements in abatement technology (Markey, 2022).

Similarly, modern courts confront the complexities of climate nuisance suits, exemplified by cases like *Native Village of Kivalina v. ExxonMobil Corp.*, which wrestle with the challenge of holding corporations accountable for greenhouse gas emissions without endangering or weakening the economy. The enactment of local legislation, such as Pittsburgh's 1906 Weber

Bill, which established a Bureau of Smoke Regulation and drew upon prior Pennsylvania legal precedents to define the threshold of smoke deemed a nuisance, underscores the instrumental role of local nuisance ordinances and common law in shaping environmental policy at the grassroots level (Markey, 2022). The historical narrative vividly illustrates how litigation has served as a catalyst for reshaping judicial perceptions and ultimately advanced environmental justice. Contemporary public nuisance suits and climate nuisance suits could instigate a similar shift, particularly pertinent to Ms. Davis and St. Clair Township. At its core, both smoke and climate nuisance suits encapsulate a fundamental clash between the entitlement to clean air and the prerogative to pollute. Markey argues that existing regulatory frameworks fall short in reconciling these entitlements, compelling private citizens such as Ms. Davis and municipalities, including Michigan, to resort to nuisance lawsuits to safeguard public health and welfare amidst federal inaction (Markey, 2022). Despite the vigorous and expensive nature of court proceedings, these legal actions serve as crucial moral imperatives, empowering local communities to urge municipal, state, and federal authorities to hold polluting industries accountable, and safeguarding both property rights and the right to enjoy a safe and clean environment.

CHAPTER 3 - HOW DID WE GET HERE?

3.1 Introduction

From the beginning of this project, we were challenged to organize and compile several hundreds of documents into a living document library and timeline that tells the story of the environmental injustice in St. Clair Township created by Buckeye Pipeline, the original owners and operators of the facilities that spurred the first round of lawsuits from residents, Enbridge Energy Inc. and Sunoco (Energy Transfer) from the 1980s to the present day. Ms. Davis has been collecting documents reflecting the environmental injustice for years, including documents from government correspondence, incident reports, air quality data, water quality data, news articles, town hall meetings, relevant ordinances, etc., all to help bolster her case in court that Enbridge Inc. and Energy Transfer, formerly Sunoco are breaking the law and taking advantage of the community.

The narrative created by organizing these documents can also be used for community members, FROE, and FWF to plan their points of intervention moving forward in the fight for justice. The history of relationships and influence throughout the documents is translated to a power analysis format to identify these actors and their role in the injustice or capacity to help address it. The power analysis is a tool created for community intervention based on the historical data used for the timeline.

3.2 Methods

Our process began with creating an initial power analysis based on the background information of the environmental injustice given to us by Ms. Davis and FWF before delving into the already accumulated historical documents. The power analysis (Appendix D), a visual tool used to analyze actors and likely points for intervention, helped lay the foundation and background for our team to know what actors and relationships to look for throughout our timeline creation process. We created the power analysis through the following steps:

1. Based on initial conversations and introductions with Ms. Davis and FWF, we compiled a list of relevant actors within the fossil fuel facilities' pollution issue in St. Clair Township.
2. We researched active allies/partners, aligned actors (including those not yet actively connected to the issue), opposing actors, and regulators/governing bodies involved in the St. Clair Township issue.
 - a. We used this research to add to the growing list of relevant actors to include in the power analysis.
3. Research was conducted on all actors' level of influence in decision making that could alter the community's goal for a healthier and more breathable community. We assessed if the actor was likely to support this goal or oppose it.
4. Based on the research of each actor, they were situated on a power map (Appendix D). The vertical axis ranges from "Not on Radar," representing actors with little influence and decision-making power to "Decisive Decision-making Power or Influence," representing actors who have significantly more authority. The horizontal axis ranges from "support" to "opposition" based on whether or not actors were in favor of or opposed to the healthy and breathable community goal.
5. Connections between the different actors were mapped to show how different actors may already influence and support one another through financial or logistical support.
6. Lastly, before the assessment process, major economic, social, or political conditions, current issues/policy battles, and regulatory oversight connections were included to add context to the current state of the relationships between actors and issues in St. Clair Township.

The creation of a power analysis of actors in relation to the goal of improving the breathability and health of St. Clair Township was utilized to start pinpointing where the best points of intervention will be for FROE and community members to focus their efforts on in future organizing efforts. The objective is to identify individuals or organizations within the power analysis who are accessible, possess some level of influence, and who are not yet fully committed to the goal of a healthier community. Key entities such as the Michigan Environmental Justice Coalition (MEJC), Pipeline Safety Trust, and the UM School of Public Health emerge as potential collaborators. Additionally, establishing connections with

Aamijwnaang and Sarnia Against Pipelines (ASAP) (a grassroots organization that has led “Toxic Tours” to advocate for a healthier environment in Sarnia, Ontario) is crucial (The Land and the Refinery Project, 2019). Subsequently, the analysis pinpoints decision-makers whom this collective should target to influence and intervene against fossil fuel companies. This process of noting who to align with to work towards the healthy and breathable community goal allows for a small community to ensure their voices are heard among a wide range of actors that have significantly more influence in solving this issue.

Once we had a foundation of knowledge laid with the power analysis, the document reading and organizing began. Our team put together a procedure for analyzing and organizing each document in chronological order as follows:

1. Read the document in its entirety
2. Identify key actors, including who is writing/creating the document
3. Identify key summary points
4. Insert key information about the document into the timeline (Google Sheet), including date of occurrence, link to the document, important actors, reporting division, and a short summary about the contents of the document
5. If there is any context missing that would help a reader understand the document, a comment was left on the sheet for Ms. Davis to look over and add any outstanding information

Our team reviewed over 300 documents related to this case study. However, due to the volume of documents and photos shared by Ms. Davis, many additional unprocessed documents remain. . To ensure the project could be completed in the future, we created an instructional video of the archival process and how to operate the timeline on Google Sheets and shared it with Ms. Davis and FWF. The video can be shared in the future with other members of FROE who can help Ms. Davis maintain the living document library as well.

3.3 Timeline

The full timeline as of April 20th, 2024 can be found in Appendix I. Georgina Johnston (MS ‘24) helped to create a shorter timeline shown below in Figure 4 for media purposes with key dates and information.

FAMILIES RECLAIMING OUR ENVIRONMENT

Families Reclaiming Our Environment (FROE) is a neighborhood organization in the Pickford Rd-Murphy Dr area of St Clair Township, MI. FROE aims to raise awareness of the impact of fossil fuel pollution in the community and is working to compile and synthesize evidence of environmental harm.

FROE presents the following timeline:

TIMELINE OF POLLUTION IN ST CLAIR AND KIMBALL TOWNSHIPS AND THE RESPONSE OF RESIDENTS

1st Odor Incidents

Buckeye Pipeline Co., Liquid Transport Co. and Sun Refining & Marketing Co operate fossil fuel facilities in the area. Residents begin smelling foul odors and in 1986, oil spill fumes cause residents to experience headaches and nausea

1985-1986



MAR 1988

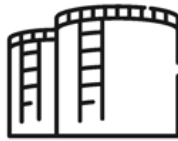
Evacuation and Hospitalizations

Toxic fumes force 70 St. Clair Township residents to be evacuated from their homes. 5 are hospitalized. The Department of Natural Resources say the fumes are from a crude oil spill.

Residents file a lawsuit

Seven lawsuits are filed against the three companies by 14 residents. After settlement, some residents move away while the facilities continue operating under different names.

APRIL 1988



AUG 1999

Sunoco Tank Malfunction

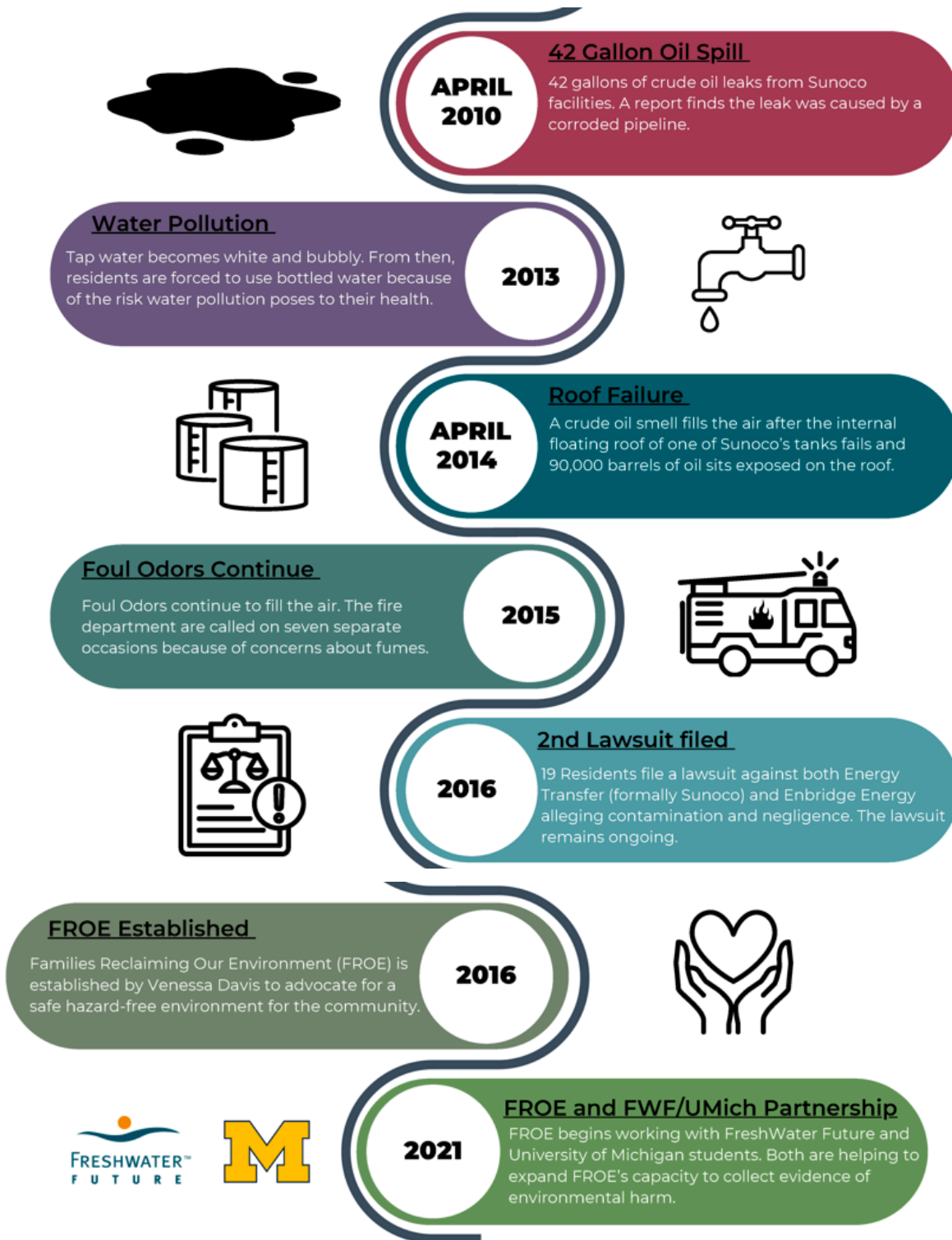
An oil storage tank malfunctions causing air pollution. Sunoco fails to report the issue. The company is presented with a violation notice by the Department of Environmental Quality.

Oil Spill caused by system failure

An equipment failure causes 20 gallons of oil to be spilled from the Enbridge Line 5 facility.

2005





<https://www.facebook.com/Justice4FROE>

Figure 4. Timeline of key dates created by Georgina Johnston for a University of Michigan course.

3.4 Analysis: Emerging Themes

While it is important to note that the timeline is incomplete, and many more themes and trends may arise as documents continue to be archived, there are several themes that have begun to emerge from what has been compiled thus far.

The first theme that took shape was residents have consistently been ignored, dismissed and overlooked by regulators entrusted to protect the community from harm. Throughout several documents, including formal complaints and email correspondences between regulators, regulators are disregarding and avoiding requests for actions against the polluting facilities. Although the reason behind the dismissal of complaints or complacency in addressing them is unclear based on what the student team read and organized, there is a recurring pattern of regulators not fulfilling their responsibilities in taking complaints seriously and addressing them to their fullest extent.

The second recurring theme thus far is the importance of timing in regards to air monitoring and the difficulty of regulating variable emissions. When odors from the facilities are strong, residents make complaints to the local fire department or EGLE. When these complaints are investigated, the fire department or EGLE official often notes faint smells and remnants of odors. Oftentimes, the Marysville Fire Department notes sulfur or gas smells in the air, but by the time they arrive on the scene, their meters do not pick up what their noses do. When EGLE receives complaints, it often takes them hours, days, or even weeks to reach the site for investigation. By the time a representative arrives on site, facility operations or winds have changed and no odors remain. This results in gaslighting by officials, who record that no problems were found even though their investigation occurred long after the initial complaint was made. This slow response time and lack of consistent air monitoring to act as evidence of the odors has created a dynamic between Ms. Davis and regulators, in which officials no longer respond seriously to complaints made regarding the odors.

The third theme that presents itself is the inconsistencies between facility addresses for permitting and regulatory concerns. Although there is no evidence yet in the research that this has had an impact on the situation in St. Clair Township, it should be noted as an emerging theme that varying addresses could tie in to confusion over jurisdiction mentioned in the fourth theme. The facilities have reported slightly different addresses with nuances such as using “Marysville” vs. “St. Clair Township” that makes it difficult to track them consistently through documentation. For example, the permits for the tank farm and metering station list the Murphy Drive addresses as being in Marysville, when they are actually in St. Clair Township.

These address inconsistencies that Ms. Davis points out in her handwritten notes in the margins of several documents contributes to the fourth theme that is expressed in the documents and verbally from Ms. Davis: confusion regarding who has jurisdiction when and where. Knowing who to call and who is in charge of regulating specific parts of the operations in the facilities is complex and leads to regulators sending residents like Ms. Davis from office to office looking for support and resolution.

3.5 Discussion

The timeline provides detailed information to reinforce our initial findings from the power analysis while providing us with more insight into how the power analysis can be improved. During the creation of the power analysis, we encountered challenges in identifying the relevant agencies and regulators with jurisdiction over the facilities and operations, which represent crucial points of intervention against their environmentally harmful practices. The document review revealed that regulators are aware of their roles in overseeing facility operations; however, they encounter challenges in navigating the intricate network that explains how regulators collaborate with one another to supervise operations by Enbridge and Energy Transfer. We sought advice on navigating the relationships being uncovered in the documents by seeking out information from Michigan pipeline experts. We learned through these conversations that PHMSA has jurisdiction over the product in the pipeline, but as soon as the product comes out of the pipe (for any reason), it falls under the EPA or state authorities (in this case EGLE) (Beth Wallace, Personal Communication). In addition to this, pipeline safety is considered a federal issue until it's considered a "nuisance," in which case it then becomes a state issue (Beth Wallace, Personal Communication). Oftentimes, those that are running facilities like these aim to avoid nuisance status to remain under federal jurisdiction where the standards are lower and the regulating offices are under resourced (Beth Wallace, Personal Communication). This lack of clarity regarding jurisdictional boundaries and regulatory relationships suggests a need for intervention strategies that involve collaborating with elected officials to ensure residents are informed about whom to contact and when, thus ensuring complaints are addressed promptly and effectively rather than dismissed. As we continue to delve deeper into the documents, residents will gain a better understanding of the regulatory landscape, enabling them to target messaging more effectively and know whom to contact in various situations regarding facility operations.

3.6 Conclusion

This timeline will aid FROE in their fight for justice in several ways. The timeline is a document library linking the user to each described document. By storing all the documents in one place, users can easily search keywords and navigate to the desired document and information. This can help someone pull necessary information quickly. The timeline also acts as a living document library, meaning that as more relevant information is found or current events unfold, documentation can still be added or amended.

The documents will support residents in adjusting and adding to the power analysis created by the student team in more detail. This will help residents and FROE navigate the planning process for further intervention with elected officials, regulators, and companies.

CHAPTER 4 - COMMUNITY IMPACTS AND ENGAGEMENT

4.1 Introduction

The second primary objective of this project was to re-engage community members impacted by the fossil fuel facilities in the study neighborhood. By engaging with the broader community, we hoped to 1) better understand the impacts of the St. Clair Township petrochemical facilities on residents' health and everyday lives and 2) to support FROE in mobilizing additional community members for their cause.

To date, FROE's advocacy efforts have been primarily led by a small group of residents. While there was more widespread community concern during crises, such as the 2014 Sunoco tank roof failure, FROE's leaders have reported declining community involvement over time. There is a sense of fatigue among community members who have been fighting against pollution for many years without seeing any change. In addition, Ms. Davis reports that chemical releases and odor events fade from residents' memories, leading to less engagement with the issue during the time periods between crises. Yet the underlying power relations have not changed, and the threat of another chemical release is constant. In this context, a critical but challenging task for FROE is to build a consistent and active base of support. To bolster base-building and engagement efforts, we organized a community event in June 2023.

In tandem with community engagement efforts, we sought to evaluate a broader group of residents' perspectives on the fossil fuel facilities in their neighborhood. We designed and implemented a survey focusing on awareness of the facilities, perceptions of the companies and local government, and health impacts from toxic pollution. In August 2023, we conducted a door-knocking campaign where we distributed surveys and shared information about FROE's work. This survey identified priority impacts and concerns among residents. It also serves as an exploratory study on the health outcomes that residents are experiencing, providing evidence for the need for a larger-scale health impact assessment.

4.2 Community Engagement Event

To kick off the project's outreach and engagement, we helped organize an event with FROE in June 2023 in order to build relationships with community members. The event was designed to introduce the student team to the community, gather input to inform the next stages of our project, share information about FROE's work, and invite people to join FROE and participate in our project. The event involved a cookout held at a local public park, with time to socialize, give brief presentations, and hold space for discussions on the goals of our work with FROE.

Prior to the event, Ms. Davis and another member of FROE distributed flyers advertising the event within the neighborhood and at a local shopping center to generate more attendees and

interest. For the event, we created handouts for attendees that included an overview of FROE and its mission, an introduction to the student team, and a list of contacts in case of environmental emergencies (see Appendix E).

The event agenda was designed by the student team and Ms. Davis. After time for people to arrive, eat lunch, and settle in, several speakers gave brief presentations. Ms. Davis welcomed everyone in attendance and introduced FROE. Kristen Haitian from FWF introduced FWF's work and offered their support to both FROE and the capstone team. The student team then gave a brief overview of our capstone team and our goals. Finally, our project advisor Michelle Martinez, Executive Director of SEAS Tishman Center for Social Justice and the Environment, shared her experiences with environmental justice activism and talked about how this work connects to work being done in communities across Michigan. Following these brief remarks, the student team led a discussion to answer any questions from participants and to solicit feedback on next steps of the project. There was then additional time for informal discussion. Before leaving, participants were asked to complete a brief questionnaire (see Appendix E1) about whether they would like to join FROE, whether they'd be willing to participate in a future survey by the capstone team, and their availability for future meetings.

Approximately 10-15 adults, plus a number of children, attended the event. Eight individuals completed the questionnaire, out of which six expressed interest in joining FROE. Our student team received direct feedback from those attending the event, which informed our survey design and focus. Attendees shared their concerns and emphasized the need to generate media attention, suggesting trusted local news sources that might be a good avenue for sharing FROE's story.

Through this experience, we recognized that we needed to collaborate further with Ms. Davis to better understand her vision for community participation in FROE. Initially, we had planned to hold a series of follow-up events in order to co-design a community action plan. However, in the process of creating follow-up materials with Ms. Davis and FWF, we realized that FROE needed additional time to internally refine its vision, structure, and objectives. It was necessary to have specific action items for community members to work towards to make them feel more involved in the fight for clean air and drinking water in their community, but FROE was not yet in a place to define specific calls to action for new members. Instead, Ms. Davis and FWF shifted their focus to incorporating FROE into a 501(c)3 non-profit organization, which would offer additional protection through liability insurance, increase eligibility for funding resources, and contribute to a more robust organizational structure. We decided to hold off on further efforts to mobilize the broader community until FROE had established an operational structure and internal action plan. Since July 2023, FWF has been advising FROE members on the incorporation process, which is now almost complete. In the meantime, the student team shifted our focus to implementing our community survey.

4.3 Community Survey

4.3.1 Survey Methodology

Following the community kick-off event and processing the aforementioned questionnaires, the graduate student team began to create questions that would be the basis for our survey (see Appendix F). We were careful to avoid asking leading questions or any questions that would be considered sensitive or protected health information. We determined that the best course of action was to ask questions that would promote a better understanding of residents' sentiments toward the oil and gas facilities.

After receiving feedback from Ms. Davis and her neighbor, who provided us with additional questions to ask on the survey and minor corrections to the ones already composed, we finalized the survey draft to begin undergoing our pilot survey phase. Our team scheduled several pilot surveys with community members via Zoom prior to the in-person survey to refine questions one final time. This study was deemed exempt by the University of Michigan's IRB (IRB application ID HUM00231598). Prior to conducting the survey, we created a consent form that detailed the following aspects: a brief description of our project; approximately how long the survey would take; how much compensation residents would receive for participating; and how the student team would protect the survey respondents' identity when we eventually utilized the data gathered for academic purposes (see Appendix F). It was also communicated to residents that they were able to skip any questions that they did not feel comfortable answering/did not know the answer to. Additionally, we created an itinerary for the "Survey Blitz Day" for those who had volunteered to knock on doors with us.

The student team and three volunteers traveled to St. Clair Township and Kimball Township in August of 2023 to formally conduct surveys. Our large group was divided into three smaller teams consisting of two people each. The survey distribution spanned over the course of one day with responses recorded via Qualtrics and audio recording (approximately six hours in total). Overall, our team visited over 60 homes within one mile of the facilities, stretching from Murphy Drive to South Allen Road, Gratiot Avenue, Pickford Avenue, and North Isabelle Drive. Figure 5 is a map showing the geographic location of these roads, which were chosen due to their proximity to the tank farm, unloading station, and metering station facilities. The roads were selected following extensive consultation with Ms. Davis.



Figure 5. The map for door-knocking divides teams into three different routes for survey distribution. Each color (blue, green, and purple) signifies a different team's route. The facility location is the polygon indicated in pink.

Before each survey commenced, participants were asked if they consented to being audio-recorded, and were informed that all of their answers would be anonymized to protect their privacy. During the survey, one student team member asked the survey questions, while the volunteer audio-recorded using a student team member's phone and/or filled out (to the best of their ability) the Qualtrics survey form. After the surveys were conducted, the graduate student team was able to use the audio-recordings (if permissible) to fill in gaps in the Qualtrics form. For instances where an individual did not open their door, or the individual expressed interest in completing the survey at a later date or time, our team left information sheets containing a QR code and link to fill out the survey online via Qualtrics.

All survey participants were compensated \$20 for their participation. Following the end of the survey collection, our team manually transcribed the audio transcripts. Additionally, we created a spreadsheet that showed a comprehensive analysis of each participants' answers, from which we generated graphs to display our findings. We then performed a thematic analysis of qualitative data from the surveys. Transcripts were imported into Taguette, and team members collectively identified common themes. Transcripts were then coded according to themes and codes were checked for consistency.

4.3.2 Survey Results

Thirty one individuals from 29 distinct households completed the survey. One additional participant completed part of the survey. Of the 31 individuals who completed the survey, one lived in Port Huron but responded while visiting a house in the study area. Of the 32 total responses (including partial and complete surveys), 23 people participated in in-person surveys, five people completed the survey online through Qualtrics on their own, and four people participated in a Zoom pilot survey.

Respondents had lived in their current homes for anywhere from five months to 63 years, with an average of 18 years of residence. Household sizes ranged from one person to six people, with an average of three people per household. The average age of all people living in surveyed households was 44. Seven of the 29 households (24%) reported having children under 18 years of age living in the home, and seven households (24%) had people over the age of 65 living in the home.

Overall, the survey results demonstrated that many local residents were concerned about the environmental and health impacts of the petrochemical facilities in St. Clair Township, as well as pollution from Chemical Valley and other nearby industries. Of particular concern were foul odors, which impact quality of life and respiratory health. Some residents reported being less aware and less affected by the local facilities, particularly if they lived farther from the facilities or had moved to the neighborhood more recently. However, among those residents who reported being heavily impacted, there was a strong sense of frustration with how the companies and government officials have responded to the pollution. Residents said that authorities fail to communicate about decisions and incidents related to the facilities and do not adequately respond to complaints about air and water quality.

We present detailed survey results in the following sections. In our qualitative analysis, we identified 25 unique themes based on transcripts of open-ended survey responses. We have organized these themes into four overarching categories, which we present alongside quantitative survey results below. These categories are: 1. Awareness and General Perceptions of Facilities, 2. Concerns About Facilities, Pollution, & Quality of Life, 3. Impacts on Health, and 4. Interactions with Companies and Government. Within each of these categories, we summarize several themes and present example quotations to illustrate each theme. We also present charts for quantitative responses.

Category 1: Awareness and General Perceptions of Facilities

Theme 1: Lack of Awareness

One concerning result of this survey is that many residents report either not being fully aware or completely unaware of the facilities in their neighborhood (Figures 6-9). This could be due to the fact that some of the residents surveyed had just recently moved into the area or that they were not privy to such information when they purchased their homes. Even residents who

are aware of the facilities do not necessarily know the names of the companies that own them, though more people are familiar with Enbridge than Energy Transfer/Sunoco. Additionally, over 40% of respondents report not knowing who to call if there is an emergency related to the facilities (Figure 10).

1. “I knew about the big stuff on the other side of the river, but no, this stuff is kind of camouflaged in the trees.”
2. “I think there’s certain things that should be put in place in the future to help people become educated and empowered and [know] how safe they are, or in some ways how unsafe they are.”
3. “I knew the pipelines were here, I wasn’t sure about the tanks.”
4. “I didn’t know until within the last five years.”
5. “One time, my two coonhounds took off, and we couldn’t find them, so I drove all the way down almost to the freeway, and I turned around before the freeway and turned back in there, and I saw some kind of facility back in the way, and I’m thinking, ‘what in the world is that in a neighborhood?’”

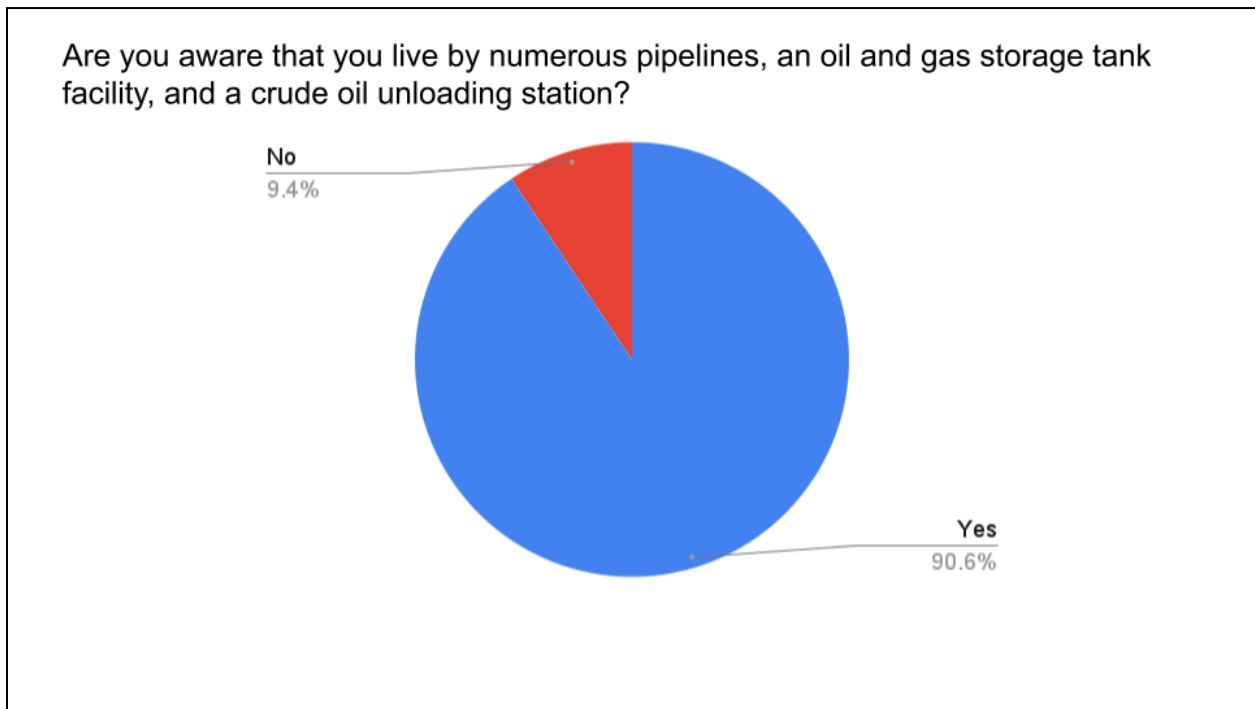


Figure 6. Responses to the question “Are you aware you live by numerous pipelines, an oil and gas storage tank facility, and a crude oil unloading station?” (n=32)

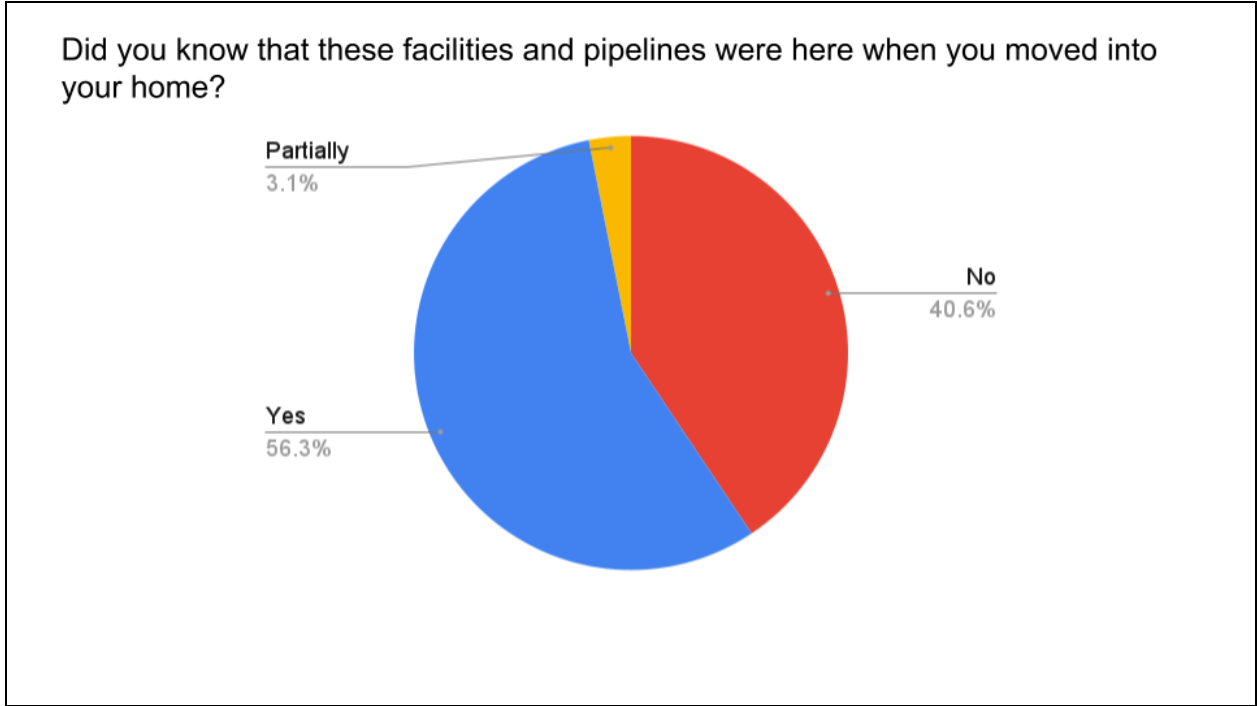


Figure 7. Responses to the survey question: “Did you know that these facilities and pipelines were here when you moved into your home?” (n=32)

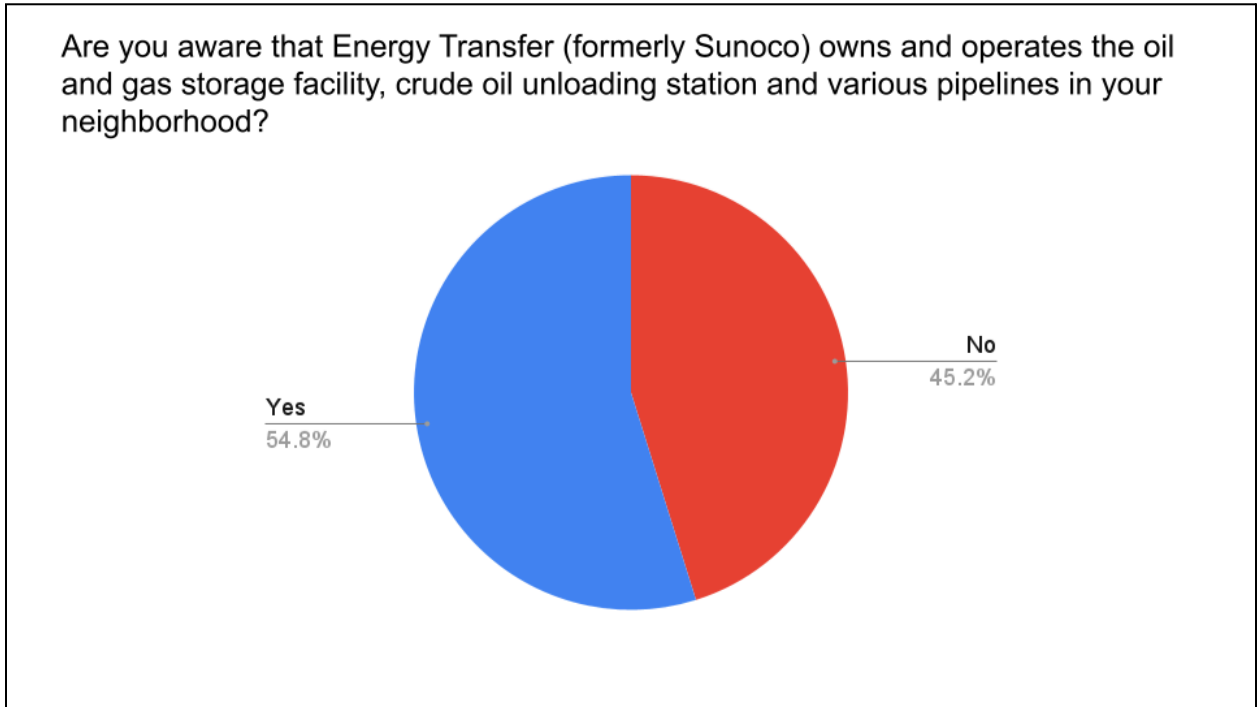


Figure 8. Responses to the survey question: “Are you aware that Energy Transfer (formerly Sunoco) owns and operates the oil and gas storage facility, crude oil unloading station and various pipelines in your neighborhood?” (n=31)

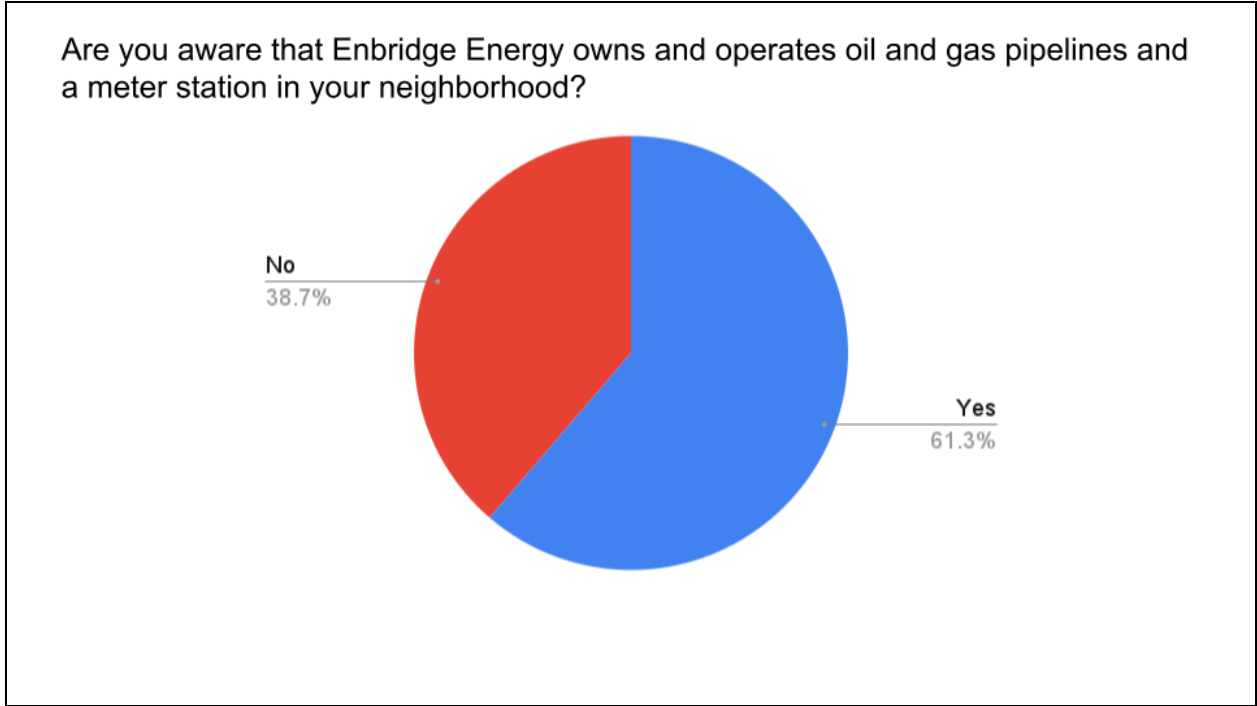


Figure 9. Responses to the survey question: “Are you aware that Enbridge Energy owns and operates oil and gas pipelines and a meter station in your neighborhood?” (n=31)

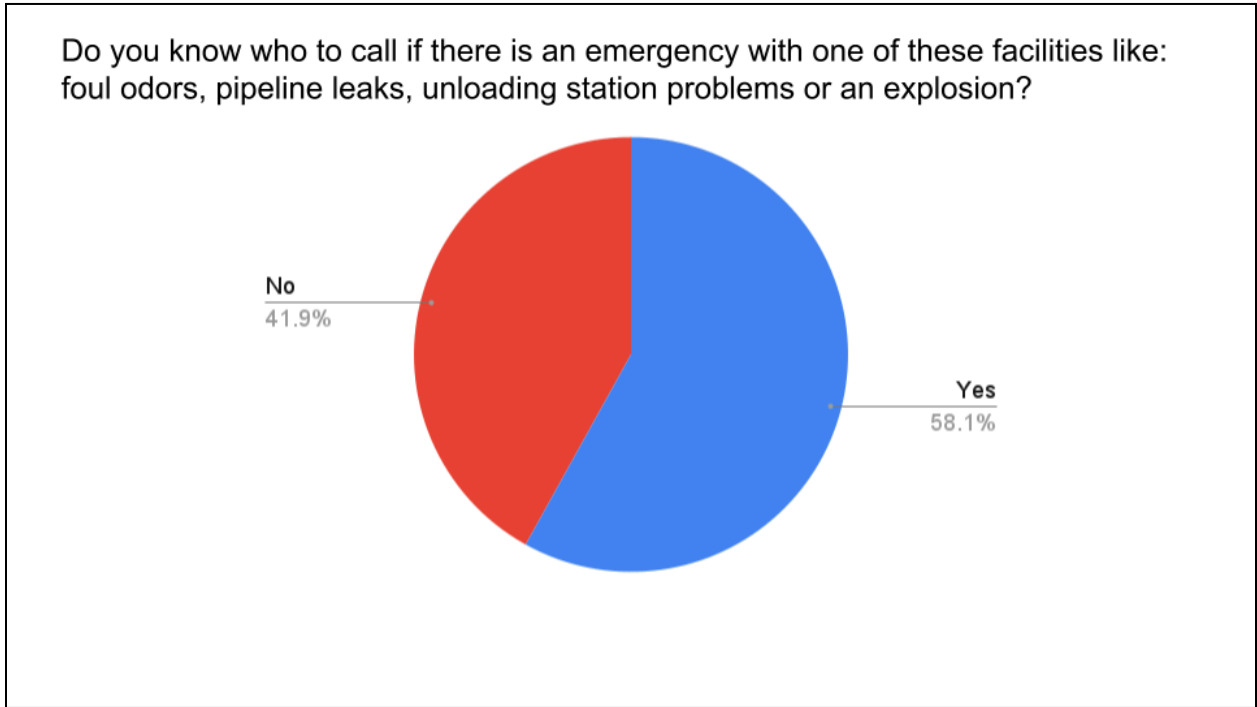


Figure 10. Responses to the survey question: “Do you know who to call if there is an emergency with one of these facilities like: foul odors, pipeline leaks, unloading station problems or an explosion?” (n=31)

Theme 2: Concern about Sarnia and other facilities

Several residents are uneasy about “Chemical Valley,” as already mentioned briefly, an expanse of land in Sarnia, Ontario, Canada dedicated to oil and refining companies. For several residents, the Sarnia facilities or other industries in the area are a bigger concern than the local facilities, which some residents are less aware of. More information on Sarnia and Chemical Valley can be found in the “Lessons from other Communities” section.

1. “Sometimes you can see the big flare and the red glow. The first time we seen that we didn’t know what was happening.”
2. “I used to live on the river about 2 miles that way, straight up Gratiot - I was in Marysville. And I was on the river across from that oil refinery. I guess it was shut down. But an awful stink would come across that river every once in a while. And then the building across the street, on Gratiot as you go around the curve, it’s some kind of transmission or engine place? It’s a newer building, but god, it stinks to high heaven. I don’t know which one was worse. But it was more stinky over there than it is over here.”
3. “I’m more concerned about the pipe that goes under our St. Clair River than this one.”
4. “Between marine traffic, automotive traffic, air traffic, rail traffic, we have everything here basically. It’s a unique area in terms of modes of transportation and shipping. Between all that and then all the factories, automation alley area so there’s industrial park on the south part of Port Huron. Mueller Brass - they had [an] article in [the] paper recently about lead exposure and there’s kids right there, there’s baseball fields right there. The only time I get exposed to it again is if the wind is in a certain direction, I can smell it but again, it’s such a brief moment I don’t have reactions to it.”
5. “There’s I think at least nine contaminants in the river at Port Huron. Marysville has a few more ‘cause [it’s] down river from everything. City is even worse - they had rare cases of cancer in a couple of kinds just in the last ten or fifteen years. So there’s a lot of bad stuff.”

Theme 3: Negative impacts

Several respondents associate negative impacts with the facilities, citing air quality issues as well as disappointment with decision-makers who are complacent.

1. “Well, I’m negatively impacted by it every day to be honest with you.”
2. “When we bought our house, we knew that the people that we bought from, they had had a lawsuit and they had gotten a settlement, and that’s why they were moving to Marysville, and they said that the lawsuit had stopped all the smells and stuff when we bought the house so probably three weeks after we moved in the smell was just awful we didn’t know what it was and so we called the fire department because we weren’t sure if it was a gas leak you know natural gas leak or what and when they came out they said it

was them and I believe back then it was Kimball and then they said no that's the gas lines that you're smelling..”

Theme 4: Lack of current concern

For some survey respondents, the facilities in the area are not a priority. Other daily life struggles often precede filing complaints about the facilities. Some respondents mention problems in the past (e.g. the 1980s incident or the 2014 roof collapse), but they do not feel that they are currently being impacted.

1. “It was just in the past history of the pipeline and the storage facility that there was an effect on people’s health.”
2. “Basically that was the past. Now the current is... like I said, every now and then, people are people. They may make mistakes or equipment can fail or whatever, and we do occasionally have the smell from the crude oil that they handle.”
3. “There's not much I know in terms of companies, revenue, future plants, anything. I just know it's obvious that it can be an impediment into quality of life. So far, major instances haven't happened. Is that potential there? Of course. We've been lucky things haven't been catastrophic.”

Theme 5: Ambivalence/unsure about impacts

Some respondents state that they are unsure whether the poor air quality in the area is due to Sarnia or the facilities in St. Clair Township. Others express ambivalence about the impacts of the petrochemical facilities in general.

1. “Again, I live with it. For someone to come in and be like ‘oh my gosh people live next door’ ...it's just everyday life for us.”
2. “I mean, that's probably 98% of the population here. It's just what we live with. Nothing catastrophic has happened so far, so it's just something that is kind of tossed aside or ‘ignorance is bliss’ type of thing.”
3. “Not really. It's always up in the air because like I said, we live near Sarnia.”
4. “I know there is, but again there's a predominant west wind through here so to get an east wind it's rare enough to not notice it.”

Theme 6: No impacts

Some residents of St. Clair Township do not believe that the facilities in the area are impacting them. This may be related to proximity of their homes to the facilities or the direction of prevailing winds.

1. “I don’t think we have been here long enough. It’s beautiful here, I love it. We got deer, turkeys, and rabbits, all kinds of critters.”
2. “Haven’t had that many bad experiences that I know of that have affected me at all.”

Category 2: Concerns About Facilities, Pollution, & Quality of Life

Theme 7: Facilities operations

Community members exhibit mixed sentiments regarding facility operations. On a day-to-day basis, residents report minimal disturbance, yet the impact is described as significant when tanks are filled. Residents' frustrations are evident in their dissatisfaction with the continuous expansion of tank operations, which impacts air quality and contributes to a decline in their quality of life without education or community input.

Residents also revealed multifaceted concerns about the pipelines traversing their properties, emphasizing the impact on property use, value, and saleability. The expansion of pipelines, as discussed in relation to the 1980s incident and the subsequent lack of local knowledge, intensifies worries among residents. The presence of pipelines raises apprehensions about environmental consequences, including odors and potential contamination.

1. “That’s a toss up because when they’re filling the tanks, it's bad, but on a day-to-day basis, it doesn’t bother us.”
2. “When we first moved in here, it was basically all anybody knew around here there was one big storage tank. They would come in, they’d fill the crude, send it down the pipeline, do whatever they gotta do. And over the years, here we are 20 years later, there’s gotta be five tanks back there now, and I’ve never been asked one time if it was okay to expand, never got to vote on it, nothing. Nothing was ever put out to the public about their expansion. That I guess kinda bugs me because what I bought is not what I live next to now, not even remotely.”
3. “I guess that’s what pisses everybody off; if you get one tank, you get a little smell. Now you got two tanks, three tanks, four tanks, and they’re huge.”
4. [Referring to late 1980s] “Also, the company that transported the crude oil to the transfer station at the time, the drivers would leave the hatches open on the tank so that the pressure would not build up and so every time they’d go by the house, you could tell that they were in the neighborhood because you could smell that strong sulfur, crude oil odor.”

Theme 8: 1980s incident

Residents demonstrate deep-seated concerns about an incident in the 1980s, recalling a storage tank with a defective seal that led to strong oil odors escaping. The lack of transparency regarding facility operations and expansion in the past is one basis for the distress affecting

community members to this day. Additionally, memories of the 1980s incident involve health implications, with residents reporting hospitalizations due to breathing problems caused by the strong odors emitted from the tanks. The lasting impact of this historical incident underscores the importance of effective communication, regulatory oversight, and community involvement to ensure the well-being of residents.

1. “I’m like the third generation to be on this property, and the worst experience was back in like 1988-1989 when the storage facility had a storage tank that had a floating ceiling to it and the seal around the ceiling was defective and allowed strong oil odors to escape...And then of course those events in 1989-1990 involved a lawsuit. My parents were taken to the hospital for breathing problems because the odor was strong.”

Theme 9: 2014 roof failure

Residents expressed significant concerns about the 2014 roof failure incident, highlighting the lack of transparency and communication from the involved companies. Participants report discovering the catastrophic roof failure incident only after the fact, raising questions about the potential risks. Participants express disappointment in the response of both Enbridge and Sunoco to the incident, emphasizing a lack of accountability and communication during critical incidents. The failure to promptly notify residents and the inadequate response to potential safety threats leave the community uneasy and concerned about the companies' transparency and commitment to public safety.

1. “We never found out until after the fact that they [Sunoco] had that catastrophic roof failure...Nobody said a word. Nobody knew nothing about it. And we just went about our daily basis, used to the smell and everything else. People weren’t worried about us at all.”
2. “I used to have to shut the house up and leave during the catastrophic roof failure over there. It just dissipated in the air freely for a year.”
3. “We called them [the companies] and the fire department...Really nothing [was done]... They have floating tanks, tops, and it fell in, and it caused really bad odors, and they didn’t even bother to let us know. So they kinda got caught doing something they shouldn’t have been doing.”
4. “And the catastrophic roof failure, why wasn’t everybody alerted immediately and evacuated just in case, you know?”

Theme 10: Air quality/air pollution

Residents have significant concerns about air quality and pollution in relation to multiple sources, including the tank farm and pipelines (Figure 11). Apprehension extends beyond odors, with residents expressing worries about the potential health impacts of air pollution. Despite

efforts to address these concerns through complaints and calls to authorities, participants report a lack of effective response and accountability, leaving them frustrated and anxious about the long-term consequences on their health and the environment.

1. “So when we ended moving back here because of all of the housing issues, that’s when I first started noticing all the smells, all the traffic, all the great lakes trucks going in.”
2. “My kids live in Marysville and it’s a little better, but I mean the air quality is still bad.”
3. “You notice the haze, and this was before the Canada fires. You can notice the smog in the air, and the smell is very very noticeable and pungent when they’re doing the tanks, and I make the kids come in at that time because I don’t want them out here breathing it.”

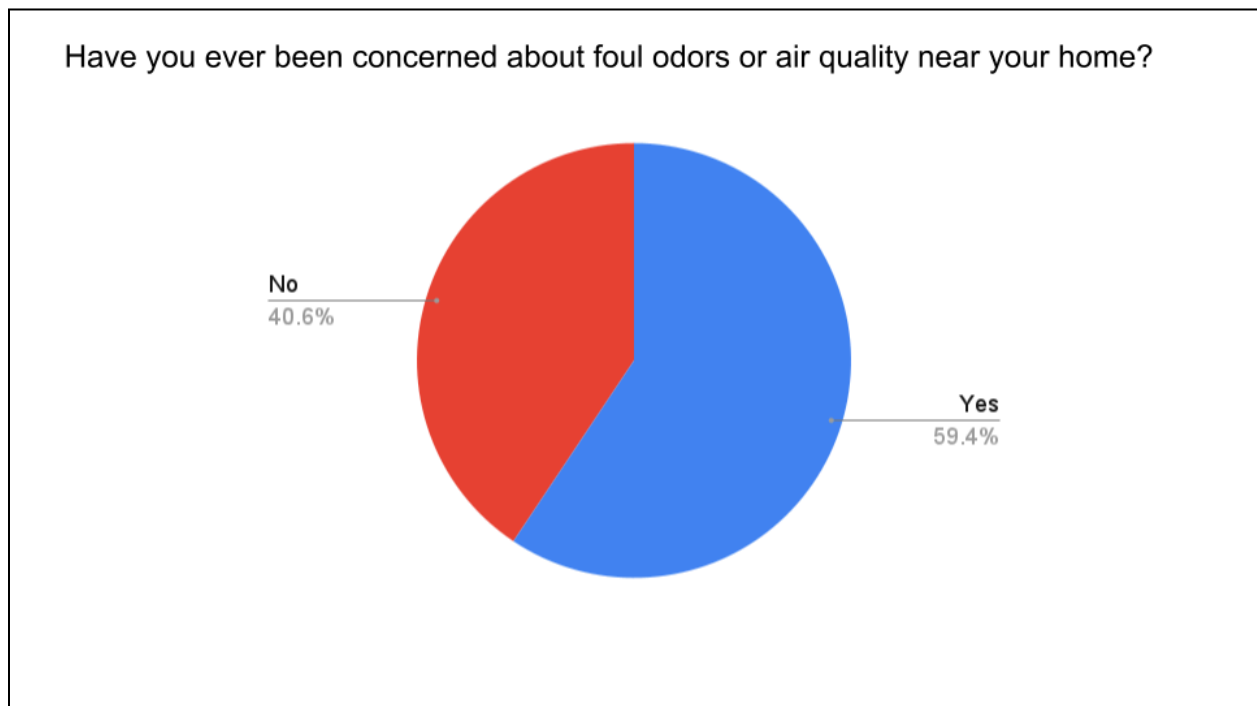


Figure 11. Responses to the survey question: “Have you ever been concerned about foul odors or air quality near your home?” (n=32)

Theme 11: Foul Odors

Participants consistently express distress about the pervasive bad smells in their surroundings, attributing them to various industrial activities. The communication with current and past Sunoco/Energy Transfer employees reveals a history of dissatisfaction and internal acknowledgment of the severity of the smells. Residents report the impact on daily life, such as disrupted gatherings, ruined parties, and the need to cope with the odors. Despite efforts to seek resolution through local authorities, including health departments and state representatives, many feel frustrated with the responsible entities' lack of effective response or accountability.

1. “It’s constant...we are all super sensitive to certain smells now. I smell it immediately in different areas where we go. It just takes your breath away. You just know.”
2. “There’s certain times... you know I had DEQ [Michigan Department of Environmental Quality] out here in my driveway during a huge spell at the tank farm. And he [the DEQ representative] didn’t even want to stand in my driveway... he didn’t even want to stay in my yard and talk to me for five minutes, he couldn’t take the smells. I told him to sit out in the chair in my yard, and I said ‘you’re not leaving here for 30 minutes’ and I said ‘so when you go home, and you call me two hours from now, you tell me how you feel.’”
3. “Every now and then you still get some strong odors from the crude oil, which is very strong in sulfur. And it’s really a nuisance. It can, if you inhale a lot of it, could cause some health problems.”

Theme 12: Water quality concerns

Participants exhibit significant concerns about water quality and potential health risks associated with the environmental conditions in the study area (Figure 12). Issues with water quality are emphasized across different question sets, with participants reporting chlorine-like tastes and smells, prompting the use of bottled water and water filters. Some express outright refusal to drink well water, while others mention concerns about contaminants in the river and instances of water being flammable. The impact on daily life is evident, with residents implementing various measures, such as installing water purification systems and resorting to bottled water to address their apprehensions about water quality.

1. “I’m on well water out here, so I use bottled water and filters. But yeah, definitely - because of, not only well water, but because of the area.”
2. “It’s got a chlorine sort of tint or smell to it, taste to it I guess you’d say. But I drink bottled water so I don’t really play with it. And I don’t use the dishwasher. I run it once a week just to make sure it keeps working.”
3. “When we moved in they said the water was good but I don’t know.”
4. “My neighbor over there Did he show you how he can light the water on fire? When the bubbles are coming out he holds a soda bottle up there ya know and lets the water run out and he lights it and it shoots fire out. That’s concerning right?”

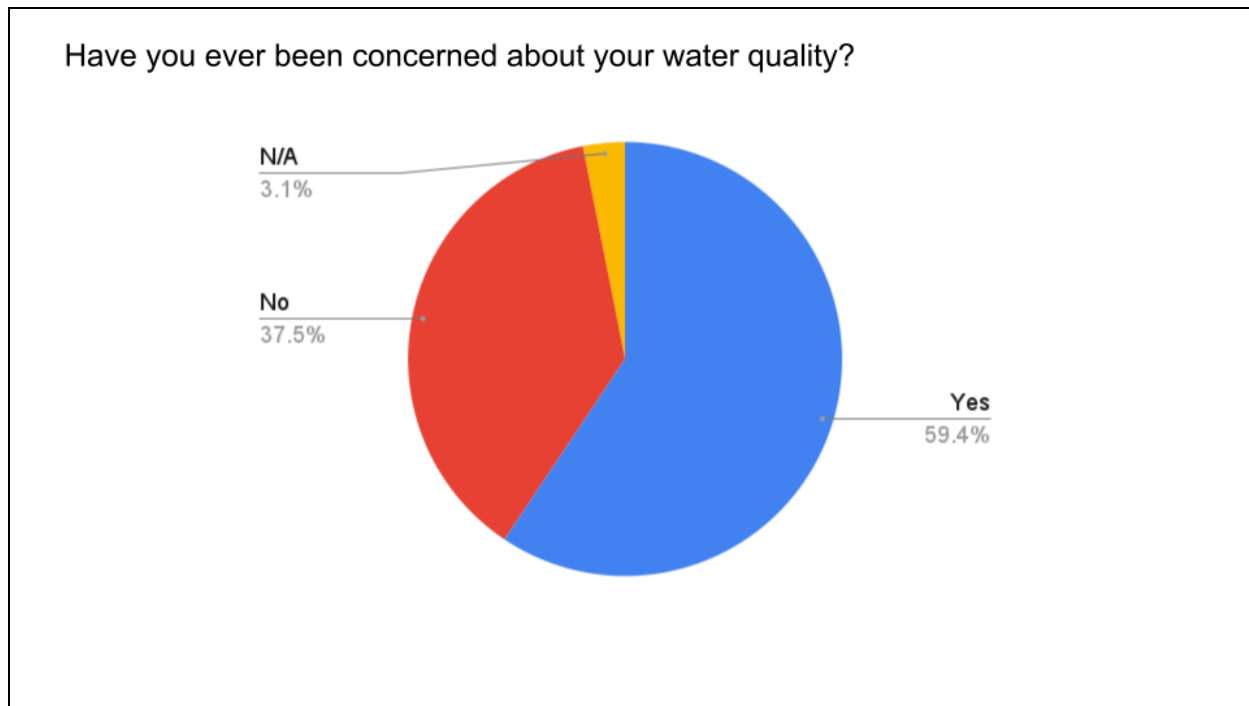


Figure 12. Responses to the survey question: “Have you ever been concerned about your water quality?” (n=32)

Theme 12: Contamination of property

Participants express worry over the consequences of contamination on their property. One respondent notes the inability to grow anything in the ground due to the company's actions. Another participant highlights the substantial impact on their hunting practices, emphasizing the need for caution in selecting prey due to potential contamination. Additionally, respondents from various question sets describe the adverse effects on vegetation, with one mentioning significant tree die-off and another lamenting the loss of land usability for construction and estimating a sizable portion, approximately two acres, rendered unusable due to a pipeline's presence. Furthermore, the visual indicators of contamination are discussed, with one participant noting changes in grass color (resembling crop circles), indicating leaks and signaling the negative influence of pipelines on the environment.

1. “The company contaminated our property and so... We can’t grow anything in the ground. And I used to hunt all the time here, and I gotta be very careful what I shoot and get because it's all gotta be tested. That's more money out of my pocket because of what they're doing.”
2. “It’s behind us. You can see how the grass changes when there has been a leak. There is brown and there will be green all around it. It looks like crop circles back there because pipes are back there that leak.”

Theme 14: Quality of Life

Survey respondents express serious concerns about the negative impact on their quality of life attributed to the companies' activities. Residents underscore the effects on daily life, such as disrupted gatherings, not being able to spend time outside because of the odors, and the need for blackout drapes to shield against intrusive lights. Expanding facility operations without public input is a source of frustration for at least one participant, who emphasized a shift from the living conditions when he first bought his house many years ago. Overall, the decrease in quality of life emerges as a recurrent theme in participants' narratives, affecting their enjoyment of their homes and raising concerns for future residents, especially families with children.

1. "They have the lights out every night. You know the spotlights on the tanks? I know they gotta have them or whatever, I get all that, but it's like there's nothing blocking you from that. Every night, trying to watch the TV, gotta shut the drapes, go to bed gotta shut the drapes. I got blackout drapes in my bedroom just to keep the light out."
2. "I'm here by myself and most of the time it's been adults living in this area. There's gonna be a time that there's gonna be children that are going to be playing outside and that sort of thing. So younger families that move into the neighborhood should have a concern about the environment, you know, the business practices and businesses located around them."
3. "The smells were so bad, [my] next-door neighbor was having a birthday party for [her] daughter that had to be shut down for smells."
4. "We had a graduation party that kinda got ruined because of the smell for my oldest son."

Theme 15: Concerns about property values

Two participants explicitly express concerns about property devaluation due to pipeline easement. Other participants describe frustration with the pipelines' impact on their land.

1. "The negative part is the pipeline goes through the property, which is an easement, and I have limited use of that property because of the easement. I cannot build on top of it...I cannot build any structure permanently on top of the property because of the right of way and the pipe. That then has an effect on the value of the property and saleability in the future."

Category 3: Impacts on Health

Many people reported health concerns related to the facilities, with 48% of respondents reporting health symptoms associated with poor air quality (Figure 14), and 36% of respondents believing that their health has declined overall since moving into their current home (Figure 13).

The following themes explore acute health symptoms, respiratory health, sinus issues, cancer, and skepticism of causality.

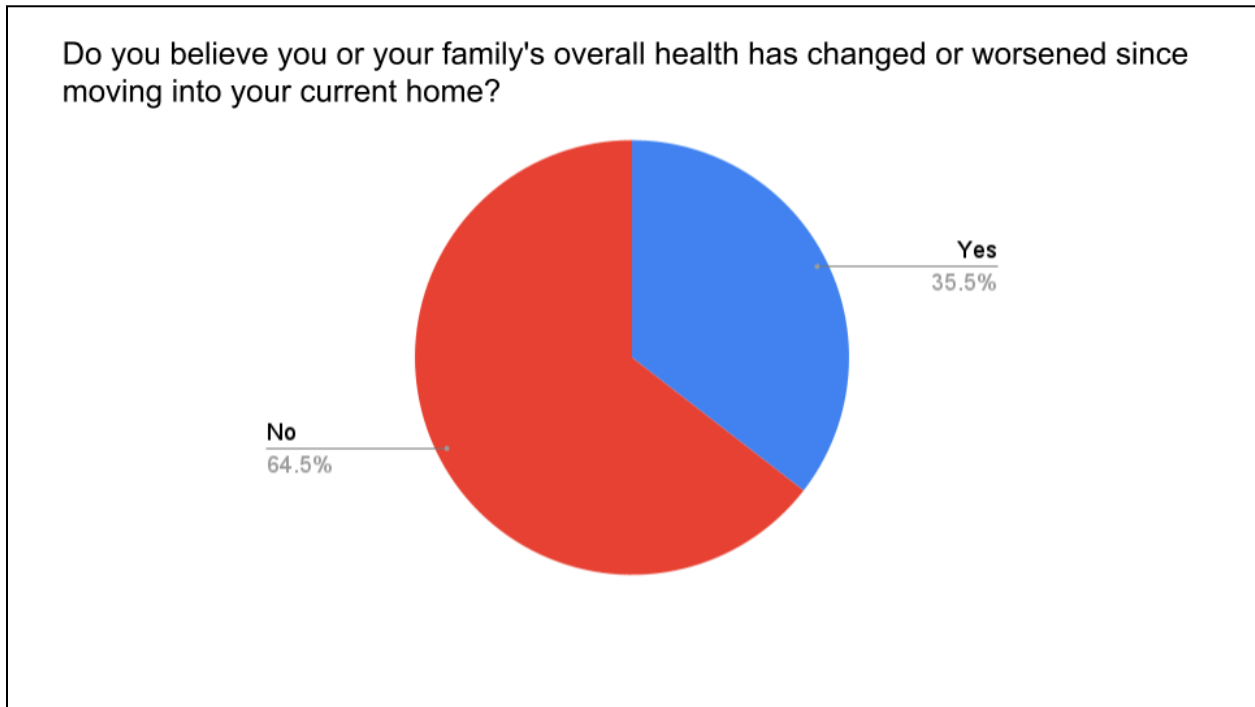


Figure 13. Responses to the survey question: “Do you believe you or your family’s overall health has changed or worsened since moving into your current home?” (n=31)

Theme 16: Acute health symptoms

Some residents experience headaches, breathing troubles, and nausea, often related to bad smells emitted by the facilities. Residents also report having an increased sensitivity to smells.

1. “We are all desensitized for smell. It’s gotten to the point where if you smell the slightest scent of it, it will make you immediately sick. Your stomach hurts, you just get away from it. Before it took a while because it would build up...but now it’s to the point where no matter where I’m at, if that scent is in the air, it’s on me. It makes you sick. Your sinuses are always an issue. I’m sure it’s attacking my respiratory system.”
2. “I have severe headaches all the time.”
3. “Breathing and severe headaches.”
4. “Coughing like previously mentioned, brain fog, tiredness, allergies that we didn’t have before.”

Have you or your family ever experienced any of the following: loss of smell, increased sinus issues, difficulty breathing, increased asthma symptoms, severe headaches, mental fog, increased breaking out, or other disturbances that may be associated with air quality around your home?

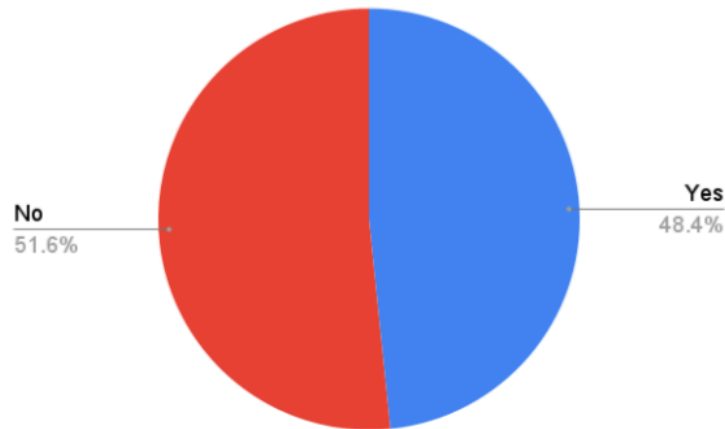


Figure 14. Responses to the survey question: “Have you or your family ever experienced any of the following: loss of smell, increased sinus issues, difficulty breathing, increased asthma symptoms, severe headaches, mental fog, increased breaking out, or other disturbances that may be associated with air quality around your home?” (n=31)

Theme 17: Respiratory Health

At least twelve residents specifically report experiencing respiratory health symptoms, ranging from coughing and trouble breathing during bad odor events to the development of chronic and persistent respiratory diseases. Four participants report that their asthma worsened after moving to the area, and others mentioned flare ups of chronic respiratory conditions during bad odor days.

1. “Ever since she moved in here, her asthma’s gotten like ten times worse.”
2. “My mom had emphysema and she was living here. Sometimes the smell got so bad. It would really bother her, so the last years of her life she spent out in Arizona with her sister.”
3. “My oldest son has had like allergies and asthma and everything. We lived in Saline for a while before moving up here, before we got divorced. And up here it seems like things are a little bit worse when it comes to that, as far as affecting his asthma. So yeah, it’s a concern. It’s always kind of like... we’re up here, it’s kind of worse.”
4. “[I] cough like a long term cigarette smoker, but I have never smoked.”
5. “I have a chronic cough. We don’t know if it’s from [this] or not, but I’ve had it for about 12 years now. And they thought I had COPD, but I don’t. I just can’t breathe like a

normal person. They've checked me for asthma and all this other stuff and nothing ever comes up of that."

6. "I was diagnosed with RAD [Reactive Airway Disease], and I battled that for about a year, just over a year. I had no idea what it was, but I know I got rid of it when I started shutting my windows at night. And I put in an air conditioner with High efficiency Particulate Air (HEPA) filters, and it went away."

Theme 18: Sinus Issues

Along with respiratory health problems, six residents report sinus problems.

1. "[My] sinuses are constantly messed up. Every time I eat something I have a hard time breathing. It's just like the floodgates open up."
2. "Sinuses are always an issue..."

Theme 19: Cancer

While cancer came up less frequently than respiratory health problems, sinus issues, and other acute symptoms, a few residents shared their experiences and worries about cancer risks in the region. One person also mentioned that their pet had been diagnosed with cancer. Participants tend to link their concerns about cancer to broader regional environmental concerns, such as pollution from Sarnia's Chemical Valley and Port Huron.

1. "I worry about cancer risks to myself and my family."
2. "I know we have one of the highest cancer rates in the area."
3. "I had cancer, they removed part of my liver... the cancer, who knows where that comes from right?"

Theme 20: Skepticism of causality

Even though 48% of respondents report experiencing at least one listed health symptom (loss of smell, increased sinus issues, difficulty breathing, increased asthma symptoms, severe headaches, mental fog, increased breaking out) and 36% of respondents believe that their family's overall health has changed or worsened since moving into their current home, several residents express uncertainty that their health concerns were caused by the fossil fuel facilities. Some respondents do not believe that their health problems were related to the local facilities, instead blaming other things like aging, while others believe there is a connection between the facilities and their health but worry about being able to prove a direct link.

1. "I was diagnosed 25 years ago with sarcoidosis. I'm fine, I'm in remission, but at the time I didn't know if it was caused from that, but we also live close to Sarnia so we get a lot of odors from them too. So it would be hard to prove in court."
2. "You can't prove it's a cause....it's a lose-lose situation because they can say 'well you've had pre-existing conditions, you can't prove it's us.' No, but from a certain point forward, I'm not better."
3. "I would have to think yes [that family's health has changed or worsened since moving into current home], but do I know that for a fact? I don't. My wife had one of her kidneys removed about four or five years after we moved in here. We don't know what to blame that on."
4. "I've always had sinus infections, so again, it could be from anywhere around this area. Headaches, that's normal, with the pollen and stuff and with the seasons it's hard to say."
5. "I've been in and out of surgery and doctors' offices so much I couldn't afford to work. I couldn't stay at work, I'd be at the doctor's office all the time. But it's just old age."
6. "Well, [our health] has worsened because we're old now."

Category 4: Interactions with Companies & Government

Theme 21: Lack of community input & power

Decisionmakers exclude community members from having input and power in decision-making processes, resulting in respondents experiencing unrest and frustration with authorities for their worsening quality of life.

1. "I've never been asked one time if it was okay to expand, never got to vote on it, nothing. Nothing was ever put out to the public about their expansion, that I guess kinda bugs me. What I bought is not what I live next to now, not even remotely."
2. "It was quiet, and then all of a sudden, you know, new pipelines were being formed and coming in through there. Tanks, new tanks were being put in, and expanding without our local knowledge, so there were a lot of issues with that."
3. "It's easier to bully us over and just keep us quiet than it is to clean up. I think the facility should have never been restarted. It should have been a local issue. I mean really the city of Marysville is what? 5 miles wide? And there's major schools. There's major shopping. There's a lot of population in this small little area, and you got this gigantic, explosive, uh facility sitting there, pipelines everywhere ... My house was built before that place was even built. I think that homes that are grandfathered in here should have a say on what comes in that close. Realtors don't disclose the information... Nobody puts information in their selling over that tank farm, so you know it's just the next generation comes in and moves into these houses, and they are like 'what the hell?' ... We're goners. The facilities should have never been built in a residential area."

4. “As the public, we had no say on that, to me that just seems not very fair. If you’re gonna put some tanks in here, at the very least you would think they would say we’re gonna change this from being an industrial residential area, which really doesn’t jive very well to begin with to an industrial area, so here’s a big fat check to get your house out of the way, and your house, and your house, and your house. Instead they just keep expanding with no holds back at all.”

Community members are tired and burnt out from fighting for their voices to be heard by decision-makers.

1. “I’m just burned out from it all. I’m tired of fighting...But what else can we do? We can make a stink [but] there’s just not enough people that want to get involved. My neighbor across the street went through the first lawsuit in the ‘80s and they have been with me through all of this and the new lawsuit. And they want nothing to do with it, they’re just so tired. Everybody’s just tired, you know? They’re just so much bigger than we are...we’re just the same 10 voices that are always screaming about stuff. So what can we do?”
2. “It seems like everybody [the companies and government] just sneaks behind your back and avoids any contact with the public. What are they gonna do? Worst case scenario, [the companies get] a fine? ... You don’t really know who to call - you’re gonna call them, that’s deaf ears, right?”
3. “There’s not much we can do. You can’t really escape it. You can only fight it, but it’s like what the world’s going through right now fighting the big stuff, so they don’t give a shit.”

Theme 22: Community Interaction with Enbridge and Sunoco

Enbridge provides numerous respondents with contact information and safety information on an annual basis. Some residents describe positive experiences interacting with Enbridge, noting services the company provides, such as keeping the roads clean.

1. “Enbridge always sends me literature on pipeline safety and that sort of thing, phone numbers, emails that I can contact them at any time with any issues.”
2. “They [Enbridge] send us safety things all the time with their number.”
3. “They keep the roads clean during winter and things like that.”
4. “I did go to an Enbridge presentation that was interesting.”

When respondents discussed negatives about their interactions with Enbridge and/or Sunoco, it tended to be connected to not knowing the ins and outs of decisions being made and the corporations living up to their previous promises concerning safety.

5. [Regarding the 2014 roof failure] “At the very least, they always say ‘if there’s ever a problem, we’ll put you up in a motel,’ you know they say that, that’s what the guy told us when he came by. But they didn’t do it then [during the catastrophic roof failure in 2014]. At the very least we should have gotten a phone call from them [saying] ‘we’re having problems over here, go grab a motel, I have your phone number, I’ll call you when things are good,’ you know?”
6. “I think it was 2014...The smells were so bad [that] our next door neighbor’s daughter was having a birthday party outdoors—a big one with all her family and friends—and it got so bad, they had to send everyone home and go in the house. So I went down to the corner, to the end of the tank farm driveway...And [a safety worker from Sunoco] came out, and I told him I was videotaping and I asked him what they were doing about the smells? [I asked] should we be concerned and evacuated? And he said they were learning more right now, but he wanted to get off the property because he couldn’t take the smells himself. He rolled the Sunoco truck window up and left.”
7. “I called them about the smell and they sent somebody out, and they said no it wasn’t them, even though it was. I guess for me that’d be [a] negative.”

Theme 23: Government failures

Respondents report that those who have previously made complaints to state and local governments were responded to with complacency or no action at all to address their concerns. When decisions are made by authorities, constituents are left out of the process. This has fostered distrust of government agencies and representatives.

1. “We’ve been all the way around—both townships (Kimball Township and St. Clair Township), both fire departments... They all got paid off. Enbridge paid our clinic, Enbridge paid our cities, Enbridge paid our townships, Enbridge paid our fire departments.”
2. “I had met one of our representatives for the state over at Kimball Township and had a conference with her. I don’t even think she is still a representative...there wasn’t any outcome. They took all the information back with them about the smells and everything that we were going through, and nothing was done about it.”
3. “They need to be overseen a little bit more, across the board.”

Over time, township and other local support has dwindled for constituents being affected by the companies. The government has appeared to have given up helping residents. Additionally, jurisdiction over issues is not clear among governing entities, which makes solving odor related problems and receiving support difficult.

4. “[The Health Department] tried helping us for a short time. According to Enbridge, for them to put in the pipeline, they were supposed to make sure that there was supposed to be a full-time 24-hour clinic in our area that we could go to and that we have a full-time fire department 24/7. So I’m thinking that’s how Marysville got their money to implement a full time fire department. But our clinic closes... our time frame of being exposed and to do a urine or blood test is an hour from your first exposure, and that is not available to us. The health department was willing to do simple water samples and things for us, but if we wanted to have our water checked or anything else done, then we would have to send it to Lansing which was going to cost \$400 a test... Who the hell has that kind of money to do that all of the time? By the time we figured out if we were exposed or the smells would not go away, we had nowhere to go to be sampled. The health department could only do so much, and... no one wanted to deal with us.”
5. “I called the person we bought the house from, because we were kind of friends with them after we bought the house, and they said that St. Clair County Township had bought a... it was a meter that you could put in your house to register how much the smell is, and that they were supposed to have it and I should be able to call them... And when I called them they said no we don’t have it, never heard of it, and then we called the owner and they’re like oh yeah they do and I called them back and they’re like nope. And that was about it.”

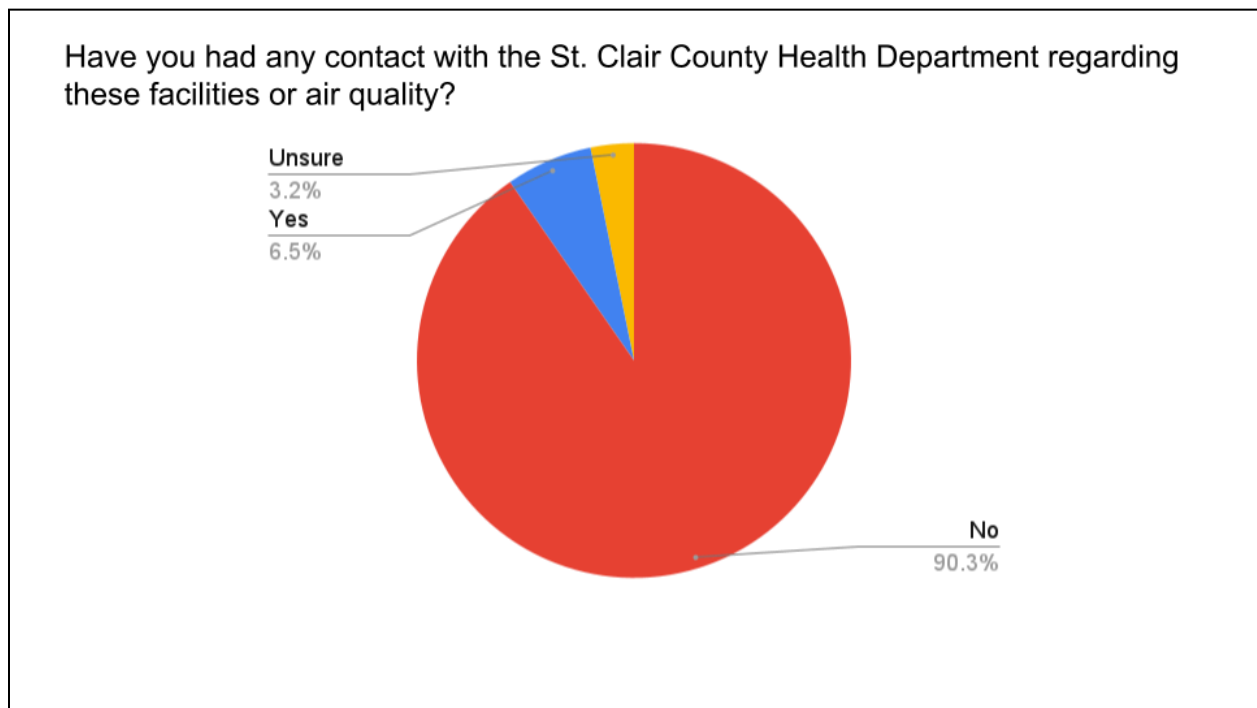


Figure 15. Responses to the survey question: “Have you had any contact with the St. Clair County Health Department regarding these facilities or air quality?” (n=31)

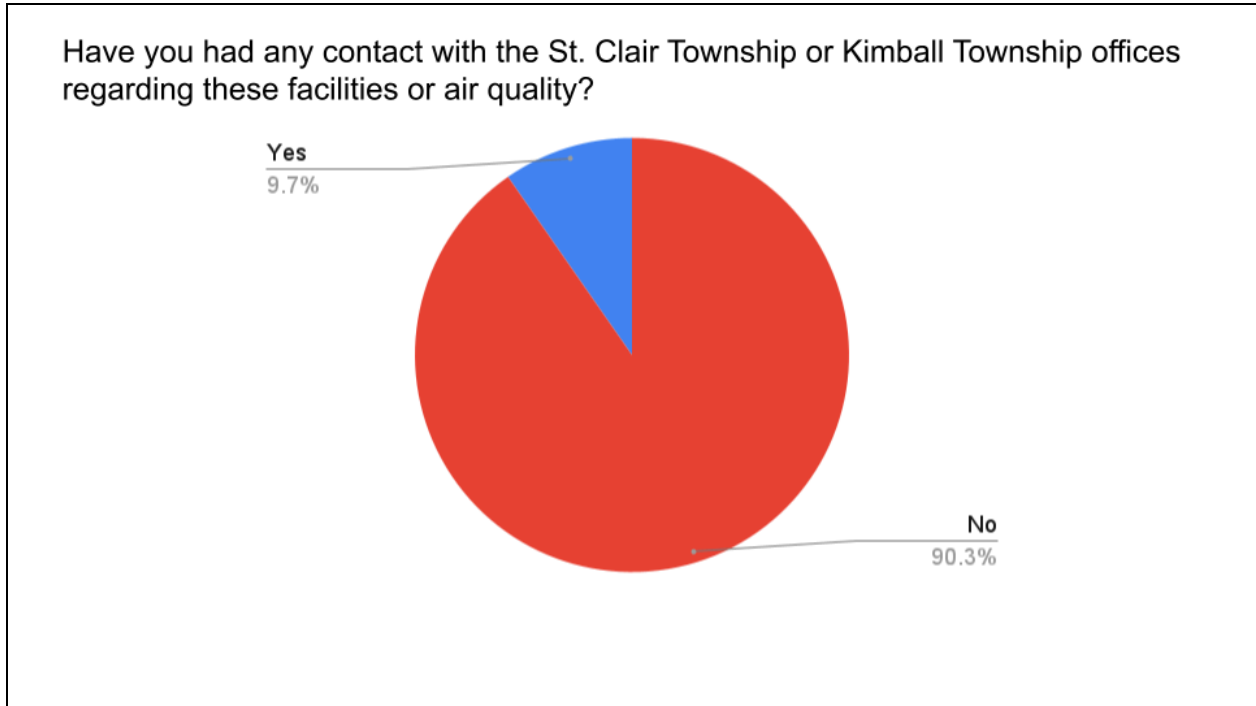


Figure 16. Responses to the survey question: “Have you had any contact with the St. Clair Township or Kimball Township offices regarding these facilities or air quality?” (n=31)

Theme 24: Negative complaint outcomes

25% of respondents have made formal complaints about foul odors or air quality concerns (Figure 17). Respondents note that their previously made complaints were met with complacency or no response from authorities.

1. “I’ve called them for complaints, and they’re like ‘you need to stop calling.’ We can’t do anything about it.”
2. “We used to call when we had the smell out here, but they never did anything anyway, ... and then we have gone to the township meetings and talked about it, but nothing ever happens.”
3. “I made [a complaint about pipeline safety] to Enbridge. They had a guy come out here that was a liaison...nothing [happened].”

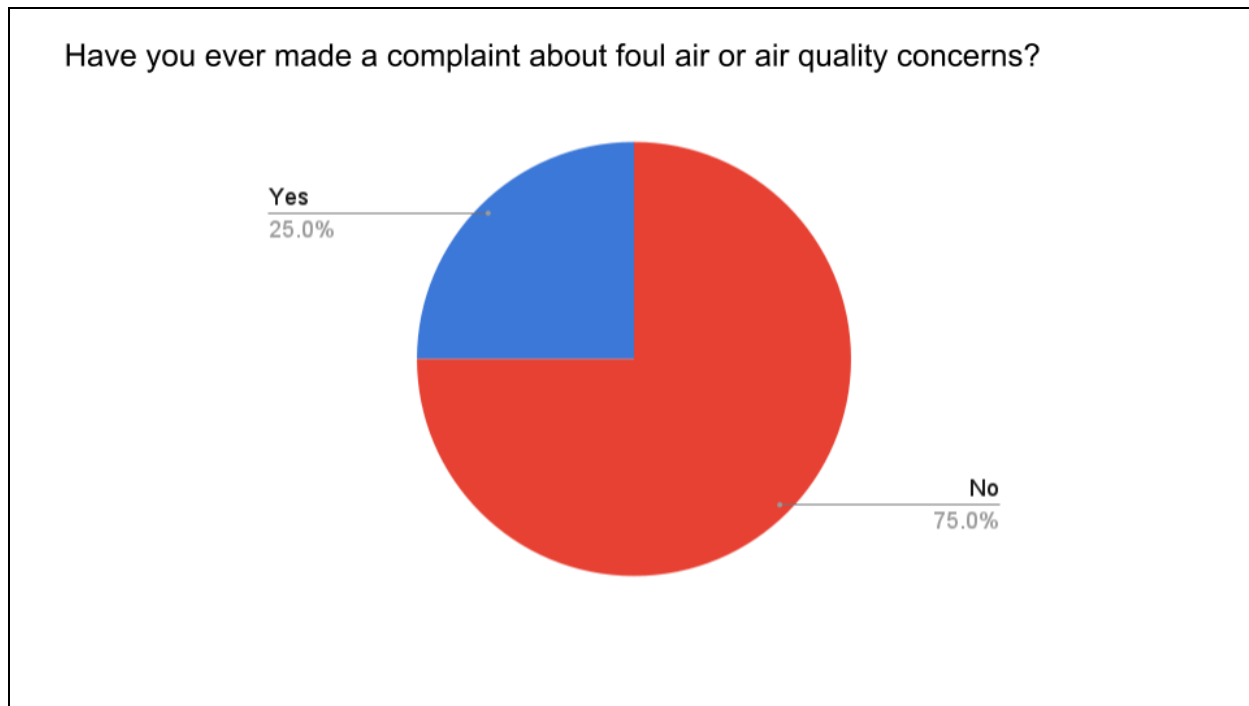


Figure 17. Responses to the survey question: “Have you ever made a complaint about foul air or air quality concerns?” (n=32)

Theme 25: Positive complaint outcomes

Two respondents identify outcomes they consider positive that resulted from making complaints. Both complaints were made to Enbridge and resulted in temporarily increased communication from the company. There were no descriptions of positive interactions with government officials after complaints were made.

1. “A couple of times the [Enbridge] people came by when [a neighbor] started pushing their buttons, and passed out cards and said “if you have any problems you let us know.” Probably like their public liaison, I would guess. That would be the only one I’ve had any contact with. The experience was positive.”
2. “I made [a complaint] to Enbridge. They had a guy come out here that was a liaison.”

One participant describes positive interactions with individual Sunoco employees, despite negative perceptions of the company overall. The resident reported that newer employees are working to make improvements in response to complaints. Additionally, a former Sunoco employee was sympathetic to the residents’ cause, but it appears that the employee was suddenly moved to a different role after working to help community members. These interactions emphasize the perception that even when individual employees try to work with community members, they may be obstructed by their superiors.

1. “The past employee I spoke with was the gentleman who was answering the phones over there in the plant at the time, who we were [supposed] to call and leave a complaint every day that we smelled it, according to the townships... he couldn’t stand it. He said, ‘you think your smells are bad on the outside? Try working here.’ He couldn’t stand being in there but he already had 13-15 years in and he didn’t want to lose his retirement... I did have a really nice exchange with him, but he could only give up so much information. He was trying to work with us from the inside, and then all of a sudden his position changed and they moved him from taking our calls.”
2. “I’ve spoken to [a] present employee that I grew up with, in a different city of Sunoco. And brought this issue up to them...he said he’s fairly new with Sunoco. He’s worked hard to make positive changes there for the community. I can say over the last probably two years, it hasn’t been as bad...They look like they are trying to clean up because we made some noise big time around here. But it’s still there. So he said he has done as much as he can on his part, because his hands are tied.”

4.4 Conclusion

Together, our community event and neighborhood survey revealed ongoing and serious impacts from the fossil fuel facilities located at and around Murphy Drive. The most significant and commonly described impacts include intense, sickening odors and respiratory health problems (e.g. worsening asthma). While some residents were unaware of the facilities or expressed apathy towards them, many others reported deep concerns about the environmental health impacts and exclusion of residents from decision-making. Residents described long-standing frustration with the companies and government agencies, who they feel have failed to address the pollution from these facilities.

The community event and survey also allowed us to start building a stronger support base for FROE. We distributed informational materials that described the facilities in more detail and compiled contact information for individuals interested in becoming more involved. As FROE leadership moves forward, they can draw on these supporters for future advocacy and action campaigns.

CHAPTER 5: CONCLUSION

5.1 Lessons from other communities

St. Clair Township is not the only community in Michigan that is facing environmental injustices linked to the fossil fuel industry. Kalamazoo, MI and the Boynton neighborhood of Detroit, MI have received consistent media attention, and are still organizing their communities

to stop further environmental injustices from occurring (Costley, 2020; Flesher, 2019). Across the Canadian border from Michigan is Sarnia, Ontario, which is approximately 10 miles from St. Clair Township and is home to the Aamjiwnaang First Nation, as well as numerous petrochemical plants (Smith et al., 2010). After years of fighting to obtain critical pollution data that would prove that their air was being poisoned, the Aamjiwnaang finally received results in 2021, showing that air pollution levels were much higher than previously thought (Cecco, 2021). Despite this, the industries in Chemical Valley continue to poison the Aamjiwnaang community and violate their Indigenous rights. Each of these communities are linked to our case study in different ways and offer lessons for future work.

5.1.1 Boynton, Michigan

The neighborhoods of Boynton and Oakwood in southwest Detroit, also known as the “Tri-City Area” because it borders the cities of River Rouge and Ecorse, are infamous for making up the “most polluted” ZIP code in Michigan (Bunting et al., 2023; Kubota, 2017; Mohai et al., 2011). Due to historic redlining and persistent segregation, Boynton is a predominantly Black community (71%) (Costley, 2020). 42 industrial facilities call Boynton home, including a Marathon Petroleum refinery, DTE Energy (which has just recently closed two coal-fired power plants in the area), AK Steel, a hydrogen power plant, and the nation’s largest wastewater treatment plant,” (Atherton, 2023). Some of the toxins that are emitted into the air from these facilities almost daily include nitrous dioxide, sulfur dioxide, carbon monoxide, benzene, and dioxins (Boyhtari, 2021). These chemicals are known to cause several short-term health problems, including “irritation of the eye, skin, nose, and throat, coughing, headaches, nausea, and dizziness...asthma, bronchitis, and lung and heart problems,” (Shetty et al., 2023). Long-term effects can include damage to the reproductive, neurological, and respiratory systems, as well as elevated risk of cancer (Shetty et al., 2023). Additionally, health studies conducted in Michigan revealed that schools located in areas where pollution levels were highest had lower attendance rates, indicating that perhaps the children in these locations were more prone to illness (Mohai et al., 2011).

The rapid expansion of the Marathon facility in Boynton (now 250 acres) is eerily similar to that of the oil and gas facilities in St. Clair Township (Costley, 2020). Permit compliance problems are also nearly interchangeable between the two cases. For example, in Boynton, Marathon Petroleum received 15 violations from EGLE during the years 2013-2020 for “surpassing state and federal regulations emission limits,” (Costley, 2020). Marathon Petroleum “denies any wrongdoing, claiming it has reduced emissions by 75% over the last 20 years and only contributes to 3% of emissions in the area,” (Costley, 2020). In St. Clair Township, Ms. Davis and other plaintiffs are arguing in court that Sunoco and Enbridge are not acting in accordance with their permits, specifically referring to their failure to properly maintain their aboveground storage tanks (Gadola et al., 2020; United States District Court for the Eastern District of Michigan Southern Division, 2016).

Efforts to organize St. Clair Township residents have been difficult, mainly due to the influence of Energy Transfer and Enbridge on the community. The neighborhood has essentially been split into those that are actively fighting against these companies, and those who have become too exhausted by these endeavors. Boynton, however, is much more densely populated than St. Clair Township (21,837 people resided there in 2022) and faces more consistent high-level pollution, which has fostered more active organizing in the neighborhood (City-Data, 2022; US Census Bureau, 2022). The environmental justice movement has a long history in southwest Detroit, and a robust coalition of grassroots organizations and allies have been organizing against Marathon and other polluters for decades. Following the efforts of community organizers and a group called Michigan United, Marathon Petroleum was forced to pay \$5 million to buy out residents in Boynton (Ferretti, 2020; Hyland, 2022). Beginning in early 2024, air quality monitoring devices were both installed and handed out to community members in order to alert those who are most vulnerable when pollution levels are high (Shamus, 2023). The data collected will inform “an online dashboard and text message alert system to give people real-time information about the quality of the air,” (Shamus, 2023). This project, funded by the American Rescue Plan Act, is expected to last until December 2026 (Shamus, 2023).

Although air monitors have been discussed to assess the air quality issue in St. Clair Township, requests for monitors have been perpetually denied by the state of Michigan (Venessa Davis, Personal Communications). Hand-held monitors or other low-cost sensors may be beneficial to St. Clair Township residents because installation is not required, although concerns remain about the effectiveness of this type of monitor (Khreis et al., 2022; Appendix H). Having a reliable media source to report on St. Clair Township, similar to what Boynton experienced, would likely assist in the attention needed to receive air monitors, as well as spread awareness about the community’s efforts.

5.1.2 Kalamazoo, Michigan

In Kalamazoo, MI, clean water has been a concern for decades (Flesher, 2019). Beginning in the early 1900s with the emergence of paper companies along the Kalamazoo River, this era was characterized by nearly unregulated contamination of the river (Staros, 2021 and Columbia Law School, 2015). During the 1950s to the 1970s, the Kalamazoo River was utilized for ink removal, resulting in the discharge of chemicals (i.e. polychlorinated biphenyls, or PCBs) into the water (Flesher, 2019). The EPA estimates that there are “more than 120,000 pounds of PCB-contaminated river sediment” still remaining in the river today (Thompson, 2024). In 2010, approximately one million gallons of diluted bitumen (dilbit) was spilled into the river via Line 6B, an oil pipeline owned and operated by Enbridge Inc. (Grant, 2014). It took Enbridge employees 17 hours to notice that the pipeline had ruptured, but by then 843,000 gallons had polluted the river (House, 2020). It remains the “largest inland oil spill in U.S. history” (House, 2020). It was later revealed that Enbridge was aware of the corrosive nature of the 41-year old Line 6B, and had not adequately prepared for such a disaster to occur (House, 2020). This was the largest inland oil spill in the U.S., costing billions of dollars in cleanup and

leading to a large settlement with EPA that requires Enbridge to improve its pipeline safety measures (Devereaux 2010). Effects still linger today.

Additionally, the air quality in Kalamazoo, as recently as 2023, has been subject to scrutiny as well (Michigan Department of Health and Human Services, 2023). H₂S and other VOCs were discovered surrounding a Graphic Packaging International (GPI) facility and the Kalamazoo Water Reclamation Plant (KWRP) after several complaints from the community in 2020 were investigated (Michigan Department of Health and Human Services, 2023). The investigation followed years of complaints by local citizens that had been largely ignored.

The primary differences between Kalamazoo and St. Clair Township is the scale of the issue and the relatively rapid response time in Kalamazoo from Enbridge. The population estimate of Kalamazoo in July 2022 was 72,873, while the population of St. Clair Township was 7,144 (US Census Bureau, 2022; US Census Bureau, 2022). This stark difference in population size, as discussed above regarding Boynton, may be a limiting factor of organizational efforts for St. Clair Township. The scale of the oil spill crisis also served as a galvanizing moment. Environmental advocacy groups representing the residents of Kalamazoo almost immediately began calling on the now former U.S. Representative Fred Upton, imploring him to use his influence “to move the country away from fossil fuels and provide greater regulatory oversight of the country's oil pipeline infrastructure,” (Killian, 2011). St. Clair Township residents have attempted this tactic of appealing to government officials, yet the air quality remains to be resolved, likely due to too few voices making the plea.

Following the major oil spill in 2010, Enbridge was pressured by the residents of the community to repair the aging pipeline (Sierra Club, 2024). Lawsuits were filed against Enbridge on multiple fronts, including one by the MDEQ (Lincoln, 2015). In February 2024, the EPA announced that it would remove portions of the Kalamazoo River from the Michigan Superfund site, demoting it from the list of the nation’s most toxic places (Thompson, 2024).

5.1.3 Sarnia, Ontario

As touched on earlier, across the St. Clair River in Sarnia, Ontario lies a stretch of land that is infamously known as “Chemical Valley,” home to 40% of Canada’s chemical industry (*Vice*, 2013). It has certainly lived up to its namesake; there are approximately 62 chemical plants that extend out to within fifteen miles of Indigenous lands (Lentz, 2022). The Aamjiwnaang First Nation, an Indigenous community comprised of about 2500 Chippewa Aboriginal peoples, is completely enclosed on all sides by these facilities (Aamjiwnaang First Nation, 2024; Lentz, 2022). The community faces elevated exposure to many toxic chemicals and experiences severe health impacts, including elevated rates of cancer (Larsen et al. 2022; Cryderman, 2013). In 2005, a study concluded that there was a declining sex ratio (2:1 in favor of girls) within the Aamjiwnaang community, which was a great cause for concern (Mackenzie et al., 2005). Since then, the Aamjiwnaang have been fighting to prove that the air that they breathe is toxic, and in 2021 a report was released stating that “levels of a cancer-causing chemical in its air are 44 times

higher than is considered safe,” (Cecco, 2021). Benzene and sulfur dioxide (emitted during acid gas flaring events) are the primary toxins being emitted into the air (MacDonald, 2024).

While St. Clair Township and Sarnia are located in two separate countries, they are tightly linked by pipelines and power structures. On both sides of the river, the polluting facilities have yet to face any true consequences of their actions (MacDonald, 2024; *Davis v. Sunoco Pipeline Ltd. P’ship*, 2016). While conducting our survey in St. Clair Township, Sarnia was mentioned quite frequently during our conversations; many participants appeared to wonder whether the odors they were smelling were from Sarnia rather than the facilities in St. Clair Township. While the pollution from Sarnia certainly reaches St. Clair Township, the scale and visibility of Chemical Valley overshadows the local pollution sources within St. Clair County. This can be used against those in the St. Clair Township community, by allowing Enbridge, Energy Transfer, and Michigan government agencies to place the blame on a different country rather than admitting to their own culpability in terms of pollution. Yet to reach the goal of healthy, safe air and water in this region, the struggles on both sides of the river must be linked together.

5.1.4 Connections Across Communities

The environmental injustices in Kalamazoo, Detroit, and Sarnia are connected to St. Clair County not just conceptually, but physically. Two hundred miles west of where the 2010 Line 6B oil spill occurred in Kalamazoo, the very same pipeline runs underneath Ms. Davis’s yard, through the Murphy Drive metering station, under the St. Clair River, and into Sarnia. Enbridge’s Line 5—which puts communities at risk throughout Michigan—meets up with Line 6B at this same metering station. At the metering station, some petroleum products are diverted to other pipelines heading south to Detroit, ending in the refineries that pollute the Boynton and Oakwood neighborhoods. The remaining crude oil continues to Sarnia, where it is similarly processed and pollutes the Aamjiwnaang First Nation. These pipelines and refineries are physical manifestations of the power structures that burden so many communities with excess pollution. The facilities are connected despite being geographically dispersed, and are all owned by a decreasing number of consolidating corporations which wield enormous control over governments that are supposed to regulate them. It is not just oil that flows through the pipelines, but power. This is why we cannot fight each facility in isolation; we must build relationships and coalitions between communities to build power.

5.2 Race, Politics, and Environmental Justice in St. Clair Township

As a predominantly white and rural community, St. Clair Township challenges the typical narrative of environmental justice. The environmental justice movement as a whole emerged from the recognition that people of color and those living in poverty disproportionately bear the burden of pollution. This movement has largely been led by Black, Latinx, Asian American,

Pacific Islander, and Indigenous communities. The phenomenon of environmental racism has been a focal point of advocacy efforts by communities of color for decades (Skelton & Miller, 2023). Environmental justice entails equal access to environmental protections and involvement in community policies for all, irrespective of race, income, or nationality; however, this ideal has seldom been realized for people of color and those with low incomes due to enduring patterns of racism and inequality ingrained in American society since its inception (Skelton & Miller, 2023). Predominantly white and affluent communities tend to receive greater investments in infrastructure, stricter enforcement of environmental laws, and more accountability for polluters, while marginalized communities often face the intentional siting of highways, waste disposal, industrial concentration, and resource exploitation which compound environmental hazards and increase health risks for residents (Skelton & Miller, 2023).

However, the community of St. Clair Township defies easy categorization. Within St. Clair Township, nearly 96.2% of residents identify as white (US Census Bureau, 2022). In the five-mile radius surrounding the facilities on Murphy Drive, the average per capita income is \$52,183 with 29% of these households classified as low-income (EJScreen, n.d.). In many ways, it is not what we might think of as a typical “Environmental Justice Community.” In other ways, the community’s demographics reflect local environmental hazards. Only 23.2% hold a bachelor's degree or higher compared to the national average of 37.5% and the Michigan state average of 34% (US Census Bureau, 2022), and the local economy is dependent on heavy industry. The average life expectancy is reported to be 70 years, significantly lower than the 2021 national average of 76 (CDC, 2021). 16% of the population identifies as persons with disabilities (EJScreen, n.d.). Residents like Ms. Davis are situated amidst a tank farm, pump station, multiple pipelines, refineries, hazardous waste facilities, and the nearby Chemical Valley. This juxtaposition underscores the intricate tapestry of factors contributing to environmental justice disparities.

Furthermore, we cannot ignore the complex political and social dynamics of the St. Clair Township area. Environmental justice movements are typically associated with left-leaning politics. But in St. Clair and Kimball Townships, we frequently encountered pushback against liberalism and environmentalism. In a heavily Republican county, several people we surveyed expressed skepticism about our project and its connections to climate change. One survey respondent said that they hoped we were not “Greta Thunberg green,” while still expressing their deep anger over air pollution and the failure of the government to address it. Another resented big industrial polluters, yet blamed their environmentally destructive actions on Democratic leadership. In a darker expression of divides in this community, one home we passed flew explicitly white supremacist flags in their yard. While this racism is certainly not representative of everybody in the community, it cannot be ignored. What does it mean to do environmental justice in a rural, predominantly white, and predominantly conservative community? We do not have the answers, but we do believe our experience points to the need to build coalitions not just across geographical divides, but political and racial ones.

While race and economic status are undeniably critical lenses for Environmental Justice, this case study pushes us to address the systemic economic and power structures that underlie racial and economic disparities in environmental burdens. Our extractive economy, embedded in “carbon capitalism,” relies on the exploitation of both people and the environment (Di Muzio, 2015). This exploitation disproportionately affects low-income people of color, but its impacts do not end at the borders of cities like Detroit or reservations like that of the Aamjiwnaang First Nation. The physical and economic infrastructure that supports the fossil fuel economy harms people and land along every step of the supply chain. It is not enough to redistribute this harm and diffuse it across broader geographies. Rather, it must be stopped altogether, which will require a radical transformation of our economy and society.

This case study demonstrates how the environmental justice movement intersects with the racial and political complexities of communities like St. Clair Township, which may not always conform to the “environmental justice community” mold. Despite this, St. Clair Township and Kimball Township residents clearly expressed a shared desire for clean air, clean water, and a healthy environment. It is based on this shared belief—that everybody deserves access to a healthy environment and decision-making power regardless of race, income, or political affiliation—that we develop our recommendations for future action in St. Clair Township.

5.3 Looking towards the future

5.3.1 Recommendations

As FROE continues to fight for a healthy environment in St. Clair County, the organization will need to employ a variety of complementary strategies. Below, we suggest some possible organizing, legal, and public health strategies.

Community Organization & Advocacy Strategies

To advance environmental justice initiatives in St. Clair Township, a comprehensive strategy is proposed. First, regular community engagement events, comprising meetings, workshops, and educational sessions will be orchestrated through the formal establishment of FROE as a 501(c)(3) non-profit organization. These initiatives will equip residents with essential knowledge of environmental regulations, pollution risks, and effective advocacy methods. The cultivation of grassroots leadership and bolstering community capacity is imperative; this involves investing in leadership development programs, community training sessions to empower residents as leaders and advocates for environmental justice, and working on a media and public awareness campaign to further build public support. Utilizing media and public awareness campaigns to shine a spotlight on environmental and social impacts can build support for legal challenges and pressure corporations and governments to change their practices.

Currently, FWF plays a pivotal role in facilitating the establishment of a sustainable network of local activists and organizers, crucial for the continuity of community-driven initiatives. For instance, currently our team has the opportunity to potentially join FROE's governing board, where members can contribute their expertise, insights, and fresh perspectives to guide FROE's initiatives and strategic direction. Additionally, our active participation can strengthen future ties between FROE and SEAS, facilitating ongoing collaboration for future capstone projects and initiatives. Serving on the board not only offers valuable leadership experience for our team members, but also ensures continuity and sustainability for FROE's mission and goals.

Collaboration with regional and national environmental justice networks such as the Sierra Club, Pipeline Safety Trust, Aamjiwnaang First Nation organizers, and MEJC will expedite the exchange of resources, expertise, and strategies for collective action.

Legal and Regulatory Strategies

Accessing legal support and resources is essential. There is a promising opportunity to utilize local nuisance law as a mechanism for influencing environmental policy at the grassroots level. However, the effectiveness of this approach is contingent upon securing sufficient legal and financial support to navigate the complexities of environmental law research and policy. For Ms. Davis and local residents, ensuring adequate support from the frontlines of environmental law research and policy is imperative to achieve success in their legal endeavors. This includes seeking pro-bono legal assistance and forming partnerships with environmental law clinics such as the UM Law School's Environmental Law and Sustainability Clinic, the Environmental Law and Policy Center (ELPC), and the Great Lakes Environmental Law Center to strengthen the community's legal position. Legislators often hesitate to regulate or intervene in facilities like these because they straddle the intersection of local, state, and federal jurisdictions; this ambiguity enables corporations to exploit communities without being held accountable, as lawmakers and regulators may feel it falls outside their jurisdiction or that it should be addressed by another level of government. Advocating for policy reform and regulatory oversight is critical; this involves lobbying elected officials and regulatory bodies to address loopholes, streamline permitting processes, and enhance public involvement in decision-making processes to promote environmental justice in the community. We have created a template one-pager to support this advocacy, which FROE can modify to target talking points to specific officials (see Appendix G). More specifically, to address regulatory gaps in overseeing smaller tank farm facilities, clear guidelines should be established to define the responsibilities of local, state, and federal authorities, ensuring comprehensive oversight. Community engagement should be prioritized through avenues like community advisory boards and public hearings, fostering transparency and public participation in decision-making. Additionally, mandatory reporting of environmental data by facilities to regulatory bodies and the public would enhance transparency and enable prompt intervention in case of violations.

Public Health Strategies

Furthermore, empowering community-led scientific research and data collection efforts is vital. Implementing programs to monitor air and water quality, including training residents in data collection techniques such as keeping odor diaries, empowers individuals to actively participate in environmental monitoring. Our survey revealed that many local residents are concerned about health impacts from the fossil fuel facilities on Murphy Drive, including odor-related symptoms and respiratory illness. However, we did not have the capacity to implement a full scale health impact assessment, exposure assessment, or epidemiological study, which could further quantify health risks facing this community. In order to better understand potential future directions for a public health study, we solicited expert advice from several environmental health professionals (see additional notes on these conversations in Appendix H). These conversations revealed several obstacles to implementing a full-scale public health study, including the relatively small population size, the presence of multiple sources of pollution in the region, lack of regulatory standards for the chemicals involved, and lack of funding.

However, environmental health experts also recommended several paths forward, primarily starting with a more comprehensive exposure assessment to understand what pollutants residents are exposed to. This would involve systematic air and water quality testing. One recent precedent for such work is MDHHS's Health Consultation in Kalamazoo, which found harmful levels of H₂S present in communities that had been voicing concerns about foul odors for years (Michigan Department of Health and Human Services, Division of Environmental Health, 2023). Other communities have initiated community-led environmental monitoring with low-cost air quality sensors, which could serve as a model for a similar study in St. Clair Township (Macey et al., 2014; Raheja et al., 2022). Another option is for residents to keep odor diaries to document smells, including their frequencies, intensities, and health symptoms. Odor diaries can offer evidence of exposure and build the case for additional measures to be taken. These types of community-led studies would benefit residents by providing independent measures of pollutants and quantifying potential health risks. Additional options and recommendations can be found in Appendix H.

5.3.2 FROE

Following our graduation in May 2024, signifying the conclusion of this project, FROE and its partnership with FWF will remain steadfast in their commitment to advancing the initiatives commenced during this endeavor. FWF will concentrate its efforts on supporting FROE through the process of formalizing its status as an official 501(c)(3) non-profit organization. Presently, FROE has commenced the incorporation process, with upcoming tasks including convening its inaugural board meeting and the completion of Internal Revenue Service (IRS) forms and applications. FWF will provide continuous assistance to FROE in these technical and administrative endeavors through the establishment of its non-profit entity.

Consequently, FROE is poised to undertake new initiatives informed by the survey findings and timeline analysis. Chief among these endeavors is the optimization of member

recruitment strategies; leveraging insights from survey analysis and timeline data, FROE seeks to enhance community engagement and participation. These findings, coupled with the comprehensive power analyses, will equip FROE members to effectively advocate on behalf of their community in legal proceedings and engagements with policymakers and other key stakeholders.

Finally, FROE aims to sustain its connection with the University of Michigan and will pursue the opportunity to enlist the support across the university in the years to come. These future partnerships can build upon the groundwork laid during this project, conducting assessments to identify FROE and FWF Future's specific needs and advancing their collaborative efforts accordingly.

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APPENDICES

Appendix A: Acronyms

ASAP: Aamjiwnaang and Sarnia Against Pipelines
BTEX: Benzene, Toluene, Ethyl Benzene, and Xylenes
COPD: Chronic Obstructive Pulmonary Disease
DOJ: U.S. Department of Justice
EGLE: Michigan Department of Environment, Great Lakes, and Energy
ELPC: Environmental Law and Policy Center
EPA: Environmental Protection Agency
FROE: Families Reclaiming Our Environment
FWF: Freshwater Future
GPI: Graphic Packaging International
HEPA: High Efficiency Particulate Air [Filter]
HIPAA: Health Insurance Portability and Accountability Act
H₂S: Hydrogen Sulfide
IRB: Institutional Review Board
IRS: Internal Revenue Service
KWRP: Kalamazoo Water Reclamation Plant
MDEQ: Michigan Department of Environmental Quality
MEJC: Michigan Environmental Justice Coalition
PAHs: Polycyclic Aromatic Hydrocarbons
PCBs: Polychlorinated Biphenyls
PPE: Personal Protective Equipment
PSA: Pipeline Safety Act
SEAS: School for Environment and Sustainability
SOX: Sulfur Dioxide
VOCs: Volatile Organic Compounds

Appendix B: Legal Codes

1. Michigan Department of Environmental Quality Air Quality Division Michigan Admin Code
 - a. R 336.1906 Air contaminant or water vapor, when prohibited.
Rule 906. Notwithstanding the provisions of any other department rule, a person shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
 - (a) Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.

- (b) Unreasonable interference with the comfortable enjoyment of life and property.
- 2. St. Clair County, MI Ordinances,
 - a. 75, § 2(a)(3) defines a “nuisance” as an act, or omission to act, by a person that creates or permits: (3) Condition[s] which render persons insecure in life or use and enjoyment of their property such as effects and emanations from noise, glare, lights, vibration, dust, smoke odor, gas, chemicals, worms, insects, rodents, flies, decaying matter, whether such emanations are natural or result from human or mechanical alteration o[r] manipulation of materials[.]
 - b. Rule 336.1901
 - i. Notwithstanding the provisions of any other rule, a person shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
 - 1. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.
 - 2. Unreasonable interference with the comfortable enjoyment of life and property.
- 3. St. Clair County Code of Ordinances
 - a. Article IV. Dangerous or Hazardous Substances
 - i. Sec. 26-102. - Dangerous, hazardous substances or materials.
 Dangerous, hazardous substances or materials is defined as any substance which is spilled, leaked or otherwise released from its container, which in the determination of the fire chief or his authorized representative, is dangerous or harmful to the environment or human or animal life, health, safety, or is obnoxious by reason of odor, or is a threat to public health, safety or welfare, this shall include, but not be limited to, such substances as chemical and gasses, explosive, radioactive materials, petroleum or petroleum products or gasses, poisons, etiological (biological) agents, flammables or corrosives. (Ord. 1994-04, § 4, 9-6-94)
 - ii. Sec. 26-103. - Duty to remove and cleanup.
 It shall be the duty of any property owner or any person or any other entity which causes or controls leakage, spillage, or any other dissemination of dangerous or hazardous substances or materials to immediately remove such and cleanup the area of such spillage in such a manner that the area involved is fully restored to its condition prior to such happening. (Ord. 1994-04, § 3, 9-6-94)
 - iii. Sec. 26-104. - Failure to remove and clean up.

Any property owner of the area involved or any such person or entity which fails to comply with subsection 26-103 shall be liable to and shall pay the city for its costs and expenses, including the cost incurred by the city to any party which it engages for the complete abatement, containment, cleanup, disposal and restoration of the affected area. Costs incurred by the city shall include: actual labor costs of city personnel (including workers compensation benefits, fringe benefits, administration overhead, cost of equipment operation), cost of material obtained directly by the city; and the cost of any contract labor and materials. Costs under this section shall not include actual fire suppression services which are normally or usually provided by the city. (Ord. 1994-04, § 2, 9-6-94)

b. Article 10: Environmental Performance and Flood Prevention District Regulations

i. Section 10.7. - Odors.

The emission of noxious odors, odorous matter in such quantities as to be readily detectable at any point along lot lines, when diluted in the ratio of one volume of odorous air to four or more volumes of clean air or as to produce a public nuisance or hazard beyond lot lines, is prohibited.

4. Pipeline Safety Act

a. 49 U.S. Code § 15301 - General pipeline jurisdiction (1995)

i. In General.—The Board (Surface Transportation Board) has jurisdiction over transportation by pipeline, or by pipeline and railroad or water, when transporting a commodity other than water, gas, or oil. Jurisdiction under this subsection applies only to transportation in the United States between a place in—(1)a State and a place in another State; (2)the District of Columbia and another place in the District of Columbia; (3)a State and a place in a territory or possession of the United States; (4)a territory or possession of the United States and a place in another such territory or possession; (5)a territory or possession of the United States and another place in the same territory or possession; (6)the United States and another place in the United States through a foreign country; or (7)the United States and a place in a foreign country.

b. Pipeline and Hazardous Materials Safety Administration (PHMSA)

- i. Federal pipeline statutes provide for exclusive Federal authority to regulate interstate pipelines, interstate underground natural gas storage, and interstate LNG facilities.
- ii. The Norman Y. Mineta Research and Special Programs Improvement Act authorized the formation of the Pipeline and Hazardous Materials Safety Administration (PHMSA) in 2004.
- iii. Six statutes provide the framework for the Federal pipeline safety program.
 - 1. Natural Gas Pipeline Safety Act of 1968
 - 2. Hazardous Liquid Pipeline Safety Act of 1979
 - 3. Pipeline Inspection, Protection, Enforcement and Safety Act of 2006
 - 4. Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011
 - 5. Protecting our Infrastructure of Pipelines Enhancing Safety (PIPES) Act of 2016
 - 6. Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020, Public Law No. 116-260, Division R December 27, 2020

Appendix C: Energy Transfer, Sunoco, Enbridge Logistics

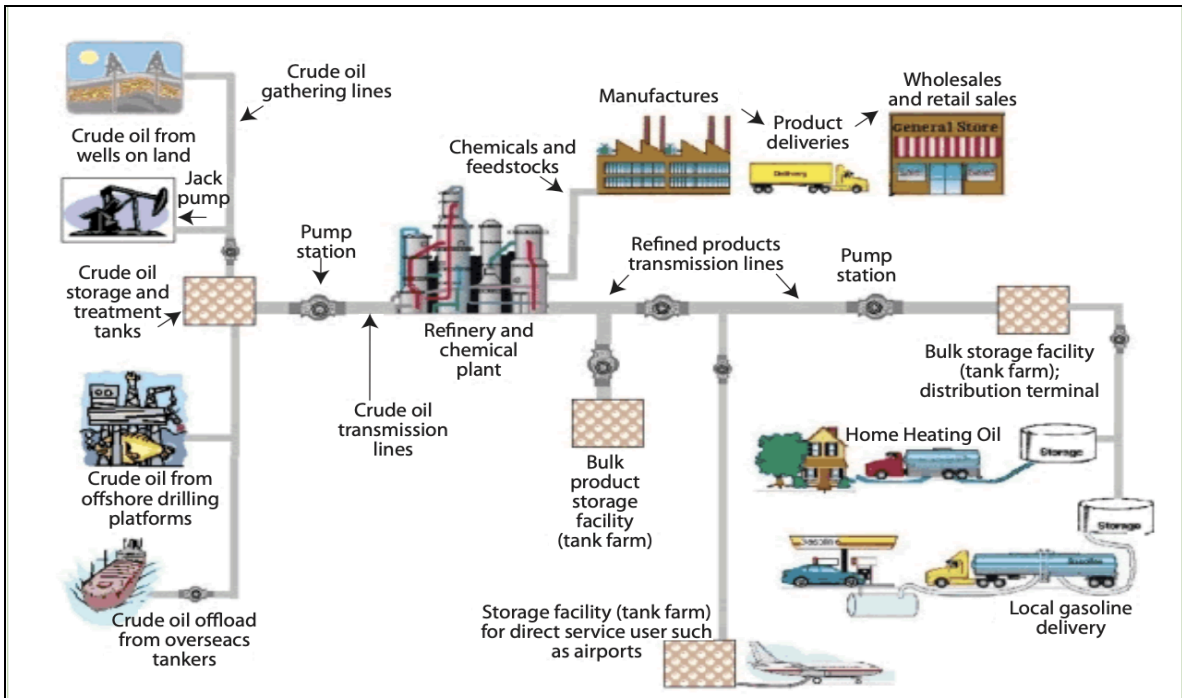


Figure H1: U.S. Department of Transportation Pipeline & Hazardous Materials Safety Administration (PHMSA) "Petroleum Pipeline Systems" (2019)

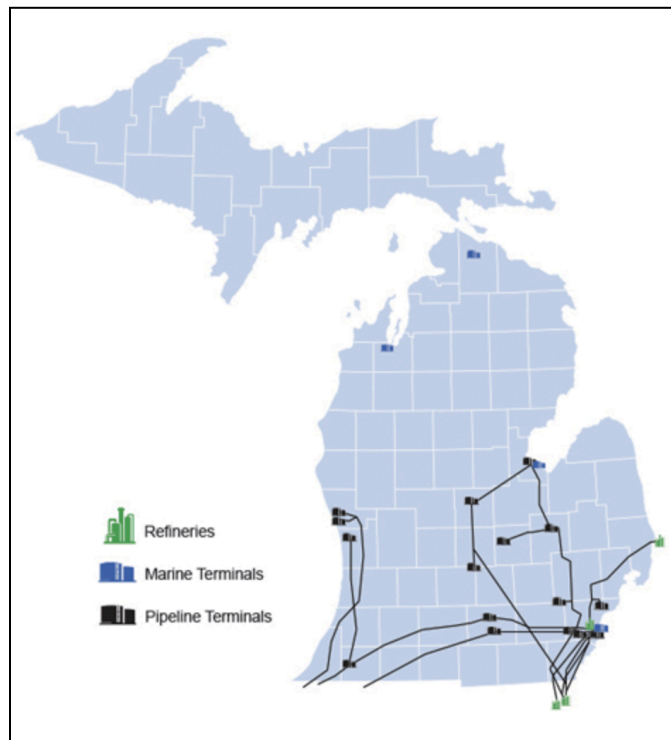


Figure H2: MPSC Staff "Michigan petroleum products pipelines map (2014). Does not include crude oil, natural gas or liquid petroleum gas (LPG) pipelines.

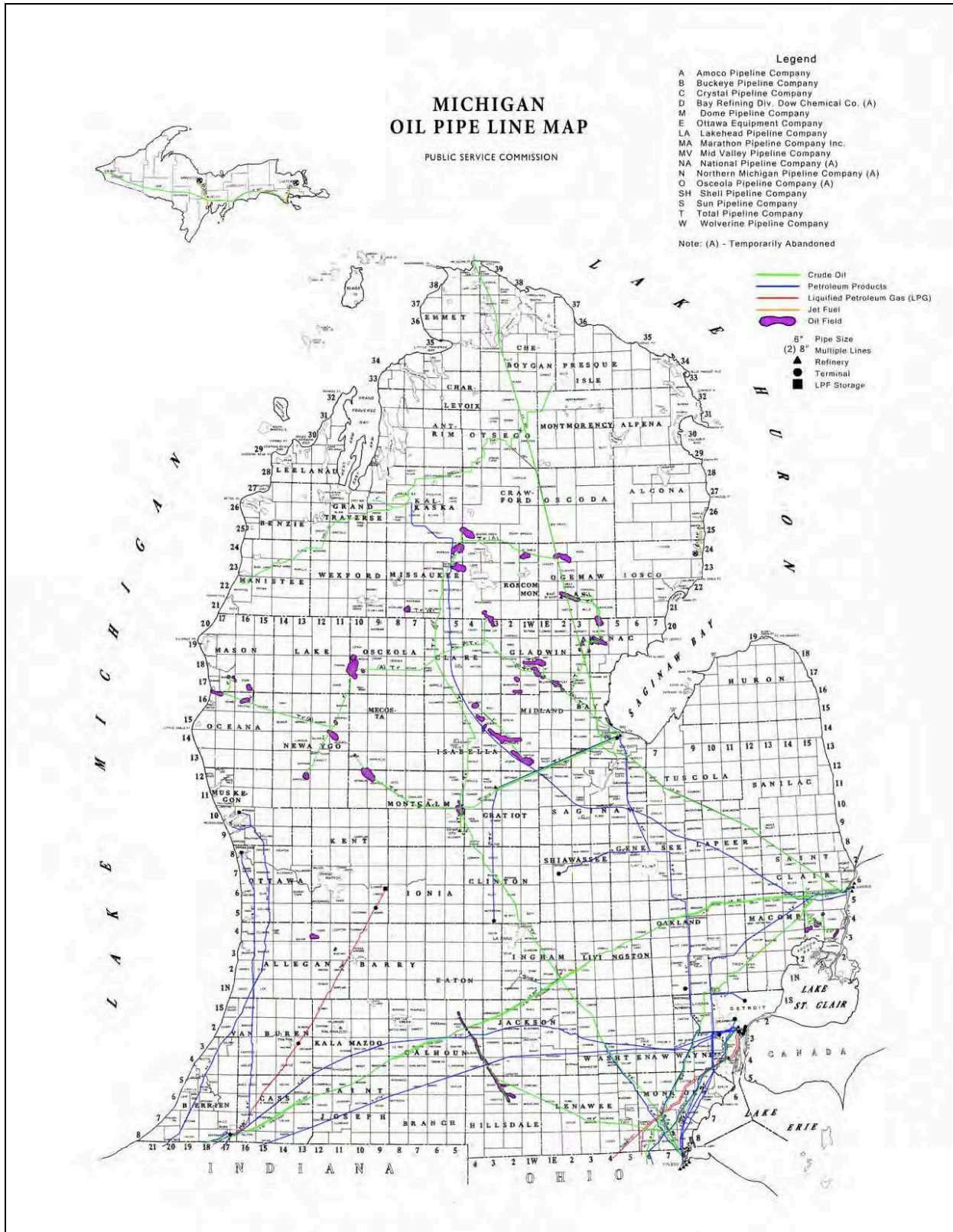


Figure H3: MPSC Staff “Michigan petroleum products pipelines map”, includes crude oil, natural gas or liquid petroleum gas (LPG) pipelines. N.d.

Sunoco Logistics Assets

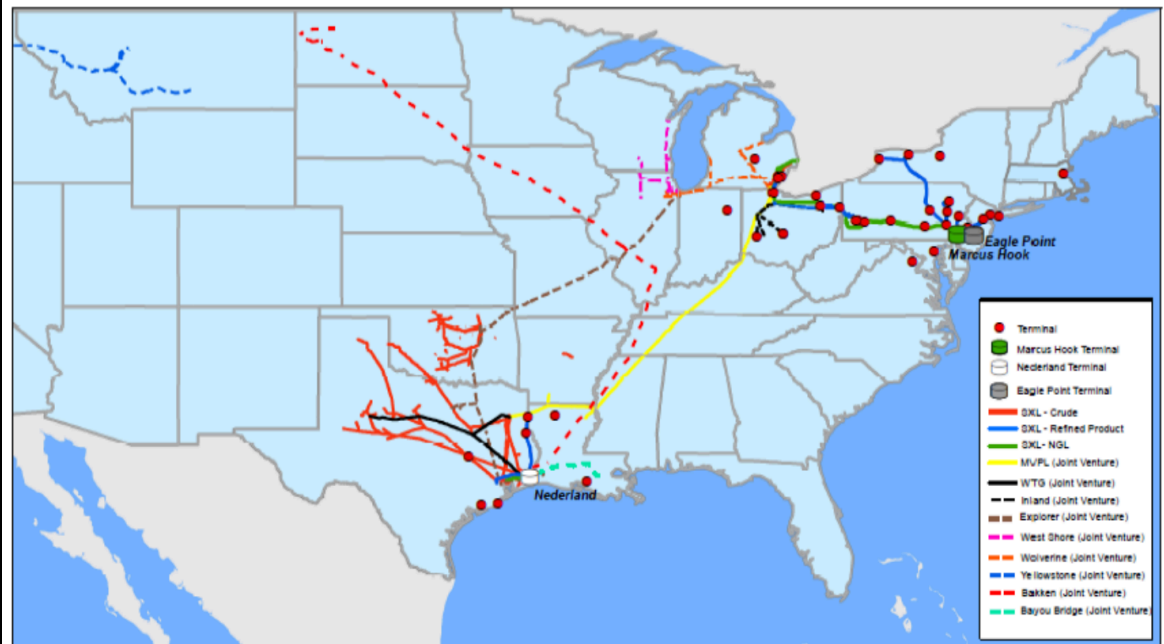


Figure H4: Sunoco Logistics Sunoco Pipeline LP. “Operations and Maintenance Manual.” Pipeline Safety Information, n.d.

Energy Transfer Family of Companies

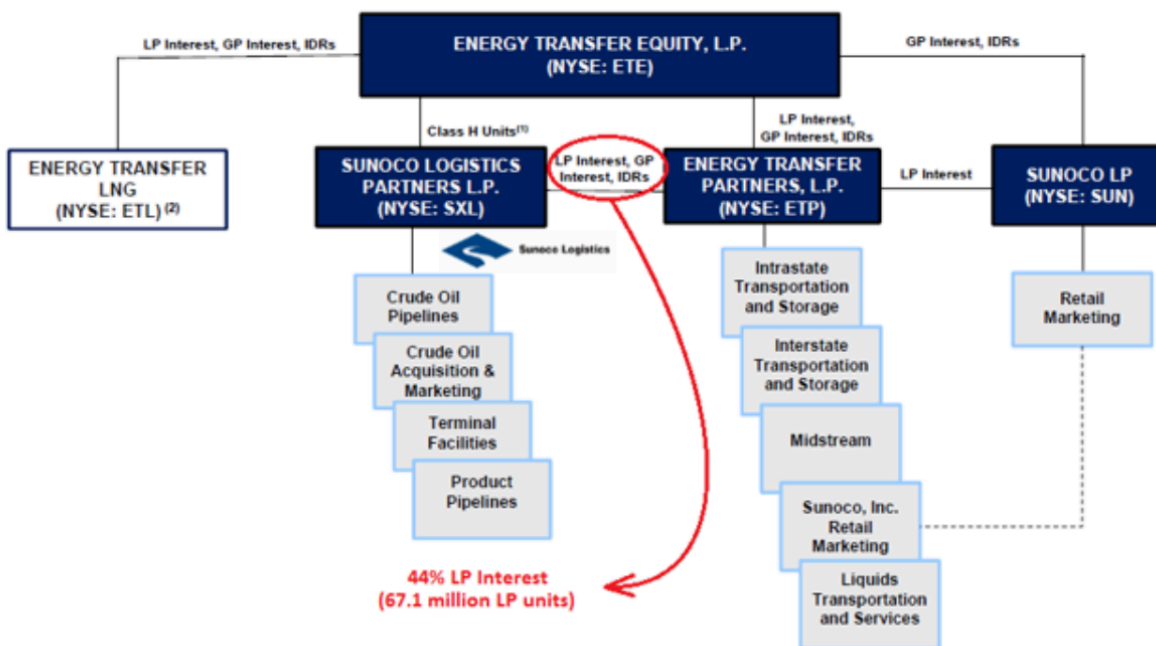
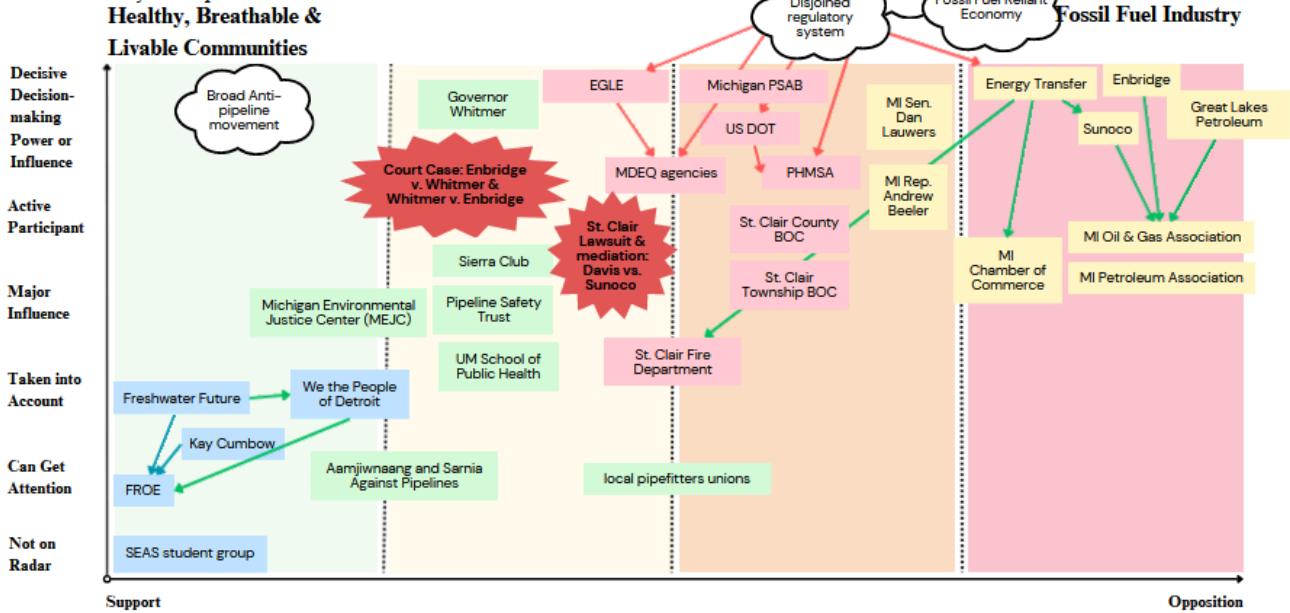


Figure H5: Energy Transfer LP Ownership Structure “The Energy Transfer Family Structure” (2022)

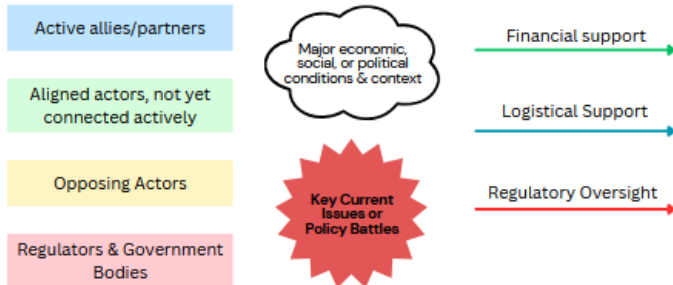
Appendix D: Initial Power Analysis

EJ Case Study: St. Clair Township, MI

Power Analysis Map



Legend




Appendix E: Community Engagement Event Materials

E1: Questionnaire from community engagement event

Name:	Phone Number:
Address:	Email Address:
<p>1. Would you like to join Families Reclaiming Our Environment (FROE)?</p> <p><input type="checkbox"/> yes <input type="checkbox"/> no</p>	
<p>2. Are you open to being contacted to take a survey or be interviewed by the student team? (We will share more information soon and you can always change your mind.)</p> <p><input type="checkbox"/> yes <input type="checkbox"/> no</p> <p>If yes, how do you prefer to be contacted?</p> <p><input type="checkbox"/> email <input type="checkbox"/> phone call <input type="checkbox"/> text message</p>	
<p>3. Are you interested in coming to future community events and meetings? If yes, which times are you usually available?</p> <p><input type="checkbox"/> Weekdays, daytime <input type="checkbox"/> Saturdays, daytime <input type="checkbox"/> Sundays, daytime</p> <p><input type="checkbox"/> Weekdays, evening <input type="checkbox"/> Saturdays, evening <input type="checkbox"/> Sundays, evening</p>	

E2: Handouts from community engagement event

Who to Call for Environmental Assistance?	
ISSUE	CONTACT
Air emissions from industrial and commercial operations in St. Clair County	EGLE Air Quality Division Warren District Office at 586-596-6068 or 586-606-2572 Or submit a complaint online at the QR code. 
Environmental pollution emergencies such as tanker accidents, pipeline breaks, and releases of reportable quantities of hazardous substances	24-Hour Pollution Emergency Alert System (PEAS) Hotline at 1-800-292-4706
Illegal discharge/dumping (to sewers, rivers and streams, ground)	24-Hour Pollution Emergency Alert System (PEAS) Hotline at 1-800-292-4706
Odors from oil or gas producing facilities	EGLE Environmental Assistance Center 800-662-9278 or EGLE Oil, Gas, and Minerals Division Southeast Area Geologist at 517-262-3381

How can you get involved?

Make your voice heard by joining FROE! Together, we'll take actions such as:

- Learning about health problems associated with pollution and how to protect ourselves
- Raising awareness about our concerns via media campaigns
- Contacting government representatives to let them know we care about living in a safe environment
- Creating a community action plan
- And more!



Keep in contact!

If you are interested in joining FROE, email
Justice4FROE@gmail.com.

Follow our Facebook page and stay up to date via the QR
code on the right, or by visiting
<https://www.facebook.com/Justice4FROE>



Get to Know the Environmental Justice Student Team!

Who is the student team?

We are a group of five graduate students at the University of Michigan. Our names are Allie Lawler, Ally Martin, Anjola Verissimo, Margot Ridgeway, and Rebecca Beilinson. We all come from different places and backgrounds, but we share a deep belief that everyone deserves to live in a healthy, safe environment. Since January 2023, we've been working with Ms. Venessa Davis, FROE, and a local non-profit organization called Freshwater Future to support the fight for environmental justice in St. Clair County.

What are we doing?

Industrial fossil fuel facilities in St. Clair Township and surrounding areas have been causing toxic pollution, bad odors, excessive noise, and other problems for many years. Along with FROE and Freshwater Future, we are working on a one-year project with two main goals:

1. Create a comprehensive timeline and report that researches the evidence that local fossil fuel companies have been polluting the air and water and causing real harm to residents.
2. Develop an action plan to support community members in continuing to fight for a healthy living environment.

We hope that by creating these resources together, we can provide you with new tools to bring attention to these issues and make real change for a healthier environment in St. Clair County.

How can you get involved?

A big part of our project will be analyzing documents on regulations, industry operations, and policy related to toxic pollution in the St. Clair Township area. But we also need to hear from neighbors and residents! Since you have lived near these facilities for a long time and may have directly experienced the impacts of the pollution, you are an expert in this situation. We would greatly value your involvement in this project. You can participate in the following ways:

- Agree to be interviewed or surveyed about your experience and opinions. Responses will be kept anonymous if you choose, but will inform our report and action plan.
- Join future meetings to help develop a community action plan. We hope to meet once a month to collectively create this action plan, which FROE can use for years to come.

If you're interested in getting involved or would like to learn more about this project, please email us at freshwater.future.capstone@umich.edu! We're also happy to talk on the phone to provide more details about our project and answer any questions you may have.

Appendix F: Survey Materials

F1: Informed consent form for survey participants (following page)

INFORMATION SHEET

Environmental Justice Case Study in St. Clair Township, Michigan

Principle Investigator: Kyle Whyte, Professor at the School for Environment and Sustainability, University of Michigan

Faculty Advisors: Michelle Martinez, Director of the Tishman Center for Social Justice and the Environment at the School for Environment and Sustainability, University of Michigan and Kyle Whyte, Professor at the School for Environment and Sustainability, University of Michigan

Study Sponsors: Freshwater Future and Families Reclaiming Our Environment (FROE)

Study Overview

We are inviting you to participate in a research study about oil and gas industry operations and environmental conditions in St. Clair Township and Kimball Township. We are a team of five graduate students from the University of Michigan, studying Environmental Justice at the School for Environment and Sustainability. Our names are Allie Lawler, Ally Martin, Anjola Verissimo, Margot Ridgeway, and Rebecca Beilinson. We are working on a 1.5 year-long project to understand the impacts of the fossil fuel industry in the St. Clair Township area and to increase community awareness about potential environmental and human health concerns.

We were invited to complete this research project by local resident Ms. Venessa Davis and her grassroots organization Families Reclaiming Our Environment. We are collaborating with FROE and their nonprofit organization partner Freshwater Future. This survey was designed independently by the University of Michigan graduate student team and their advisors for the purposes of academic research.

Participation Details

If you agree to be part of the study, you will be asked to complete a survey with 22 questions via an in-person conversation. Alternatively, you may choose to take the survey via an online questionnaire or over the phone. We expect the survey to take around 15-20 minutes to complete. After completing the survey, you will be compensated for your participation with \$20 in cash. Participation in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time.

Risks and Benefits of Participating

We do not anticipate any risks or discomfort from participating in this survey. You may be asked personal questions, but *you may choose to skip any questions you do not feel comfortable answering with no penalty to you and no effect on your compensation.* As part of their review, the University of Michigan Institutional Review Board Health Sciences and Behavioral Sciences has determined that this study presents no more than minimal risk and is exempt from on-going IRB oversight.

Benefits of participating in this survey include contributing to a greater understanding of environmental conditions in St. Clair Township and Kimball Township. Your perspectives and opinions will inform future actions and strategies in the fight for a clean and healthy living environment for all local residents.

Confidentiality and Privacy

We take your confidentiality and data privacy seriously. All personally identifiable information (e.g. names and addresses) and responses to survey questions will be stored on secure University of Michigan servers that can only be accessed by the university research team. Your name and address will remain confidential. Survey responses may be published in aggregated form in reports, research articles, and other materials produced by the research team or its community partners. We may share anonymous quotations, but we will never publish personally identifiable information without your express permission.

For oral surveys (in person or over the phone), we may request to audio record the survey. Recordings will *only* be used to transcribe responses at a later date for research purposes, and will never be shared outside of the research team. Recordings will be stored on secure University of Michigan servers and will be deleted after transcription. You may decline audio recording with no penalty.

Questions

If you have questions about this study, you may ask them now or contact the student research team at freshwater.future.capstone@umich.edu. You may also reach out to Professor Kyle Whyte at kwhyte@umich.edu. If you have any questions or concerns regarding your rights as a subject in this study, you may contact the Institutional Review Board (IRB) for Human Participants Office at 734-936-0933 or access their website at <https://research-compliance.umich.edu/irb-health-sciences-and-behavioral-sciences-hsbs>.

Statement of Consent

Recording:

- I consent for my survey to be audio recorded for the purposes of later transcription. This recording will not be shared outside of the University of Michigan research team.
- I do not consent to audio recording.

Consent to Participate:

I have received and understood the above information and have received answers to any questions I asked. I consent to participate in this study.

Signature: _____

Date: _____

Name (Printed): _____

F2: Survey Questions

Overview Statement:

The following questions were independently designed for the purposes of academic research by graduate students from the University of Michigan, studying in the School for Environment and Sustainability Environmental Justice program. The students are currently working on a 1.5 year-long project that is meant to increase community awareness about several environmental and human health threats in the greater St. Clair, Michigan area, including several oil and gas pipelines as well as oil refineries. The students are also in close collaboration with the nonprofit organization Freshwater Future, as well as Ms. Venessa Davis (who lives in St. Clair Township) and her grassroots organization Families Reclaiming Our Environment (FROE). By taking the time to fill out this survey, you will help the student team to better understand perceptions of oil and gas facilities, as well as their impacts on the local environment of St. Clair, shedding greater light on what life is like living near these threats on a daily basis. The entire survey takes approximately 15-20 minutes to complete, and all responses will remain anonymous. You will be paid \$20 for your participation.

Disclaimer:

If there are any questions within the survey that you do not feel comfortable answering, please feel free to skip them.

Interview and Survey Questions:

1. What is your address?
2. How long have you lived in your current home?
3. How many people live in your home?
 - a. What are your ages?
4. Are you aware that you live by numerous pipelines, an oil and gas storage tank facility and a crude oil unloading station? Yes or No
 - a. Did you know that these facilities and pipelines were here when you moved into your home? Yes or No
5. Have you ever been concerned about foul odors or air quality? Yes or No
6. Have you ever been concerned about your water quality? Yes or No
7. Have you ever made a complaint about foul air or air quality concerns? Yes or No
8. Have you ever made a complaint about your water quality? Yes or No
9. Have you ever made a complaint about pipeline safety? Yes or No
 - a. If yes, who did you make the complaint to?
 - b. What was the outcome of the situation?

10. Do you believe that you or your family have been positively or negatively impacted by living close to the fossil fuel facilities and pipelines in your neighborhood?

Yes, No, Maybe, or Unknown

a. Please explain:

11. Do you believe you or your family's overall health has changed or worsened since moving into your current home?

Yes or No

a. Please explain:

12. Do you believe your pet's overall health has changed or worsened since moving into your current home?

Yes or No

a. Please explain:

13. Have you ever experienced any of the following: Loss of smell, increased sinus issues, difficulty breathing, increased asthma, severe headaches, mental fog, increased breaking out, or other disturbances associated with air quality around your home?

Yes or No

a. Please explain any health concerns you or your family have had:

14. Are you aware that Energy Transfer (formerly Sunoco) owns and operates the oil and gas storage facility, crude oil unloading station and various pipelines in your neighborhood?

Yes or No

15. Are you aware that Enbridge Energy owns and operates oil and gas pipelines and a meter station in your neighborhood?

Yes or No

16. Have you or do you know someone who worked for the Saint Clair Township crude oil pipelines, storage facility or unloading station in your neighborhood in the past?

Yes or No

17. Are you/do you know someone who is working for the Saint Clair Township crude

oil pipelines, storage facility or unloading station located in your neighborhood now? Yes or No

18. Have you ever had any direct contact with a worker for either Energy Transfer (formerly Sunoco) or Enbridge Energy? Yes or No

- a. Was the experience positive or negative?
- b. Please explain:

19. Do you have any experiences that you would like to share regarding these facilities? Yes or No

- a. Please explain

20. Have you had any contact with the Saint Clair/Kimball Township offices regarding these facilities or air quality? Yes or No

- a. Please explain

21. Have you had any contact with the Saint Clair County Health Department regarding these facilities or air quality? Yes or No

- a. Please explain

22. Do you know who to call if there is an emergency with one of these facilities like: foul odors, pipeline leaks, unloading station problems or an explosion? Yes or No

- a. Would you like information regarding what to do and who to call?

Yes or No

F3: Handout left at houses that did not answer the door



Take a survey and earn \$20!

Hello! We are a team of graduate students from the University of Michigan and we are working on a project about the impacts of the oil and gas industry in St. Clair and Kimball Townships. We are partnering with a non-profit called Freshwater Future as well as a local organization called Families Reclaiming Our Environment (FROE). You can find more information about FROE and our project on the attached pages.

As part of our project, we are studying the environmental and health impacts of several fossil fuel facilities in your neighborhood. **We want to hear about your experiences and opinions living near these industrial facilities.**

You can take our survey either online or over the phone. It is completely confidential and will only take about 20 minutes. To thank you for your participation, we will mail you \$20 afterwards.

To take the survey online, go to <https://tinyurl.com/FROESurvey> or scan this QR code:



If you have any questions, or if you prefer to take the survey over the phone, email us at: freshwater.future.capstone@umich.edu.

Appendix G: Template Advocacy One-Pager

This one-pager is a template that FROE can use as a starting point for meeting with officials. The text can be adapted for different goals and individuals.

Families Reclaiming Our Environment
St. Clair Township, Michigan
DAY MONTH YEAR

We are Michiganders who have suffered at the hands of the fossil fuel industry since the 1980s. Officials like yourselves sacrificed our neighborhoods, air, water, children, and comfort to profit from these companies.

Crude oil storage tanks and offloading operations directly across the street from St. Clair Township and Kimball Township residents have negatively impacted community members' health and the surrounding environment for decades. PFAS levels are rising, foul odors from the facilities are making people sick, contaminated water flushed from facilities is rushing onto private property, water in residential homes is flammable, and people, including children, are falling ill due to the worsening air quality. For years, residents have fought, exhausting all plausible options in advocating for themselves against these companies and their local government.

We represent a non-profit organization called Families Reclaiming Our Environment, or FROE. Community members created FROE to address the air and water quality issues in St. Clair County caused by the failures of the Enbridge and Energy Transfer facilities that have affected us and our loved ones.

Currently, FROE is...

- Moving forward with a lawsuit against Energy Transfer and Enbridge Energy - This is the second lawsuit to occur since the 1980s
- Working tirelessly to support the plaintiffs and associated community members being affected by the facilities
- Pursuing funding for air monitors for community members to have access to to ensure that folks are aware when pollutant levels rise and evacuate promptly
- Trying to engage with government officials to support our community in intervening with these corporation's destructive operations

We ask that you support our organization and fight for a safer and healthier community by... By taking these actions... *why you are asking for this*

Appendix H: Summary of Conversations with Public Health Experts

In order to explore the potential for future public health studies to better assess the health impacts of the petrochemical facilities on Murphy Drive, we conducted expert elicitation interviews with four public health researchers. These conversations aimed to better understand possible avenues for a future health impact assessment, community-led air quality monitoring, and other resources to support community members. The experts we talked to were three professors in the University of Michigan School of Public Health's Environmental Health Sciences Department and one representative from the Agency for Toxic Substances and Disease Registry (ATSDR) Region 5. We synthesize these experts' views and considerations on several questions below and list some possible future steps based on our conversations.

What does it take to pursue a formal health impact assessment or other public health study? Would this be feasible in the context of our study area?

- It may not be feasible to conduct a formal health impact assessment or epidemiological study related specifically to the facilities on Murphy Drive for several reasons:
 - It is challenging to conduct studies for specific sources/single facilities (especially when they are small)
 - There is a relatively small number of people impacted by this specific facility, which makes it harder to detect significant effects
 - Prioritization for funding and resources is likely to be a problem; the more people impacted/included in a study, the greater priority it would receive
 - There are interacting and cumulative effects from other nearby industries, which would make it extremely difficult to isolate effects caused directly by the Murphy Drive facilities
 - A full health impact assessment on a larger scale like this could cost hundreds of thousands of dollars
 - Often the impetus for a health impact assessment is a proposal to change the facility (e.g. double in size), build a new facility, grant a new permit, etc. It is less common to do a formal health impact assessment for a facility that already exists and is operating. However, if there are future proposals to expand the facility, that could offer an opportunity to pursue formal assessment.
- However, a study could potentially extend to a larger region and focus more broadly on the cumulative impacts of industry in St. Clair County and Chemical Valley.
- If the focus is on a specific facility with a small number of immediately adjacent neighbors, the approach will be different than if the focus is a much larger group of people.
 - For concerns about a specific facility and smaller number of people (like this case), a better approach than a full health impact assessment could be to start with

initial air monitoring; even “fenceline monitoring” where we’d place a stationary monitor on somebody’s property right next to the facility. (More details on what this might look under the next question.)

- The fact that it’s a localized problem does present obstacles, but the more we can document that it’s a real reasonable concern (e.g. via our initial survey results, community air monitors), the more traction we might get with research centers or health agencies

What are some community-based or citizen science approaches to exposure assessment?

- Odor diaries:
 - Residents can keep odor diaries, in which they record the date and time they experience a foul odor, describe the scent, and record any health symptoms.
 - These diaries help communicate the impacts of facilities and inform decision-making on ways to address odor problems
 - ATSDR has a number of resources on community odor diaries, including templates and instructions, here:
https://www.atsdr.cdc.gov/odors/air_pollution_odor_diaries.html
- Community based air monitoring:
 - Neighbors could set up low-cost air quality sensors to collect data on what type of air toxics are present. These sensors would not be up to regulatory standards (e.g. regulators could not issue violations to the facilities based on community-based sensors), but they would characterize the risks and could potentially help make the case to EGLE or EPA for official air monitoring.
 - Community members would likely need to do this in partnership with researchers from a university or non-profit organization, to help make sure the sensors are set up and calibrated correctly.
 - However, this community-based air monitoring in this case would be challenging because the main concern from this facility is VOCs (volatile organic compounds), which most low-cost sensors cannot detect. Most air sensors intended for community-based monitoring are focused more on particulate matter, which is less of a concern for this facility. Suggestions for potential monitors and programs that could work are noted under the following section.

What air quality monitors might be feasible for community-based monitoring, specifically focused on volatile organic compounds (VOCs) and hydrogen sulfide?

- Some low-cost monitors do test VOCs, but they generally test for *total* VOCs rather than selective ones, which is not as useful because you won’t know which specific chemicals

you are exposed to. They are also known to be less accurate for VOCs than particulate matter. However, if going this route, potential options include:

- PurpleAir Monitors (note that total VOC readings are currently experimental and are only available in certain models; see <https://community.purpleair.com/t/which-sensor-to-choose/125>)
- Airthings monitors (intended for indoor use; their View Plus monitor includes VOC monitoring: <https://www.airthings.com/view-plus>)
- The best monitors for VOCs are canister monitors. This could involve hiring an environmental consulting company or lab to do this testing.
 - Canisters can only do one-time samples, rather than continuous monitoring.
 - This is a more expensive option than the low-cost monitors, likely several thousand dollars.
- Photoionization detectors (PIDs) can be coupled to a canister in a sampling system. This automates the system; the PID detects when VOC levels are high, which triggers the canister to open and collect data. This would be more effective for VOC monitoring, but also more expensive.
 - One example of this system is the Sensor Pod (SPod). More information is available here: <https://www.epa.gov/research-states/sensor-pods-volatile-organic-compound-fenceline-monitoring-and-data-analysis>
 - This approach is one example of “Next Generation Emission Measurement (NGEM)”, which can help detect pollution in situations with highly variable emissions.
 - An example monitor of this type is the [Sensit SPod](#)
 - As with the canister monitors, this approach would likely require partnership with a government agency, an environmental consulting company, or university researchers.
- The most complex option would be passive tube sampling that follows EPA’s [Method 325a](#). All refineries are required to conduct fenceline monitoring for benzene using this type of monitor, which detects VOCs to regulatory standards. This monitoring is not required for tank farms, but could potentially be implemented voluntarily. This would be expensive to implement and might require collaboration with the facilities themselves, which would be difficult.
- Unlike VOCs, there are effective low-cost monitors available specifically for hydrogen sulfide (H₂S).
 - Acrulog offers an H₂S monitor that can conduct continuous H₂S monitoring in parts per billion, which is appropriate for community settings: <https://www.acrulog.com/wp-content/uploads/2019/04/Acrulog-H2S-PPB-Brochure.pdf>

- These monitors have been used effectively in Kalamazoo, Michigan in combination with other H₂S monitoring. See health consultation [here](#).

What institutions or contacts might be able to support a more formal assessment?

- For a smaller scale, pilot type of project, we could look into the University of Michigan Lifestage Environmental Exposures and Disease Center (M-LEEd).
 - M-LEEd's [Community Engagement Core \(CEC\)](#) has resources for community members and could potentially offer some consultation for FROE
 - They also offer small grants for partnership development and pilot projects. If FROE wanted to apply for funding, they would need to develop a formal partnership with a UofM faculty member.
- The Michigan Department of Health and Human Services (MDHHS) Department of Environmental Health has more capacity than local health departments and can collaborate with EGLE. They sometimes provide community health consultations.
 - A list of prior health consultations conducted by MDHHS, including a recent relevant example from Kalamazoo, can be found [here](#).
 - Contact information for the MDHHS Department of Environmental Health is [here](#) and they can also be reached at the Michigan Toxics Hotline: 1-800-648-6942
- At the federal level, ATSDR occasionally does health evaluation studies and may come out to do surveys or air samples
 - This involves a community petition process and there is limited capacity, so the Murphy Drive facilities might not be prioritized. They are also less likely to take on a storage facility as opposed to other types of operations.
 - More information on the petition process is available here: <https://www.atsdr.cdc.gov/petition-process.html>
- The company Just Air (<https://www.justair.co/>) is a relatively new organization that works with communities to do air monitoring with a citizen science approach. They have partnerships in Detroit, Dearborn, and Kalamazoo. It's not clear whether they can do VOC monitoring, but this could be an option to look into.

What other resources are available to community members for better understanding their health risks?

- Look into reports from [Toxics Release Inventory \(TRI\)](#) and permits to determine the specific chemicals of concern at these facilities; can then look up detailed health risks via [EPA's CompTox dashboard](#) and other resources

Based on the above considerations, here are some potential next steps to pursue:

- Do further research on any health studies that have already been conducted in St. Clair County or the Port Huron region. Several studies exist on the Canadian side of the river, but data is more sparse on the Michigan side and it is important to understand what has already been done.
- Encourage community members to start odor diaries. FROE could host a workshop introducing ATSDR's odor diary methods as a strategy for increasing community involvement.
- Reach out to contacts at MDHHS to explore the possibility of a health consultation.
- Consult with researchers in M-LEEDs' Community Engagement Core regarding community-led air quality monitoring
- If pursuing community-led air monitoring, start with portable H₂S monitors because these are more effective than the low-cost options for VOCs. A longer-term goal could be to obtain funding and support to implement SPod monitoring for VOCs.

Appendix I: Timeline

Timeline draft compiled as of April 21st, 2024 by the student team:

Date MM/DD/Y YYY	Reporting Division	Actors	Notes
2/13/86	St. Clair Township Planning Commission	Ken Rands, Buckeye Pipe Line Company Operation	Notice of Public Hearing on 2/13/1986 to consider comments for or against request to rezone property described as: "Part of Northwest 1/4 of Section 1, Town 5 North, Range 16 East, containing 4.2 acres. This property is located on Gratiot Road and is listed as Q 13A." Property ID #Q00013A Present zoning is General Business, requested rezoning is Heavy Industrial. Proposed use is a crude oil truck unloading station in conjunction with Buckeye Pipe Line Company operation. Official notice according to Zoning Ordinance #62 requires notification of property owners of record within 300 feet of property involved.
2/13/86	St. Clair Township Planning Commission	Ken Rands (Secretary Planning Commission), Vice Chairman A. Mahn, Mr. E. Minka (Sun Pipe Line Co. rep.)	Special Public Hearing called by Vice-Chairman A. Mahn read proposed rezoning application, Mr. E. Minka of Sun Pipe Line Co. explained proposal. Four property owners present, two concerned with odors, fire, and noise pollution. Motion by Member Hool support by Member Eisen to deny Sun Pipe Line Co's request for rezoning; motion not carried. Voted 3 against rezoning, and 4 for; move forward to Metro Planning.
2/14/86	St. Clair Township Planning Commission	Sun Refining & Marketing Co., Edward T. Miller	Site Plan Application Special Approval Land Use Section: #1031-0100 Lot: #Q13A width: 260' length: 6321 Existing Zoning: I-2, proposed uses of land or buildings: "Construct driveway and truck unloading facilities for purpose of delivering and unloading crude oil."

7/6/87	St. Clair Township Board Meeting	Supervisor Malane, Clerk Skonieczny, Trustee Allison, Trustee Davis, Peter Radatz (4794 Gratiot Rd)	Peter Radatz 4794 Gratiot Rd. "stated that there is a terrible odor coming from Sun Oil on Gratiot Road. Supervisor Malane stated that he would check with the company regarding this problem."
8/19/87	St. Clair Township (clerk)	St. Clair Township (clerk)	This ordinance is necessary to "protect the public health, safety and welfare of the inhabitants of the township." The township supervisor is authorized to enforce this ordinance. The ordinance also defines a nuisance as "conditions which render persons insecure in life;" any person causing a nuisance "shall be guilty of a misdemeanor;" owner's of property where the nuisance has to solve it, otherwise township may get involved.
1986-1988	Times Herald	Times Herald reporters, Sunoco, DNR, Kimball Township, St. Clair Township	This article describes odor complaints from residents and government involvement. "Oil spill in 1986/7 --> oder complaints/hospitalizations--> Mar. 1988, DNR says fumes non-toxic --> May '88, DNR says odors are from oil transfer compound; ""steps taken"" to reduce emissions--> Sept. '88, DNR shuts down Sun Co. & Liquid Transfer"
2/12/1988			An anonymous caller that presumably works for Buckeye Pipe Line Company shares information over the course of multiple days and calls about oil spills as well as other possible contaminants that Buckeye Pipe Line Company tries to cover up and bury/hide from authorities and the public. Caller fears for his and his family's life with this information as well as sharing it.

3/12/1988	St. Clair Township Board Meeting	Supervisor Malane, all board members, St. Clair county commissioner Mary Ann Acciavatti, Marilyn Baker, Pete Radatz	M. Baker 43 Pickford Road Port Huron and P. Radatz 4794 Gratiot Road addressed board concerning odors and possible hydrogen sulfide originating from a truck transport facility in St. Clair Twp. Supervisor Malane stated that a meeting will be held March 24, 1988 with representatives of oil facilities and solution to problem will be sought
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<p>3/17/1988 - 3/28/1988</p>	<p>DNR AQD</p>	<p>DNR AQD, Liquid Transport, Inc., Buckeye Pipe Line Co., Larry Thornton, ERD, GSD, Law Divisions, Kimball and St. Clair County Township officials, Sun Oil, St. Clair County Commissioners, St. Clair County Health Department, Michigan Dept. of Public Health, Rep. Docherty's Office, the Public, and the Media</p>	<p>On March 21st, The activity report documents a phone call received on the 18th (3 days prior) about an incident on the 17th (4 days prior) from a Port Huron Newspaper Reporter. The reporter asked about an incident that DNR was unaware of at the time. The incident was that 5 residents has been hospitalized and 75 later evacuated due to H2S exposure. DNR investigated further with Kimball Fire Dept. that confirmed the incident. DNR AQD talked to Buckeye who said they found nothing wrong, and directed DNR AQD to the Buckeye Pennsylvania office. DNR AQD also asked for a copy of the police report once written up by police. DNR AQD provided Kimball and St. Clair FDs with PEAS # for future problems to call in On March 22nd, police report comes back inconclusive, but it is noted that officers did get head aches and stomach problems when arriving on scene. Geo Survey Division calls and states they do not have authority over situation because their jurisdiction ends when the oil is removed from the well sites.</p> <p>On March 23rd, DNR AQD visited Liquid Transport and Buckeye to learn more about the facilities and processes. At Liquid Transfer it is noted that sour crude oil spill would likely be contained, but there is room for a significant release of H2S/odor in the air. Although more information on equipment accuracy is needed from the company, odors downwind were smelled, but according to readings, not significant enough to cause health issues. At Buckeye, tanks are floating roof, and some have dome roof above them, so venting of gas between the floating and dome roof may cause smells. There are no permanent H2S sensors at Buckeye. The night of the incident (3/17), sour crude oil was being pumped from truck to tank #34 and H2S was not measured (only on site) until midnight, and it measured .2ppm. Tank #34 and Tank #41 were inspected, and no problems were found. The employee's personal alarm did not sound at the 25 ppm mark during incident or while near tanks, but monitor does not give instantaneous reading, so no idea what reading was at near tanks on the night of the incident. Buckeye does not think H2S was released at any harmful levels on 3/17, but they are willing to fully cooperate to find out what happened. St. Clair County Emergency Response Coordinator's notification that should have reached PEAS did not, so he is going to look into what happened and call PEAS directly next time. During site visit, he called Larry Thornton who was still hospitalized for brain swelling and memory loss. On March 24th, DNR AQD, ERD, GSD, Law Divisions, Kimball and St. Clair County Township officials, Liquid</p>
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			<p>Transport, Buckeye, and Sun Oil, St. Clair County Commissioners, St. Clair County Health Department, Michigan Dept. of Public Health, Rep. Docherty's Office, the Public, and the Media met at Liquid Transport for a joint meeting and DNR investigation on an oil spill at Buckeye Pipeline site. During the meeting, members from the public wanted to see sour crude oil unloaded in front of them, but Sun Oil said it was against policy. Officials conducted soil measurements, and DNR continued to research weather patterns from 3/17. Emergency response was discussed and plans for new H2S monitors were also discussed. The companies agreed to future meetings to coordinate a study of facility air emissions.</p> <p>On March 28th, Larkin called DNR AQD for follow-up. They are nervous about costs of permanent air monitoring system. The next big meeting is planned for March 7th.</p>
3/24/1988	MDEQ	Buckeye Pipe Line Co., MDEQ	MDEQ collected samples for water quality testing at 250 Murphy Dr. (Buckeye Facility). None of the chemicals tested for were detected.
3/24/1988	Department of Environmental Quality Resource Management Division Drinking Water Chemistry Database	Buckeye Pipe Line Co., Lansing Drinking Water Laboratory	Replicate Laboratory Report from The Lansing Drinking Water Laboratory: Buckeye Pipe Line Co. 250 Murphy Drive Sample Number: LC1988C04793 collected 3/24/1988, site code: supply = other
4/1/1988	Buckeye Pipe Line Company	Buckeye, Sunoco, MDEQ	This FOIA'd letter is a letter to the DEQ from Buckeye in response to March 1988 incident at the Buckeye facility that is now Sunoco's.

5/9/1988	House of Representatives 76th District James Docherty	Mr. Lee Morley Supervisor Kimball Township, James Docherty Majority Whip (Committee member for transportation, education, public health, senior citizens & retirement, towns and counties)	Letter from James A. Docherty to Lee Morley: spoke to Fred Reith (Environmental Quality Analyst) from Michigan Department of Natural Resources, Air Quality Division "odor" problem in St. Clair/Kimball Townships will be brought to attention of Air Pollution Control Commission through Executive Secretary's Report on 5/17/1988 meeting held at Michigan Dept. of Public Health
5/12/1988	State of Michigan Department of Public Health Center for Environmental Health Sciences	Dr. Gloria R. Smith Director, Dr. Dennis Smallwood St. Clair County Health Dept., Dr. Ben Johnson & Dr. Dan Dolanski Center for Environmental Health Sciences (MIDPH)	Letter from MI Dept. of Public Health Center for Environmental Health Sciences stating actions for public health assessment: Complaints expressed by people in neighborhood about odors from pipeline facility, some concerned about health effects. "In order to learn more about the problem, we are asking all residents of the area some general questions about their health, and whether they have had any ill health which they feel could be related to the odors...Please return completed questionnaire in enclosed, self-addressed stamped envelope no later than 5/27/1988"

5/23/1988	House of Representatives 76th District James Docherty	Robin L. Krenke, Mr. Donald Dodge (administrator county of St. Clair), Fire Chief McGuffin, Fred Reith	<p>Letter from Robin L. Krenke (Legislative Assistant to James A. Docherty) to Mr. Dodge Re: Odorous Air Emissions Pickford/Murphy Road Area: summary of 5/17/1988 hearing before Michigan Air Pollution Control Commission: 20 residents from Pickford Road area, Fred Reith updated Commission about release of hydrogen sulfide (H₂S) on 3/17/1988 with 75 residents evacuated from homes; DNR staff not notified of incident until after the fact. Concluded that odorous emissions originated from handling of crude oil (sweet and sour) in immediate vicinity of Sun Refining/Buckeye Pipe Line operations. All 3 companies cited for violation of Rule 901 of MAPCC specifically subpart B. DNR requested that 3 companies submit by 4/25/1988 detailed written response (1) actions taken and will take to ensure facility will operate in environmentally safe manner which includes air sampling results, (2) reports on any equipment inspections conducted, (3) any procedural or operational changes implemented since 3/17/1988, (4) copies of emergency response plans...as of 5/17/1988 hearing all 3 companies complied except Buckeye Pipe Line who was still waiting on results of ambient H₂S samples done by private consulting firm...Reps. from MI Dept. of Public Health addressed Commission they recently sent surveys to residents in area to conduct health impact evaluation to determine short and long term effects of persons in exposure area. Fire Chief McGuffin "real asset" "able to answer more of technical questions regarding emission points (or what he believed to be likely emission points)"..."many of the recent calls to the Emergency Response Center by residents were not justified calls; however, conclusion by many (including Commission) is that there is general feeling of fear and panic in that area." Ricks Johns (executive secretary for Commission and DNR liaison) did not realize the severity of problem or frequency Kimball Township FD was called to respond = "due to turn out by residents and officials in area they had reason to believe that there was a legitimate concern and expected DNR to address it as such...DNR instructed to identify source of emission if possible. DNR also to instruct 3 companies take any necessary corrective action." matter is scheduled for MAPCC's 6/21/1988 agenda DNA staff requested to have report completed for Commission at that time</p>
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5/25/1988	State of Michigan 31st Circuit Court St. Clair County Register of Actions	Larry, Janet, Kenneth R. Thornton, Jeremy, Jennifer, Jeannett, Julia A. Thornton, vs Buckeye Pipe Line Company, Sun Refining & Marketing CO, Liquid Transport INC.	Register of Actions Case ID #: 88-001207-CE, Chronological list of activities: summons and complaint 5/25/1988, jury demand 5/25/1988, order for mediation 1/16/1990, case closed 1/23/1991
5/31/1988	State of Michigan 31st Circuit Court St. Clair County Register of Actions	Marie Davis, Darlene Snover, Buckeye Pipe Line Company, Sun Refining & Marketing Co, Liquid Transport INC.	Register of Actions Case ID #: 88-001243-CE, summons and complaint 5/31/1988, jury demand 5/31/1988, order for mediation 3/6/1989, final order/judgment 1/23/1991
5/31/1988	State of Michigan 31st Circuit Court St. Clair County Register of Actions	Stanley Paciorek, John Sokolovich, Buckeye Pipe Line Company, Sun Refining & Marketing Co, Liquid Transport INC, Judge James T. Corden	Register of Actions Case ID #: 88-001242-CE, Chronological list of activities: summons and complaint 5/31/1988, jury demand 5/31/1988, case settled 9/28/1990, case closed 10/2/1990

6/13/1988	State of Michigan 31st Circuit Court St. Clair County Register of Actions	Kelly Davis, Sandra Davis, Coral Spencer, Michael Rexford, Liquid Transport INC, Sun Refining & Marketing CO, Buckeye Pipe Line Company, Judge James T. Corden	Register of Actions Case ID #: 88-001345-CE Chronological List of Activities: summons and complaint 6/13/1988, jury demand 6/13/1988, closed 10/2/1990
7/19/1988	St. Clair County Health Department	John O. Tironi Director of Environmental Health, Mr. C. Francis Malane Supervisor St. Clair Township, Jon B. Parsons Health Officer	Clean-Original case documents from Health Department scanned and sent 12-05-2018.pdf
7/27/1988	State of Michigan 31st Circuit Court St. Clair County Register of Actions	Judge James T. Corden, Thaddeus Kosmowski, Leslye Kosmowski, Sherly Ann Kosmowski, Buckeye Pipeline, Sun Refining & Marketing CO, Liquid Transport INC	Register of Actions for Case #88-001648-CE Chronological list of activities: summons and complaint filed 7/27/1988, jury demand filed 7/27/1988, dismissed by court 10/2/1990

7/27/ 1988	State of Michigan 31st Judicial Circuit Court	Thaddeus Kosmowski & Leslye Kosmowski (attorney Robert W. Carson) Buckeye Pipe Line Company, Sun Refining and Marketing Company, Liquid Transport Inc.,	Case no. 88-001207 CE Judge James T. Corden, Plaintiffs Kosmowski (29 Pickford Road Port Huron, MI), complaint and demand for jury (5) on and before 3/17/1988 Buckeye Pipe Line Company owner and operator of crude oil storage, handling, and transport facility located at 250 Murphy Drive in Kimball Township, St. Clair County, MI (6) Sun Refining Marketing Company was owner and operator of crude oil truck unloading facility at 4851 Gratiot Road in Marysville, MI connected to storage facility (7) Liquid Transport owner and operator of trucks and other equipment transporting crude oil to Sun Refining's unloading station (8) 3/17/1988 plaintiffs subject to toxic and nauseating fumes from crude oil facilities, due to dangers from exposure they were evacuated from homes by local health & fire officials, fumes continued and great likelihood they will continue in future, plaintiffs afraid to breathe air, drink water, deprived of reasonable use and enjoyment of property and suffered depreciation of market value; Count II of Negligence: duty to not pollute with toxic fumes, knew or should have known toxic qualities of fumes (hydrogen sulfide), duty to exercise reasonable care, duty to use adequate and safe equipment, duty to comply with all state and local standards/regulations/violated Michigan Air Pollution Control Commission including Rule 901, continuous exposure resulted in blood poisoning, lung damage, respiratory distress, coughing, headaches, dizziness, fatigue, loss of memory, mental suffering, requiring hospitalization and medical care; Count III of Nuisance Per Se Nuisance in Fact: operated without proper permits and licenses, intent to create conditions with full knowledge of harm = intentional nuisance + negligent nuisance = nuisance in fact; Count IV Intentional Infliction of Emotional Distress: should have known highly toxic pollutants escape into air reach homes, knew plaintiffs were using air, land, and water for personal consumption, knew that pollutants were toxic when consumed posed a great and dangerous threat to their physical and mental health, plaintiffs suffered and are suffering severe mental distress; Count V Damages: suffer depreciation of market value of property, loss of use and enjoyment of property, expenses and inconvenience of medical care damages = exceeds \$10,000
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7/27/1988	State of Michigan 31st Judicial Circuit Court	Kosmowski, Buckeye Pipe Line Company, Sun Refining and Marketing Company, Liquid Transport, INC.	Summons and Complaint notice pages to Buckeye, Sun Refining, Liquid Transport notification that they are being sued
8/5/1988	State of Michigan in Circuit Court for County of St. Clair	Kosmowski, Buckeye Pipe Line Company, Sun Refining and Marketing Company, Liquid Transport, INC. Judge James T. Corden	Buckeye PipeLine Company's Answer and Affirmative Defenses: (1) neither admits or denies allegations from paragraph 1, (2) admits to allegations in paragraph 2, (3) neither admits or denies the Sun Refining and Marketing Company is a Pennsylvania corporation but admits they are conducting business in St. Clair County (4) neither admits nor denies same for Liquid Transport, INC. (5) denies allegations that they own crude oil storage, handling, and transport facility at 250 Murphy Drive in Kimball Twp, St. Clair County, MI but admits that it operates facility at 250 Murphy Drive in St. Clair Twp, St. Clair County, MI (6) admits to allegations in Paragraph 6 (7) admits to allegations in Paragraph 7 (8) neither admits nor denies allegations in Paragraph 8 that plaintiffs were subjected to toxic fumes because it lacks knowledge, denies that fumes emanated from 250 Murphy Drive facility ("Buckeye Facility") on 3/17/1988 (10) denies untrue allegations in Paragraph 10 and Paragraph 11; Count II Negligence: denies that crude oil operations create or created fumes which are toxic to humans, denies all other allegations of negligence; Count III Nuisance Per Se Nuisance in Fact: denies all allegations; Count IV Intentional Infliction of Emotional Distress: denies allegations; Count V Damages: denies allegations; Affirmative Defenses: (4) some or all plaintiffs became owners/occupiers close to facilities so knew or should have known of any emissions and assumed any risk = asking for judgment of no cause for action in favor of Buckeye

8/30/1988	State of Michigan in Circuit Court for County of St. Clair	Sun Refining and Marketing Company	Answer and Affirmative Defenses of Defendant Sun Refining and Marketing Company: (1, 2, 4, 5) is without knowledge or information sufficient to form belief about allegations, (3) admits allegations in Paragraph 3, (6) admits only that from December 1985 to present it owned crude oil unloading facility managed by Liquid Transport, INC. (LTI) located at 4851 Gratiot Road in Marysville, MI and that facility is connected by pipeline to tank owned by Buckeye Pipe Line Company (7) admits LTI transported crude oil to Sun's unloading facility (8) denies toxic fumes emanated from crude oil facility owned and operated by Sun; Count II Negligence: neither admits nor denies all allegations, Count II Nuisance Per Se Nuisance in Fact: neither admits nor denies all allegations; Affirmative Defense: barred by statute of limitations, failure to mitigate damages, assumed alleged risks, damages caused by other parties, plaintiffs came to alleged nuisance with full knowledge and acceptance of alleged nuisance, contributorily or comparatively negligent
8/31/1988	State of Michigan in Circuit Court for County of St. Clair	Kosmowski, Buckeye Pipe Line Company, Sun Refining and Marketing Company, Liquid Transport, INC. Judge James T. Corden	Liquid Transport, INC. Answer and Affirmative Defenses: (4) admits to paragraph 4, (7) admits that from approx. December 1986 to present transported crude oil to unloading station in Marysville, MI for Sun Refining and Marketing (8) denies that toxic fumes emitted from any facilities operated by them on 3/17/1988, (10) denies that any toxic fumes continue to emanate from any facilities operated by them = asking for action to be dismissed and awarded costs & attorney fees; Count II neither admits or denies allegations as no answer required as such allegations are legal conclusions, (18) denies breached duties or negligent in any way, (19) denies acts were wanton or reckless or in total disregard for rights and safety; Count III neither or admits nor denies any allegations; Affirmative Defenses: barred by statute of limitations, failed to mitigate damages, assumed alleged risks, damages caused by other parties not named, plaintiffs came to alleged nuisance with full knowledge/acceptance of alleged nuisance, Liquid has always complied with all statutes, rules, regulations relating to maintenance and operation of vehicles used in transportation of crude oil to Sun's Marysville unloading facility

9/16/1988	State of Michigan Department of Natural Resources; received by AQD 9/19/1988, permit to install approved 11/28/1988	Sun Refining and Marketing Company, A.B. Chieffo Manager of Environmental Affairs, Robert Miller	Air Use Permit Application No. 642-88 for Crude Oil Unloading and Pumping Facility at 4851 Gratiot Road, Marysville, St. Clair County
9/22/1988	State of Michigan 31st Circuit Court St. Clair County Register of Actions	Michael George Payionk, Julia D. Payionk, Buckeye Pipe Line Company, Sun Refining & Marketing Co, Liquid Transport INC, Judge James T. Corden	Register of Actions for Case #88-002094-CE Chronological List of Activities: summons and complaint 9/22/1988, jury demand 9/22/1988, closed 1/23/1990
10/6/1988	Department of Environmental Quality Resource Management Division Drinking Water Chemistry Database	Buckeye Pipeline, Lansing Drinking Water Laboratory	Replicate Laboratory Report from The Lansing Drinking Water Laboratory: Buckeye Pipe Line Co. 250 Murphy Drive Sample Number: LC1988J01001 collected 10/06/1988, water source: single family dwelling, Hydrogen Sulfide: result <1

10/6/1988	MDEQ	MDEQ, Buckeye Pipeline	A water quality test by MDEQ for Buckeye Pipeline in Marysville shows that the chemicals/pollutants measured are all considered not-detectable because they are found in such small quantities. Davis notes in the margins that the paperwork says Buckeye Pipeline is a single-family dwelling despite it being a large operation. She also notes that the results have been replicated from a previous date.
10/31/1988	State of Michigan in Circuit Court for County of St. Clair	Kosmowskis, Buckeye Pipe Line Company	Amended Complaints by Plaintiffs: (40) acts and/or omissions of Defendants violate provisions of Thomas J. Anderson Gordon Rockwell Environmental Protection Act of 1970 cited at MCL 691. 1201 standards of pollution and environmental quality were violated
11/18/1988	State of Michigan in Circuit Court for County of St. Clair	Kosmowskis, Liquid Transport, INC.	Answer and Affirmative Defenses of Liquid Transport, INC. to Plaintiff's Amended Complaint: (40) denies allegations in paragraph 40 (41) neither admits nor denies paragraph 41
11/18/1988	State of Michigan in Circuit Court for County of St. Clair	Kosmowskis, Buckeye Pipe Line Company, Sun Refining and Marketing Company, Liquid Transport, INC. , Judge James T. Corden	Order of Dismissal parties agreed and stipulated to dismiss case without costs or attorney fees to any party; Answer and Affirmative Defenses of Liquid Transport, INC. to Plaintiffs' Amended Complaint: (16) no feasible and prudent alternative to Liquid's conduct, conduct consistent with promotion of public health, safety, and welfare, protection of natural resources
11/25/1988	State of Michigan in Circuit Court for County of St. Clair	Kosmowskis, Buckeye Pipe Line Company	Defendant Buckeye Pipe Line Company's Answer and Affirmative Defenses to Amended Complaint: (40) denies allegations in paragraph 40, (41) denies allegations in paragraph 41; Affirmative Defenses: (2) no feasible and prudent alternative to Buckeye's conduct and it is consistent with promotion of public health, safety, and

			welfare in light of state's paramount concern for protection of its natural resources from pollution, impairment, or destruction
11/28/1988	State of Michigan Department of Natural Resources; received by Air Quality Division 12/2/1988	Gregory M. Edwards senior Engineer Northwest Permit Unite AQD, Mr. A. B. Chieffo Manager Environmental Affairs Sun Refining & Marketing Co.	Letter in reference to Permit to Install application for crude oil truck unloading facility consisting of transport truck, Liquid Automatic Custody Transfer (LACT) Unt, sump pump, hose, T-rack, and piping located at 4851 Gratiot Road, Marysville, MI = Permit No. 642-88 evaluated and approved by AQD based on and subject to compliance with administrative rules of Commission attached. Temporary permit which will expire 1/17/1989 at Commission's 1/17/1989 meeting AQD staff will make specific recommendations

<p>11/28/1988</p>	<p>State of Michigan Department of Natural Resources; received by Air Quality Division 12/2/1988</p>	<p>Gregory M. Edwards Senior Engineer Northwest Permit Unit AQD, Mr. A. B. Chieffo Manager Environmental Affairs Sun Refining & Marketing Co.</p>	<p>Supplement to Permit No. 642-88 Sun Refining & Marketing Co. General Conditions: (4) Rule 901- Operation of equipment shall not result in emission of air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant value, or property, or which causes unreasonable interference with comfortable enjoyment of life and property. (6) Operation shall not result in significant deterioration of air quality. (7) Rule 912- Applicant shall provide notification of any abnormal conditions or malfunction...resulting in emissions violation of Commission rules or of any permit conditions for more than two hours to the District Supervisor. "Such notice shall be made as soon as reasonably possible, but not later than 9:00AM of next working day...Within 10 days submit to District Supervisor, a written detailed report including probable causes, duration of violation, remedial action taken, and steps being taken to prevent recurrence." Special Conditions: (11) Shall be no visible emissions from crude oil truck unloading facility (includes attached transport truck, liquid automatic custody transfer unit, sump pump, hose, t-rack, piping). (12) Shall not unload any crude oil at a facility which has vapor phase total sulfur concentration exceeding 165 ppm, concentration corresponds to definition of sweet crude oil Rules 119(s), 119(e), 119(f). (13) Shall not unload sweet crude oil from any lease site at the facility unless sample tests for liquid phase hydrogen sulfide and total sulfur concentrations; submitted to AQD prior to handling. (14) Shall only allow truck which has been steam cleaned prior to service, pressure and leak tested on monthly basis, inspected and certified; verification provided to AQD. (15) Shall monitor all sweet crude oil for hydrogen sulfide in vapor phase at tank battery prior to shipment using monitor capable of detecting hydrogen sulfide in vapor phase to 1 ppm by volume; shall not ship sweet crude oil which has vapor phase hydrogen sulfide concentration exceeding 16.5 ppm, results of monitoring kept on file for period of at least 2 years. (16) Shall not unload sweet crude oil at facility prior to 6:00AM or after 6:00PM. (18) Shall maintain log of daily sweet crude oil deliveries to facility, including source of oil, time of delivery, and duration; copy submitted to District Supervisor within 30 days following end of month during data collected. (19)</p>
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1/17/1989	Michigan Department of Natural Resources Air Quality Division	Sun Refining and Marketing Company, Fred Reith, Dennis Armbruster, Greg Edwards (12/29/1988)	<p>Staff Activity Report Background: 10/18/1988 Commission issued air use permit to Sun to resume tanker truck deliveries of sweet crude oil at St. Clair Twp. unloading station; issuance of permit contingent on acceptable demonstration by Sun that potential emissions would not injure human health or interfere with enjoyment of life and property via Commission Rule 901, permit issued 11/28/1988. Discussion: 9/20/1988 Commission ordered Sun, Buckeye, Liquid Transport to cease all tanker crude oil deliveries to Sun's unloading station following citizen allegations of foul odors, adverse health effects, etc. Permit to Install No. 642-88 for tanker oil unloading station issued at staff level 11/28/1988, condition voids permit on 1/18/1989 unless extended. Permit Evaluation and Requirements: Sun required to conduct analyses of sweet crude oil proposed to be handled, evaluated total liquid phase sulfur and hydrogen sulfide content of crude oil, vapor phase total sulfur concentration; sweet crude total sulfur content = 165 ppm hydrogen sulfide = 16.5 ppm in vapor phase...prior to Commission's 9/20/1988 orders Sun facility handled sweet and sour crude with some of sour crude containing higher concentrations of hydrogen sulfide (up to 20,000 ppm) and total sulfur than is found in sweet crude.</p>
1/17/1989	Michigan Department of Natural Resources	Sun Refining and Marketing Company	<p>Supplement to Permit No. 642-88 Sun Refining & Marketing Co. Marysville, MI Revised 1/17/1989: Special Condition 16: "Applicant shall not unload sweet crude oil at the facility prior to 6:00AM or after 6:00PM. In addition, applicant shall not unload sweet crude oil at this facility after 11:00 AM on Sundays and holidays."</p>

1/18/1989	Michigan Dept. of Natural Resources	Michigan Dept. of Natural Resources. Michigan Air Pollution Control Commission, Sunoco	Permit regulations were not enforced by MDEQ. "DNR issued Permit #642-88 to Sun Co. for their oil refinery. This permit did NOT include the operation of a pump station, so the DNR revised the permit to include permission and regulations for the pump station = Sun Co. was able to get away with it. ""important MDEQ did not enforce this Permit #642-88. By adding a pump station to their doc- able to avoid using this permit""
3/9/1989	Sun Refining and Marketing Company	Sun Refining and Marketing Company, Scott W. McCord, Lee Jager Chairman of Air Pollution Control Commission MI Dept. of Natural Resources	Letter from McCord to Chairman Jager: request MAPCC consider change in Special Condition 16 of Sun's Permit to Install No. 642-88 "necessary to prevent Sun from being placed at a competitive disadvantage in MI and to mitigate other potentially serious negative economic impacts upon Sun." "Revised Special Condition 16 places Sun at serious competitive disadvantage and has enormous potential economic impacts associated with it*. It, however, provides no corresponding benefits to the public or the environment since Sun has demonstrated that it can continue to operate its facility in compliance with all applicable laws and regulations without incident." Request matters on agenda for 4/18/1989 MAPCC meeting. *I. Description of Operation: Crude Oil Truck Unloading Facility (LACT Unit), receive approx. 20,000-21,000BPM = 2.6 loads per day, avg. turnaround time = 3 hrs on Columbus loads, avg. turnaround time on various leases = approx. 3.5-4 hrs II. Potential Causes of Operational Disruption: restricted load size (frost laws) limited to 1/2 normal load (approx. 150 bbls.) III. Possible Alternatives and Associated Considerations: (1) Divert crude oil to another location if possible- causes additional environmental risks exposure to greater pop. & further distance to travel, (2) Shut in production/utilize lease storage- increased utilization of tankage causes increased emissions in the atmosphere. IV. Negative Economic Impact- (1) Diverting crude oil- cost increase 195%, (2) Shut in production- producer incurs lost revenue Columbus \$30,000/day, balance of supply (crude oil only) \$1,700/day V. Competitive Disadvantage- Sun

			unable to provide sufficient daily service to customers, operation jeopardized by restricted hours, entire MI operation jeopardized
3/29/1989	Sun Refining and Marketing Company; received by AQD 3/31/1989	Sun Refining and Marketing Company, Scott W. McCord, Fred Reith MI Department of Natural Resources	Letter from Scott W. McCord for Fred Reith: requested opportunity (in 3/9/1989 letter to Lee Jager) to discuss request to change operating hours at Sun's Marysville facility. Specific hours of operation plan to propose are 6:00AM to 6:00PM on all days except following 6:00AM to 11:00 AM

4/18/1989	Department of Natural Resources AQD	Sun Refining and Marketing Company, Frederick H. Reith	<p>Staff Activity Report Sun Refining & Marketing Company requesting modification to restricted operating hours of Permit to Install #642-88 imposed by Commission on 1/17/1989. Current Operations: Sun receives tanker truck loads of sweet crude oil delivered by Liquid Transport INC, oil pumped through Sun's tanker unloading equipment into storage tanks owned by Buckeye Pipeline Company; tanker unloading operations restricted to 6:00AM-6:00PM on all days and 6:00AM-11:00AM on Sundays and holidays. Background Information: Commission voted on 1/17/1989 to allow continued operations under Permit to Install but further restricted Sunday and holiday operating hours to insure residents would not be subjected to odors on days when family gatherings are likely to occur. Recent Developments: 2/28/1989 Sun personnel met with staff to modify restrictions cited current restrictions were economic hardship, prevented full utilization of Liquid Transport's trucks and drivers, concerns about load restrictions during frost law periods when tankers have loads reduced = more deliveries of smaller loads; potentially adverse environmental implications main alternative involves transporting oil much farther to other facilities = potential for accidental spills, traffic mishaps; Sun concerned about inclement weather icy adverse road conditions; periods when Sun unloading station valves shut off by Buckeye to receive incoming oil through pipeline (can prevent tanker unloading for up to 12 hrs). Staff reiterated Commission's concern to Sun about potential for odors during peak summer time months = Sun altered original request to allow it to operate on all days 6:00AM-6:00PM except for continuation of 6:00AM-11:00AM restrictions for following specific days in 1989. Current Compliance Status: "odors associated with tanker unloading operations are faint to negligible in surrounding community." "Staff has also verified occasional presence of minor odors believed to originate from Buckeye's tanks...Kimball Twp. FD responded on 2 out of 5 occasions unable to measure any H2S, odors detected one mile downwind. Several unauthorized tanker deliveries of sweet crude oil to Sun's facility: Monday 2/19/1989 (President's Day) and Sunday 3/19/1989 total of 5 tanker loads delivered after 11:00 AM in violation of Condition #16 of Permit to Install; took 2</p>
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			disciplinary action against Liquid Transport employee responsible. Summary & Recommendation: Staffs recommends to Commission to approve company's request and modify special condition#16 of Permit to Install #642-88: "Applicant shall not unload sweet crude oil at facility prior to 6:00AM or after 6:00PM; shall not unload sweet crude oil at facility after 11:00AM on Sundays on and after Mothers Day and before Labor Day, nor on holidays of Memorial Day, Fourth of July, and Labor Day." = "If approved staff would intend to continue periodic observations of facility with intent of bringing matter back before Commission for action on Company's Permit to Operate request later this year"
4/24/1989	Michigan Dept. of Natural Resources	Buckeye	Letter from DNR to Buckeye saying they are in violation of MI Air Pollution Control Commission rule 901. Need to present a plan to remedy this to the DNR by 5/8/1989. Letter from Buckeye to DNR on 5/8/1989 saying they do not understand the letter to be a formal notice of violation. Buckeye will install secondary seals and conduct evaluations on seals. Buckeye believes they have been in compliance for most of their time in the area, and they do not believe they are threatening the health of the community. Employed an independent engineering company to see if they can address the concerns sent by the DNR/community.
6/1/1989	Michigan Dept. of Natural Resources; received by AQD 6/5/1989	Mr. Joel C. Larkin Environmental Coordinator Buckeye Pipeline Company, Robert P. Miller Chief AQD	Letter from Miller to Larkin: 5/16/1989 MAPCC meeting considered matter of continuing odorous emissions from Marysville, MI crude oil handling facility; directed company to submit detailed compliance program and timetable for control of emissions from tanks prior to 6/20/1989 or initiate enforcement action(s). Required to insert info in draft consent order for type of air pollution control devices intended to install, dates for commencing and completing equipment installation, data for testing. Staff "would strongly encourage you to commit to installing secondary seals on all crude oil tanks at your facility ASAP." Staff request that you address "status of small overflow tank at this facility" and submit a letter discussing how often the tank is used, last cleaned out. Request written response by 6/14/1989

6/1/1989	Michigan Dept. of Natural Resources Air Pollution Control Commission	Buckeye Pipeline Company (250 Murphy Drive, St. Clair Twp.), AQD, Robert P. Miller Chief AQD, Stewart H. Freeman Assistant AG	Stipulation for Entry of Consent Order and Final Order: Buckeye Pipeline Company at 250 Murphy Drive emitting odorous emissions from facilities in excess of allowable limits by Administrative Code 1980 AACCS, R 336.1901 (Rule 901). (5) Odorous emissions from crude oil storage tanks should be abated and compliance with regulations (a) on or after 6/30/1989 Company shall install and maintain secondary seals on all four crude oil storage tanks, (b) submit to staff plans and application for installation permit for air pollution control device(s) to control odorous emissions, (f) complete testing of air pollution device(s) submit to Staff detailed report of test data and results, (g) on and after 6/20/1989 Company shall operate and maintain crude oil handling and storage facilities to comply with Rule 901. (6) if Company fails to comply with paragraphs ____, fail to comply with paragraphs ____ shall pay liquidated damages of \$3,000 per violation, fails to comply with paragraphs ____ shall pay \$1,000 per day of violation, shall pay \$500 per day of violation. (7) Order remains in full force and effect for a period of at least 3 years, order may be terminated only upon issuance of written Notice of Termination issued by Commission. (9) public hearing on abatement program held on 6/20/1989
6/6/1989	Law Offices McIntosh, McColl, Carson, McNamee, Strickler & Houle (Received 6/15/1989 Env. Response Div. Detroit Dist. OFC.)	Fred Reith, Robert W. Carson	Robert W. Carson letter to Fred Reith: regarding crude oil unloading facility at 4851 Gratiot Road Marysville, MI concerning recent oil spill at indicated premises, wish to confirm that responsible parties have properly informed the DNR of the incident. Asking for confirmation that incident was reported to Reith and particulars of the spill so the situation can be properly analyzed.

6/27/1989	MPC Environmental, Division of Marine Pollution Control	Ron Lindsay Geologist MPC Environmental Division of Marine Pollution Control, Joel Larkin, Buckeye Pipe Line Company	Letter from Lindsay to Larkin regarding excavation of soil contaminated by crude oil as result of pipeline failure at Buckeye Terminal Marysville, MI: to determine if sufficient amount of contaminated soil has been removed MPC Environmental will collect soil samples from each of two excavation areas; each with composite sample of walls and bottom. Samples placed in 40 ml vials with teflon septums, placed on ice, transported to accredited lab under chain of custody. Samples will be analyzed for total petroleum hydrocarbons using EPA test method 418.10
7/14/1989	Environmental Quality Laboratories, Inc.	Environmental Quality Laboratories Thomas S. Megna Lab Director, James Tomalia Lab Supervisor, Marine Pollution Control, Buckeye Pipeline	Sample No. 101080 description: Buckeye Pipeline, Marysville, MI. Water, East Excavation Organic Analysis Data Sheet: Benzene (detection limit of test), Ethyl Benzene, Toluene all less than 5.0 ppB Xylenes less than 1.0 ppM
7/14/1989	Environmental Quality Laboratories, Inc.	Environmental Quality Laboratories Thomas S. Megna Lab Director, James Tomalia Lab Supervisor, Marine Pollution Control, Buckeye Pipeline	Sample No. 101077 description: Buckeye Pipeline, Marysville, MI. Wall Composite, East Excavation- Soil. Organic Analysis Data Sheet: Benzene, Ethyl Benzene, Toluene less than 10 ppB, Xylenes less than 10 ppM

7/14/1989	Environmental Quality Laboratories, Inc.	Environmental Quality Laboratories Thomas S. Megna Lab Director, James Tomalia Lab Supervisor, Marine Pollution Control, Buckeye Pipeline	Sample No. 101078 description: Buckeye Pipeline, Marysville, MI. Wall Composite, West Excavation- Soil. Organic Analysis Data Sheet: Benzene, Ethyl Benzene, Toluene less than 10 ppB, Xylenes less than 10 ppM
7/14/1989	Environmental Quality Laboratories, Inc.	Environmental Quality Laboratories Thomas S. Megna Lab Director, James Tomalia Lab Supervisor, Marine Pollution Control, Buckeye Pipeline	Sample No. 101079 description: Buckeye Pipeline, Marysville, MI. Water, Water, West Excavation. Organic Analysis Data Sheet: Benzene, Ethyl Benzene, Toluene less than 5.0 ppB, Xylenes less than 1.0 ppM
7/17/1989	MPC Environmental, Division of Marine Pollution Control	Ron Lindsay Project Manager, Joel Larkin, Buckeye Pipe Line Company	Letter from Lindsay to Larkin: enclosed reports of analysis for soil and water samples collected from excavations at Buckeye Pipeline Facility Marysville, MI. Soil samples from excavated walls. "Since water standing in excavation, a water sample from each excavation was taken in lieu of bottom soil samples." No detectable levels of aromatic hydrocarbons or total petroleum hydrocarbons using EPA test methods 602 and 418, respectively.
7/31/1989	Buckeye Pipe Line Company, INC. (received 8/3/1989 ENV. Response Div. Detroit Dist. OFC.)	Joel Larkin, Buckeye Pipe Line Company of Michigan, L.P., Oladipo Oyinsan Environmental Quality Analyst Waste Mgt. Division MI DNR, MPC Environmental	Letter from Larkin to Oyinsan: enclosed correspondence from emergency response contractor MPC Environmental indicating proposed sampling methodology and analytical results. Indicate no detectable levels of aromatic hydrocarbons or total petroleum hydrocarbons. "Based on results and upon your direction, Buckeye has back filled the excavations with clean fill."

8/29/1989	Department of Natural Resources Southeast Michigan Field Office Environmental Response Division	Joel Larkin, Buckeye Pipeline Co., Oladipo Oyinsan District Supervisor ERD	Letter from Oladipo Oyinsan to Joel Larkin: confirm receipt of letter 7/3/1989 and analytical data enclosure regarding cleanup of spill at Buckeye Pipeline Co. Marysville Station. During inspection 6/7/1989 noticed contaminated soil and crude oil at the bottom of excavation; analytical results Larkin sent indicated contamination not detected from composite samples of excavation walls. Sample taken from bottom of excavation was from runoff water; talked to Mr. Ron Lindsay of Marine Pollution Control who directed remediation, not acceptable verification sample "I am appalled that your consultant thought otherwise." Advising Larkin that we cannot accept data from the runoff water as verification that all the contaminated soil has been removed. Necessary to go back and take soil borings from the bottom of excavation. Notify the office at least 48 hours prior to sampling so that we can split samples with you for our lab. Until complete, proposing site for inclusion on Michigan Sites of Environmental Contamination List (Act 307)
9/18/1989	MPC Environmental, Division of Marine Pollution Control	Ron Lindsay, Joel Larkin, Buckeye Pipeline Co.	Letter from Lindsay to Larkin: following sampling plan for Buckeye PipeLine Terminal Marysville, MI; on 7/12/1989 soil samples were collected for hydrocarbon analysis, from walls and two excavation areas where crude oil loss occurred; MI DNR deemed necessary to collect bottom soil samples to verify that site is "clean." MPC Environmental proposes to collect 4 soil samples at locations on enclosed site map; four feet in depth with hand auger, soil placed in 40 ml vials with teflon septums on ice delivered to Environmental Quality Laboratory analyzed for Benzene, Toluene and Xylenes using EPA test method 8020
9/19/1989	Buckeye Pipe Line Company, Inc. of Michigan	Joel Larkin, Oladipo Oyinsan	Letter from Larkin to Oyinsan: attached proposed sampling plan to be completed at Buckeye Pipe Line Company of Michigan L.P. Marysville Station. Sampling to take place week of 9/25/1989 will contact office for appropriate day and time.

9/29/1989	Department of Natural Resources Environmental Response Division	Buckeye Petroleum, Operator (on site) Joel Larken, DNR Staff Rebecca Taylor, Marine Pollution Control	DNR Environmental Response Division Activity Report Buckeye Petroleum, address: Murphy, off Gratiot, Marysville, MI, visit to pick up duplicate samples taken for Buckeye Pipeline by Marine Pollution Control (MPC), sample area marked with spray paint where trenches dug and backfilled around low pressure lines where crude oil (est. 8 bbls) had leaked; according to Joel Larkin, four bottom trench borings were taken for analysis for total petroleum hydrocarbons. Rebecca Taylor picked up duplicate samples (holding time 14 days) to be available for analysis at DNR lab pending results from MPC; according to Larken sample results should be available in two weeks but not certain. (written notes: hold samples for Depot's return on 10/9/1989, if we will analyze within 14 day holding period DNR 10/2/1989)
10/10/1989	Michigan Department of Natural Resources Environmental Laboratory	MPC, Dipo Oyinsen ERD Northville, Buckeye Pipeline	Qualitative Analysis: 4 samples of Trench Borings for petroleum product identification ; (1) analysis by gas chromatography, no significant peaks detected same for (3) and (4), (2) analysis by gas chromatography, peaks detected but not in significant quantities to make determination.
3/22/1990	State of Michigan in Circuit Court for County of St. Clair	Larry Thornton, Buckeye Pipeline Company, Sun Refining and Marketing Company, Liquid Transport, INC. Deponent: Constance Hislop, Reporter: Susan L. Lowry	Case No: 88-001207-CE Dr. Constance Hislop Deposition: Mr. Thornton was smelling bad odors, changes in sense of taste, flashing lights in vision, loss of hearing and ringing in ears, coordination problems, balance problems, changes in skin, headaches, memory problems, lack of concentration and understanding, difficulty with speech production, sadness/depressions/stress/anxiety; performed neuropsychological symptom checklist, eye/hand coordination included, "evaluate many of the things he felt were wrong with him, and did not find anything to substantiate it.", unable to test for certain things only a neurologist could test for
9/14/1990	Michigan Department of Public Health	LakeHead Pipeline,	Water Well and Pump Record for LakeHead Pipeline 215 Murphy Drive, St. Clair Twp., 133ft well depth, Type II Public Use, nearest source of possible contamination: septic, 75ft.

	Water Well And Pump Record		
11/10/1992	St. Clair Township Planning Commission	St. Clair Township Planning Commission, Oderder, Riedel	The Site Plan Review for the Lakehead PipeLine, Murphy Dr. occurred at this meeting. It is noted that the site plan is "recommended for approval, properly zoned Industrial and meets all other ordinance requirements". A motion was made by Oderfer and was supported by Riedel that "the request be approved".
8/3/1993	St. Clair Township Planning Commission	St. Clair Township Planning Commission; Sunoco Pipeline Co., Venessa Davis (margin notes)	Letter read from city of Marysville during meeting encouraging heavy industry on Range Road. Opinions given from people attending the public meeting about what to do with Range Road in terms of zoning (asked who owns the road, etc.). Business turns to Sunoco Pipeline Co. (no one is there to represent them). Tabled until September 8th.
9/8/1993	St. Clair Township Planning Commission	St. Clair Township Planning Commission, Venessa Davis (margin notes)	A motion was carried to grant special approval of a site plan for Sun Pipe Line Co. to have a petroleum pump station and storage tank farm at 250 Murphy Dr. Davis questions in the margins why a public hearing was not held regarding the matter.
9/30/1994	United States District Court for the District of New Jersey	Public Service Electric and Gas Company, certain underwriters of Lloyd's of London	No evidence was found that the soil or groundwater contamination at any site was attributable to the plaintiff's violation of environmental laws. In environmental coverage litigation, the relevant question is whether the insured intended to do harm or not.
5/2/1995	St. Clair Township Planning Commission	St. Clair Township Planning Commission, Pam Clearwood, Venessa Davis (margin notes)	Under the public hearing section of the meeting minutes, it is noted that the Murphy Dr. rezoning request was discussed and involved the property owner Paul Gkekiere. Under new business Parcel 2 Q-A changing from "Heavy Industrial" to "Neighborhood business" was discussed. A motion was carried to provide Pam Clearwood with more information at the June 6th meeting.

5/8/1995	Dorothea Knight (Planning Commission Chairman)	Members of St. Clair Township Planning Commission, C. Francis Malane (supervisor), Bill Klaassen (building inspector and zoning administrator)	An email sent from Dorothea Knight was sent to members of the St. Clair Township Planning Commission, C. Francis Malane, and Bill Klaassen chastising the behavior of the commissioners at the May 2nd planning commission meeting. Parliamentary The procedure was broken and folks talked directly with one another rather than addressing the chair and allowing the chair to facilitate the conversation. The rules broken that are referred to are known as the "Robert's Rules of Order ".
5/15/1995	St. Clair Township	St. Clair Township, Joyce A. Skonieczny (clerk)	St. Clair Township Ordinance # 109 amends previous Ordinance # 75 to say that violations of the ordinance will be civil infractions punishable by a fine between \$50.00 and \$500.00. Davis notes in the margins that the Township did not follow the part of the ordinance that says "a separate offense shall be deemed committed upon each day during or when a violation occurs or continues." Building Code Ordinance Number 102 Section 4 is added as well. The ordinance is severable and all previous ordinances in conflict with this one are now replaced. ordinance that says
6/6/1995	St. Clair Township Planning Commission	St. Clair Township Planning Commission, Clearwoods	Pam Clearwood Clearwood is back about unfinished old business "with more information on right of way or basement for driveway, could go to a class A zoning" and the topic is tabled again for the Planning Commission's July Meeting.
7/5/1995	St. Clair Township Planning Commission	Clearwoods	Pam Clearwood did not show up to the meeting, so her request to rezone from IH to B1 was denied
4/1/1997	St. Clair Township Planning Commission	Dorothea Knight, Clearwoods	Site plan review for "Tower-Sprint" (cell tower); Dorothea Knight says tower regulation is "Lax" and that residents don't know that it is happening until one is going up right next to their property; motion carried

9/29/1997	MDEQ	Sun Pipe Line Co.	A certificate (MIG670084) was approved for Sun Pipe Line Co. by DEQ. It permitted the company to discharge 1 mgd of hydrostatic pressure test water from 250 Murphy Dr.
10/9/1997	MDEQ	Sun Pipe Line Co.	Certificate of coverage authorizing Sunoco to discharge 1.0 mgd of hydrostatic pressure test water. Discharge is to the Pine River via the Cuttle Drain.
3/5/1998	DEQ	Sun Co	General permit request from Sun Co to reissue General Permit #MIG670084. This certificate of coverage does not authorize the discharge of water additives used to treat the water unless allowed by the District Supervisor.
12/8/1998	MDEQ	Sun Pipe Line Co.	Hae-Jin Yoon from DEQ sent a letter to Marilyn Shup of Sun Pipe Line Co. stating the certificate of coverage under National Discharge Pollution Elimination System (General Permit No. MIG679000) had been successfully processed. It permitted the company to discharge 1 mgd of hydrostatic pressure test water. An important note is that the certificate "does not authorize the discharge of water additives without approval from the department."
2/2/1999	St. Clair Township Planning Commission	St. Clair Township	Planning Commission meeting minutes with request for special use of vacant parcels at Murphy Drive & Gratiot Ave. No details on request, but the commission had several concerns and requested a revised site plan. See 4/6/99 meeting notes.
3/2/1999	St. Clair Township Planning Commission	St. Clair Township	Planning Commission meeting minutes; brief mention that the revised site plan requested at 2/2/1999 meeting was late and postponed to April. See notes from 4/6/99.
4/6/1999	St. Clair Township Planning Commission	Phil Pavlov	Planning Commission meeting minutes approving Phil Pavlov's request for special use approval. The two parcels mentioned are where Heileman & Sons Signs is and the parcel across Murphy Drive from there.

8/26/1999	MDEQ - AQD	MDEQ - AQD, Sunoco	"Sun Pipe Line Company on August 26, 1999 had a malfunction of the crude oil storage tank # 43. They failed to notify AQD within two business days of the discovery of the malfunction. Also, the company failed to notify AQD 30 days prior to filling and refilling storage tank #43."
9/3/1999	MDEQ - AQD	MDEQ, Sunoco	AQD "received verbal notification from Sun Pipeline Company. Located at 250 Murphy Dr. Marysville, MI that a malfunction of the crude oil storage tank #43 occurred on August 26th, 1999. During the inspection and conversation of September 3rd, 1999 the following air pollution violations were observed. Storage tank #43 Rule 336.1912, Rule 912 The company failed to notify AQD within 2 business days after the discovery of the malfunction. 40 CFR. Part 60, subpart kb, The company failed to notify AQD in writing at least 30 days prior to the filing and refilling of the storage vessel for which an inspection is required."
9/3/1999	MDEQ	MDEQ, Sunoco	AQD "received verbal notification from Sun Pipeline Company. Located at 250 Murphy Dr. Marysville, MI that a malfunction of the crude oil storage tank #43 occurred on August 26th, 1999. During the inspection and conversation of September 3rd, 1999 the following air pollution violations were observed. Storage tank #43 Rule 336.1912, Rule 912 - The company failed to notify AQD within 2 business days after the discovery of the malfunction. 40 CFR. Part 60, subpart kb, The company failed to notify AQD in writing at least 30 days prior to the filing and refilling of the storage vessel for which an inspection is required."
10/26/1999	MDEQ	MDEQ, Sunoco	MDEQ presented Sunoco with an official notice for the violations found on 9/3/1999, following the 8/26/1999 malfunction.
12/21/2001	State of Michigan Court of Appeals	Richard Parry, Township of Groveland and Vilican Leman and Associates	Parry filed against Groveland Twp claiming that they intentionally interfered with his inability to sell land that he owned. Parry tried to sell in May 1997 to someone for \$70,000, but after a meeting with the township office, the man backed out of the deal (another person who was going to buy it also backed out). The township "intentionally" placed numerous, unauthorized conditions on his request to subdivide the property; defendants moved for summary disposition on the basis of governmental immunity (which was granted).

3/5/2002		Sunoco Logistics, Southeastern MI District Office Surface Water Quality Division	Letter from Don Newsom (DEQ Southeastern MI District Office of Surface Water Quality Division) to David Justin (VP at Sunoco) stating that the name change from Sun Pipe Line Co. to Sunoco Pipeline L.P. on their certificate of coverage and general permit have been updated. The original application for the permit was submitted on May 26th, 1998. The certificate of coverage authorizes Sunoco "to discharge 1 mgd of hydrostatic pressure test water from Monitoring Point 002a." The original letter requesting documented name changes from David Justin is attached as well (to William McCracken Chief, Permits Section in MDEQ surface water quality division). All personnel and operations will remain the same, but ownership and name of the company on formal documentation must change.
8/6/2002	PHMSA	MDEQ, Venessa Davis,	Venessa Davis showed documentation from 8/6/2002 that showed MDEQ's "inspection for the installation of an Underground Storage Tank (UST) at the Sunoco facility." She could not find the inspection report from this time. PHMSA says in their email many years later this is because it was determined to be under PHMSA jurisdiction, so MDEQ was not to keep that record.
9/6/2002	MDEQ	Sunoco Pipeline	Sunoco requests continued coverage under General Permit No. MIG670000 and states that discharge from facility is in compliance with the permit
8/16/2004	St. Clair Township	St. Clair Township, Residents, Fire Dept.	Ordinance #159 provides full funding of fire protection services to residents of the township. \$400 is due to the township from anyone in need of fire services. The payment is due within 30 days of the reporting. The ordinance does not say anything about odor complaints.
12/29/2004	St. Clair Township	Enbridge	Property record for 215 Murphy Dr. The taxpayer address is 1100 Louisiana STE2900 Prop Tax Manager Houston, TX. 77002.
2005	Beth Wallace, NWF	Beth Wallace, NWF, Enbridge	.5 barrels (~20 gallons) of oil was released (spilled) due to material, weld, and equipment failure. This was reported by the National Pipeline Mapping System and PHMSA.
4/11/2005	Sunoco	Marysville Pump Station	Annual tank seal and overfill protections systems inspection report of tanks 34, 41, 43, 44, 45

7/5/2005	St. Clair Township Planning Commission	St. Clair Township Planning Commission	Donna (assuming she is on the board?) attended a 4 hour workshop on wetlands. The state is responsible for wetland areas 5 acres or more. The only municipality in St. Clair that has a wetland ordinance is Columbus Township.
9/24/2005	St. Clair Township	St. Clair Township	B-2 (General Business District) is for "establishments offering accommodations, supplies or services to motorists," usually located along highways (like the front half of Murphy Drive). I-L (Light Industrial District) is for "industrial type land uses which could efficiently operate or function on small plotted lots or in planned industrial parks" (like the back half of Murphy Drive). I-H (Heavy Industrial District) is for "manufacturing, assembling, and fabrication activities, including large scale/specialized industrial operations not permitted in I-L district" (like the middle of Murphy Drive).
9/27/2005	St. Clair County Health Department	Venessa Davis, St. Clair County Health Department	Water samples were collected at 139 Murphy Dr. to test for coliform bacteria.
9/29/2005	St. Clair County Health Department	Venessa Davis, St. Clair County Health Department	The St. Clair County Health Department shared the results of the water quality test done on the well for 139 Murphy Dr. (Venessa Davis and her family's property). The results stated: "The St. Clair County Health Department has received the bacteriological water test result for your well. The water test results show that coliform bacteria were not detected. Therefore, the water is bacteriologically safe for consumption."
12/7/2005	MDEQ	MDEQ, AQD, Sunoco	MDEQ approves permit to install pipeline (Sunoco).
12/7/2005	Sunoco Pipeline L.P.	Sunoco Pipeline L.P.	Permit # 178-98B sets material usage limits (194,565,000 barrels per 12-month rolling time period on a month-to-month rolling basis. The permittee shall also comply with Federal Standards in 40 CFR Part 60 subparts A and Kb. The permittee will also not operate tanks 34, 36, 41, and 43 unless all provisions of Rule 604 are met (a functioning and safe floating roof).
12/7/2005	MDEQ	MDEQ, AQD, Sunoco	AQD approves Sunoco's permit to install (pipeline?)

3/7/2006	St. Clair Township Planning Commission	Sunoco	Sunoco explains about the new tank that will be constructed. Concerns about security (will be available 24/7) and lighting. No existing wetland area, but it is a drainage area and it will continue to "drain as it always has." Project has 3 different start dates: piping and electrical will start in April, foundation will start on June 1st, construction of the tank on the foundation will begin August 1st. Project is scheduled to be completed in Spring 2007. Commissioner states that he would like to see the environmental performance, fire department, and engineering issues resolved.
4/4/2006	St. Clair Township Planning Commission	St. Clair Township Planning Commission, BMJ	The site plan for 250 Murphy Dr. (Sunoco Pipeline L.P. Kirk) was received with the requested changes from Sunoco. A outstanding concern now is the lighting of the facilities, though nearest residents seem far enough away to not be interfered with. BMJ reviewed the plans and has concerns regarding drainage. Kimball Township FD is satisfied with the plans. The motion for approving the site plan with changes to drainage is seconded by Konik and the motion carried unanimously.
6/1/2006	Sunoco Logistics	Sunoco Logistics	Monthly above ground tank inspection report for tank 34 found all categories satisfactory (by inspector Tony Clauss). It was noted however that there was water on the tank's roof, and the South mixer was leaking
7/6/2006	FCE	FCE, Sunoco	Sunoco at 250 Murphy Road in Marysville was found to be fully compliant with PTI #178-98B.
7/10/2006	MDEQ	MDEQ, Sunoco Logistics	MDEQ's report from the 7/6/2010 - 7/7/2010 investigation was published officially, showing that Sunoco at 250 Murphy Dr. in Marysville was found to be fully compliant with PTI #178-98B and air quality regulations. It was also noted that tank #46 was under construction (projected to be complete by 9/6/2006), and tank #36 were out of service.
12/13/2006	St. Clair County Health Department	St. Clair County Health Dept., Venessa Davis	Form certifying sewage and disposal system final inspection and authorization for use was given to the Davis family from St. Clair County Health Dept. A map of the property is drawn out on this document as well.

1/3/2007	St. Clair Township	St. Clair Township	This zoning ordinance includes a summary of enforcement, duties of the zoning administrator, permits, certificates of occupancy, performance guarantees, zoning amendments, fees, records.
4/30/2007	Sunoco Logistic Partners	Sunoco Logistic Partners	Tank 44 inspection conducted by Ned Rav? - no holes in roof, no liquid on the roof; all kids covered when not in use, the roof is resting on the liquid surface etc. (basically the tank is in compliance with this inspection)
9/2007 - 10/8/2008	DEQ	DEQ Sunoco	An updated certificate for coverage (MIG670084) is distributed to Sunoco from DEQ Surface Water Quality Office. The certificate of coverage authorizes Sunoco to discharge 1 mgd of hydrostatic pressure test water from Monitoring Point 002a through outfall 2," and outfall 2 discharges into Cuttle Drain. Application was submitted in September 2007 and coverage began in April 2008. Monica Styles was the Sunoco Environmental Specialist at the time of this certificate of coverage being given to Sunoco.
7/2010	PSAB	Enbridge Energy Partners	"About 21,000 barrels of heavy crude oil spill in a tributary of the Kalamazoo River near Marshal from Line 6B pipeline owned by Enbridge Energy Partners."
10/2010	Time Herald Reports	Sunoco Logistics,	Sunoco leaked about 42 gallons of crude oil in St. Clair Township. This occurred at 215 Murphy Dr. from a corroded pipeline.
10/1/10	DEQ	DEQ, Enbridge, Davis	An updated water testing fee schedule from MDEQ was created, effective 1/10/2010. As Davis notes in the margins, Enbridge said they would pay to test for methane and then did not. Mike (more context on who Mike is) helps to get water tested for methane gas by MDEQ.

2010	PHMSA	PHMSA, Sunoco	<p>NRC report conducted on Sunoco facility. There was a pinhole leak on a 12 inch abandoned underground station piping. The leak was contained on the facility property and cleaned up. The abandoned piping and problem was from pipe work done in 1986, when Buckeye owned the property. Abandoned piping is not PHMSA regulated, but PHMSA did make sure it was all up to standard now.</p>
4/29/2011	MDEQ	MDEQ, ?	<p>The following was found at MDEQ's Triennial inspection of the Sunoco facility:</p> <ol style="list-style-type: none"> 1. tank# 46 has leaks at both the mixers (east and west) 2. Need to repair broken PVC conduit for the Cathodic protection on tank #34, also need to repair the mixer Conduit on tank # 43 3. Need to have an engineer inspect tank # 41 to assure the ring wall is still stable and the tank is not settling causing the tank bottom to buckle. Also need to determine if the electrical piling for the mixers is not putting undue stress on the conduits. May need to install flexible connectors to the box. <p>*In summary, "Sun Pipeline had issues with tanks #34,41,43 and 46. " *</p>
8/6/2012	St. Clair Township Planning Commission	Enbridge	<p>Mentions a previous spill in the neighborhood (St. Clair); says that Enbridge is acting like a public utility when in fact they are a private company. Enbridge does not have eminent domain. They are trying to "hide behind the rights afforded to DTE." Enbridge is using the township as a "thru-way" for pipelines. Enbridge offers "no services or fuels to us." Those in the meeting suggest that Enbridge should give people notice when they are coming into the area to work.</p>

8/16/2012	St. Clair Township Planning Commission	St. Clair Township Planning Commission, Enbridge, Cataldo, Westrick, Cunningham, Mike Boulter, Brian Mahaffy	Cataldo says they have received correspondence with an attorney about Enbridge. Cataldo states Enbridge causes spills, does whatever it wants, and is now impeding on other properties. Cataldo is frustrated that Enbridge comes and goes with adding and switching pipelines on their property as well as others. Enbridge is a private company, not a public utility; therefore, eminent domain is certainly not a power it may exercise. Cataldo presents the idea that the township should become more involved in the construction process, and there needs to be some process of consent before Enbridge constructs on residential property. Others question who has jurisdiction and propose that residents are given notice ahead of time before projects are completed. Notes about different sections that the township should amend language on/update.
9/6/2012	St. Clair Township Planning Commission	Enbridge; Venessa Davis (margin notes)	Asked if anyone at the meeting looked into the Enbridge issues brought up in the previous meeting (Enbridge coming into the township and ordinances governing the operation of equipment, construction of equipment and hours of operation)
9/20/2012	Bauckham, Sparks, Lohrstorfer, Thall, and Seeber, P.C. Attorneys at Law	Kenneth Sparks, Michigan Townships Association, MPSC, PHMSA, PSA	<p>This letter to Larry Merrill is from Kenneth Sparks. The PSA is administered under PHMSA. The letter states that...</p> <ul style="list-style-type: none"> - "A state authority may not adopt or continue in force safety standards for interstate pipeline facilities or transportation." -The MPSC has the power to regulate all public utilities in the state - The MI Zoning Enabling Act "gives townships and other local units of government broad authority to adopt zoning ordinances regulating the use of land and structures within the local unit -"Township consent is NOT required to place a pipeline with limited-access access highway or public road right-of-way. - The Township may not unreasonably withhold its consent to a request to place a pipeline within a public road right-of-way. - A township's ability to control the location or route of the proposed pipeline is very limited.

10/2012	PSAB	National Wildlife Federation, Enbridge Energy Partners	"National Wildlife Federation releases a report on Line 5, calling the submerged pipeline in the Straits of Mackinac a hidden danger to Michigan's waterways. The report prompts increased attention and focus on the potential ecological and economic damage that could occur if the Line 5 pipeline running beneath the Straits of Mackinac failed."
2012	PHMSA, Enbridge	Enbridge	ILI metal loss MFL tool on Line 5 was conducted. This inspection included area around Murphy Dr.
2012	PHMSA, Enbridge	PHMSA, Enbridge	
1/31/2013	Michigan Government	Michigan Public Service Commission, LARA	The Michigan Public Service Commission "approved an application filed by Enbridge Energy, Limited Partnership to replace, construct and operate a crude oil and petroleum pipeline running through" several Michigan counties. This is "to address the long-term integrity of the Line 6-B pipeline." About 170 miles of new pipeline will replace the old pipeline from Griffith, IN to Marysville, MI.
4/11/2013	State of Michigan Court of Appeals	Playcare Learning Center, Griffin Real Estate, Enbridge	Griffins owned play care center and Griffin Real Estate; claim Enbridge is responsible for Griffins' business failures; Griffins were non-compliant and delayed court orders; case was dismissed
5/5/2013	Marysville Fire Dept.	Marysville Fire Dept., Enbridge	There was a reported oil leak at the Enbridge facility. There was a potential need for resources to help contain the leak from the Marysville Fire Dept. Upon arrival, no leak was found by the Fire Dept., and authorities were given an all clear.
5/22/2013	PHMSA	St. Clair County Health Dept., MDEQ., Venessa Davis	"The water wells at 138 and 139 Murphy Drive were sampled by the St. Clair County Health Department... The only item listed on the reports is Coliform Bacteria" Both properties were encouraged to chlorinate the water wells (call made on 5/23). When Venessa complained about methane also in the water supply, she was told that methane is "naturally occurring".

6/6/2013	MDEQ Water Quality Laboratory	St. Clair County Health Dept., MDEQ., Venessa Davis, Enbridge, John Jay	<p>Venessa Davis was having issues with water and told Enbridge. Enbridge has the health department sample the water on 5/22. Davis points out that the results do not note where the water sample was taken from on the properties of 138 and 139 Murphy Dr. or how the samples were taken. Bacti and VOCs were tested from the samples taken by the St. Clair County Health Dept. Coliform Bacteria was found in the water sample, and the lab called Venessa on 5/23 and told her to chlorinate the water and then have it tested again.</p> <p>MDEQ tested for many harmful chemicals and VOCs that were ultimately not detected (showed a small amount in some categories, but by EPA standards, considered safe).</p>
10/1/2013	St. Clair Township Planning Commission	Enbridge, SEMCO, St. Clair Township Fire Department; Venessa Davis notes	<p>Site plan review for 900 Richman Road (Enbridge) - want a pumping station. Area where they want to install the pumping station is a wetland, which limits the amount of space they can use for the project. Acquired a new property, and are removing the house and barn on the property to create a building that is "pretty much the same area." Biggest concern from residents is the road being damaged due to construction. The pumping station will be 3.5 decibels outside of the building. The "lighting is a concern. We will have minimal security lighting." Had no plan for where wastewater would be disposed. Construction should start in October and be completed by the second quarter of 2014. Discuss planting trees to hide the barbed wire fence. A new pipeline is to be built, and some of the old pipeline will remain while some of it will be removed. Enbridge has a federal permit that temporarily disrupts the wetlands. If there is an accident, they would contact the fire department. "We will know before you know." The smell would be noticeable if there is an accident, and Enbridge would rely on first responders to get people out. Their next concern is the environment.</p>

10/7/2013	St. Clair Township Board meeting	St. Clair Township Board meeting, J. Robertson, K. Konath, M. Manning, J. Edmundson, E. Cary, C. Arceri, R. Cunningham, Enbridge	<p>J. Robertson questioned the board about notification procedures regarding projects in the township due to a project being conducted near her home she does not have much knowledge on. She was told about a pipeline, not a building. K. Konath questioned notification procedures and concerns regarding road maintenance M. Manning questioned notification procedures and documentation of spills. J. Edmundsun asks if DNR is involved with the project. E. Cary asks if the zoning has been changed on the property and if Enbridge can move the building to the back of the property. C. Arceri asks why berm was denied by the county if the fire dept. can take care of the project, and if there is anything that can be done to reduce noise. R. Cunningham discusses the height of the building being reduced and the federal jurisdiction of the pipeline.</p> <p>The response to these comments above was that Enbridge is regulated by the federal government and they came to the township just about the building and cannot move the building to the back of the property. Davis notes in the margins that Enbridge actually must follow all local, state, and federal laws and would like to know when the supervisor spoke with the surrounding community about addressing all of their concerns.</p>
11/8/2013	St. Clair County Central Dispatch	St. Clair Fire Dept.	A citizen reported a petroleum smell to one of the pipeline companies (does not state which). After Jason suggested it was probably from a tank being filled with oil, the pipeline was shutdown for a crew to investigate, following another caller complaining about a petroleum smell.
11/25/2013	St. Clair County Health Department	St. Clair County Health Department, Venessa Davis	St. Clair County Health Department tested Venessa and Jay Davis' water at 139 Murphy Dr. E. Coli and Coliform were not detected.

12/3/2013	State of Michigan In Circuit Court for County of St. Clair	Thomas Lundman (plaintiff) vs. St. Clair Township (defendant), Terri A. Doan Notary Public, T. Allen Francis Attorneys for Plaintiff	Case No. 13003143CZ Verified Complaint for Declaratory Relief and Appeal of Planning Commission Decision (Affidavit): Lundman resident 6855 Serenity Lane, St. Clair, St. Clair County, MI, matter involves property located on Richman Road in St. Clair Twp., complaint is appeal of St. Clair Twp. Planning Commission decision to vote to approve Site Plan on subject property owned by Enbridge Energy, L.P. for 75'x130' pump station in connection with Enbridge's pipeline, Section 4.5 of St. Clair Twp. Zoning Ordinance provides Public Utility Buildings are permitted in any zoning district upon Special Use Approval. (21) Planning Commission failed to: conduct Public Hearing, public notice of public hearing, advise public when and where to submit written comments, advise public when and where info obtained, notify property owners within 300 ft. Plaintiff will suffer special and unique damages if approved, detract from his use and enjoyment of property
12/12/2013	St. Clair Township Planning Commission	Enbridge	Concerns about how quickly the approval for the "pumphouse" went through the township, and some people on the board would like it moved back. We are "taking their word for it" in regards to Enbridge not disturbing the wetlands. At least one person on the board says that they do not believe that this was rushed. Another person says that Enbridge has "not followed through on anything they have told me so far." Also noted in meeting minutes, fracking ordinances are being considered. The Enbridge project would bring in \$300,000 a year (township portion approx. \$5,200 a year), Davis asks in the margin notes why Private Dr. ordinance could be changed but not Richmond Rd., the township asked for a SAW grant for having sewer line checked and pump stations, and Davis questions what property is to be rezoned on Gratiot Avenue.
12/17/2013	St. Clair County Central Dispatch	St. Clair Fire Dept.	A citizen reported a gas smell. From the campground it was reported at, it was noted that upon arrival, the smell was growing fainter. The Fire Dept. noted that the smell was stronger at Wadhams North of 64 and at 1 mile West of exit of 5900 E I-94 (smelled like natural gas).
12/31/2013	St. Clair County Central Dispatch (log)	Chris-Superior Heating and Cooling, St. Clair Dispatch	Odor complaint, but observation/report not noted

2014	PHMSA, Enbridge	Enbridge	ILI crack tool inspection. an ILI AFD tool inspection, and an ILI Deformation tool inspection on Line 5 was conducted. These inspections included area around Murphy Dr.
12/3/13-2/24/14	31st Circuit Court of St. Clair County	Thomas Lundman, Enbridge, St. Clair Township	<p>In the case Lundman v. St. Clair Township and Enbridge, Lundman is a resident of St. Clair. The subject is the property (owned by Enbridge) which is zoned RU (rural), and it is located near and visible from Lundman's property. The Planning Commission held a meeting on 10/1/13 to review the site plan Enbridge submitted for the property. The plan included a new pump station constructed that would be 75'x130'.</p> <p>The Zoning Enabling Act requires a local unit of government to notify all property owners within 300 feet of the property. If a special land use has been requested, St. Clair Township's zoning ordinance provides that public utility buildings (like pump stations) are permitted in any zoning district if granted special use approval. A site plan needs to be submitted in order to get special use approval. The planning commission must do the following for special use approval requests: hold a public hearing; publish notice of hearing in the newspaper, mail notice of hearing to certain people, and after hearing, record statement of facts. If the Planning Commission fails to do all of these things, they have no authority to approve site plan and special use approval); Lundman appealed Planning Commissions decision to approve the site plan.</p> <p>Lundman "lacks standing" to bring about this case</p>
1/16/2014	State of Michigan Circuit Court for the County of St. Clair	Thomas Lundman, St. Clair Township, Brian Mahaffy	In July 2013, Enbridge presented plans to the township to replace the existing pump station on Richman Road with a new pump station. On 10/1/13 a site plan for the construction of "a new replacement pump station" on Richman Road was approved.
1/16/2014	State of Michigan Circuit Court for the County of St. Clair	Thomas Lundman, St. Clair Township, Brian Mahaffy	Affadavit of Brian Mahaffy: Supervisor of St. Clair Twp., July 2013 (3) Enbridge approached Township and presented to Officials plans to replace existing pump station situated on Richman Road with a new pump station. (7) 10/1/2013 Planning Commission at regular meeting reviewed and approved a site plan for construction of a new replacement pump station on Richman Road

1/17/2014	State of Michigan Circuit Court for the County of St. Clair	Thomas Lundman, St. Clair Township, Planning Commission	After site plan approval is accepted by the zoning administrator, it is not published/mail notice does not go out; Lundman offers "no other facts: to support claim he will suffer injury if plan goes through; based on "nothing" other than general proximity to the subject property "holds no standing"; Lundman cannot allege that he is within 300 feet of subject property; lacks standing under appeal because that only applies to an appeal of a decision by a zoning board of appeals; discussions surrounding the pump station "improvements"; Enbridge "never sought special use"; Lundman is seeking declaratory judgement against township; "lack of standing"
1/17/2014	State of Michigan Circuit Court for the County of St. Clair	Thomas Lundman, St. Clair Township, Planning Commission	The Planning Commission voted to approve a site plan for the construction of a pump station (Enbridge). Special use approval was required for the pump station, but it was not obtained. The township determined that its ordinances (Enbridge's) were preempted by state and federal law. The township says Enbridge is regulated by federal agencies and laws because it operates an interstate pipeline; therefore, townships cannot use their zoning ordinances to restrict Enbridge from constructing facilities in connection with its pipeline. In the "spirit of cooperation" Enbridge voluntarily agreed to meet zoning requirements (to a certain extent).
1/17/2014	State of Michigan Circuit Court for the County of St. Clair	Thomas Lundman, St. Clair Township, Planning Commission, Brian Mahaffy	<p>Lundman v. St. Clair Township discusses pump station "improvements". The township does not have legal authority to require Enbridge to seek Special Use Approval (Governmental Tort Immunity Act). The tort for this: civil wrong for which a remedy may be obtained.</p> <p>Lundman is "unacceptably interfering" with Township's ability to govern. Mahaffy has already approved the location of the pump station at Richman Road. Nothing in township's zoning ordinances prevents the planning commission from granting site plan approval when an application for Special Use Approval hasn't been approved.</p> <p>Summary disposition: when a claim is barred because of immunity granted by law, government immunity not only serves to protect government agencies from liability, but it also serves to protect government agencies from incurring the expense of defending suits that are barred. Lundman wants Enbridge to seek Special Use Approval. The township did a "government function" that is entitled to immunity.</p>

1/17/2014	State of Michigan Circuit Court for the County of St. Clair	Thomas Lundman, St. Clair Township, Planning Commission	The case admits and further states that the new pump station replaces an existing pump station and complies with all setbacks and building requirements. The defendant "neither admits nor denies for the reason that statutory provisions speak for themselves".
1/20/2014	St. Clair Township Planning Commission	St. Clair Township Planning Commission, Enbridge	Enbridge never provided the Planning Commission with complete plans. The Planning Commission did not approve previous meeting minutes because the group believes Enbridge didn't provide them with the correct information. The previous meeting (10/1/13) was approved.
2/6/2014	State of Michigan Circuit Court for the County of St. Clair	Enbridge, Thomas Lundman, St. Clair Township	In Lundman v. St. Clair Township, the subject matter is "St. Clair Pump Station". Enbridge is trying to replace the old Line 6B pipeline with a new updated one. Lundman only named St. Clair Township in the lawsuit, but Enbridge filed a motion to intervene OR seeking permissive intervention. Enbridge's interests are not "adequately represented" (has an interest in property mentioned). This case is "delaying construction" of Line 6B facilities. When the issue of preemption is considered, a township's ordinance authority becomes much more limited. The township seeks legal advice on regulation authority.
2/13/2014	St. Clair Township Planning Commission	Enbridge, St. Clair Township Planning Commission	At the planning commission meeting ordinance review requirements for utilities were discussed. Enbridge needs additional easements and more structures built for the pump station on Range Road: "just started looking into fracking"; "the project on a scale of Enbridge is over our head".
3/3/2014	St. Clair Township Board Meeting	St. Clair Township Board, Brian Mahaffy, Debbie and Brian Bailey	At the Board Meeting, "Supervisor Mahaffy reported that Enbridge Energy lawsuit has been resolved. They have applied for a building permit." Davis notes in the margins that when she asked Debbie and Brian Bailey about the lawsuit, they did not know what lawsuit she was talking about. This could potentially be referring to Lundman vs. St. Clair Township
4/1/2014	Marysville Fire Dept.	Marysville Fire Dept. Venessa Davis	A HazMat release investigation was conducted on I-94 highway. "Matt from Sunoco" was contacted by the Marysville Fire Dept. and was going to investigate for any possible accidental release, where subsequently he found nothing of concern. The Fire Dept. responded to the call and detected odor of crude; however, their air monitor did not detect anything. There was an apparent smell of crude oil on I-94 as well reported by the Fire Dept.

4/2/2014	Marysville Fire Dept.	Marysville Fire Dept.	A HazMat release investigation was conducted on S. Allen Street. The Marysville Fire Department arrived and noticed a heavy crude oil smell in the air. It took almost an hour for the Fire Dept. to make contact with Sunoco. Sunoco said they would send a representative to investigate the smell. Matt from Sunoco said there was nothing out of the ordinary.
4/3/2014	Marysville Fire Dept.	Rochelle Teets, Christopher Graham, Marysville Fire Dept.	A HazMat release investigation was conducted on 5323 Gratiot due to Rochelle Teets calling the Marysville Fire Dept. Those dispatched determined that the strongest crude oil odor was on the west side of Sunoco along a pipeline. Ned at Sunoco said he had just completed an inspection and would contact his supervisor to see where odor was coming from.
4/3/2014	Sunoco	Sunoco, MDEQ	Crude oil accumulated on the internal roof of tank 43, causing the tank to sink to low legs. Approximately 90,000 barrels of crude oil were on the roof. A timeline of the events that transpired is provided. The cause of roof failure is not noted.
4/4/2014	Marysville Fire Dept.	Ned (Sunoco), Marysville Fire Dept.	A HazMat release investigation was conducted on Gratiot open land/field. The Marysville Fire Chief could smell sweet petroleum odor upon arrival. The chief went to Enbridge, which said that Sunoco was responsible for the odor. Ned from Sunoco said there were no leaks or spills, just normal venting of tanks was occurring at the time.
4/4/2014	PHMSA	Sunoco, PHMSA, MDEQ AQD	Sunoco came to the conclusion that tank 43 had sunk to low legs, following the events from 4/2/2014. Approximately 90,000 barrels of crude oil were on the roof. A timeline of the events that transpired is provided. The cause of roof failure is not noted. The tank was pumped down to a low relate which created more odor. Jennifer Roberts, Sunoco rep., called MDEQAQD to file a report at 3pm.
4/5/2014	Marysville Fire Dept.	Marysville Fire Dept., Vanessa Davis, Enbridge	A HazMat release investigation was conducted on 139 Murphy, the property of Venessa Davis. The same smell of crude oil had been smelled in the area for the past few days. The Marysville Fire Dept. told Venessa odor was coming from the tank farm. The Fire Dept. made contact with Enbridge and an officer said he didn't feel it was necessary to send a representative out to inspect the problem further.
4/23/2014	MDEQ	MDEQ, Sunoco	A self-initiated inspection report was conducted on Tank 43 following an "incident" that was reported on 4/3/2014. Crude oil accumulated on the internal roof of tank 43, causing the tank to sink to low legs. Approximately 90,000 barrels of crude oil were on the roof. A timeline of the events that transpired is provided. The cause of roof failure is not noted.

5/7/2014	LARA	LARA, Sunoco	LARA completed a triennial inspection at Sunoco. Tank 43 did have roof failure at this time. After inspection for all 6 tanks though, each was found certified.
6/2/2014	Marysville Fire Dept.	Donovan Grimes	A confined space standby was done at 256 Murphy (Enbridge?). Donovan Grimes reported to the Fire Dept. for standby. *No notes on the report... flammable liquid distribution?
6/6/2014	Marysville Fire Dept.	Sunoco, Marysville Fire Dept.	A HazMat release investigation was conducted at Sunoco, 250 Murphy Dr for a flammable liquid. The Marysville Fire Dept. made contact with Sunoco, which explained the facility is in the process of cleaning one of the storage tanks.
6/11/2014		Donavin and Venessa Davis, Marysville Fire Dept./emergency responders	Donavin and Venessa were in a serious car accident. From the family: "Our family was exposed to the overwhelming smell of heavy crude oil for several months due to the facility's operations. Sunoco then began round-the-clock cleaning of Tank 43 on May 22, 2014. During this time, our family experienced a range of symptoms, including but not limited to frequent headaches, breakouts, asthma attacks, anxiety, sinus problems, dizziness, memory lapses, and nausea. We believe that these symptoms were caused by the highly toxic and noxious fumes emitted by the crude oil, and that they may have contributed to the car accident that occurred on June 11, 2014."
6/12 and 6/13/2014	Marysville Fire Dept.	Matt (Sunoco), Marysville Fire Dept.,	A HazMat release investigation on I-94 was conducted on 6/12. Matt from Sunoco explains to the Marysville Fire Dept that they are working on one of the tanks. On 6/13, Matt from Sunoco says they are specifically washing the tank. The Fire Dept. goes to the scene and smells crude oil. A tanker was transferring products when the Fire Dept. was conducting their investigation.
6/14/2014	Marysville Fire Dept.	Sunoco, Marysville Fire Dept.	A HazMat release investigation was conducted on Murphy Drive (highway). The Marysville Fire Dept. arrives and smells an odor of crude/sulfur. Sunoco states they are doing tank maintenance, and that is the source of the odor. They will investigate though.
6/20/2014	Marysville Fire Dept.	Enbridge, Marysville Fire Dept.	A HazMat release investigation was conducted on 280 S. Allen, a residential road. There were multiple complaints that called for this investigation by the Marysville Fire Dept. The Fire Dept. contacted Enbridge, but Enbridge believes the odor is due to tank maintenance.

6/22/2014	Marysville Fire Dept.	Marysville Fire Dept., maybe Sunoco	A HazMat release investigation was conducted on Gratiot Street. The caller said there is a smell of natural gas in the area from a facility (Sunoco?). The Marysville Fire Dept. contacted the facility and personnel said the odor was coming from regular maintenance of the tanks.
6/29/2014	Marysville Fire Dept.	Marysville Fire Dept., Sunoco, Enbridge	The Flammable Liquid Distribution report by the Marysville Fire Dept. Lists 250 Murphy Dr., the address of Sunoco, as the location for the investigation. However, the Fire Dept. calls the Enbridge control center in Edmonton, Alberta, Canada, which stated there would be a pipeline shut down in 10-15 minutes due to a dense monitor alarm going off. Central Dispatch calls the Fire Dept. back and stated it was a false alarm.
6/30/2014	MDEQ	MDEQ, Sunoco	"Despite ongoing uncertainty about the cause of the roof failure, there are several key details to note. Sunoco installed a Thermal oxidizer on May 13, 2014, to control VOC vapors emitted during tank cleaning of Tank #43. 24/7 tank cleaning began on May 22, 2014. However, the Thermal oxidizer was removed on May 21, 2014. As of June 30, 2014, Tank #43 was 95% empty, with some residual material settling at the bottom of the tank. Despite odor complaints, no odor were confirmed on June 30, 2014, and Sunoco was found to be in compliance."
8/1/2014	Marysville Fire Dept.	Marysville Fire Dept., Sunoco	A HazMat release investigation was conducted on 139 Murphy Dr. The Marysville Fire Dept. received a call saying there is a propane smell in the area. When the Fire Dept. arrived on the scene they noted the reported smell was still present. Sunoco said the smell was coming from the cleaning of containers; however, the containers were empty.
8/12/2014	County of St. Clair Environmental Services Department	County of St. Clair Environmental Services Department, Enbridge Energy	On Enbridge's Special Disposal Application, disposal of "industrial debris" is accepted - "non-hazardous pigs (foam)". Pigs (foam) is used to clean out pipeline, and the foam is "impacted with crude oil and mineral spirits". There is a "mild odor" to the solid waste, and it is deposited in 6x55 gallon drums. Enbridge paid \$126.86 to dump in the landfill. The dumping included toluene, which can cause liver and kidney damage, as well as xylenes, which can also cause liver and kidney damage. These are detected in pigs foam. (SMITHS CREEK LANDFILL)
9/9/2014	Marysville Fire Dept.	Marysville Fire Dept., Sunoco	A HazMat release investigation was conducted on 139 Murphy Dr. The Marysville Fire Dept. found the odor being complained about was coming from the Sunoco truck filling station. 2 trucks were present on the scene, and 1 truck was actively taking on product. No alarm went off, and monitors did not pick up or detect methane, propane, or hydrogen sulfide.

9/17/2014	Marysville Fire Dept.	Marysville Fire Dept., Sunoco	A HazMat release investigation was conducted on 139 Murphy Dr. When The Marysville Fire Department arrived, and they detected the smell of "some type of product". Steven McNeil from the Fire Dept. reported the smell was not coming from the control building near Murphy Dr., so he went to the unloading station near Gratiot. At the unloading station, 1 truck was offloading and 1 was waiting. The Fire Dept. then talked to the driver. The driver said he didn't spill anything, but the driver before him might have. The odor was present for over 40 minutes.
9/19/2014	Marysville Fire Dept.	Venessa Davis, Marysville Fire Dept., Sunoco	A HazMat release investigation was conducted on 139 Murphy Dr. Venessa Davis told the Marysville Fire Dept. that the odor of propane was coming from Sunoco. Vanessa is creating an incident record and taking pictures of the site. She says the odor began as soon as the product was being transferred to tanker trucks. The Fire Dept. arrived at the scene over 2 hours later, and no smell was detected at that point.
9/20/2014	Marysville Fire Dept.	Venessa Davis, Marysville Fire Dept., Sunoco	In response to the odor complaint linked to 4885 Gratiot Ave, all truck offloading activities are shut down.
9/20/2014	Marysville Fire Dept.	Marysville Fire Dept., Sunoco	A HazMat release investigation was conducted on 139 Murphy at 2 AM. The Marysville Fire Dept. determined a propane odor coming from the Sunoco tank farm. Sunoco said that no product unloading has occurred since midnight.
9/20/2014	Marysville Fire Dept.	Marysville Fire Dept., Sunoco, Enbridge	<p>A HazMat release investigation was conducted on 139 Murphy Dr. The Marysville Fire Dept. was called to the scene for an odor problem. The Fire Dept. "found it to be the same as every other time we have responded there". There were crude oil smells from tank cleanings. Enbridge and Sunoco assured the Fire Department that there were "no spills". When both 9/20 reports were followed up with, Semco said they get calls about the smell all the time, and Enbridge and Sunoco's emergency line had gotten several calls about this incident.</p> <p>"In response to an odor complaint possibly being linked to Sunoco Logistics crude truck offloading facility. All truck offloading activities were shut down"</p>

9/21/2014	Venessa Davis	Eric Snyder, Enbridge	Eric Snyder stated Rick was here and Enbridge (9/21/14 1:30-1:40 pm). Also stated Enbridge showed their lines and put us up in a hotel for the night to get us out of the smell for at least one night. I also stated I wished Sunco was more proactive.
9/22/2014		Sunoco Logistics	Sunoco Logisitcs hired the contractor Groundwater & Environmental Services Inc for air monitoring in and around the facility.
9/23/2014		MDEQ, Sunoco	At MDEQ's visit to Sunoco, personnel reviewed truck offloading facility, activities resumed 7am-7pm. "Sunoco [is] spraying deodorizes 4 times a days. Sunoco [is] blaming unloading station for odor issues."
9/24/2014	Venessa Davis	Enbridge, Sunoco, Davis, Inter Con Services and Safety	Venessa contacted Enbridge, and George from Enbridge stopped by. Davis also contacted Inter Con Services and Safety.
9/25/2014	Sunoco	Sunoco, Marysville Fire Dept.	<p>An email was sent from Sunoco to Chief Konik to "provide a sense of where Sunoco stand with the assessments of the reported odors." Here is a bulleted summary of Sunoco's narrative:</p> <ul style="list-style-type: none"> *Sunoco Logistics have been receiving calls reporting odors alleged associated with Logistics Marysville station on Murphy Drive in St Clair Township. * Sunoco Logistics operation Personnel have been investigating those reports to identify potential causes of the reported odors either on our property or elsewhere. *Our operation Personnel have been walking the perimeter of the facility and are finding no unusual odors at this time but we will continue to monitor the location with our own Patrols in addition to air monitoring equipment to detect the presence of any hydrocarbons. *Sunoco Logistics takes these matters very seriously and we will continue to communicate and provide feedback to the affected residents as we investigate further. *Should anyone become aware of odors again we are asking them to immediately contact the marysville station at 810 -364 -6251 in addition to local Authority so we can respond appropriately"

9/25/2014	Venessa Davis	Davis	<p>Venessa notes that at 8:36 AM there is a propane smell at the driveway and the smell is still evident at Murphy and Gratiot at 9:52 AM. Davis tried to call Jay from Enbridge but there was no voice mailbox setup.</p> <p>At 9:40 AM Davis left a message with Federal Notification and Motor Safety</p> <p>At 8:22 PM Davis reported the strong odor was by Marysville Park to MVFD. Keith Walter wanted her to go to doctor, she said no I do not know what I am being exposed to, and he yelled at her that it was H2S.</p>
9/26/2014		Sunoco Logistics	Sunoco Logistics power washed truck offloading site "as a precaution", and washing the site is used as an excuse for odors (example in 1-6-2015 email).
9/26/2014	Venessa Davis	Sunoco Logistics, Communit Residents, Davis	<p>Sunoco Operations and Safety personnel met with community residents in response to recent odor complaints "possibly related" to activity at Sunoco Logistics Facilities (4885 Gratiot Ave and 250 Murphy Drive).</p> <p>According to Davis, the meeting was announced last minute and the Township was not invited, just the landowners.</p>
9/26/2014		Sunoco, Venessa Davis	<p>Sunoco stopped the off-loading operation of crude at the facility due to a lot of calls during the week (stopped late Thursday and resumed Monday for the day shift only). GES air monitoring started Monday. This will monitor for odors, but data suggests there are "none". Venessa was not notified of a 42-gallon spill within the facility back in 2010. No physical change besides going to drivers and telling them to follow the protocol, and no one is monitoring the unloading station. However, Sunoco is installing 24/7 cameras to hold drivers accountable. The best thing Sunoco can do is send an operator to investigate. Sunoco told the community that the "possible cause of odors in the spring and summer of 2014 [was] Tank 45 had to be cleaned out for API 653 inspection. Tank 43 [was] cleaned out for extensive repairs to the internal floating roof."</p>
9/28/2014	Venessa Davis	Venessa Davis, Donavin	A propane smell was noted by Davis around 9:45 AM, and Donavin began to feel sick due to the smell.

9/29/2014	Venessa Davis	Venessa Davis, Sunoco	Davis called the Sunoco Marysville control center about a very bad smell around 10:43
9/30/2014	Venessa Davis	Venessa Davis, GES	GES was outside of home testing
10/3/2014	Sunoco Logistics	Sunoco, community members; Venessa Davis notes	On 9/20, offloading operations were halted until 9/23 when a third party could monitor the hydrocarbon levels at the facility. Nothing concerning being detected. Operation hour changes and more third party presence for monitoring. This was following fire runs on 9/20. Venessa Davis' notes: "We asked for testing in ppb at the level we could smell. Didn't start until 10/2014. [Crude offloading operations hours is] 7 days a week per Frank C. 10/7/2014 around 3:20 pm. 10/7/2014 called Chris Koop at 412-784-3496.
10/6/2014	The Times Herald	Kimball Township, St. Clair Township, Marysville Fire Dept., Kimball Township Fire Dept., MDEQ AQD	Beth LeBlanc wrote an article for the Times Herald, discussing how township officials and fire crews think the horrible smell residents are experiencing in the area is coming from the Murphy Dr. tanks. The smell is obvious to residents and officials, but not enough for it to be registered on monitoring equipment by the Fire Department. ""Chris Ethridge, direct supervisor for Southeast Michigan DEQ air quality division, said DEQ representatives responded to complaints on Murphy Dr. this day."" He said DEQ would follow up with this complaint and 2 others on Monday (presumably 10/6/2014). DEQ would carry out a complaint investigation, and up until now, no violations have been given."
10/6/2014	Marysville Fire Dept.	Marysville Fire Dept., Sunoco	A HazMat release investigation was conducted on 127 Murphy Dr. (1 or 2 family dwelling). The Marysville Fire Dept. reported a faint odor when they arrived at the scene. Fire Dept. monitors picked up a reading of 465 ppm of methane at the Sunoco loading gate and 0 ppm of H2S. An hour later, Chief Konik passed along this information to Christopher Koop, Community Relations Representative, at Sunoco said he would pass the information along to operations and environmental personnel, and that Sunoco would be in direct contact with the incident reporter.

10/6/2014	Marysville Fire Dept. (Kimball Fire Dept.)	Sunoco, Marysville Fire Dept., Kimball Fire Dept.	Tom Konik, Marysville Fire Dept. Chief emailed Chris Koop, Community Relations Rep. from Sunoco. Chief Konik said there are more complaints, and he detected a light odor. The Chief at Kimball Township station has also been getting complaints, and that Chief did smell an odor too despite equipment not picking up a reading. Konik picked up no H2S reading, but he did pick up a combustible gas reading of 465ppm. Nothing on Murphy Dr. was detected though.
10/7/2014	PHMSA	MDEQ, Sunoco	MDEQ issued Sunoco a VN on this date (*what is a VN?), and Sunoco complied by "cleaning the top of the unloading area sump tank, installed an airtight lid on the sump tank and encapsulated the entire sump tank with a corrugated plastic material to limit fugitive emissions from the unloading process."
10/7/2014		Sunoco Logistics	A strong odor was observed during the pipeline receipt of crude oil to Sunoco Logistics Tank 44 in the early morning.
10/8/2014	Sunoco Logistics	Sunoco Logistics and Community Residents	A letter was given to Murphy Dr. residents addressing complaints regarding the odor that has been becoming more frequent. Sunoco says the company is working to address all odor problems, but according to their fixed and hand-held monitors, it is not a health risk. Data is available for residents to view.
10/10/2014		Sunoco Logistics and Mott Tank Inspection Company	The Mott Tank Inspection Company performed a preliminary seal inspection on Tank 44.
10/14/2014	MDEQ AQD	Sunoco, MDEQAQD	Sunoco was in violation of Rule 901 for strong intense smells. Sunoco was given until 11/4/2014 to fix the problem and become compliant. The violation notice distributed by MDEQ AQD.
10/17/2014	PEAS	Sunoco, PEAS, DEQ, Enbridge	Ticket #1-31662595 - Resident near Sunoco and Enbridge facilities noticed a lot of water along Murphy and Pickford where the resident says that they were told Enbridge has created three holes. There are worries about the water because it could have contaminants in it from old pipe leak, and the water goes towards Marysville Park, a creek, as well as residential wells. Enbridge and Sunoco are blaming one another for this standing water. Complaint was made anonymously.

10/22/2014		Enbridge, Michigan Public Service Commission	"Enbridge Energy submits Final As-Built map for line 6B to MPSC." This was for the "Line 6B Phase 2 Replacement Project: Segment 8, a 50-mile pipeline segment going through St.Clair counties." The plan was submitted to the Michigan Public Service Commission.
10/22/2014	Enbridge	MPSC	Enbridge submits final plan for the Line 6B replacement; beginning in 2012, Enbridge has installed 125 miles of a 36-inch pipeline and 100 miles of a 30-inch pipeline (this replaces the former Line 6B pipeline). Line 6B begins in Griffith, IN, travels through MI, and ends in Sarnia, ON, Canada.
10/28/2014	Enbridge	Enbridge, Venessa Davis	Enbridge was aggravated with Venessa Davis, and they sent her a cease and desist letter. In the letter, the company claimed they "had been actively engaged in various operations, such as removing and replacing pipes, as well as expanding their meters and station. Please note that odors do occur during the cleaning and replacement of crude pipes."
11/6/2014	Marysville Fire Dept.	Kimball Township Fire Dept., Venessa Davis, Matt (Sunoco), Marysville Fire Dept.	A HazMat release investigation was conducted on 250 Murphy Dr. for flammable liquid. The Marysville Fire Dept. received a call from Kimball Township Fire Dept. (KTFD) that they (KTFD) had gotten a call from Venessa Davis that an odor was present. KTFD agreed that odor was present. When the Marysville Fire Dept. contacted Matt from Sunoco, it was found that the odor was coming from a vent on a second contractors vac truck. Contractor was forced to shut down, and Matt made a recommendation that Frac tanks have an odor recovery system installed.
11/6/2014	MDEQ	MDEQ, Sunoco, Venessa Davis	"Vanessa Davis contacted MDEQ-RRD Joe Grazia and forwarded the complaint to AQD regarding the very strong odors emanating from the Sunoco property at 10:48 am. She approached Sunoco representative, who told her that they discovered what the cause was and would fix it." The fire run that follows later in the day is located under the Fire run tab.
11/19/2014		Sunoco Logistics	Repairs were completed to Tank 44 Secondary Seal.
11/20/2014		Sunoco Logisitics	The Mott Tank Inspection completed the inspection of Tank 44. No deficiencies were found with the Secondary and Primary Seals.
11/28/2014		Sunoco Logisitics	Groundwater & Environmental Services air monitoring for the facility site was discontinued.

12/1/2014	US EPA	US EPA	Priority Pollutant List- set of chemical pollutants we regulate, and for which we have developed analytical test methods; current list of 126 Priority Pollutants (not the only pollutants regulated in CWA programs, list is starting point for EPA to consider when developing other standards). highlight: #4 Benzene, #38 Ethylbenzene, #55 Naphthalene, #86 Toluene
12/13/2014	US DOT Pipeline and Hazardous Materials Safety Administration	Enbridge, Sunoco, Buckeye	List of spills/accidents (including barrels spilled, cause, and cost of incident) from 1994-2013
12/18/2014		Sunoco Logistics	All ongoing frac tank cleanouts, removal work, and cleaning for internal roof repairs on Tank 43 is complete.
12/19/2014		Sunoco Logistics	Sunoco paid \$511.99 to have waste moved to Smith's Creek Landfill (does not say what waste). Sunoco then paid \$359.78 for ML Charter to move waste to Smith's Creek Landfill (non-hazardous contaminated soil). Sunoco then paid \$427.99 for ML Charter to move waste to Smith's Creek Landfill (non-hazardous contaminated soil): Sunoco then paid \$184.56 for Clean Harbors to move waste to Smith's Creek Landfill (does not say what waste). Sunoco then paid \$340.96 for Clean Harbors to move waste to Smith's Creek Landfill (does not say what waste).
12/28/2014	The Times Herald	Enbridge, St. Clair Township Supervisor Brian Mahaffy, Davis	<p>The article stated that the construction which lasted for nearly a year required easements from property owners in Marysville, Columbus, and St Clair townships. St Clair Township Supervisor Brian Mahaffy stated residents were concerned about the pipeline and Enbridge's construction of a larger Pump Station at 900 Richmond Road." It is also mentioned that "Enbridge was working at both Murphy Drive and Richman Road at [the] same time. Tuesday Enbridge finished planting \$20,000 in trees along the township's bike path to make up for any headaches the construction may have caused.</p> <p>Davis notes her own thoughts throughout the margins of a printed copy of the article.</p>

1/2015	PSAB	MI PPTF	"The Michigan Petroleum Pipeline Task Force is created to take a closer look at pipelines transporting petroleum products around the state"
1/2015	St. Clair Township Board	Enbridge, Venessa Davis	Enbridge gives township recreation grant - how much? (notes)
1/2015		Sunoco Logistics	Work is nearly completed on the security camera system to monitor the truck offloading site. "Security work was discussed with community 9/26/2014, mid-Jan scheduled to replace truck offloading site sump tank w/ air tight tank and lid that will better contain any odors or vapors".
1/2015		Sunoco Logistics, MDEQ	Sunoco Operations and Safety personnel met with community residents in response to recent odor complaints "possibly related" to activity at Sunoco Logistics Facilities at 4885 Gratiot Ave and 250 Murphy Drive. Sunoco told the community back on 9/26/2014 that the "possible cause of odors in the spring and summer of 2014, Tank 45 had to be cleaned out for API 653 inspection. Tank 43 [was] cleaned out for extensive repairs to internal floating roof."
1/16/2015-1/17/2015	PHMSA	MDEQ, Sunoco	Sunoco did work on the unloading area to comply with the VN issued to them by MDEQ. PHMSA inspected it later. The VN was recommended to be absolved following this work to become compliant.
1/21/2015		CDC	Benzene is a colorless to light yellow liquid with an aromatic odor. Exposure routes: inhalation, ingestion, skin absorption, skin and/or eye contact. Symptoms: irritation in the eyes and nose, dizziness, headache, potential occupational carcinogen, etc. Target organs: eyes, skin, respiratory system, blood, bone marrow, central nervous system. Benzene can leak from underground storage tanks or from hazardous waste sites containing benzene can contaminate well water. At very high levels can lead to death. Major effects from long term exposure is on the blood (anemia, irregular periods, etc.). No specific antidote exists fro benzene poisoning.
1/21/2015		CDC	Hexane is a colorless liquid with a gasoline-like odor. Exposure routes: inhalation, ingestion, skin and/or eye contact. Symptoms include irritation in eyes and nose, headache, dizziness, etc.

1/23/2015	PHMSA	MDEQ, Sunoco	MDEQ conducted an unannounced self-initiated inspection at Sunoco's facility on Murphy Dr. "The AQD inspector observed the unloading of a tanker truck delivery.
2/5/2014	Kimball Township	MDEQ	Kimball Township is unable to enforce ordinances because the businesses of concern are in St. Clair. Robert Usakowski (supervisor of Kimball Township) contacted numerous individuals, and was eventually told to contact Chris Etheridge, who said that a "complaint was not sufficient evidence to investigate" and that the DEQ must be a first hand witness to the odor, which must be long in duration, intense, and a repeating event. Have told residents to contact both 911 and MDEQ to "flood them" with complaints so that they do something about the issue.
3/12/2015	St. Clair Township Planning Commission	St. Clair Township,	There is a discussion of Cox Rd. bike path, and the zoning officer is appointed alternate to the board of review.
3/1/2015	US EPA	US EPA Office of Solid Waste and Emergency Response	List of Lists Consolidated List of Chemicals Subject to the EPCRA, CERCLA, and Section 112(r) of CAA: -list prepared to help firms submit reports under sections 302 and 313 of EPCRA, section 102 and 103 of CERCLA, section 304 of EPCRA - #4 Benzene (CAS/313 Code 71-43-2, CERCLA RQ 10, Section 313 313, RCRA code U019) #38 Ethlybenzene (100-14-1, CERCLA RQ 1,000, Section 313), #55 Naphthalene, #86 Toluene
4/2/2015	State of Michigan Court of Appeals	Chance Lowery, Enbridge	Chance Lowery (plaintiff) lived 250 ft from the Kalamazoo River (spill happened 7/26/10). Exposure to toxic fumes led him to have migraines, vomiting, internal bleeding, as well as surgery. So, in Chance Lowery v. Enbridge, there is no doubt that the plaintiff suffered harm and the defendant was negligent, but there is a question of whether this harm was caused by negligence. There is a strong enough logical sequence of cause and effect to prove that Enbridge was the cause of Lowery's harm.

5/21/2015	Detroit Free Press	Venessa Davis, Sunoco, Marysville Fire Dept.	A News article written by Beth LeBlanc for Detroit FreePress says that Venessa Davis was charged \$400 a call for good intent calls by the Fire Dept. without knowing fire runs cost that much. Sunoco stepped up to pay her bill that had been accruing charges for months. Residents are now uncomfortable calling for help or reporting violations of the nuisance ordinance.
5/21/2015	The Times Herald	Venessa Davis, Sunoco, Marysville Fire Dept.	A News article written by Beth LeBlanc for the Times Hearld says that Venessa Davis was charged \$400 a call for good intent calls by the Fire Dept. without knowing fire runs cost that much. Sunoco stepped up to pay her bill that had been accruing charges for months. Residents are now uncomfortable calling for help or reporting violations of the nuisance ordinance.
6/1/2015	St. Clair Township	St. Clair Township, Venessa Davis	The Marysville Fire Dept. presented Venessa Davis with a bill for 7-8 "false alarm" calls to the Fire Dept. and a \$400 fine associated with each call. Sunoco picked up the bill for Davis. The false alarms occurred on: 4/5/2014, 8/1/2014, 9/9/2014, 9/17/2014, 9/19/2014, 9/20/2014 (x2), 9/21/2014 (may not have been charged for this one or only charged once for two calls on 9/20/2014.
6/19/2015	Marysville Fire Dept.	Marysville Fire Dept., Sunoco	A Confined Space Study was conducted at 250 Murphy Dr. for flammable liquid distribution purposes.
7/2015	PSAB	MI PPTF	"The Michigan Petroleum Pipeline Task Force produces the Michigan Petroleum Pipeline Task Force Report that includes 13 recommendations. Among them is undertaking two studies: An Independent Risk Analysis and Independent Alternatives Analysis of Line 5. Another Recommendation is to create the Pipeline Safety Advisory Board."

7/7/2015-2/22/2016	EPA, MDHHS, St. Clair County Health Department (SCCHD), ATSDR	EPA, MDHHS, St. Clair County Health Department (SCCHD), ATSDR, MDEQ	<p>Various email communications between EPA, MDHHS, St. Clair County Health Department, and residents between July 2015 and February 2016, regarding air quality testing with canisters and odor events. Some emails seem to be missing from the email chains.</p> <p>-July 2015: trying to schedule meetings between staff from ATSDR/EPA, MDHHS Department of Community Health (DCH), St. Clair County Health Department; discuss sending canisters to Venessa</p> <p>-July 2015: Emails between Leah Eschenberg (Pickford Rd resident; involved in lawsuit) and Michelle Colledge at ATSDR following up on phone conversation about gas smell and canister monitoring. Indicates Lowell Cameron (St. Clair County Health Dept) is coordinating community sampling to start in August.</p> <p>-September 2015: Training on canister sampling scheduled at St. Clair County Health Dept by Lowell Cameron; MDEQ staff copied into emails. Portable H2S samplers also ordered by Scott Hamilton - no follow up on H2S sensors.</p> <p>-February 2016: Emails between MDHHS staff and St. Clair County Health Department staff about Venessa's health concerns, indicating concern. Staff unable to find study from 1980s.</p> <p>-February 2016: Emails between EPA and St. Clair County Health Dept; EPA received canisters from Venessa and the health department, but the 2 canisters that were supposed to go to the township and fire department were not used - "neither party wanted involved with the sampling." Also mentions visit from EPA staff Scott Hamilton to St. Clair Health Dept office in December to test equipment - possibly H2S sensors?</p>
7/29/2015	Marysville Fire Dept.	Marysville Fire Dept.	<p>A HazMat release investigation was conducted on 134 S. Range Road, a campsite with utilities. A bystander told the Marysville Fire Dept. they smelled something briefly; however, no odors were present when the Fire Dept. arrived.</p>

8/6/2015-9/3/2015	Groundwater and Environmental Services, Inc (GES), Sunoco Logistics	Groundwater and Environmental Services, Inc (GES), Sunoco Logistics, Marysville Fire Dept., St. Clair Township	Letter from Sunoco Logistics to the fire department and township supervisor providing an update on work performed following 2014 odor complaints. The letter says that Tank 43, which was out of commission since May 2014 (due to roof failure) has been "improved" and will be recommissioned shortly. The letter also describes a comprehensive assessment and says equipment has been upgraded at unloading station and Tank 44 to prevent odors. While Tank 43 is recommissioned and filled with crude oil, Sunoco Logistics says it will commission 24 hours of air monitoring "as a precaution." A summary of the air monitoring data - collected by GES - is also attached with the letter. The data is from 8/20/2015, presumably when the tank was recommissioned.
10/08/2015	St. Clair County Township Planning Commission	St. Clair County Township Planning Commission	In the planning commission meeting minutes, it is noted that odors from Sunoco are discussed. Possible changes to the accessory structure ordinance are also discussed.
09/03/2015	PSAB	MI, Enbridge	An "agreement between the state and Enbridge prohibits the company from transporting heavy crude oil through the Straits pipelines in its current engineering configuration and under the current operating parameters."
9/10/2015		Sunoco Logistics, St. Clair Township	A nuisance ticket was given to Sunoco Logistics from St. Clair Township. Sunoco takes responsibility and pays the \$105 fine.
9/10/2015	St. Clair Township Planning Commission	St. Clair Township Planning Commission	Ordinances and ordinance changes are discussed in different capacities (reveals concerns about the watershed). Davis notes in the margins that she is confused about why certain aspects are not on the agenda.
9/10/2015	Marysville Fire Dept.	Venessa Davis, Marysville Fire Dept.	Venessa Davis was billed by the Marysville Fire Dept. for \$400 for a false alarm HazMat release investigation on 9/10/2015. Sunoco paid this bill.

9/10 and 9/11/2015	Marysville Fire Dept.	Venessa Davis, Marysville Fire Dept., MDEQ (Erik Gurshaw). Sunoco	A HazMat release investigation was conducted on 139 Murphy Dr., the home of Venessa Davis. The Marysville Fire Department could not smell an odor upon arrival to the property, but they did smell a slight hydrocarbon odor near the cemetery, but no reading was detected on their air monitor. The Fire Dept. talked with Venessa and the Town Supervisor who also said he could "smell it". It was discovered that a truck at the unloading facility was having mechanical problems and did not yet offload the product; on 9/11. The Fire Dept. contacted Erik Gurshaw (MDEQ), who said he spoke to Venessa on 9/10 and did not detect the odors.
9/11/2015		MDEQ AQD, Venessa Davis, Marysville Fire Dept. Chief Konik, Brian Mahaffy, Sunoco	<ul style="list-style-type: none"> -ADQ staff spoke on phone w/ Davis 9am 9/11/2015, Davis detected odors on Murphy Drive 3:30-4:30pm 9/10/2015, called MFD, Mahaffy & Konik investigated on 9/10/15 afternoon Mahaffy noticed odor but later decided not to issue nuisance odor violation would put to vote instead -Davis said odors abated by mid to late afternoon on 9/10/15 -Matt Taylor: no odors Sunoco facility itself, climbed Tank 43 and 44 no problems -Tom Konik: did not detect any odors near unloading facility and gas detection meter did not detect any volatiles, detected faint odor approx. 100 ft near woods/cemetery, did not find odors to be "offensive" -Mahaffy called AQD staff 4pm 9/11/2015 detected odors along Murpyhy Drive near cemetery, St. Clair Twp. board meeting next week wants to "run possibility of issuing Sunoco nuisance odor ticket by board prior to issuing ticket" concerned that issuing ticket = legal action against Twp. by Sunoco, described intensity of odor "a typical odor you would smell coming from crude oil storage facility, no odorsss on Sunoco property at time
9/16/2015	Marysville Fire Dept.	Marysville Fire Dept.	A HazMat release investigation was conducted on 139 Murphy Dr. near the street. The Marysville Fire Dept. noticed a slight odor intermittently present. There was no reading on the gas meter.
9/16-9/17/2015	MDEQ AQD	MDEQ AQD, Venessa Davis, Sunoco Logistics	AQD response to complaint filed by Davis 9/16/2015 - "-AQD staff arrived 2:50pm 9/16/2015, detected faint intermimttment odors at intersection of Murphy Drive and Gratiot 2:50pm-3pm".

9/23/2015	Correspondence from multiple parties	Venessa Davis, Sunoco Logistics, Brian Mahaffy, Erik Gurshaw (MDEQ), Jennifer Roberts	Venessa submitted a complaint about Sunoco on 9/10/15 and called the fire dept to investigate. Brian Mahaffy, St. Clair Township Supervisor, initially smelled something and said he would write Sunoco an odor violation. He then decided not to because as he later explains, he was concerned that Sunoco would sue him. Erik Gurshaw conducted an odor complaint on 9/16 and 9/17/15. Venessa submitted another complaint on 9/16/15. No odors were detected so the complaint was resolved
9/24/2015	EPA	EPA, MDEQ, Venessa Davis	An email correspondence between Michelle Colledge and Lowell Cameron occurs when Colledge explains that Venessa Davis says facilities are spraying deoderizers that will make it difficult for knowing when to sample or measure harmful chemical exposure. There is no follow-up on Lowell's findings.
09/2015	EPA	EPA, MDEQ, Venessa Davis	Lowell Cameron responds to the email sent on 9/24/2015. Lowell Cameron said this was the first he was hearing about the deodorizers, and he would check it out.
09/2015	EPA	EPA, MDEQ, Venessa Davis	An email correspondence between regulators, including Michelle Colledge, Jennifer Gray, and Lowell Cameron is investigating the deoderizers being used at Murphy Dr. facilities. No attached response that answers the questions from correspondence is found. Residents are trying to collect Summa canisters, but the timing is off when intensities are masked by irritating smell of deoderizers.
10/8/2015	St. Clair Township Planning Commission	St. Clair Township Planning Commission, Westrick, Boulrier	Westrick wants the drain ordinance to be put back into the ordinance to avoid folks draining water onto other's properties. It is noted that this should still already be part of the ordinance (will be double-checked). Boulrier discusses odors coming from Sunoco off Gratiot.
10/19/2015	Marysville Fire Dept.	Venessa Davis, Marysville Fire Dept., EPA	A HazMat release investigation was conducted on Gratiot. The Marysville Fire Dept got a call from Venessa Davis wanting to know if the Fire Dept. was coming to Murphy Drive due to the Township saying they would call due to a strong propane odor. The Fire Dept. reported there was a "slight" crude odor and Vanessa Davis became hesitant since the odor was passing to use the last EPA sample canister. The Fire Dept. took a sample (of air?) and prepared the sample for shipment to the EPA. When arriving back at the station, they received another call from dispatch about an odor in the area.

10/28/2015	Enbridge	Enbridge, Venessa Davis	A second cease and desist letter was given to Davis for the harassment of Enbridge. The letter requests Davis to not enter the metering station property, not contact Enbridge employees at the metering station, and to refrain from interfering with the work being done at the metering station. The letter was sent in response to Davis and children filming activity on the metering station property (despite the first cease and desist letter) that jeopardized folk's work and safety.
11/2/2015	PEAS	Sunoco, PEAS	An anonymous complaint filed with PEAS noted that machine parts with black and red sludge on them were deposited in a dumpster. The complainant had already sent grab samples to EPA in the last two weeks, trash pickup was on Wednesday, and the EPA was currently at the site for air testing. The PEAS investigation found none of the materials in the dumpster by the time they checked and there was no soil staining evident. Davis notes that the DEQ agent confirms in this report what was causing the odor,
11/2/2015	Marysville Fire Dept.	Venessa Davis, Marysville Fire Dept., Sunoco, Semco	A HazMat release investigation was conducted on 139 Murphy Dr. The Marysville Fire Dept. contacted Sunoco who said there had been no release, then contacted Semco who said there had been multiple complaints called in. The Fire Dept. then arrived and noted an obvious smell of propane/natural gas at the site. All readings on the Fire Dept. monitor were normal except CO2 at 20.9%. Semco was informed of findings as well as Venessa Davis.
11/2/2015		Sunoco Logistics	Repairs were completed to the Tank 44 Secondary Seal.
11/2/2015	Marysville Fire Dept.	Venessa Davis, Marysville Fire Dept., Sunoco	A HazMat release investigation was conducted on 139 Murphy Dr. Semco told Venessa Davis to call the Marysville Fire Dept. back out for a demonstration of deodorizer (attempt by Sunoco to mask crude oil smell) after the initial fire run was done earlier. The Fire Dept. says when the deodorizer was sprayed, it did not cover the smell completely.
11/6/2015	Marysville Fire Dept.	Marysville Fire Dept., Venessa Davis	An official notice from the Marysville Fire Dept. was sent to Venessa Davis. The notice stated that St. Clair Township officials had received calls on 10/19/15 and 11/2/15 about odor complaints on Murphy Dr.

11/7/2015	Marysville Fire Dept.	Marysville Fire Dept., Enbridge	A HazMat release investigation was conducted on 139 Murphy Dr. The Marysville Fire Department noted a "slight gas odor" upon arrival. Nothing was picked up on the air monitor. When contacted, Sunoco claimed nothing out of the ordinary and business as usual, but Enbridge was working on a Frac tank. Corey from the Enbridge Pipeline Emergency hotline said he was "not aware of any issues". On-site crews would be contacted to make sure no issues were occurring.
11/12/2015	Sunoco	MDEQ; Venessa Davis	Sunoco asks for 30-day extension on VOC seal repair on Tank 41. The repairs will take about 4-5 weeks to complete. Notes: Tank 41 needs to be taken out of service for replacement and repairs. Both primary and secondary seals will be completely replaced.
11/12/2015	Venessa Davis	Venessa Davis, Sunoco	Sunoco Pipeline ,L.P. Submitted a letter requesting a 30 -day Extention of VOC Seal Repair on Tank-41
11/15/2015			A letter sent by [?] discussed the expansion of the metering station expansion at 215 Murphy Dr. (Enbridge).
11/20/2015	Marysville Fire Dept.	Marysville Fire Dept., Tony	The Marysville Fire Dept. conducted a smoke/odor removal at 139 Murphy Dr. The Fire Dept. noted a "light smell of crude oil" at the scene, but there was no detectable amount with monitoring equipment.
11/2015	Lawyers (correspondence from a few different lawyers)	Keith Dick (Kelly Lawfirm), Brian Bayly (zoning administrator, St. Clair Township, Enbridge	This dar includes building permit application, \$1532 check for permit fee, 2 copies of property info sheet, 2 copies of boundary survey of the property, 2 copies of the engineering drawings; letter from Douglas Austin to Brian Bayly; description is "to erect a 46'x30' addition to existing building" on 215 Murphy Drive; a different description says "60' x 42.5' addition to existing metering station building"; contractor=United Piping Inc from Duluth MN (general contractor for oil and gas industry); estimated cost of the project is \$284,000; Lawyer Keith Dick writes to St. Clair Township saying that Enbridge is entitled to public service agency exemptions; Enbridge's integrated pipeline is also exempt from state and local regulations due to federal exemption; building permit should be obtained for building that will house metering equipment

11/2015		Enbridge Energy Partners	St. Clair Twp Building Permit #PB150081, for Enbridge to erect a 46'X30' addition to their existing metering station. "Enbridge's expansion of their meter station pipeline on Murphy Drive has led to an increase in stress levels due to factors such as heavy traffic, increased dust on properties, unpleasant odors, and overall stress." **See file (Venessa still to send this file)
11/30/2015	County of St. Clair Environmental Services Department	Enbridge Energy Partners	The waste being approved in the application is "soil impacted with water associated with pipeline", solid "sand", 5% liquid, and has a mild odor. Enbridge paid \$861.82 to dump the waste in a landfill.
12/5/2015	Marysville Fire Dept.	Marysville Fire Dept., Venessa Davis	A HazMat release investigation was conducted at 139 Murphy Dr. by the Marysville Fire Dept. There was an "obvious smell of crude oil" upon arrival of the Fire Dept. No follow-up actions to the smell were mentioned.
12/7/2015	Marysville Fire Dept.	Marysville Fire Dept., Tony	During the Marysville Fire Dept. HazMat release investigation at 139 Murphy Dr., the Fire Dept. noticed a slight odor. The facility control personnel, Tony, said there were no issues with operations. The Fire Dept. picked up no reading on the monitoring equipment, so they left the scene. The Fire Dept. was called back to the area 7 minutes later. No smell was detected upon arrival.
12/9/2015	Marysville Fire Dept.	Marysville Fire Dept., Venessa Davis, Sunoco	A HazMat release investigation was conducted at 139 Murphy Dr. by the Marysville Fire Dept. There was no oil transfer occurring according to the Sunoco control operative, Matt. There was "no obvious smell of product" to the Fire Dept., and nothing was picked up by the department's monitoring equipment. Venessa writes/notes that the Fire Dept. came in a diesel truck, so smelled nothing outside of that.
Early 2016	PHMSA	PHMSA, Venessa Davis, Enbridge, Harold Winnie (PHMSA)	"Enbridge expanded the metering facility in early 2016 which included the building housing the metering equipment and piping. There is a rain water retention pond and an under flow drain on the south side of the metering facility building."
1/13/2016	Marysville Fire Dept.	Marysville Fire Dept., Venessa Davis	Bill to Sunoco from St. Clair township for \$3,000. This is for?... Was it paid?

1/15/2016	Marysville Fire Dept.	Marysville Fire Dept., John Davis, Vanessa Davis	A HazMat release investigation was conducted on 139 Murphy Dr. by the Marysville Fire Dept. John Davis called the Fire Dept. about propane odor. The Fire Dept. saw the caller ID and asked if he was calling for his mom, Venessa Davis, and he said yes. When the Fire Dept. arrived on the scene, there was no odor in the air that seemed present to them.
1/28/2016		Venessa Davis, MDEQ AQD, LARA, Sunoco	Meeting to update Davis about AQD's follow up...AQD investigated prior odor complaints & EPA conducted analysis of ambient air samples; Ethridge told her AQD will conduct full compliance eval. 2/1/16; Davis has smelled odor from expansion meter work for 2+ years, AQD does not regulate process; complained no AQD staff available to investigate odor when experienced, Ethridge suggests local gov. contact AQD and formulate ordinance to address odor concernss and send violation notices of their own; asked for monitors Ethridge pointed out she already talked to Craig Fiitzner of AQD-AMU; complained about storage tanks...MI Licensing and Regulatory Authority has Storage Tank Division
1/28/2016	MDEQ	Venessa Davis, MDEQ AQD, Enbridge	Venessa explains that the odors have been ongoing for 2 years, and no AQD staff is ever available to investigate them. She says that EPA studies may be inaccurate and she wants air monitors, but this idea is shut down by MDEQ.
2/4/2016	MDEQ	MDEQ, Sunoco, Enbridge.	"Summary: MDEQ Sebastian Kallumkal met with Mr. David Misaros [at Sunoco], plant operator, who assisted with the inspection [at the] unloading station... Mr Misaros tells AQD rep that his company has no control over this unloading facility, the same unloading station that Sunoco Pipeline L.P.'s. Mr. Misaros and MDEQ Eric Gurshaw on 01-23-2015 inspection used for compliance for their 901 violation on 10/7/2014." Enbridge also received a surprise inspection, and Sebesation Kallumkal details what he inspected, and that Enbridge was in compliance with air quality. Davis notes: "If air quality does not regulate Enbridge, then how could they find them in compliance?" She also notes that addresses are not all the same throughout the paperwork.

2/19/2016	MDEQ	MDEQ, Sunoco	The Odor Evaluation contains odor observations for a follow-up complaint investigation. "12:45pm-1pm conducted drive by odor observations wiith front windows open, SB Murphy Drive, 300 Murphy Drive, NB Murphy Drive, NB Gratiot Ave, Allen Road, Cuttle Road, SB Gratiot Ave = ""did not smell any objectionable odor along these routes"" weather: wind SSE-S 13-15mph T: 42F "
2/29/2016	MDEQ	MDEQ, Venessa Davis, Sunoco, Enbridge	Sebastian Kallumkal "didn't smell anything" during inspections. He did a drive-by odor inspection for 15 minutes with the front windows of his car down.
3/16/2016	PHMSA and Venessa Davis	PHMSA, Davis, Sunoco, and Enbridge	The First Assistant Attorney General, Robert P. Reichel, sent Davis information regarding the difference between state and federal jurisdiction over pipelines for Davis via email. Davis also has an email (that the context/relation to the PHMSA/State jurisdiction information is unclear) with all the addresses and names that Sunoco and Enbridge have used over the years.
3/23/2016	PHMSA	PHMSA, Venessa Davis, Enbridge, Sunoco, Harold Winnie (PHMSA)	PHMSA visited the Enbridge and Sunoco facilities on 3/13/2016. PHMSA regulates both Enbridge and Sunoco pipelines in the area. Venessa Davis had water in her well and her neighbor's well tested. Only coliform bacteria was found from testing, and authorities say methane is naturally occurring in the area, so it was likely to show up in the results as well. It was found that regular required inspections by the facilities were occurring as promised, but not the kind that required residents to be put up in a hotel every few years. Note: At Sunoco, the truck delivery point and piping into the tanking system are not PHMSA regulated. Sunoco will continue to be investigated.
05/2016	St. Clair County	Sun Refining and Marketing, Sunoco	Sun Refining and Marketing bought the property in 1985 for \$45,000. The company retains all mineral, gas, and oil rights for the property. The taxpayer is Sun Refining and Marketing, and the grantor is Sunoco.

06/2016	State of Michigan Court of Appeals	Enbridge, Bolenbaugh, EPA, SET (contracting company)	Around 819,000 gallons of oil were spilled into the Kalamazoo River. The defendant (Enbridge) hired the plaintiff, Bolenbaugh, to "clean up the spill", but the plaintiff says he was contracted to illegally hide and spread out oil instead of removing it. He began videoing and reporting the instances to the EPA, The head of HR met with the SET (contracting company) President and decided to fire George because he was violating company policy by videotaping, and it had "nothing to do with Enbridge". George claims he was followed by Enbridge, as well as threatened, and had his motorcycle tampered with. Enbridge requested the exclusion of evidence surrounding the adequacy of remediation of the river. The lawsuit is essentially asking "Did Enbridge interfere in the termination of George?". The HR head said George tried to blackmail her into keeping his job. George did not provide evidence linking interference with his termination.
07/2016	PSAB	Dynamic Risk Assessment Systems Inc.	"Dynamic Risk Assessment Systems Inc. was hired to look at alternatives to using Line 5. Its Independent Alternatives Analysis Final Report ²² includes an analysis of six alternatives (alternative four had two related scenarios, 4a and 4b) that the state identified as possibilities to transport the identical amount of product that is now moved through the Straits pipelines every day."
7/22/2016	St. Clair County	Buckeye, Register of Deeds Public Access	Buckeye Pipeline Co (St. Clair Township, MI); Buckeye Pipe Line Co. (Port Huron, MI); Buckeye Pipe Line Co (Allentown, PA); Buckeye Pipe Line Co (Lima, OH); Buckeye Pipe Line Co of Michigan Inc (Emmaus, PA) etc.
8/8/2016	Venessa Davis, Energy Transfer, Business Wire	Enbridge, Sunoco Logistics, Energy Transfer	There are a series of documents compiled in this packet. The first is a list of new contacts associated with Enbridge and Energy Transfer as of 8/8/2016. There are links to where the contact information was found. The packet also contains Energy Transfer's Corporate overview, an announcement of Sunoco/Energy Transfer's sale in their minority stake in Bakken Pipeline to Enbridge and Marathon Petroleum
9/18/2016	Venessa Davis	Enbridge	Online search conducted by Venessa Davis for Enbridge-owned parcels of land
11/28/2016	Venessa Davis	Federal Government	FOIA request from Venessa Davis to federal government

12/5/2016	Marysville Fire Dept.	Marysville Fire Dept.	The Marysville Fire Dept. was called to 139 Murphy Dr. for a HazMat release investigation. The Fire Dept. noted there was a slight odor. By the time Fire Dept. finished driving through the area, the odor was gone.
12/23/2016	Marysville Fire Dept.	Marysville Fire Dept., Sheriff, Sunoco	The Marysville Fire Dept. was called to 139 Murphy Dr. for a HazMat release investigation. Upon arrival, there did seem to be an odor on Murphy Dr., but it was not noticed or detectable around the truck unloading at the facility. When contacted, the Sunoco rep. stated Sunoco was upset about the lawsuit. Sunoco rep. claims the lawsuit is just due to retaliation because the company called the Sheriff about an abandoned van outside of the control room gate that ended up belonging to "her" presumably Davis.
12/23/2016		Sunoco Logistics, St. Clair Township	A nuisance ticket was given to Sunoco Logistics from St. Clair Township.
12/13/16-1/30/17	State of Michigan 72nd Judicial District	St. Clair Township, Sunoco	The defendant, Sunoco, is charged with a "nuisance 3rd". The ordinance fine is \$485. The nuisance is a "noxious odor". The case was dismissed because there was a pending circuit court case alleging the same nuisance, and there was a wish to avoid litigating the "same issues." The case held in abeyance until a decision on the other case was made.
2/6/2017	Marysville Fire Dept.	Marysville Fire Dept.	The Marysville Fire Dept. was called to 133 Murphy Dr. for a HazMat release investigation. The notes on the Fire. Dept. report says "no order found", which presumably means "no odor found".
03/2017	PSAB	PSAB, Enbridge	"At the March 2017 meeting of the PSAB, questions arose about the integrity of the protective coating on Line 5 in the Straits, and Enbridge told the Board the coating was intact."
3/9/2017	St. Clair Township Planning Commission	St. Clair Township Planning Commission, Boulter, Patterson	St. Clair Township discussed the review of the current Nuisance Ordinance. It is stated as "too vague and solutions need to be found to improve it". Patterson notes his preference for the commission (not noted), and the commission will continue looking into the matter.

4/17/2017	Enbridge	NTSB	NTSB investigated July 2010 spill on Line 6B in Marshall, MI; based on Enbridge's internal investigation, they implemented changes; have enhanced safety operations since the spill; Enbridge has taken "full responsibility" and a portion of the Kalamazoo River is now "open for recreational use"
5/1/2017	County of St. Clair	Venessa Davis, Enbridge, Sunoco, Grossoa Trucking Co., St. Clair County Landfill (Youngs Env. Files)	A FOIA request was granted to Venessa Davis. It included Enbridge, Sunoco, Grosso Trucking Company, and Youngs Environmental files with the St. Clair County Landfill from 2013 to the present (2017).
6/15/2017	State of Michigan Court of Appeals	Terry Mahrle, Enbridge	Enbridge rented a building to use as an animal rescue space as part of its cleanup efforts. Enbridge made changes to the building, and it was actually condemned during their stay. There were mold problems, and the building was not returned to its original state. Enbridge claims it is Mahrle's fault because of his "money problems," and he actually wanted Enbridge to buy the property. There was an issue of credibility with Enbridge's "expert" witness, and it was decided that the plaintiff's (Mahrle) claims were "without merit".
8/2017	PSAB	PSAB, Enbridge, MI	"In August, the company [Enbridge] said it had known as far back as 2014 of gaps in the coating, prompting the state to order Enbridge to immediately inspect areas around pipeline anchors for damage to Line 5's coating. The Board expressed frustration with the company, and said it felt the company had not told the truth to the PSAB in a timely manner."
10/2017	MDEQ	MDEQ, Sunoco, James Day, Lisa Fishbeck	from James Day of Waste Management and Radiological Protection Division to Lisa Fishbeck of Energy Transfer; Sunoco is found to NOT be in compliance with one or more of the following: Sunoco operated as a large quantity generator of hazardous waste from 9/10/14 to 12/18/14 and needed to keep records of this waste and submit it to DEQ; Sunoco is required to complete manifest documents with historical and projected ongoing shipments of hazardous waste from Sunoco; no "specific violations" but Sunoco was required to train personnel in hazardous waste (new personnel within 6 months of hiring, training updated annually); required to develop and maintain a contingency plan and emergency procedures document

11/2017	PSAB	PSAB, Enbridge, MI	"The state demanded that Enbridge make a full accounting to the PSAB at its December meeting of the status of Line 5 after new information was released by the company that additional coating gaps were discovered during pipeline inspections."
11/2017	PSAB	Dynamic Risk Assessment Systems Inc.	DRAS Inc. releases its final report on the feasibility of 6 different alternatives to the current Line 5 system.
12/13/2017	Marysville Fire Dept.	Marysville Fire Dept., Venessa Davis, Sunoco	The Marysville Fire Dept. was called to 139 Murphy Dr. for a HazMat release investigation. The Fire Dept. called Sunoco, and took the company's word that there was nothing detectable at the facility despite hydrocarbon products being moved. The Fire Dept. made no physical run to the scene, so Venessa Davis was not charged.
01/2018		Sunoco	<ul style="list-style-type: none"> -Analysis of Sunoco's Permit 178-988 (to Nick Schroek from Susan Strunk). -Permit states that any emissions that affect air quality are not permitted if it impacts the comfortable enjoyment of life and property -Due to Sunoco operations the client's (unclear who that is) property value decreased significantly -Sunoco violated page 6 of the permit by continuing operations (though tweaked) during the floating roof issues in 2014 -A few tanks were found during a DEQ inspection on 2/17/2016 to not be up to DEQ standards -notes on EPA regulations that are not directly related to the Sunoco facility are also noted and linked
2/8/2018	Sunoco	Sunoco, EPA, MDDEQ	A Letter was sent from Sunoco to the EPA and MDEQ notifying the agencies of upcoming inspection and repairs of Tank 41 (4/15/2018 is inspection and repairs done by 7/15/2018).
2/8/2018	EPA	EPA, MDEQ, Sunoco	Notice of inspection for Tank 41 from the EPA to Sunoco. The inspection will occur on 4/15/18, and all repairs will be completed by 7/15/18.

03/2018	Donnelly W. Hadden (lawyer for Murphy Drive)	St. Clair Township Supervisor (Mike Boullier)	Clients continue to be beset with odors in excess of limitations set by the state/township. When his clients call to complain they are rebuffed by the police who say they cannot get involved because of the ongoing lawsuit. Being sued does not excuse them from violating nor the township for enforcing. "Show me the law that says a perpetrator is immune from being cited for a violation of the law as long as somebody has a civil case against it."
06/2018	Sebastian Kallumkal	Venessa Davis	Email from Sebastian Kallumkal to Venessa stating that the pump station and unloading facility are two separate facilities (both owned by Sunoco)
09/2018	PSAB	Dr. Guy Meadows, Enbridge	Dr. Guy Meadows and his research team completed and submitted their "independent Risk Analysis... to estimate Enbridge's total potential liability from a worst-case scenario oil spill from one or both of the Straits pipelines"
9/6/2018	Michigan Association of Realtors	Michigan Association of Realtors	Copy of blank seller's disclosure agreement
9/19/2018	MDEQ	Sebastian Kallumkal, MDEQ, Sunoco	The email says that Sunoco is "currently not using deodorizer during truck unloading. They seized the usage in December 2016" According to Venessa Davis, the email confirms that Sunoco was making/causing odors (confirm once Venessa sends the documents).
9/24/2018 - 9/25/2018		Sunoco	Air monitoring data from AreaRae1 from 9/24 - 9/25 at 250 Murphy Dr. (Sunoco). A map of AR1's location is included. CO, H2S, VOC, LEL, and Oxygen are measured at 5 minute intervals.
11/24/2018	St. Clair Township	St. Clair Township, St. Clair Township Planning Commission	The Zoning Ordinance says that a company cannot exceed Federal Clean Air Standards in terms of smoke emissions, dust, dirt, and fly ash. Also, exterior lighting "shall not be visible from any residential dwelling" (Sunoco violates this). Unprotected/dangerous holes are prohibited, and a company needs a temporary permit for the removal of soil, sand, etc. (which needs to be submitted to the St. Clair Township Planning Commission).

12/17/2018	Enbridge Energy Partners	Enbridge, Energy Transfer, Sunoco	EPP and EEQ merges with a wholly owned subsidiary of Enbridge Energy. Sunoco and Energy Transfer announces merger of an indirect subsidiary of SXL with and into ETP. ETP is now a wholly owned subsidiary of SXL. As a part of the merger, Sunoco changed its name to Energy Transfer.
3/28/2019	MDEQ	Sunoco	Amounts of pollutants released from Sunoco Pipeline LP Marysville Pump Station during the years 2012-2015 and 2004-2005 is detailed in this reporting system ***Should we summarize the findings?***
4/15/2019	MDEQ AQD	Sunoco	MDEQ approves a permit for Sunoco to install a pipeline The permit says that Sunoco shall not unloadcrude oil prior to 6:00 AM or after 6:00 PM.
5/9/2019	USPS	USPS, Enbridge, Sunoco	A letter was written by a USPS worker (A. Russau) that delivers every day on Murphy Dr. that has had symptoms of coughing or eyes watering. From an odor that is presumably oil or gas frequently when delivering on Murphy Dr. Who was this letter sent to?
5/15/2019	MDHHS	MDHHS, St. Clair County Health Department	St. Clair County Health Department and Michigan Department of Health and Human Services (MDHHS) conducted water testing in Venessa's home (139 Murphy Drive). -Tested for: copper, ethane, ethylene, iron, manganese, methane, zinc. -Results: Iron and manganese found at low levels. Methane detected at 35 mg/L; MDHHS recommended installing a methane mitigation system -Important: water was NOT tested for VOCs as planned, because methane presence interferes with VOC tests. Did not test for other pollutants such as PFAS or hydrocarbons other than ethylene and ethane.
6/5/2019	Brendan Frey (lawyer)	Venessa Davis; Sunoco	Timeline created by Venessa Davis' lawyer Brendan Frey regarding Sunoco (beginning in 2013 and ending in 2016)

7/2/2019	MDEQ	Sunoco	Conducted an unannounced, scheduled inspection at Sunoco to see if they were in compliance with the Federal Clean Air Act (also did "drive by" odor observations, which consists of riding in their vehicle with the windows down). Met with Scott Verhille (Supervisor, Great Lakes District) and David Misaros (station utility operator). Talked to person who complained on Murphy Drive, who expressed that the facilities should notify neighbors if there was a leak/if they were degassing. Complainant asked if the internal roof was inspected thoroughly, why did it collapse. Management could not provide a reason for collapse. Complainant concerned about flammable well water. Sunoco was in compliance
2/29/2020	Marysville Fire Department	Marysville Fire Department	A Marysville Fire Run Report for a chemical hazard/leak was written by Aaron Thomas and Keith Wayburn. Firefighters were at the scene (250 Murphy Dr. for 7 minutes, and it was noted that the resident contacted them via the business line for possible crude oil smell in the area. Dale was contacted and said he checked meters that had readings of 0ppm, and only one truck had been unloaded earlier in the day. Firefighters noticed a slight smell of crude oil in the area and told the resident who complained that the staff of the facility were looking into the smell further.
1/10/2021	Marysville Fire Department	Marysville Fire Dept.,	A fire run report, designated as a HazMat release investigation w/no HazMat was written by Christopher Nesbitt and Keith Walter. Fire fighters were on scene at 300 Murphy Dr. for a total of 7 minutes and provided no aid. It was noted that there was an odor of crude oil in the area but no readings on the gas monitor.
7/17/2021	St. Clair Township	Sun Refining & Marketing; Local Assessing Officer Heather Stewart (810)-329-9042	Property Record for St. Clair Township Parcel #: 74-30-001-1031-000, Parcel Address: Gratiot Ave; GIS map (as of 7/17/2021 Sun Refining & Marketing listed as owner)

8/15/2021	Marysville Fire Department	Marysville Fire Dept., Sunoco, Venessa Davis	Firefighters were on the scene for a HazMat release investigation w/no Hazmat for 14 minutes at Murphy and Gratiot. The run report was written by Steven McNeil, and Donald Paterson. It was noted that a call was received from a resident in the area of the odor and the response team did detect a faint hydrocarbon odor. The monitors did not have any readings. Response team met with Sunoco staff who said they detected no hazards on their property after also receiving a call from Venessa Davis.
2/10/2022	St. Clair Township	St. Clair Township (including planning commission)	<p>The zoning ordinance states that the owner of land may submit conditions relating to the use/development of land for which rezoning is requested, within the reasonable limits of this ordinance. The Planning Commission has to approve the request, then the City Council must approve it. Following approval, then a written Conditional Rezoning Agreement needs to be attached to the Ordinance adopted by the City Council to accomplish the requested rezoning. The zoning map will then be amended. Development of rezoned land must be commenced 12 months after rezoning took effect.</p> <p>Even with all of this, the city still reserves the right to rezone if they so choose.</p>
8/7/2022	Venessa Davis	Venessa Davis, Plaintiffs, Attorney	A list of compiled questions for the attorney from plaintiffs in current lawsuit
8/7/2023		Enbridge and community	An email is sent (likely from Enbridge community relations rep.) to a community member informing them that work involving a "potable water tanker and another vehicle which may have a trailer and a pump" will be conducted on Enbridge property. Time/date of the work is unclear/ marked out.