

ENVIRONMENTAL JUSTICE ASSESSMENT AND COMMUNITY ENGAGEMENT PLAN

Bluebonnet Sequestration Hub

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1.0 Facility Information

Facility name: Bluebonnet Sequestration Hub (Bluebonnet Hub or the Project)
Bluebonnet CCS 1, Bluebonnet CCS 2 and Bluebonnet CCS 3 Wells

Facility Contact:

Claimed as PBI

Well Location:

Claimed as PBI

Claimed as PBI

2.0 Environmental Justice Assessment

This Environmental Justice (EJ) Assessment and Community Engagement Plan (EJ Assessment) provides an overview of the environmental justice, communities, and considerations in or near the proposed Bluebonnet Sequestration Hub (Bluebonnet Hub or the Project). The Bluebonnet Hub project includes permitting and construction of three CO₂ injection wells (Bluebonnet CCS 1, Bluebonnet CCS 2, and Bluebonnet CCS 3) and construction of associated monitoring wells and systems. The project also includes water production and water disposal wells as part of the proposed operation (monitoring wells, water production wells, and disposal wells will be permitted separately and are not included in this Class VI permit application).

This EJ Assessment follows the Environmental Protection Agency's (EPA) guidance dated August 17, 2023, "Environmental Justice Guidance for UIC Class VI Permitting and Primacy." Pursuant to the guidance, the Area of Review (AoR) is the boundary to be investigated in this EJ Assessment. For the Bluebonnet Hub, the model shows the AoR is contained within

Claimed as PBI

The Bluebonnet Hub is surrounded by extensive oil and gas fields and related infrastructure that have existed in this area for several years.

This EJ Assessment includes Census Tract #48071710401 (the Census Tract shown in Figure EJ-1), which completely contains the Bluebonnet Hub AoR. The Project's AoR and surrounding areas are considered rural and dedicated mainly to the farming. The two communities closest to the Project site with the greatest potential for impacts from construction and operation of the Bluebonnet Hub are

Claimed as PBI

Claimed as PBI



Figure EJ- 1 Location of the Bluebonnet Hub CO₂ Injector wells and the nearest communities. The Bluebonnet Hub AoR is modeled to be contained in the Census Tract outlined in white, #48071710401.

The analysis of communities near the Bluebonnet Hub was conducted using the following screening tools:

- Department of Energy's Energy Justice Dashboard tool (DOE EJ Dashboard)
- Climate and Economic Justice Screening Tool (CEJST)
- EPA's Environmental Justice Screening and Mapping tool (EJ Screen)
- Department of Agriculture Food Access Research Atlas Map (FARA)

This EJ Assessment was conducted as a desktop review and is not a definitive analysis.

Since the Bluebonnet Hub AoR is entirely contained in the Census Tract (#48071710401), this EJ Assessment focuses on the communities located within it. However, the Community Engagement Plan expands beyond the Census Tract to include potential impacts to surrounding communities. The Bluebonnet Sequestration Hub, LLC will continue to evaluate impacts to the nearby communities as the project pursues community engagement activities. This EJ Assessment anticipates minimal direct impacts to the surrounding communities.

2.1 DOE EJ Dashboard Results

Although the DOE EJ Dashboard does not provide census-tract specific data, the project team was able to make the following deductions about this Census Tract: it is not considered disadvantaged or tribal land; it is subject to disproportionately high air toxin cancer risks and respiratory hazards; and the area also has a high population of low-income individuals.

2.2 CEJST Results

The CEJST tool finds the Census Tract to not be disadvantaged, although it demonstrates high climate-change indicators, including expected agriculture loss rate, expected building loss rate, and transportation barriers. The tool finds the area to be not disadvantaged (i.e., not exceeding the 90th percentile) in the areas of climate change, energy, health, and legacy pollution.

2.3 EJ Screen Results

The EPA's EJ Screen 2.2 tool shows that the Census Tract has an above-average rate of toxic releases to the air (79th percentile). The EJ Screen shows that the Census Tract includes a relatively elevated proportion of low-income (71st percentile) and unemployed residents (70th percentile) relative to the rest of the U.S, including a large Spanish-speaking population (18%).

2.4 FARA Results

The Food Access Resource Atlas indicates that, in the Census Tract, at least 500 people or 33 % of the population, live farther than one mile (urban) or 20 miles (rural) from the nearest supermarket. The Census Tract also has a high number of households without vehicles that are more than one-half mile from a supermarket, indicating lower access to food. The tool identifies adjacent census tracts as low income, indicating a poverty rate of 20% or higher, or median family income less than 80% of the median for the state/metropolitan area.

The detailed results of the desktop EJ Assessment review can be found attached in Appendix A. This EJ Assessment identifies project benefits in Section 3.0 and project impacts and mitigation strategies in Section 4.0.

3.0 Assessment of Project Benefits

The Bluebonnet Sequestration Hub, LLC's main objective and mission is to advance the development of a large-scale CO₂ sequestration facility in the Gulf Coast region. Pursuing the permitting and installation of a Class VI facility allows the Bluebonnet Sequestration Hub, LLC to be part of the solution to reduce climate-related impacts on EJ communities.

This project acts as a facilitator for new, transitional clean technologies such as point-source capture facilities. Developing point-source capture facilities, transport infrastructure, and sequestration sites will provide significant benefits to local communities, such as job creation, workforce development programs, local tax revenue, and investments in local communities.

Additionally, carbon management projects will allow local businesses and organizations to diversify their portfolios and decrease reliance on the current industries in their communities. Local businesses and organizations will be able to participate in the clean energy transition.

The following table shows the local benefits related to the project.

Table EJ- 1 Project Benefits

Benefit	Who Benefits?	Time frame	Tracking
Surface Agreements	Surface owners who lease their pore space.	Surface Agreement Terms	Bonus and royalties paid to surface owners.
Job creation/increased clean energy enterprise creation and contracting	Unemployed or underemployed people; existing local workforce; also benefits the entire community; local underrepresented suppliers	Intermittently during construction (1-2 years)	Number of people hired and percentage from local community; Number of contracts to underrepresented businesses and dollar amounts of contracts
Local tax revenue	Chambers County residents (property taxes), Texas residents (sales/franchise taxes)	Duration of the Class VI Facility injection period	Tax dollars
Opportunities for local businesses and organizations	Local business owners and chambers of commerce	Duration of the Class VI Facility injection period	Contracts to local businesses and charitable donations

Benefit	Who Benefits?	Time frame	Tracking
Investment in charitable and noncharitable organizations such as food banks, food access, recreation and water conservation programs, internet access, and education	Disadvantaged population in the area as well as the community as a whole	Lifetime of the Class VI Facility	Dollars spent on local community needs

4.0 Assessment of Project Impacts

The Bluebonnet Hub is in an area with a low-density population; therefore, construction, drilling, and completion of the wells and pipelines should have minimal impacts on residents during the process. After construction is completed, operational impacts will be minimal, limited to preventive maintenance operations for the wells and facilities, repairs in the wells and facilities (if needed), daily surveillance of the site operation, and operation monitoring.

The project is designed to prevent adverse impacts from occurring through adherence to high standards and implementation of quality control procedures for the construction and operations of the wells, pipelines, and facilities. The Bluebonnet Hub performed a detailed risk assessment including not just subsurface risk, but also surface operations and naturally occurring events, and based on this assessment, will implement engineering controls to reduce the impact and likelihood of potential incidents that could endanger the population, environment, or infrastructure. The Bluebonnet Hub will be monitored in real time, allowing system operators to detect changes in operation parameters and conditions, provide the ability to implement adjustments and mitigation as required, and initiate emergency response plans if needed, as defined by the project.

Additionally, the project team will further identify and implement mitigation measures to ensure that, where possible, the project does not disproportionately impact EJ communities. The Bluebonnet Sequestration Hub, LLC follows the same standards and policies of Oxy Low Carbon Ventures, LLC, its parent company. Our standard practice is collaborating with communities to ensure project activities are compatible with the surrounding environment and use various techniques to avoid, minimize, and mitigate the potential of adding to the cumulative burdens that the associated communities might experience due to the project.

Furthermore, the Bluebonnet Sequestration Hub, LLC will assess the communities surrounding the AoR through the robust community engagement plan described in Section 5.0. Through active community engagement, the project will collaborate with the surrounding communities and stakeholders to understand the needs and impacts associated with the project's operation and will work to bring benefits to the community. The Bluebonnet Sequestration Hub, LLC will consider the unique characteristics of the communities to ensure that educational and workforce development initiatives associated with the project limit negative impacts and benefit the community.

The following table shows the potential local impacts related to the Bluebonnet Sequestration Hub.

Table EJ- 2: Potential Project Impacts

Impacts	Who is impacted	Mitigation measure	Timeframe	Interaction with cumulative burdens
Increased air pollution, noise, and traffic from trucks	Residents within 0.25 mile from roads used to transport materials to site	Conduct noise readings and adjust operations to maintain compliance with local noise ordinances. Collaborate with local government to mitigate traffic impact.	Intermittently during construction (two years)	Most of the project area is rural. The project will coordinate with local authorities and residents when high traffic is expected on roads and highways.
Land use change emissions	Local adjacent surface landowners	The physical footprint of the Bluebonnet Hub is small, and emissions are anticipated to be minimal. Bluebonnet Sequestration Hub, LLC will rehabilitate the well pad site and access roads during the Post-Injection Site Care period.	Emissions will be minimal and primarily during the construction phase, and, throughout the lifetime of the facility, small emissions will result from vehicle traffic and surface equipment.	Bluebonnet Sequestration Hub, LLC, aims to assist disadvantaged local communities in pursuing funding to create climate and energy resilience plans.
Decreased wildlife habitat. The project is within the potential range of a few endangered species of birds.	Species with potential for occurrence at project site	OLCV (Oxy Low Carbon Ventures) engages in conservation planning to evaluate species, habitat, and other surface natural resources that may occur at project site and avoids sensitive areas.	Duration of the Class VI Facility injection period	No anticipated interaction with cumulative burdens.

5.0 Community Engagement Plan: Bluebonnet Sequestration Hub

This document provides an overview of the project's identified stakeholders, outreach to date, community outreach plan, and potential benefits that could be directed to the community.

5.1 Completed Outreach and Feedback

The Community Engagement Team (CET), an established and highly experienced team within the Bluebonnet Sequestration Hub, LLC, takes an integrated approach to public engagement that includes stakeholder relations for those who live near its operations, engagement with local elected officials and organizations, and direct community investment through local partnerships, volunteer efforts, first responders, and charitable giving.

The Bluebonnet Hub is in rural **Claimed as PBI**
Due to the rural location, the Bluebonnet Stakeholder Relations team anticipates little, if any, impact on nearby residents.

The CET has conducted initial small-group and one-on-one meetings with critical stakeholders in **Claimed as PBI** Starting in August 2022, team members conducted in-person engagements with stakeholders, including community members and leaders, elected officials, community organizations, and first responders in the area.

During each engagement, the team provided stakeholders with an overview of the project, including the scope of work, and the anticipated impacts and benefits that the community will see as the project progresses. In addition, during each meeting, the team solicited feedback to understand the community better and to be able to adjust project operations to mitigate any potential negative impacts on the community. Each meeting provided the team with vital insights into the community. From these meetings, the team has begun to identify the community's interests, challenges, opportunities, and values.

The CET also used these initial meetings to discover potential partnership opportunities for community involvement, workforce development, and career and technical training. Community partners are selected based on community need, impact, and employee engagement opportunities. Oxy supports charitable investments that fall within eight philanthropic categories: Arts & Culture, Business/Goodwill, Education, Employee Giving, Environment, Health, Military/Veterans, and Social Services.

Examples of Oxy's efforts include:

- Employee volunteerism sponsorships support the Houston Food Bank to address food insecurity in the Greater Houston area, which includes Chambers County.
- OxyChem (a subsidiary of Oxy) has supported Junior Achievement of Southeast Texas for many years. Since 1945, Junior Achievement of Southeast Texas' purpose has been to educate and inspire young people to understand business and economics and value free enterprise.

- In 2015, Oxy began a partnership with the American Red Cross to support disaster relief efforts in the region. Since then, Oxy has provided support for disaster relief in response to the 2016 Louisiana flooding, Hurricane Harvey in 2017, Winter Storm Uri that devastated Texas, Louisiana, Oklahoma, and New Mexico in February 2021, and Hurricane Ida in August 2021.
- Oxy supported waterway cleanup events in the Galveston Bay watershed through the Texas Conservation fund. Additionally, employees have supported the Nature Conservancy through annual employee giving campaigns.

The Bluebonnet Sequestration Hub, LLC will continue to apply Oxy's extensive experience in engagement efforts to this project, such as those mentioned above. Partnerships allow the team to have insightful conversations with members of the community and business owners. Meetings, partnership discussions, presentations, and site visits with first responders are ongoing.

The CET will provide project updates specific to **Claimed as PBI** available to stakeholders at <https://www.1pointfive.com/projects/chambers>. This website can be used as a resource for community stakeholders interested in project overview and to provide updates, the toll-free response phone line, and project fact sheets. Stakeholders engaged to date are shown in Table EJ-3.

Table EJ- 3: Stakeholders - Engaged

Stakeholder	Title/Organization	Type of Engagement
Kim Ackel	Community Member	Initial Outreach and Community Input
Toni Spencer	Community Member	Initial Outreach and Community Input
Steve Selly	Community Member	Initial Outreach and Community Input
Steve Hodges	Community Member	Initial Outreach and Community Input
Lindsey Kiker	Community Member	Initial Outreach and Community Input
Kelly Alton	Community Member	Initial Outreach and Community Input
Kade Broussard	Community Member	Initial Outreach and Community Input
Chris Street	Community Member	Initial Outreach and Community Input
Gary Garcia	Community Member	Initial Outreach and Community Input
Richard Devillier	Community Member	Initial Outreach and Community Input
Clear Skies Texas	NGO	Initial Outreach and Community Input
Texas Chemical Council	NGO	Initial Outreach and Community Input
Winnie Chamber of Commerce	NGO	Support Outreach and Engagement at Community Events
Marsh Fest	NGO	Support Outreach and Engagement at Community Events
Brandon Creighton	Senator, State of Texas	Initial Outreach and Community Input

Stakeholder	Title/Organization	Type of Engagement
Claimed as PBI		
Jim Wright	Texas Railroad Commissioner	Initial Outreach and Community Input
Howard University	Higher Educational Institution	Community-Engaged Project Development/Community Input
Prairie View A&M University	Higher Educational Institution	Community-Engaged Project Development/Community Input
University of Texas at Austin Gulf Coast Carbon Center	Higher Educational Institution	Community and Educational Engagement

5.2 Stakeholder Assessment

While many stakeholders will be identified in the Bluebonnet Sequestration Hub, LLC's continued outreach efforts, the initial stakeholder assessment has identified the following individuals and community-based organizations in or near **Claimed as PBI**:

- First Responders/Emergency Services

- **Claimed as PBI**

- Local Community-Based Organizations

- **Claimed as PBI**

- Claimed as PBI [REDACTED]
- Claimed as PBI [REDACTED]
- Claimed as PBI [REDACTED]
- Claimed as PBI [REDACTED]
- State-level elected officials
 - Representative Mayes Middleton, Texas House District 23
 - Senator Brandon Creighton, Texas Senate District 5
- Claimed as PBI [REDACTED]
 - Oil and gas production and transportation
 - Distribution and electronic commerce
 - Upstream chemical products
 - Construction products and services
- Media Stakeholders
 - The Seabreeze Beacon
 - The Anahuac Progress
 - Claimed as PBI [REDACTED]
- Businesses/Entertainment/Attractions
 - Claimed as PBI [REDACTED]

5.3 Community Outreach Plan

The team has already begun research to develop a detailed Community, Labor, and Stakeholder Engagement Plan. The team will continue to use the DOE EJ Dashboard, EJScreen, and Climate and Economic Justice Screening Tool, as described in this document. In addition, to gain a holistic perspective of stakeholder input and expectations and to understand the demographic, environmental, and socioeconomic characteristics of the communities and stakeholders affected by the project, this research also includes:

- Mapping and analysis of nearby and adjacent stakeholders using Oxy’s internal database and GIS software, plus using local and state census data and mapping tools, assessors’ websites, and census.gov.
- Holding in-person conversations with stakeholders, elected officials, and local university researchers; leveraging research conducted by local universities to better understand the stakeholder landscape and history of the area.
- Using online surveys, feedback opportunities linked to the project newsletter and website and engagement with rural co-ops, school districts, and others.

Data sources that need to be developed include better datasets for increased understanding of the interest level of stakeholders in Carbon Capture Sequestration (CCS) technology and projects after initial education and exposure.

The Bluebonnet Sequestration Hub, LLC plans to conduct outreach in three phases to build upon prior outreach, as shown in the table below.

Table EJ- 4: Project Outreach Phases

Phase	Time	Components
Phase 1: Developing Engagement Plan	Month 1–3	Listening Sessions with community members (three sessions)
		Critical Stakeholder Outreach—Meet with community leaders to identify more stakeholders and best avenues for engagement
		Develop Community Advisory Committee through initial stakeholder discussions
		Initial meetings with potential partner organizations for program development and investment
		Develop Community Engagement Plan through feedback from DOE on Plan Development Proposal
Phase 2: Engagement & Building Partnerships	Month 4–12	Execute community engagement plan
		Solidify plans with partners and build out program framework
		Execute community investments
		Engage Community Advisory Committee

Phase	Time	Components
Phase 3: Incorporating Input into Project Plans	Month 13–24	Analyze community feedback and input
		Develop mitigation measures and adjust operational plans as required by input
		Execute partner programs
		Continue execution of community engagement plan
		Continue engagement with Community Advisory Committee

The Stakeholder Relations Team (SRT) seeks to strengthen local communities and will engage in partnerships that address community needs and create economic opportunities and inclusive social development. SRT has begun these efforts with stakeholders and will continue to identify and engage with additional organizations representing the community's interests. Meetings will be prioritized and coordinated by the Bluebonnet Sequestration Hub, LLC's Land, Government Relations, Regulatory, and Stakeholder Relations departments. The team will then assess potential positive or negative influences on the project's success and complete an impact assessment to guide further engagement. The SRT will create working groups or advisory committees to facilitate ongoing opportunities to learn about CCS and provide feedback.

The Bluebonnet Sequestration Hub, LLC plans to partner with the University of Texas Gulf Coast Carbon Center ("GCCC") on the development and execution of its community engagement plan. GCCC stands as a university, an international center of CCS expertise, and as the state geological survey. GCCC will serve as presenters at community events, open houses, and CCS road shows, and may be technical sources for the press and media.

In the proposed partnership, GCCC will provide information showing how CCS is used across the United States and around the world. GCCC will prepare handout materials and engage in demonstrations to familiarize stakeholders with CO₂ and its behavior below the earth's surface (subsurface). GCCC will also assist in the project's educational outreach efforts to K-12 and community colleges. In collaboration with the schools, GCCC will design a program that allows students to engage with science relevant to understanding the project's activities.

The following table lists potential/planned stakeholders.

Table EJ- 5: Stakeholders - Potential/Planned Engagements

Stakeholder	Organization	Type of Engagement	Target Engagement Date
Houston Community College System	Educational Institution	Community-Engaged Project Development/Community Input	TBD
Houston-Tillotson University	Educational Institution	Community-Engaged Project Development/Community Input	TBD

Stakeholder	Organization	Type of Engagement	Target Engagement Date
Lamar University	Educational Institution	Community-Engaged Project Development/Community Input	TBD
San Jacinto College	Educational Institution	Community-Engaged Project Development/Community Input	TBD
University of Houston	Educational Institution	Community-Engaged Project Development/Community Input	TBD
Galveston College	Educational Institution	Community-Engaged Project Development/Community Input	TBD
Texas Southern University	Educational Institution	Community-Engaged Project Development/Community Input	TBD
Houston Christian University	Educational Institution	Community-Engaged Project Development/Community Input	TBD
Taylor Career and Technology Center	Educational Institution	Community-Engaged Project Development/Community Input	TBD
Lee Community College	Educational Institution	Community-Engaged Project Development/Community Input	TBD
Lamar Institute of Technology	Educational Institution	Community-Engaged Project Development/Community Input	TBD
Claimed as PBI [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Stakeholder	Organization	Type of Engagement	Target Engagement Date
The Atakapa Tribe	Tribal Government	Community-Engaged Project Development/Community Input	TBD
The Nature Claimed as PBI			
The 40 Foundation	NGO	Initial Outreach and Community Investment Discussion	TBD
Claimed as PBI			
Endeavors	NGO	Initial Outreach and Community Investment Discussion	TBD
Junior Achievement of South Texas	NGO	Initial Outreach and Community Investment Discussion	TBD
Fred Aguilar Promise Center	NGO	Initial Outreach and Community Investment Discussion	TBD
Feeding America	NGO	Initial Outreach and Community Investment Discussion	TBD
Love Network of Baytown	NGO	Initial Outreach and Community Investment Discussion	TBD
Mae Foundation, Inc.	NGO	Initial Outreach and Community Investment Discussion	TBD
Make Decisions 4U	NGO	Initial Outreach and Community Investment Discussion	TBD
Saint Vincent de Paul Food Pantry	NGO	Initial Outreach and Community Investment Discussion	TBD
Claimed as PBI			

Important considerations to this outreach include:

- Ensuring listening sessions are offered in person at a location convenient for targeted stakeholder groups with translation, childcare, and transportation options.
- Ensuring listening sessions are offered virtually to accommodate nontraditional working hours and other limitations with translation.
- Sharing information about listening sessions and opportunities for engagement through numerous communication channels to reach a broader audience and promote accessibility.
- Ensuring information is provided at an accessible reading level.
- Preparing adequate information to communicate to local residents with programs ensuring that groundwater resources, air quality, soil, and agricultural lands are not impacted.
- Maintaining outreach throughout planning, construction, and early operational phases, and continuing thereafter as appropriate.
- Providing multiple accessible communication channels.
- Recruiting members to the Community Advisory Committee that accurately represent the affected community.

5.4 Community Benefits

Project benefits include:

- Job creation and workforce development, mainly in the construction phase of the project, but also throughout the project lifetime.
- Local tax revenue from the project, directly benefiting Chambers County residents with local property taxes and Texas residents through sale and franchise taxes.
- Opportunities for local businesses and organizations through contracting opportunities and charitable giving.
- Local foodbank donations.
- Recreation, water conservation, and education programs that benefit the community.
- Finally, clean energy in the area, creating space for similarly aligned local businesses and professionals.

The Bluebonnet Sequestration Hub, LLC will seek to enhance these benefits wherever possible to help the community.

A wide range of organizations have been identified to explore partnerships with through workforce development, education, and community benefits.

Current Community Partnerships

- **Claimed as PBI** [REDACTED]

Potential Partnerships

- Claimed as PBI [REDACTED]

Potential Community Investment

- Claimed as PBI [REDACTED]

Appendix A

A.1 Environmental Justice Assessment: Bluebonnet

The raw data below is accurate as of May 2024, when the environmental justice analysis was completed. The screening tools were used to evaluate the Census Tract and containing the Class VI Facility and Bluebonnet AoR located in **Claimed as PBI**

An analysis of communities in proximity to the Bluebonnet Hub was executed through screening tools including the DOE Energy Justice Dashboard (DOE EJ Dashboard), Climate and Economic Justice Screening Tool (CEJST)/Justice 40 Initiative Map, Environmental Protection Agency's EJScreen, and Department of Agriculture Food Access Map.

Overview: **Claimed as PBI**

The DOE EJ Dashboard indicates the communities near the proposed project may be subject to higher air toxin cancer risk and respiratory hazards. The EPA EJ Screen showed an above-average rate of toxic releases to air, a high proportion of low-income individuals, and a large proportion of the community without health insurance relative to the rest of the country. The CEJST tool finds the community to be not disadvantaged, although it demonstrates high climate-change indicators. The Food Access Atlas indicates the area has a relatively high number of households without vehicles that are more than one-half mile from a supermarket.

A.1.1 DOE EJ Dashboard (BETA):

The DOE EJ Dashboard does not provide census-tract specific data, but the project team was able to deduce the following about the Census Tract:

- Not identified as disadvantaged community/tribal land
- Minority: highest percentile – 40th
- Low Income: highest percentile –80th
- Energy Burden: 3%
- Air Toxin Cancer Risk: highest percentile – 100th
- Respiratory Hazards: highest percentile – 100th
- Ozone Level: highest percentile – 20th
- Diesel Particulate Matter: highest percentile – 40th
- All Particulate Matter: highest percentile – 60th
- Pre-1960 Housing (Lead Paint): highest percentile –60th
- Traffic Proximity and Volume: highest percentile –40th
- Proximity to Risk Management Plan (RMP) Facilities: highest percentile –60th
- Proximity to Treatment Storage and Disposal (TSDF) Facility: highest percentile –40th
- Proximity to National Priorities List (NPL) Facility: highest percentile –40th
- Major Direct Dischargers to Water: highest percentile – 40th
- COVID 19 deaths: highest percentile – 60th

A.1.2 Climate and Economic Justice Screening Tool

(Note: factors that are bolded exceed the associated threshold.)

- Overall: Tract identified as NOT disadvantaged because it has three categories that meet the criteria:
- Associated thresholds:
 - Percent of individuals below 200% Federal poverty line: 53% (threshold: 65%)
 - **Percent of population not currently enrolled in higher education: 98% (threshold 80%)**
- Climate change: Communities are identified as disadvantaged IF at or above the 90th percentile for expected agriculture loss rate OR expected building loss rate OR expected population loss rate AND is above the 65th percentile for low income. \
- **Expected agriculture loss rate: 97th percentile (threshold – 90th percentile)**
- **Expected building loss rate: 98th percentile (threshold – 90th percentile)**
- Expected population loss rate: 80th percentile (threshold – 90th percentile)
- Clean energy and energy efficiency: Communities are identified as disadvantaged IF at or above the 90th percentile for energy burden OR PM2.5 in the air AND is above the 65th percentile for low income.
 - Energy burden: 49th percentile (threshold: 90th percentile)
 - PM2.5 in the air: 67th percentile (threshold: 90th percentile)
 - Clean transit: Communities are identified as disadvantaged IF at or above the 90th percentile for diesel particulate matter exposure or traffic proximity or transportation barriers and volume AND is above the 65th percentile for low income. Diesel particulate matter exposure: 25th percentile (threshold – 90th percentile)
 - Traffic proximity and volume: 38th percentile (threshold – below 90th percentile)
 - **Transportation barriers: 96th percentile (threshold – 90th percentile)**
- Sustainable housing: IF at or above the 90th percentile for lead paint AND median home value is at or less than the 90th percentile OR at or above the 90th percentile for the housing cost burden AND is above the 65th percentile for low income.
 - Housing cost burden: 37th percentile (threshold – 90th percentile)
 - Median home value: 32nd percentile (threshold – 90th percentile)
 - Lead Paint: 38th percentile (threshold – 90th percentile)
- Legacy pollution: Communities are identified as disadvantaged IF at or above the 90th percentile for proximity to hazardous waste facilities OR proximity to National Priorities List (NPL) sites OR proximity to Risk Management Plan (RMP) facilities AND is above the 65th percentile for low income.
 - Proximity to hazardous waste facilities: 31st percentile (threshold – 90th percentile)
 - Proximity to National Priorities List (NPL) sites: 28th percentile (threshold – 90th percentile)
- Proximity to Risk Management Plan (RMP) facilities: 46th percentile (threshold – 90th percentile)
- Clean water and wastewater infrastructure: Communities are identified as disadvantaged IF at or above the 90th percentile for wastewater discharge AND is above the 65th percentile for low income.
- Wastewater discharge: 15th percentile (threshold – 65th percentile)

- Health burdens: Communities are identified as disadvantaged IF at or above the 90th percentile for asthma OR diabetes OR heart disease OR low life expectancy AND is above the 65th percentile for low income.
- Asthma: 28th percentile (threshold – 90th percentile)
- Diabetes: 66th percentile (threshold – 90th percentile)
- Heart disease: 62nd percentile (threshold – 90th percentile)
- Low life expectancy: 66th percentile (threshold – 90th percentile)
- Workforce development: Communities are identified as disadvantaged IF at or above the 90th percentile for low median income as a percentage of area median income OR linguistic isolation OR unemployment OR percent individuals in households at or below 100% Federal poverty level AND 10% or more of adults 25 or older have not attained a high school degree.
- Linguistic isolation: 59th percentile (threshold – 90th percentile)
- Low median income: 74th percentile (threshold – 90th percentile)
- Unemployment: 73rd percentile (threshold – 90th percentile)
- Poverty: 59th percentile (threshold – 90th percentile)

A.1.3 Analysis of EPA EJScreen

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter ($\mu\text{g}/\text{m}^3$)	8.19	9.11	14	8.08	49
Ozone (ppb)	61.3	64.6	22	61.6	52
Diesel Particulate Matter ($\mu\text{g}/\text{m}^3$)	0.143	0.218	30	0.261	29
Air Toxics Cancer Risk* (lifetime risk per million)	30	28	44	25	52
Air Toxics Respiratory HI*	0.3	0.3	29	0.31	31
Toxic Releases to Air	2,900	12,000	72	4,600	79
Traffic Proximity (daily traffic count/distance to road)	43	150	32	210	37
Lead Paint (% Pre-1960 Housing)	0.27	0.17	76	0.3	55
Superfund Proximity (site count/km distance)	0.032	0.085	41	0.13	30
RMP Facility Proximity (facility count/km distance)	0.29	0.63	51	0.43	67
Hazardous Waste Proximity (facility count/km distance)	0.21	0.75	43	1.9	36
Underground Storage Tanks (count/km ²)	0.29	2.3	25	3.9	34
Wastewater Discharge (toxicity-weighted concentration/m distance)	1E-05	0.91	9	22	17
SOCIOECONOMIC INDICATORS					
Demographic Index	33%	46%	33	35%	55
Supplemental Demographic Index	16%	17%	55	14%	66
People of Color	24%	58%	17	39%	43
Low Income	41%	34%	63	31%	71
Unemployment Rate	7%	5%	71	6%	70
Limited English Speaking Households	1%	8%	43	5%	59
Less Than High School Education	10%	16%	46	12%	59
Under Age 5	6%	6%	52	6%	59
Over Age 64	18%	14%	69	17%	58
Low Life Expectancy	21%	20%	66	20%	68

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haqz/air-toxics-data-update>.

Sites reporting to EPA within defined area:

Superfund	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities	0
Water Dischargers	19
Air Pollution	1
Brownfields	0
Toxic Release Inventory	0

Other community features within defined area:

Schools	4
Hospitals	1
Places of Worship	1

Other environmental data:

Air Non-attainment	Yes
Impaired Waters	Yes

Selected location contains American Indian Reservation Lands*	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community	No
Selected location contains an EPA IRA disadvantaged community	Yes

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HEALTH INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	21%	20%	66	20%	68
Heart Disease	7	5.9	71	6.1	69
Asthma	9.3	9.2	56	10	33
Cancer	6.4	5.2	77	6.1	54
Persons with Disabilities	13.2%	12.3%	61	13.4%	54

CLIMATE INDICATORS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	12%	10%	79	12%	71
Wildfire Risk	90%	30%	81	14%	91

CRITICAL SERVICE GAPS					
INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	18%	15%	65	14%	68
Lack of Health Insurance	25%	18%	75	9%	96
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for Tract: 48071710401

A.1.4 Department of Agriculture Food Access Research Atlas

- **Supermarket Access:** This is a tract in which at least 500 people or 33% of the population live farther than one mile (urban) or 20 miles (rural) from the nearest supermarket.
- **Vehicle Availability and Supermarket Access:** This tract has a relatively high number of households (164 of 2,208 total households (7.4%)) without vehicles that are more than one-half mile from a supermarket.
- **Group Quarters Population:** This tract does not contain a relatively high share of people (100 of 6,274 total people (1.6%)) living in group quarters.