

APPENDIX B. ENVIRONMENTAL CONSTRAINTS REPORT

PROPEL

*Smarter Transportation.
Stronger Communities.*

US 31

US 31 North

ENVIRONMENTAL CONSTRAINTS REPORT

November 1, 2023

Prepared By



This report was finalized prior to the issuance of several Executive Orders (EOs) and one United States Department of Transportation (USDOT) order, including:

- Federal EOs: EO 14154, EO 14148, EO 14173, and EO 14281;
- State EOs: EO 25-49, EO 25-37, and EO 25-14;
- USDOT Order 2100.7



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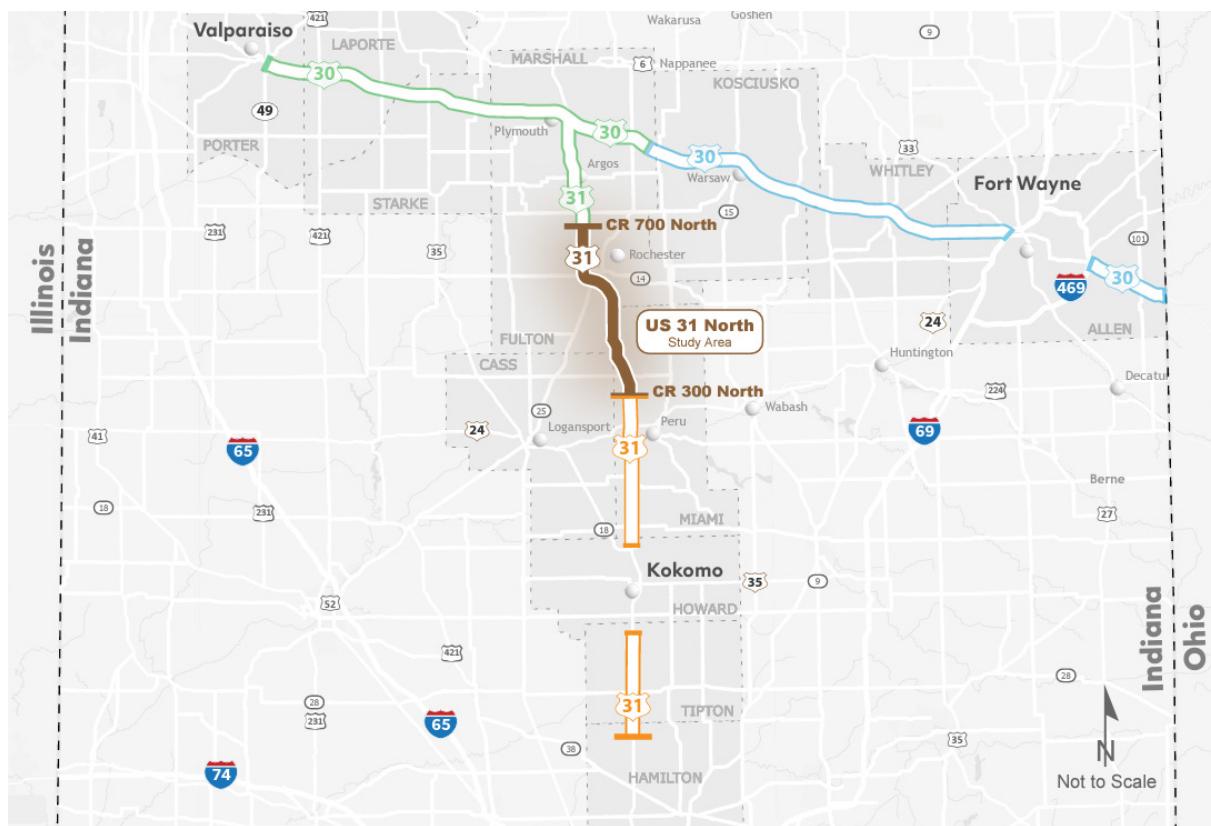
1. INTRODUCTION

1.1. PURPOSE OF THIS REPORT

ProPEL is an Indiana Department of Transportation (INDOT) initiative for transportation planning that uses collaborative Planning and Environment Linkages (PEL) studies to consider environmental, community, and economic goals. Through the PEL studies, INDOT aspires to create smarter transportation systems that build stronger communities. INDOT is using PEL studies on the US 30 and US 31 corridors in central and northern Indiana, as shown on Figure 1. This Environmental Constraints Report was prepared for the ProPEL US 31 North study.

As part of the data-gathering phase of these studies, this Report's purpose is to identify existing socioeconomic, natural, cultural, and human resources for the ProPEL US 31 North study. Information documented herein will help inform future phases of the study, including development of the purpose and need report and identification of potential impacts to sensitive resources during the screening and identification of reasonable alternatives. It will also highlight potential future data and/or coordination considerations that may need to be addressed as the study progresses, if needed. This identification is a planning tool to help inform INDOT, the public, and stakeholders of existing and planned environmental resources for the ProPEL US 31 North study.

Figure 1. Context of the ProPEL US 31 North Study



US 31 North Study Area
US 31 South Study Area = 

US 30 West Study Area
US 30 East Study Area = 

Transportation improvement projects with federal involvement must comply with the National Environmental Policy Act (NEPA) and its implementing regulations. INDOT intends to carry forward the information and analysis from this study into subsequent NEPA review. As such, the environmental resource categories documented herein are intended to align with the categories typically evaluated in the NEPA process.

Input from resource agencies will be included throughout the study process. No resource-specific fieldwork, detailed surveys, delineations, or investigations that are typically associated with formal NEPA studies are included as part of this study; they would be completed during the NEPA process, as needed. Additionally, identification of environmental commitments or mitigation measures to offset potential environmental impacts are not part of this study.

1.2. US 31 NORTH STUDY CORRIDOR OVERVIEW

The ProPEL US 31 North study corridor is 27 miles in length and extends from just south of the Eel River in Miami County (County Road [CR] 300 North) to just south of the Fulton/Marshall County line (CR 700 North in Fulton County), as shown in *Attachment A General Location Map*. US 31 is a critical transportation link in Indiana that serves cross-state travel from Louisville, Kentucky, through Indianapolis, to South Bend near the Michigan state line. However, in the vicinity of the study limits, US 31 serves as both a thoroughfare for regional trips as well as a connector for local communities including Rochester, Mexico, Denver, and Macy.



US 31 in the study corridor is a four-lane Principal Arterial roadway with two lanes in each direction separated by an approximately 50- to 60-foot grass median. There are more than 40 roadway or waterway crossings of US 31 in the study corridor; one is a full-service grade-separated interchange and there is one overpass (with no local access). All other roadway crossings are at-grade intersections with US 31 that are stop controlled on the intersecting roadway with some dedicated turn lanes on US 31.

Serving the existing and varied land uses within the ProPEL US 31 North study corridor requires US 31 to accommodate through traffic as well as provide direct access to/from individual properties and to serve automobiles, semi-trailer trucks, horse-drawn vehicles, and farm equipment along and across its facilities. Natural features of the land, such as the Eel River, can further constrain accessibility within the study area. The built environment along the ProPEL US 31 North corridor is primarily agricultural with residential and commercial properties, including those supporting agricultural uses, as well as community facilities, interspersed throughout the corridor.

2. METHODOLOGY

Information presented herein covers resources related to environmental constraints. Data and information relating to transportation, such as traffic operations, safety, and access along roadways and bridges in the study area, is presented separately in the Existing Transportation Conditions Report for this study, which is available on the study website (<https://propel31.com/>).

2.1. STUDY AREA

For this constraints report, environmental resources are identified within a study area, defined as a half-mile buffer along US 31 within the study limits – i.e., an approximately one-mile wide area centered on the highway. The study area comprises a total of approximately 17,700 acres (see Table 1) and lies within three separate jurisdictions (in alphabetical order): Cass County, Fulton County, and Miami County. This report focuses primarily on Fulton and Miami Counties; data on Cass County is included in sections where it is applicable to the resource being discussed. Additionally, the City of Rochester is a city in and the county seat of Fulton County, and the western portion of its jurisdiction lies within the study area.

Exceptions to the half-mile study area are airports (buffer of 20,000 feet, or 2.8 miles, see Section 3.1.5); underserved communities (buffer of five miles, see Section 3.1.2); and noise sensitive areas (buffer of 500 feet from the edge of travel lanes per INDOT policy, see Section 3.8).

Table 1. ProPEL US 31 North Study Area (Half-Mile Buffer)

Jurisdiction	Study Area (Acres)
Cass County	8.52
Fulton County	10,223.63
Miami County	7,474.17
Total	17,706.32

2.2. DATA COLLECTION

Information presented in this report was gathered from federal, state, and local agencies; previous studies; existing literature and websites; aerial photography; geospatial mapping and environmental data; and windshield survey of the study area. In general, the majority of the data collected in support of this report is publicly available, primarily via Indiana's Red Flag Investigation (RFI) Geographic Information System (GIS) data and/or IndianaMap as well as geospatial databases from regulatory agencies. Additionally, both Miami County and Fulton County have online geospatial data that was used as reference, as necessary. A windshield survey was conducted to observe, confirm, and document various features, characteristics, and resources present in the study area. Additional details on resource-specific data and/or methodology is provided in each section, as needed. References for all data sources identified in this report are provided in Section 4.

Information was also obtained from the ongoing public involvement and stakeholder coordination process as part of the study. Ongoing Community Office Hours have been held at least twice a month in the study area since October 2022. Early coordination efforts included: a Stakeholder Advisory Committee (SAC) meeting on November 16, 2022; a Public Information Meeting (PIM) on December 1, 2022 and subsequent on-demand virtual public meeting; and a resource agency and cultural resources stakeholder meeting on January 27, 2023. These meetings and the comments received at that time are documented in the *Resource Agency*,

Stakeholder, and Public Involvement (RASPI) Summary #1, available on the study website. This early feedback informed development of the Draft Environmental Constraints Report, which was published for public and agency review in June 2023. At that time, outreach and coordination efforts to review and receive feedback included: an in-person SAC meeting on May 17, 2023; an in-person PIM on June 7, 2023 and subsequent on-demand virtual public meeting; and a virtual meeting for resource agencies and cultural resource stakeholders on August 10, 2023. These meetings and the comments received at that time are documented in the *RASPI Summary #2*, available on the study website. Based on comments received, the following has been updated in this report:

- Clarification on underserved communities was added to Section 3.1.2;
- Information related to the Geneva Center and school bus routes was updated in Section 3.1.6;
- Information related to threatened and endangered species was updated in Section 3.2.6; and
- Coordination with the Department of Historic Preservation and Archaeology was updated in Section 3.3.2.

In association with the updates noted above, the following attachments were also updated:

- Attachment B. Constraints Summary Table;
- Attachment C. Constraints Map Series;
- Attachment H. Protected Species Resources; and
- Attachment I. Above-Ground Cultural Resources Identification Memorandum & SHPO Letter.

3. EXISTING CONDITIONS ANALYSIS

This section identifies the presence and existing conditions within the study area for each resource. The environmental constraints detailed within this section are summarized in *Attachment B Constraints Summary Table* and shown in *Attachment C Constraints Map Series*.

3.1. SOCIOECONOMIC CONSIDERATIONS

Data and information on demographics, employment, income, land use, community facilities, emergency and public services, local infrastructure, and community plans provide a description of the social and economic environment of the study area. These were compiled from aerial photos, local comprehensive and land use plans, the United States Census Bureau website (including the American Community Survey [ACS]), the United States Department of Housing and Urban Development (HUD) website, and environmental and geospatial databases as well as field reconnaissance and input from the ongoing public involvement and stakeholder coordination process for this study. Specific data sources are provided within each section, as needed, and summarized in Section 4 of this report.

3.1.1. DEMOGRAPHIC CHARACTERISTICS

Demographic data for the study area were compiled to give an overall picture of the populations within and traveling through the region. The overview includes an analysis of recent trends in population as well as current statistics related to age and income. US Census data were used for demographic information, primarily the 2016-2020 ACS 5-year estimates. Data was analyzed to identify populations of concern under Title VI of the Civil Rights Act of 1964, Executive Order 13045 *Protection of Children from Environmental Health Risks and Safety Risks* (i.e., populations under the age of 18), and the Federal Highway Administration's (FHWA's) Technical Advisory T6640.8A *Guidance for Preparing and Processing Environmental and Section 4(f) Documents*. For minority or low-income populations as defined by Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, see Section 3.1.2. below, which includes details on minority, low-income, limited English proficiency, internet access, and non-motorized vehicle populations of concern.

While total population in the state of Indiana has grown and will continue to do so, total population in the study area jurisdictions has declined since 2000 (see Table 2), a trend which is projected to continue (see Table 3). These longer-term trends of population decline at the county level are also documented in the demographics sections of the Fulton and Miami County comprehensive plans; the latter notes that this lack of current and future population growth is not unique to the study area and is often reflected in other similar rural counties in the Midwest that do not tend to attract college graduates and young families.

Table 2. Study Area Population Trends, 2000-2020

Location	2000	2010	2020	Change (2000 to 2020)
Indiana	6,080,485	6,417,398	6,696,893	9.20%
Cass County	40,930	39,058	37,727	-8.49%
Fulton County	20,511	20,684	20,069	-2.20%
Miami County	36,082	37,307	35,684	-1.12%
City of Rochester	6,343	6,209	6,026	-5.26%

Source: ACS 2010 and 2020, 5-Year Estimates, Table S0101; 2000 Decennial Census, Table DP1

Table 3. Study Area Population Projections, 2020-2050

Location	2020	2030	2040	2050	Change (2020 to 2050)
Indiana	6,696,893	7,014,880	7,171,702	7,272,579	7.92%
Cass County	37,727	35,642	33,581	31,710	-18.98%
Fulton County	20,069	19,866	19,156	18,488	-8.55%
Miami County	35,684	34,040	32,087	30,089	-18.59%
City of Rochester	6,026	N/A	N/A	N/A	N/A

Source: STATSIndiana Population Projections

Note: Populations forecasts are not available at the city level.

Other population characteristics were also examined for the jurisdictions, including age and income (see Table 4). There are similar percentages of both minors under the age of 18 (approximately 20-24% of the total population) and adults over the age of 65 (approximately 17-23% of the total population) in the jurisdictions within the study area, which are mostly comparable to the state characteristics. The median income within the study area jurisdictions is lower than elsewhere in the state.

Table 4. Study Area Existing Population Characteristics – Age & Income

Location	Total Population	Minors Under 18 (Population %))	Adults 65 and Older (Population %))	Median Age (years)	Median Income (\$)
Indiana	6,696,893	1,571,013 (23.5%)	1,050,826 (15.7%)	37.8	\$58,235
Cass County	37,727	8,697 (23.1%)	6,648 (17.6%)	40.6	\$49,020
Fulton County	20,069	4,765 (23.7%)	3,958 (19.7%)	41.6	\$50,597
Miami County	35,684	7,563 (21.2%)	6,202 (17.4%)	39.8	\$50,616
City of Rochester	6,026	1,182 (19.6%)	1,370 (22.7%)	45.7	\$47,479

Source: ACS 2016-2020, 5-Year Estimates, Table S0101 and S1901

3.1.2. UNDERSERVED COMMUNITIES

This section documents the identification of underserved communities, which refer to populations sharing a particular characteristic as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, as stated in Executive Order (EO) 13985 *Advancing Racial Equity and Support for Underserved Communities* (see regulations and guidance below for full definition). For the purposes of the ProPEL US 31 North study and as further detailed below, the identification of underserved communities as presented in this section includes:

- Communities with environmental justice (EJ) concerns: minority populations and persons in poverty (low-income).
- Other underserved communities present within the study area: persons with limited English proficiency (LEP); persons with disabilities; households with limited vehicle access; households with limited internet access; Amish and/or Mennonite communities; manufactured home communities; and federally subsidized communities based on the HUD resource locator tool.
- Disadvantaged Communities: communities present with the study area based on federal tools identified by the US Department of Transportation (USDOT), including the Transportation Disadvantaged Census Tract tool developed by USDOT and the Climate and the Economic Justice Screening Tool developed by the Council on Environmental Quality (CEQ).

Since underserved communities can often be underrepresented during the public involvement process, this data will be used to identify areas for targeted outreach efforts to ensure meaningful community engagement throughout the study. The outreach process is documented in the separate Resource Agency, Stakeholder, & Public Involvement Summary memoranda that will be prepared throughout the study and made available on the website. Measures to minimize adverse community impacts and avoid disproportionate impacts to underserved communities will be identified in future phases of the study as potential solutions are developed and screened.

Several sources were used to provide data to meet the stated regulations and guidance. US Census data, specifically the 2016-2020 American Community Survey (ACS), was used for demographic information, including: race and Latino/Hispanic origin, age, poverty status (low-income persons), persons with LEP, persons with disabilities, households with no vehicle available, and internet access by household. Additionally, populations along the study corridor, including disadvantaged communities, federally subsidized communities, manufactured home communities, and Amish/Mennonite communities, were identified through agency databases and other outreach. All data is summarized in this section and documented in *Attachment D Underserved Communities Resources* and shown in *Attachment E Underserved Communities Maps*.

To account for the rural nature of the area, all census tracts within a 5-mile buffer (i.e., a 10-mile wide study area centered on US 31) were identified and the associated census tract block group (CTBG) data, or other available data, were examined to give a detailed picture of the populations and communities within the area. The study area traverses 16 Census Tracts with 49 CTBGs in Cass County (4), Fulton County (18), Marshall County (4), and Miami County (23).

Regulations & Guidance

Underserved Populations: EO 13985 *Advancing Racial Equity and Support for Underserved Communities*, as previously referenced, outlines a “comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized and adversely affected by persistent poverty. These communities and individuals include Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.”

EO 13166 *Improving Access to Services for Persons with Limited English Proficiency* directs federal agencies to “examine the services they provide, identify any need for services to those with limited English proficiency (LEP), and develop and implement a system to provide those services so LEP persons can have meaningful access to them.” As a part of EO 13166, the Department of Justice issued guidance on implementing this EO because of the connection between it and Title VI of the Civil Rights Act of 1964 barring discrimination based on national origin (see below).

Communities with EJ Concerns: Title VI of the Civil Rights Act of 1964 (Title VI) states that “[n]o person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.” Title VI bars intentional discrimination as well as disparate impact discrimination (i.e., a neutral policy or practice that has an unequal impact on protected groups).

EO 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* first addressed environmental justice by requiring each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionate[ly high] and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” Subsequent guidance (EOs 13985, 14008, and 14096) has updated

and further clarified EJ definitions and agency responsibilities. Within the most recent EO 14096 *Revitalizing our Nation's Commitment to Environmental Justice*, environmental justice means “the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other federal activities that affect human health and the environment.”

Low-income persons are defined as those whose household income is below the US Department of Health and Human Services (HHS) poverty guidelines. USDOT Order 5610.2(c) and FHWA Order 6640.23A, both titled, *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, defines low-income as “a person whose median household income is at or below the HHS poverty guidelines.”

Minority persons include citizens or lawful permanent residents of the United States who are African American, Hispanic or Latino, Asian-American, American Indian, or Native Alaskan. USDOT Order 5610.2(c) and FHWA Order 6640.23A both provide the following definitions for minority populations:

- Black: a person having origins in any of the Black racial groups of Africa;
- Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
- Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent;
- American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
- Native Hawaiian and Other Pacific Islander: people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Disadvantaged Communities: EO 14008 *Tackling the Climate Crisis at Home and Abroad* addresses historic underinvestment in disadvantaged areas most impacted by climate change, pollution, and environmental hazards. It established the *Justice40 Initiative* to confront and address decades of underinvestment in disadvantaged communities by directing programs within federal agencies to identify and bring resources to such communities. Definitions and eligibility of what communities qualified as “disadvantaged” vary across federal programs. For the ProPEL US 31 North study, disadvantaged communities were identified using the following federal tools identified by the USDOT:

- The Climate and Economic Justice Screening tool developed by the CEQ. It is a geospatial mapping tool to identify census tracts that are disadvantaged (overburdened and underserved) by looking at demographics as well as data on climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.
- The USDOT Transportation Disadvantaged Census Tracts (Historically Disadvantaged Communities) mapping tool combines data from 22 indicators collected at the census tract level. The USDOT considers the *Justice40 Initiative* as an opportunity to address gaps in transportation infrastructure and public services by working toward the stated goal to allocate at least 40% of the benefits from federal investments to disadvantaged communities.

Environmental Justice Data

Methodology: Data from each CTBG in the study area were compared to their respective counties. Using each county as the Community of Comparison (COC) for each CTBG was determined to be the best fit and most inclusive picture of populations and communities in the study area, as described in the next paragraph. In accordance with INDOT’s EJ guidance titled *Environmental Justice in NEPA Documentation Process*, an Affected Community (AC) for minorities and persons in poverty (i.e., communities with EJ concerns) is

identified if the percentage of low-income population or minority population in the AC is 25 percent higher than the percentage of low-income or minority population in the COC. Note that any EJ data with less than 50 persons (none of which were identified as AC) is not shown in the evaluation in accordance with privacy guidance from the US Census Bureau.

As suggested by the INDOT guidance, multiple potential COCs were considered prior to selecting respective counties as the COC, including:

- Single County-Based COC. Combining all four study area counties to form an overall COC was determined to potentially under-represent communities with EJ concerns in the study area, particularly for minorities in CTBGs with lower percentages.
- Aggregated Townships as COC. Townships are smaller geographical boundaries than counties but larger than CTBGs. Per the Indiana Historical Bureau, townships are based on the original surveys of Indiana and are not geographically related to census tracts or CTBGs nor align with the associated census data. Notwithstanding, township data associated with all CTBGs within or crossed by the study area boundary were evaluated to form a COC. While the resulting COC was somewhat geographically smaller than the county COCs, it was determined to potentially under-represent communities with EJ concerns (i.e., fewer CTBGs were identified as Affected Communities in known areas of these communities) because the percentage for comparison was higher using this methodology.

Results: Detailed tables for communities with EJ concerns are provided by CTBG in *Attachment D Underserved Communities Data*. Table 5 summarizes the census-based data for the study area, which includes communities with EJ concerns (i.e., minorities and persons in poverty) as well as persons with LEP, disability status, and households with no vehicle available and no internet access, all of which is also summarized in the mapping in *Attachment E*.

Table 5. Summary of Underserved Communities in Study Area (Census-Based Data)

Category	Cass County	Fulton County	Marshall County	Miami County	Total
Number of CTBGs in the Study Area	4	18	4	23	49
County Population % and Number of Affected Communities					
Communities with EJ Concerns	Minorities	21% 0	8% 4	13% 0	12% 4
	Persons in Poverty	13% 0	15% 6	12% 1	16% 7
County Population % and Presence within the County by Number of CTBG					
Other Underserved Communities	LEP	7% 0	2% 6	5% 2	1% 8
	Disability Status	18% 4	19% 18	15% 4	19% 23
	Households with No Vehicle Available	6% 2	5% 12	6% 2	6% 16
	Households with No Internet Available	19% 4	17% 18	24% 4	17% 23

Source: ACS 2016-2020, Tables B03002, B17021, B16004, B25044, B28002, C21007.

Note: Underserved communities are mapped in *Attachment E Underserved Communities Maps*.

The following communities with EJ concerns are present within the CTBGs in the study area:

- **Minorities.** The percentage of minorities in the study area counties ranges from 8 to 21% of the population. Of the 49 CTBGs in the study area, 8 (approximately 16%) are Affected Communities for minorities. Within those 8 AC, the percentage of minorities ranges from 11 to 48% of the population in the CTBG (see Attachment D).
- **Persons in Poverty.** Poverty in the counties ranges from 12-16%. Of the 49 CTBGs in the study area, 14 (approximately 29%) are Affected Communities for poverty. Within those 14 AC, poverty ranges from 18 to 51% (see Attachment D).

A more detailed *Preliminary Environmental Justice Impact Analysis Memorandum* will be prepared in future phases of the ProPEL US 31 North study as part of the screening process to identify reasonable alternatives, using appropriate data at that time.

Other Underserved Communities Data

As shown in Table 5 above and presented in detailed tables in *Attachment D Underserved Communities Data*, the following other underserved populations are present within the CTBGs in the study area:

- **Persons with Limited-English Proficiency.** The percentage of persons with LEP at the county level ranges from 1 to 7%. In the study area, there are 16 CTBGs that have persons with LEP, which represents approximately 33% of the 49 CTBGs under evaluation. Within those 16 CTBGs, the percent of persons with LEP ranges from <1 to 9% (see Attachment D). The predominant language spoken by these persons is Spanish.
- **Persons with Disabilities.** The percentage of persons with disabilities at the county level ranges from 15 to 19%. Within the CTBGs in the study area, this percentage ranges from 7 to 57% (see Attachment D). All 49 of the CTBGs in the study area have persons that have a disability.
- **Households with No Vehicle Available.** The percentage of occupied housing units with no vehicles available is approximately 6% in the counties; however, within the CTBGs, this percentage ranges from 0 to 38% (see Attachment D). Of the 49 CTBGs in the study area, 32 have households with no vehicle available, which represents approximately 65% of the study area. The highest percentage, in Peru, is in the immediate downtown area. This is also true for the higher percentages in Fulton County, which occur in and around Rochester.
- **Households with No Internet Available.** The percentage of occupied housing units with no internet available ranges from 17 to 24% in the counties. Within the CTBGs in the study area, this percentage ranges from 2 to 50% (see Attachment D). Of the 49 CTBGs in the study area, all of them have some households with no internet available.

Additionally, the following specific communities along the study corridor were researched to help identify potential underserved populations. Data is included in *Attachment D Underserved Communities Resources* and shown in the *Attachment E* mapping.

- Country Meadows Manufactured Home Community is located at 929 Monarch Lane in the northeast quadrant of the US 31 interchange with Main Street/SR 25 just outside of downtown Rochester. This mobile home community is located within CTBG 9531-3, which is an Affected Community for low-income and also has persons with LEP, persons with disabilities, households with no vehicle available, and households with no internet available.
- Rochester Manufactured Housing is located at 1101 South Park Road in Rochester. This mobile home community is also located within CTBG 9531-3, as documented in the bullet above.
- Arbor Woods Apartments are located at 500 Mitchell Drive in Rochester. This apartment complex provides over 50 units and is listed under the HUD low-income housing tax credit program. This

apartment complex is located within CTBG 9531-5, which also has persons with disabilities, households with no vehicle available, and households with no internet available.

- Oakwood Apartments are located at 433 East 18th Street in Rochester. This multi-building apartment complex is identified as family housing by HUD. This apartment complex is also located within CTBG 9531-5, as documented in the bullet above.
- College Square Apartments are located at 1729 Bancroft Avenue in Rochester. This 16-unit garden style complex is identified as family housing by HUD. This apartment complex is also located within CTBG 9531-5, as documented in the bullet above.
- Waterhaven Apartments are located at 300 East 4th Street in Rochester. This 24-unit low-rise complex is identified as elderly housing by HUD. This apartment complex is located within CTBG 9531-1, which is an Affected Community for low-income and also has persons with disabilities, households with no vehicle available, and households with no internet available.
- Amish and Mennonite communities are located throughout Fulton County. According to Fulton County staff and input received during the ongoing public outreach process, these communities are primarily located in the northern part of Fulton County (north of CR 300 North) and represent approximately 80 families with an average of seven members per household. Horse-drawn vehicles are known to travel along SR 110 (just north of the study area), CR 700 North, and CR 450 North, including their crossings of US 31. This area is located within CTBG 9530-1, which is an Affected Community for minority and low-income, and also has persons with LEP, persons with disabilities, households with no vehicle available, and households with no internet available.



Horse-drawn Buggy within the Study Area

Representatives from the above communities were invited to the ongoing community and public meetings for the ProPEL US 31 North study area as discussed at the beginning of this section, and representatives are participants in the SAC for the study area.

Disadvantaged Communities Data

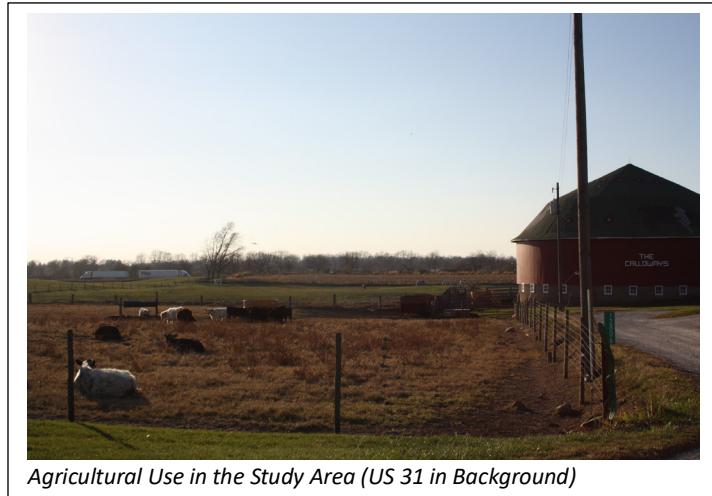
The CEQ's Climate and Economic Justice Screening Tool identifies Disadvantaged Communities by census tract throughout the US. Three of the census tracts in the study area are identified as Disadvantaged Communities, located within Peru in Miami County: census tracts 9523, 9524, and 9525. This corresponds to the data in Table 5 (above), which identifies multiple CTBGs within these tracts as communities with EJ concerns or as other underserved populations.

The USDOT mapping tool also identifies Disadvantaged Communities by census tract throughout the US based on six categories. One of the census tracts in the study area is identified as a Disadvantaged Community, in Fulton County east of Rochester: census tract 9535, for transportation access disadvantage, health disadvantage, economic disadvantage, and equity disadvantage.

The data from both the CEQ and USDOT tools are included in *Attachment D Traditionally Underserved Communities Data* and the *Attachment E* mapping.

3.1.3. LAND USE

An inventory of existing and projected land use sets the context for understanding the needs of the study area and the communities along the corridor. FHWA Technical Advisory T6640.8A *NEPA Implementation: Guidance for Preparing and Processing Environmental and Section 4(f) Documents* includes guidance on documenting land use, development trends, and state and/or local government plans and policies on land use and growth. Data was obtained from regional planning documents, aerial photography, and field reconnaissance.



Agricultural Use in the Study Area (US 31 in Background)

Overall, the land within Fulton and Miami Counties is known for its rich and productive farmland and is predominantly used for agriculture purposes, including generational family farms as well as industrial-scale production and supporting industrial uses such as mills, plants, and other processing facilities. The rural agricultural areas also have associated residential uses, primarily single homes that support the farming community. Interspersed commercial and industrial areas are typically located to take advantage of the existing transportation opportunities, including US 31. Concentrations of more contiguous residential, commercial, industrial, and community developments are typically located within or near a city or town's municipal limits within the counties, which in the study area includes the City of Rochester and community of Mexico.

The land use within the study area reflects the above County-wide trends. Land within the study area is predominantly used for agriculture. Areas designated as residential, industrial, or commercial in the more rural areas are isolated by agriculture and are primarily associated with supporting farming operations and services. Larger commercial uses are interspersed throughout the study area adjacent to or directly accessing US 31 and include, but are not limited to, gas stations and truck stops, car part manufacturing, car dealerships, timber/hauling and/or agricultural services, a winery/orchard, and retail shopping. Other regional facilities, such as natural preservation areas, recreation areas, trails, and community attractions, are located in both counties, as are community/institutional facilities.

The southwestern outskirts of the City of Rochester (from approximately CR 150 South to West Monticello Road) are located within the study area and have larger, more contiguous residential developments, which consist of primarily single-family homes, multi-family structures, and a mobile home park. Most of these areas are designated as suburban residential districts by Fulton County. Various commercial uses are present within this area as well, particularly adjacent to the grade-separated interchange with US 31, and include restaurants, shopping, truck stops and gas stations, and healthcare services.

The topography within the study area is relatively flat or gently rolling, except near the rivers and streams where there are defined drainage patterns. Portions of the Eel River, the Tippecanoe River, and their tributaries traverse the study area and cross US 31. Associated wetlands and wooded areas occur throughout Fulton and Miami Counties, as well as throughout the study area adjacent to US 31, and provide more diverse areas of natural land use among the otherwise predominantly farmed or developed land.

3.1.4. COMMUNITY PLAN SUMMARIES

This section documents local plans and policies, as well as existing and planned land use or zoning patterns, to enable a future determination of the consistency of any potential alternatives with the plans. Many of the plans are based on previous studies within their representative counties. Excerpts from the Fulton and Miami County comprehensive plans and the City of Rochester Park and Recreation Master Plan copied below include overall and resource-specific goals or objectives, particularly those related to land use and zoning, and are intended to provide overall planning context for the decisions to be made as part of the study.

There are also a few regional and local economic plans that either entirely or partially contain the study area, including the *North Central Indiana Regional Planning Council (NCIRPC): Regional Economic Development Plan* and the *US 31 Corridor Impact Analysis*. These plans contain shared goals of exploring development along the US 31 corridor, improving transportation and commerce efficiency, and enhancing the overall quality-of-life.

Fulton County Comprehensive Plan

The 2022 Fulton County Comprehensive Plan outlines founding principles to enhance the quality of life, preserve the health, safety, and welfare of the community, and to aspire to recognizable levels of efficiency and economic development. The major themes and goals identified for the future of the community, include but are not limited to:

- Urban areas – Develop healthy urban areas that are nurtured as centers for diverse employment and housing opportunities, all levels of education, and civic and cultural activities;
- Rural areas – Retain and enhance rural areas and small-town character, as well as the natural resources in the community;
- Economic Development – Encourage a prosperous and diversified economy that provides living wage jobs for residents, which can be sustained by adequate land in the county for a range of employment uses.
- Environment – Protect natural areas including wetlands, streams, wildlife habitat, air and water quality, and continue to support innovation in order to conserve nonrenewable energy and minimize impacts on air and water quality and climate within developed areas;
- Transportation – Improve the efficiency, flexibility, and coordination of the transportation system that provides interconnectivity and mobility for residents, while also supporting urban and rural land use patterns;
- Public Services and facilities – Monitor, maintain, and enhance public services and facility through future special and fiscal planning in order to meet quality service standards; and
- Parks, Recreation, and Open Space – Provide parks, recreation, and open space facilities and services to meet the changing needs of the residents and visitors in both urban and rural areas.

The zoning map for Fulton County demonstrates a focus to maintain the community's agricultural, natural, and residential integrity, while also creating a commercial corridor along US 31 within the study area adjacent to the City of Rochester. Planned zoning districts generally maintain and enhance existing uses directly adjacent to the study area and include: agricultural (to protect, promote, and maintain farming operations); highway commercial (to provide for highway oriented businesses and services while minimizing light pollution, hazardous traffic patterns, and excessive signage or parking); general commercial (to allow for typical low impact office and commercial uses); institutional and recreational (to provide space for and support social service oriented uses); and suburban residential (to provide for single family detached homes and rural housing developments).

Miami County Comprehensive Plan

The 2015 Miami County Comprehensive Plan provides the following goal statements to support the long-term vision for the County and its communities:

- Agriculture – Preserve productive farmland as a source for viable agricultural activities that will enhance the county's economy and contribute to its rural character.
- Residential – Promote quality neighborhoods with variety in product and price point.
- Commercial & Industrial – Encourage the stabilization of existing commercial areas and redevelopment of underutilized properties at appropriate locations.
- Regional and Local Identity – Promote area attractions as regional attractions, local amenities for regional and local significance, price and economic development.
- Transportation and Circulation – Promote increased connectivity between and within communities regarding safety, function, and efficiency of various modes of transportation within the county especially for the purpose of agriculture, public safety, and economic development.
- Environmental Features – Promote preservation of sensitive natural areas and systems and increase conservation of air, water, land resources to support biodiversity and protect natural systems and resources.
- Community Facilities – Ensure high-quality public facilities, including educational, recreational, governmental and medical facilities are accessible to all residents and at all stages of life.
- Infrastructure – Promote the provision of high-quality, environmentally friendly, and efficient infrastructure systems and networks to support current and future vision of county and communities.
- Economic Development – Support and encourage the success and growth of the existing business base and the attraction of new, high-quality businesses and development opportunities to Miami County with a special focus on workforce development through the collaboration with education.
- Governmental Processes and Policies – Promote the orderly growth and development of Miami County by providing a structure and regulatory environment to support the needs and desires of residents and to support successful economic development efforts.
- Marketing and Communication – Promote the communication and dialogue between governmental and non-governmental groups internally and externally to support successful community development, marketing communications, and collaboration towards common goals.

Additionally, the plan provides specific objectives for each specific topic including environmental features (such as minimizing conflicts between development and the natural environment and protecting the scenic viewshed and rural character of the County) and land use and zoning (such as coordinating future land uses with changes in transportation, community facilities and utilities, and infrastructure), as well as recommendations to achieve those objectives and a strategic action plan.

The Miami County zoning districts that directly border US 31 in the study area include prime agricultural farmland (in which urban development would be restricted), rough (i.e., undeveloped) farmland, commercial districts, and smaller, more disparate areas exempt from zoning ordinances, which include cemeteries, religious organizations, and government-owned units.

The Comprehensive Plan discusses future land use and development adjacent to the US 31 intersections, and it suggests that when upgrades to US 31 occur, access along the corridor and intersections will likely change. It is noted that some areas may have increased access while others may have decreased access to the highway. Once these locations are determined, additional planning is recommended for the corridor and interchange areas to determine if development is desired at interchange locations and what type of development is desired at that time.

City of Rochester 2008-2012 Park and Recreation Master Plan

The City of Rochester does not have direct jurisdiction over any parks or recreational facilities located within the study area; however, the City works with Fulton County and various agencies for several of the recreational facilities noted in Section 3.1.6, and according to the City of Rochester Park and Recreation Board, is committed to the preservation of open space and will pursue all opportunities as they develop.

The City of Rochester Park and Recreation Master Plan provides park and recreational opportunities in the community, strategies to maximize their use and benefits, and planning for future development. Areas of particular interest include natural sites, access to water, cultural and historical sites, surplus and abandoned lands, and trail corridors. Additionally, the plan specifies that opportunities to connect trail systems between the County and City will greatly expand recreational opportunities for all residents. It is recommended that utilization of rail corridors to link with Fulton County Parks and the Nickel Plate Trail be developed.

3.1.5. INFRASTRUCTURE

Infrastructure in the study area is summarized in Table 6 below. These resources are described in detail below the table and shown in the mapping provided in *Attachment C Constraints Map Series*.

Table 6. Infrastructure in the Study Area

Infrastructure	Miami County	Fulton County	Total
Major Utilities: Underground Pipelines (Number and length in feet)	1 (2,949.2 ft)	3 (15,089.6 ft)	3 ¹ (18,038.8 ft)
Major Utilities: Electric Transmission Line (Number and length in feet)	1 (7,886 ft)	0	1 (7,886 ft)
Active Railroads (Number)	0	0	0
Airports (Number) ²	1	1	2

Source: RFI GIS Data

¹ Note that the Total shown does not sum from the County columns because one pipeline is located within both counties and reported as such in each County column.

² Airport data is reported within a 20,000-foot buffer of US 31.

There are no infrastructure resources in the Cass County portion of the study area.

Major Utilities

Information on utilities was obtained from Indiana RFI GIS data, aerial imagery, and field reconnaissance. The intent of the documentation at this early stage is to identify potential utility conflicts at a high level to help guide development of initial alternatives for the study to avoid and minimize potential disruptive and/or costly impacts. As more specific alternatives are developed at specific locations, more detailed utility information will be collected to help determine whether any issues will drive alternative designs, screening choices, or cost estimates.



Electric Transmission Line in the Study Area

Various overhead and underground utilities are present throughout the study area. The overhead utilities are primarily electric, telephone, and cable wires mounted on wooden utility poles and are generally located throughout the project area, with a major electric transmission line that crosses US 31 just north of CR 400 North. There are three known underground pipelines within the study area, each of which crosses US 31 and generally runs perpendicular through the study area for approximately one mile (in descending pipe size order):

- A 24-inch natural gas pipeline crosses US 31 approximately a half-mile south of the CR 1500 North intersection (owned and operated by the Northern Indiana Public Service Company).
- A 10-inch pipeline carrying refined products crosses US 31 just south of the West 3rd Street intersection (owned and operated by the Buckeye Pipeline Company).
- An 8-inch pipeline carrying crude oil crosses US 31 approximately a quarter-mile south of the Olson Road intersection (owned and operated by the Buckeye Pipeline Company).

Additionally, there are nine cellular communications service towers interspersed throughout in the study area, including six that are located directly adjacent to INDOT's right-of-way near the following US 31 intersections: a private drive along US 31 southbound approximately 0.40 mile south of SR 16, CR 1000 North, Old US 31/Southway 31, two at CR 450 North, and CR 600 North.

There is also a propane storage tank facility, which is utilized as an agricultural support resource, located along Meridian Road, approximately a quarter-mile northwest of the US 31 and West 3rd Street intersection.

Railroads

There are no active railroads in the study area. According to the Indiana RFI GIS data, aerial imagery, and the November 9, 2022 field visit, three abandoned railroads were identified within the study area:

- An abandoned railroad corridor that previously intersected US 31 approximately 0.2 miles south of CR 400 North.
- A previously abandoned railroad was identified and converted to a rails-to-trails project, the Nickel Plate Trail, which is 40 miles long and, within the study area, runs parallel to US 31 from around CR 300 South to Wabash Avenue. See Section 3.1.6.
- The Erie Lackawanna Railroad is abandoned and no longer has a crossing of US 31. It previously crossed US 31 just north of the Prairie Edge Nature Park.

Airports

There are two public-use airports within 20,000 feet (3.8 miles) of the study area:

- The Fulton County Airport is located approximately 1.5 miles northeast of the US 31 and Old US 31 intersection. It includes an east-west runway and sits on approximately 213 acres of land.
- The Peru Municipal Airport is located in Miami County approximately 1.2 miles southwest of the study area's southern termini. It includes a north-south runway and sits on approximately 140 acres of land.

Because each airport is at least 1.2 miles from the US 31 highway, neither is shown in *Attachment C Constraints Map Series*. There are no private-use airports within 20,000 feet of the study area.

According to the 2022 Fulton County Comprehensive Plan, portions of Fulton County are also subject to the Airport Overlay District, which is a geographic area that is affected by airport activities and is defined on the basis of factors including, but not limited to, aircraft noise, aircraft flight patterns, airport safety zones, local circulation patterns, and area development patterns. However, the boundaries of the airport surface and safety zones are adjacent to but do not directly fall within the study area.

3.1.6. COMMUNITY FACILITIES

This section describes the schools, places of worship, public services, and recreational facilities that serve the residents and businesses and contribute to the economy in the study area. There are a total of 22 community facilities in the study area (Table 7), which are spread throughout the project area with a higher density of resources in and around the City of Rochester. These resources are shown in the mapping provided in *Attachment C Constraints Map Series* and described in detail below. Information on community facilities was generally derived from Indiana RFI GIS Data, aerial imagery, field reconnaissance, and the counties' comprehensive plans.

Table 7. Community Facilities in Study Area

Community Facilities	Miami County	Fulton County	Total
Schools	-	1	1
Places of Worship	2	5	7
Cemeteries	4	1	5
Public Services	-	1	1
Recreational Facilities	1	8	8 ¹
		Total	22

Source: RFI GIS Data; aerial imagery; field reconnaissance; and county planning documents

¹ Note that the Total shown does not sum from the County columns because one recreational facility (a trail) is located within both counties and reported as such.

There are no community facilities in the Cass County portion of the study area.

Schools

The study area spans multiple school districts, including the Rochester Community School Corporation, Caston School Corporation, and North Miami Community Schools. Within the study area limits, there are no public schools and one private school: the Legacy Christian Academy, which is located at the Geneva Center, approximately 0.4 miles east of US 31 along Old US 31 in Fulton County south of the CR 550 North intersection and offers kindergarten through 8th grades.

There are four public schools located near the study area. While these schools are not physically located within the study limits, their access utilizes US 31 and its intersecting roadways in the study area.

- Rochester Community Middle School and Rochester Community High School share a campus located 0.7 miles northwest of the US 31 and SR 25 (locally known as Main Street) grade separated interchange. In Rochester, the campus is near the northwest corner of the SR 14 and SR 25 intersection, both of which provide direct access to US 31.
- The Columbia Elementary School is also located near the northeast corner of the same SR 14 and SR 25 intersection in Rochester.
- The George M. Riddle Elementary School is located along West 3rd Street in Rochester, which directly accesses both US 31 to the west and Old US 31 to the east.

According to the Transportation Director for Northern Miami Community Schools, there are five bus routes that cross US 31 in the study area twice a day on the following roadways: CR 400 North, CR 450 North, SR 16, CR 800 North, CR 400 West, CR 1350 North, CR 1500 North, and CR 50 East/Sweetgum Road. Likewise, the Transportation Department for Rochester Community School Corporation provided the locations of bus route crossings along US 31, which include: South Wabash Road, Wabash Avenue, Old US 31/Southway 31, SR 25, CR 50 North, CR 100 North, Monticello Road, Olson Road, and CR 550 North. Additionally, buses turn south onto US 31 traveling from the west at the CR 450 North crossing. The transportation department also

provided the US 31 crossings of the local pre-school buses, which include Old US 31/Southway 31 and Olson Road. The transportation director for Caston School Corporation confirmed that school buses utilize three crossings of US 31: CR 1000 N, Wabash Avenue, and CR 650 South/CR 1350 North (which leads directly into Macy). There are no stops directly along US 31 for any school district. Note that representatives from the school districts are participants in the SAC for the study area, and coordination with the schools will be ongoing throughout the ProPEL US 31 North study process.

Additionally, there are several preschool programs located in the City of Rochester, including Grace United Methodist Preschool, His Kids Preschool operated by the Rochester Church of Christ, and Area Five Headstart sponsored by the Area Five Agency on Aging & Community Services. These preschool facilities are all located near the Main Street and SR 25 intersection, which is outside of the study area but directly accesses US 31. There is also an Ivy Tech Community College facility at the northwest corner of SR 14 and South Park Road.

Places of Worship

Seven places of worship were identified within the study area:

- The New Life United Methodist Church and the Chapel Ministries Outreach Church located directly adjacent to the west side of US 31 at its intersection with CR 400 North;
- The Mud Lake Chapel located directly adjacent to the west side of US 31 along Old US 31 north of CR 650 South;
- The Rochester Church of God located directly adjacent to the north of US 31 at its intersection with Old US 31;
- The Safe Harbor Church located at the southwest quadrant of the SR 14 and Sweetgum Road intersection in Rochester;
- The New Life Church located directly adjacent to the west side of US 31 along the north side of CR 50 North; and
- The Hillcrest Baptist Church located at the northwest quadrant of the West 9th Street and Sweetgum Road intersection.

Although multiple places of worship are located directly adjacent to US 31, there is no direct access to or from US 31. Accessibility is provided via the intersecting roadways noted above.

Cemeteries

Five cemeteries were identified within the study area. In Miami County:

- The Koontz Cemetery is located on a residential property along CR 400 North approximately 0.4 miles west of US 31;
- The Albaugh-Clingenpell Cemetery is located at the northwest corner of the US 31 and CR 550 North intersection;
- The Perrysburg Cemetery is located approximately 0.1 miles northwest of the CR 900 North and Main Street intersection; and
- The Five Corners Cemetery is located along the south side of CR 1250 North, approximately 0.4 miles east of US 31.

In Fulton County, the Mud Lake Cemetery is located along Old US 31 adjacent to the west side of US 31.

All cemeteries noted are assigned Indiana State Historic Architectural and Archaeological Research Database (SHAARD) identification numbers and are discussed in more detail in Section 3.3.

Public Services

One public service, the Fulton County Sheriff's Office, has a physical facility within the study area. It is located along Sweetgum Road, north of US 31. The US 31 interstate can be accessed via Sweetgum Road or SR 14.

Additionally, there are several regional public services that have jurisdictional operations at city or county-wide levels throughout study area. While none of the physical facilities are directly located within the study area, many of these public services rely on US 31 for efficient transportation and accessibility.

- The two major hospitals in proximity to the study area include the Woodlawn Hospital in Rochester, 1.7 miles northeast of the US 31 and SR 25 interchange in the study area, and Dukes Memorial Hospital located in Peru.
- The local law enforcement agencies with jurisdiction within the study area include the Miami County Sheriff's Office, the Fulton County Sheriff's Office, and the City of Rochester Police Department. The jurisdictional boundaries of the City of Peru's Police Department end just south of the study area, and there is an Indiana State Police post approximately 1.3 miles south of the southern end of the study corridor along the west side US 31.
- There are several fire stations that service areas within and adjacent to the study area, including the Mexico Fire Department, Twelve Mile Volunteer Fire Department, Denver Volunteer Fire Department, Fulton-Liberty Township Volunteer Fire Department, Macy/Allen Township Volunteer Fire Department, and Rochester Fire Department.
- In Fulton County, the local community center and the Fulton County Council on Aging work in unison in order to provide the community, specifically the elderly, with activities and services, including on-demand transportation services.

Miami County and Fulton County do not have any public transportation or transit services. On demand services include:

- Fulton County Transpo is operated by the Council on Aging and it provides demand response public transportation to anyone in Fulton County, regardless of age.
- In Miami County, the YMCA offers local transit and demand response transportation at a low-cost fare for most, and no cost for disadvantaged populations.
- The Area Five Agency on Aging and Community Services assists Cass, Fulton, and Miami Counties in providing low-cost or free fare transportation throughout the region.

Additionally, there are no on-street sidewalks on US 31 nor any of its intersecting roadways in the study area. The Miami Comprehensive Plan (see Section 3.1.4) recommends that *“additional provisions are included during transportation and circulation upgrades to include bike lanes or bike paths within street corridors that lead to major destinations, including schools and centers of employment.”* Within the study area, the plan specifically notes that bicycle and pedestrian friendly improvements are recommended as an opportunity to promote future trail network expansion at the intersection with CR 400 North. Likewise, the Fulton County Comprehensive Plan (see Section 3.1.4) suggests that *“building and maintaining [the] current walkable attributes such as sidewalk networks and walking trails will improve connections between neighborhoods and important community assets such as shopping.”*

Note that representatives from public services are participants in the SAC for the study area, and coordination with these services and the communities they serve will be ongoing throughout the ProPEL US 31 North study process.

Recreational Facilities

There are several public and private recreational facilities located within the study area, as summarized below and shown in *Attachment C Constraints Map Series*. See Section 3.4 for discussion of properties that were identified as potential Section 4(f) resources.

- The Manitou Wetlands Complex is comprised of the Manitou Islands Nature Preserve, the Burton Nature Preserve, and the Kern Nature Preserve. This complex totals nearly 740 acres and is made up of high-quality wetland and forest protecting the south end of Lake Manitou in Fulton County. It is publicly owned and managed by the Indiana Department of Natural Resources, Division of Fish and Wildlife and its Division of Nature Preserves in partnership with the Indiana Heritage Trust. The study area is adjacent to this complex southeast of Rochester. Within the complex is a public hunting area, which is used recreationally for deer and waterfowl hunting, as well as a network of hiking trails.
- The Prairie Edge Nature Park is located at the northeast corner of the US 31 and West 3rd Street intersection, and it is owned and operated by the Fulton County Department of Parks and Recreation. It has a five acre fishing pond, a pavilion, a gazebo, a butterfly garden, picnic areas, restrooms, and walking trails through areas planted with native wildflowers, trees, and prairie grasses.
- Three abandoned rail lines traverse the study area (see Section 3.1.5), one of which has been converted into the Nickel Plate Trail that spans through both Miami and Fulton Counties. This corridor was purchased from Norfolk Southern Corporation via the Federal Railbanking program. This rail-to-trail facility extends over 40 miles connecting Kokomo to the south and Rochester to the north. Within the study area, the Nickel Plate Trail runs parallel to US 31 from around CR 300 South to Wabash Avenue.
- The Fulton County 4-H Fairgrounds are located approximately 0.3 miles east of US 31 along West 3rd Street. The fairgrounds are privately owned by the Fulton County 4-H Association and serves as a public venue for activities and fairs. Additionally, the location hosts 4-H events and learning, partially supported by the Purdue Extension initiative. The Miami County 4-H Fairgrounds are located southeast of the southern end of the study area.
- The Fulton County Historical Society, a non-profit private organization, owns and operates the Fulton County Museum, the Round Barn Museum, and the Living History Village, which aims to depict local life during the first few decades of the 18th century. This property is located at the southwest corner of the US 31 and CR 375 North intersection. In addition to the museums and historical experiences, the location is also host to several community festivals, including the Redbud Trail Rendezvous, the Round Barn Festival, the Fulton County Historical Power Show, the Trail of Courage, various antique shows, vehicle and tractor shows, a haunted woods experience, and more. Adjacent to this property is land owned and managed by the Fulton County Conservation Club, which is a private membership club that maintains recreational shooting and



Prairie Edge Nature Park (US 31 in Background)

archery range facilities. The club is also host for youth recreation and camping programs in cooperation with the Fulton County 4-H Youth programs and the local scouting troops. The Tippecanoe River is also accessible from this property; however, property access is restricted to those with club membership.

- According to records in the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC), the Fulton County Landfill has been closed and decommissioned as a landfill. It is currently deeded to the City of Rochester Parks & Recreation Department to develop the space as a public park, the Richland Restoration Nature Park. According to IDEM's Post-Closure Maintenance and Land-Use Plan for this property as updated May 2021, the proposed changes to this property consists of three phases of development. A dog park, walking trail, access road, parking lots, two pavilions, and disc golf course will be on top of the landfill, while two additional pavilions, restrooms, and existing Fulton County Sheriff Department shooting range and training site are not on top of the landfill.
- The Geneva Center is a year-round, non-profit retreat, camp, and conference center located at 5282 North Old US 31 that has been operating for more than 50 years. Facilities include lodging and accommodations, meeting spaces, and grounds and activities, including trails, a lake, and an outdoor pool. Access is provided from Old US 31, with approximately 230 wooded acres abutting the US 31 corridor.

Additionally, in areas of the community where a park site may not be readily available, residents and children often utilize public school playgrounds and open fields for recreation (see Schools section above). Currently, there are no agreements between the local parks departments and schools for any shared facilities or programs, and there are no public schools within the study area.

3.2. NATURAL RESOURCES

Data and information on surface waters (above-ground bodies of water including streams, rivers, lakes, wetlands, reservoirs, and creeks), regulatory floodways, soil types, and habitat types and the species that live in them provide context of the natural environment within the study area. These were compiled from aerial photos, state and federal environmental and geospatial databases (including from the United States Fish and Wildlife Service [USFWS], United States Federal Emergency Management Agency [FEMA], the United States Department of Agriculture [USDA] Natural Resources Conservation Service [NRCS], and the United States Geological Survey [USGS]), as well as field reconnaissance and input from the ongoing public involvement and stakeholder coordination process for this study. Specific data sources are provided within each section, as needed, and summarized in Section 4 of this report. Most natural resources are regulated by federal and/or state agencies and as such, potentially require official resource agency coordination, approvals, and/or permits depending on project-specific activities; such coordination will occur as part of the subsequent NEPA review for any reasonable alternatives advanced from the ProPEL US 31 North study, as needed at that time.



Judy Burton Nature Preserve, part of the Manitou Wetlands Complex

3.2.1. WETLANDS

Wetlands provide habitat for aquatic and terrestrial wildlife; improve water quality through nutrient and pollutant uptake; perform important hydrologic functions, such as regulating storm flow; maintain food chain and nutrient cycling functions; serve socioeconomic roles; and may support rare, threatened, and endangered species. Wetlands are part of the regulated “Waters of the United States” within the jurisdictional limits of the authority of the US Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. Additionally, Executive Order 11990 *Protection of Wetlands* requires no net loss of wetlands and mandates that each federal agency take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance their natural values. All project interactions with Waters of the United States, including wetlands, would require coordination with and potentially permits from the USACE and IDEM. By federal mandate, USFWS created and maintains the National Wetlands Inventory (NWI), which provides geospatial data on the status, extent, characteristics and functions of wetlands, riparian, and deep water habitats. The data reported within this section is from the NWI; no field delineations or validation occurred.

A total of approximately 880 acres in 288 separate wetland areas were identified within the study area, including palustrine forested, palustrine scrub shrub, palustrine emergent, and palustrine ponds (Table 8). Overall, palustrine wetlands are vegetated wetlands that typify marshes, swamps, bogs, prairies, and ponds. The predominant wetland types in the study area are palustrine emergent (i.e., wetlands characterized by perennial aquatic plants) and palustrine forested (i.e., wetlands dominated by woody vegetation that is at least 20 feet tall). Wetlands in the study area are generally located in proximity to associated surface waters such as lakes, streams, and ponds, and are shown in the mapping provided in *Attachment C Constraints Map Series*.

Table 8. Wetlands in the Study Area

Wetland Type	Fulton County	Miami County	Total ¹
	Acres (Count)		
Palustrine Emergent (PEM)	341.14 (98)	87.52 (44)	428.67 (139)
Palustrine Forested (PFO)	216.69 (40)	96.75 (26)	313.43 (65)
Palustrine Scrub-Shrub (PSS)	18.43 (10)	7.58 (6)	26.01 (15)
Palustrine Aquatic Bed (PAB)	2.42 (1)	1.73 (1)	4.00 (2)
Palustrine Unconsolidated Bottom (PUB)	86.86 (49)	20.00 (18)	106.87 (67)
	Total		878.98 (288)

Source: USFWS NWI data

¹ Note: The Total count shown may not equal the sum of Fulton and Miami County data as some wetlands span County boundaries (and were included in each) and due to rounding.

There are no wetlands in the Cass County portion of the study area.

INDOT Mitigation Sites

INDOT mitigation sites are designated lands purchased by the state that are typically used for wetland or stream impact mitigation in response to INDOT projects. In order to retain their character as a mitigation site, these sites can only be used for low-impact activities such as passive recreation and they have a deed restriction placed on them. According to the INDOT Ecology and Waterway Permitting Office (EWPO), there are no INDOT mitigation sites within the study corridor. The nearest site is located at the southwest quadrant of the US 31 and SR 24 interchange, which is approximately 2.5 miles south of the southern end of the study area. The presence of potential mitigation sites, including those that may not be owned by INDOT, will continue to be coordinated during the ProPEL US 31 North study and further consideration of these sites will

occur, as needed, as part of the subsequent NEPA review for any reasonable alternatives advanced from the study.

3.2.2. SOILS

Data for soils was obtained from Indiana's Soil Survey Geographic Database (SSURGO) as well as the NRCS and USGS. *Attachment F USGS Topo Map Series* and *Attachment G Soils Map Series* provide detailed study area mapping of the data presented within this section, as described further below.

Soil Suitability

Table 9 below summarizes a suitability analysis of soil mapped within the study area. The ratings indicate the hydric status of the soils as well as the extent to which the soils are limited by properties that affect the ability to build local roads and streets. The *Attachment G Soils Map Series* indicates "Not Suitable Soils," defined as "very limited" in Table 9, and "Hydric Soils", defined as "hydric" and "predominantly hydric" in Table 9. Each category is further explained after the table.

Table 9. Soil Suitability in the Study Area

County	Suitability for Building Local Roads and Streets (Acres)				Hydric Soils (Acres)			
	Not Rated	Not Limited ¹	Somewhat Limited ²	Very Limited ³	Not Hydric	Predominantly Non-Hydric	Predominantly Hydric	Hydric
Cass County	0	6	1	1	7	0	1	0
Fulton County	217	256	4,940	4,769	1,141	6,901	249	1,890
Miami County	110	821	1,413	5,173	1,960	3,704	1,201	651
Corridor Total	326	1,083	6,353	9,943	3,108	10,605	1,452	2,541
% of Study Area	2%	6%	36%	56%	18%	60%	8%	14%

Source: SSURGO; USDA NRCS

Note: ¹ "Not limited" indicates that the soil has features that are very favorable for the specified use. ² "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. ³ "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use.

According to NRCS, hydric soils are those which form under saturated conditions. Hydric soils are often organic, peat or muck, and not suitable construction material. The hydrology responsible for these soils may still be present today and could represent a limitation for development. Drainage improvements in hydric soils are usually required in support of roadways or structures. Within the study area, most soils are "predominantly non-hydric" (59.9%) and "not hydric" (17.6%). The soils identified as "predominantly hydric" (8.2%) and "hydric" (14.4%) make up a much smaller portion of the study area; these hydric soils are shown in *Attachment G*.

The NRCS also rates soils for suitability for infrastructure site development, including but not limited to buildings, recreational facilities, and roadways. Some of the soil characteristics considered in building local roads and streets include: frost action; flooding potential; ponding; amount of large stones; depth to bedrock or a cemented pan; hardness of bedrock or a cemented pan; low strength; depth to saturation; shrink-swell potential; and slope. These characteristics affect the ease of excavation and grading as well as the soils' capacity to support infrastructure. Most soils within the study area are rated "very limited" (56.2%) to support infrastructure. The "very limited" indication includes restrictions that generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures; these soils are indicated as "Not Suitable" in *Attachment G*. Soils that are "somewhat limited" (35.9%) or "not limited" (6.1%) are favorable for infrastructure use or possess limitations that can be overcome or minimized by special planning, design, or installation.

Farmlands

Consideration of agricultural impacts is an important part of any transportation study and development process. Farms are vital to the economy of this region, and once converted, land is rarely returned to a farming use. Indiana has programs in place to protect farms, including tax incentives, right to farm laws, and other voluntary state programs such as conservation easements. USDA administers the Farmland Protection Policy Act (FPPA) of 1981, which applies to federally funded projects and requires coordination with NRCS for such projects that permanently convert farmland to nonagricultural use. Nearly all land which is not submerged (i.e., waters) or urbanized is subject to FPPA requirements. The NRCS identifies farmland and groups it into categories based on soil type; the land addressed by the FPPA does not currently have to be used for cropland and can include forestland and pastureland.

FPPA farmland soils are prominent throughout the study area, as shown in Table 10. There are over 13,500 acres of FPPA-designated farmland soils, which comprise more than 75% of the total acreage within the study area. These prime farmlands are shown on the *Attachment G Soils Map Series*.

Table 10. Farmland in the Study Area

Farmland Type ¹	Acres	% of Study Area
All areas are prime farmland	5,987	34%
Farmland of statewide importance	683	4%
Unique farmland	0	0%
Prime farmland if drained	6,990	39%
Total	13,660	77%

Source: SSURGO, USDA NRCS

Note: ¹ According to the USDA, prime farmland is land that possesses the ideal combination of characteristics to grow various crops. It can be cultivated or used for pasture, forest, or other purposes. The classification excludes most urban or water areas unless the land is drained. Unique farmland is distinct from prime farmland and is used to cultivate high-value crops in specific microclimates. It requires a refined combination of factors in order for sustainable, high yields of these crops. Land that does not meet the qualifications for prime or unique farmland is classified as farmland of statewide importance. The criteria for this classification are determined by the appropriate State agencies, and it typically includes land that almost meets the requirements for prime or unique farmland, but still possesses the ability to economically cultivate crops.

3.2.3. STREAMS

Streams and other waterways assist in protecting against floods, filtering pollutants, recycling potentially harmful nutrients, and they provide food and habitat for many plant and animal species. These resources also play a critical role in maintaining the quality and supply of our drinking water, ensure a continual flow of water to other surface waters, and help recharge underground aquifers. Additionally, streams provide recreational opportunities such as swimming, fishing, and boating, as well as irrigation for farmland. The USGS maintains the

National Hydrography Dataset (NHD), a geospatial dataset identifying and characterizing the water drainage network of the United States with features such as rivers, streams, canals, lakes, ponds, coastline, dams, and stream gauges. It is the most up-to-date and comprehensive hydrography dataset available. The data reported within this section is from the NHD; no field delineations or validation occurred.

Table 11 below summarizes the stream segment characteristics and identification, as available, within the study area. The NHD identified 81 stream segments within the study area, with a combined length of almost 176,000 feet. More than half the stream segments are portions of mostly intermittent, unnamed streams. Perennial streams cross under US 31 in the study area in thirteen locations, which range from major bridge structures where US 31 spans the Eel River and Tippecanoe River, to smaller culverted crossings under the roadway.

The PROPEL US 31 North study area is entirely located within the two hydrologic unit code 8-digit (HUC 8) watersheds of the Eel River (05120104) and the Tippecanoe River (05120106). The Eel River flows east to west and is a tributary of the Wabash River; it is one of the largest stream crossings of US 31 and is located at the southern end of the study area. The Tippecanoe River is also a tributary of the Wabash River; it crosses under US 31 in the study area in Fulton County, just north of the intersection with Olson Road. According to the Indiana Department of Natural Resources (IDNR) and confirmed via field reconnaissance, there are no public access points to either the Eel River or Tippecanoe River within the study area.

There are other smaller open surface waters in the study area, such as small lakes or ponds interspersed throughout the parcels in natural or agricultural areas, as well as a larger lake at the Prairie Edge Nature Park. Additionally, two large lakes are adjacent to, but not within, the study area: Nyona Lake and Lake Manitou.

Special Status Streams

Various state and federal resource agencies and other entities have designated certain waterways as significant or notable based on, but not limited to, its aesthetic, environmental quality, or navigability. The Eel River and the Tippecanoe River represent two of these waterways within the study area to have been nominated or have received such designation.



US 31 Bridge over Eel River within the Study Area

Table 11. Streams in the Study Area

Segment Name	Segment Type	Number of Segments	Total Length (feet)
Miami County			
Clemans Smith Ditch	Intermittent Stream	1	3,232
East Branch Twelve Mile Creek	Perennial Stream	1	314
Eel River	River	5	5,496
Fenters Ditch	Intermittent Stream	1	544
Mills Ditch	Intermittent Stream	6	21,245
Mills Tributary Number Two	Perennial Stream	1	6,051
Whitmore Ditch	Intermittent Stream	2	2,869
	River	4	496
Unnamed Streams (by Segment Type)	Canal/Ditch	4	2,126
	Intermittent	19	43,639
Fulton County			
Clemans Smith Ditch	Intermittent Stream	1	3,943
Holtz Ditch	Canal/Ditch	1	3,662
Mill Creek	River	1	14
	Perennial Stream	1	2,604
Mills Ditch	Intermittent Stream	1	348
Minnow Ditch	Perennial Stream	1	5,623
Robbins Walters Ditch	Intermittent Stream	1	5,035
Tippecanoe River	River	5	13,396
Weaver Davis Ditch	Canal/Ditch	1	1,248
Whitmore Ditch	Intermittent Stream	1	6,187
Unnamed Streams (by Segment Type)	River	4	1,793
	Canal/Ditch	4	16,920
	Intermittent	15	29,193
	Total	81	175,978

Source: USGS NHD

There are no streams in the Cass County portion of the study area.

The National Park System's (NPS) Nationwide Rivers Inventory (NRI) is a listing of more than 3,200 free-flowing river segments in the US that are believed to possess one or more "outstandingly remarkable" values. Three segments of the Tippecanoe River were identified in the NPS NRI within the study area. Additionally, the Tippecanoe River is listed as under consideration for designation under the IDNR Natural, Scenic and Recreational River System. According to IDNR, the Tippecanoe River segment qualifies for this classification; however, an official classification has not been made. Additionally, the Nature Conservancy has identified it as one of the top ten rivers in the United States to preserve due to its ecological diversity and the high proportion of endangered species found in it.

The Tippecanoe River and Eel River are also both listed as Outstanding Rivers by the Indiana Natural Resources Commission. The list, adopted in 1997, identifies rivers and streams which have particular environmental or aesthetic interest. Except where incorporated into a statute or rule, the listing is intended to provide guidance rather than to have regulatory application.

There are no navigable waters located within the study area.

303(d) Listed Streams

Section 303(d) of the Clean Water Act authorizes the United States Environmental Protection Agency (USEPA) to assist states in providing lists of impaired waterways. Impaired waters do not meet designated water quality standards and do not support one or more designated uses, such as recreational, protection of aquatic life, drinking water, and fish consumption. States are required to submit their list for USEPA approval every two years. For each water on the list, the state identifies the pollutant causing the impairment, when known, and develops Total Maximum Daily Loads (TMDLs). The TMDL establishes the maximum amount of a pollutant allowed to enter a waterbody in order for it to meet and continue to meet water quality standards. It acts as the starting point or planning tool for restoring water quality. Impairments often result in design and construction recommendations or commitments for transportation projects when it comes to actions taken within or alteration of such features.

Although there are a wide range of impairments that are possible in Indiana waterbodies, only three impairments were found among the streams located within the study area per the USEPA data: *Escherichia coli* (E. coli), impaired biotic communities (IBC), and polychlorinated biphenyls (PCBs).

- E. coli is a bacteria present in the feces of mammals and most warm-blooded animals. E. coli in surface waters indicates the presence of pathogens that can cause illness in humans. An E. coli listing on Indiana's 303(d) list means IDEM's monitoring data shows that the concentration of E. coli is higher than allowed under the state's water quality standards.
- The biological communities of streams, such as the fish and aquatic invertebrates, are indicators of the cumulative effects of activities that affect water quality conditions over time. An IBC listing on Indiana's 303(d) list indicates that IDEM's monitoring data shows that aquatic communities are not as healthy as they should be.
- PCBs are chemical compounds formerly used in industrial and consumer products but are now banned in the United States due to their highly carcinogenic properties. A listing for PCBs on Indiana's 303(d) list means that the average concentration of PCBs in fish tissue, which can accumulate from both the water in which they live and the food that they consume if either or both have been contaminated in the past, exceeds the level determined to be safe for human consumption.

According to the IDEM Section 303(d) list of impaired waters, 28 of the 88 total stream segments in the study are impaired (approximately 30%). The impaired segments are shown in *Attachment C Constraints Map Series* and are summarized in Table 12, by county. Most of the impaired segments are tributaries and drainage ditches. However, of note, the Eel River and several of its tributaries within the study area are listed as impaired with E. coli and PCBs. Additionally, one of its tributaries, which runs adjacent to the west side of US 31 within INDOT right-of-way, is listed as having an impaired biotic community. Additionally, Smith Ditch, which is hydrologically connected to Nyona Lake, and Walters Ditch, a tributary of Mud Creek, are listed as having impaired biotic communities. Finally, the Tippecanoe River and some of its tributaries, including Minnow Ditch, are listed as impaired for E. coli and PCBs.

Table 12. Summary of Impaired Streams in the Study Area

Impairment	Total Stream Segments Impaired (Length, feet)		
	Miami	Fulton	TOTAL
E. coli (Escherichia coli)	7 (4,932 feet)	2 (4,620 feet)	9 (9,552 feet)
Impaired Biotic Community	4 (20,327 feet)	4 (9,934 feet)	8 (30,261 feet)
Polychlorinated Biphenyls	5 (9,262 feet)	6 (29,013 feet)	11 (38,275 feet)

Source: IDEM Section 303(d) list

There are no streams in the Cass County portion of the study area.

3.2.4. FLOODPLAINS

Data for floodplains was obtained from FEMA, including Flood Insurance Rate Maps (FIRMs), and IDNR.

Floodplains are lowland areas adjacent to waterways that are susceptible to inundation by excess water which breaches the banks of the waterway during a flood. Floodplains are composed of two components: the first is the floodway, which is the channel of a river or stream adjacent areas that are reasonably required to efficiently carry and discharge the peak flow of the regulatory flood (i.e., one percent annual chance, or 100-year flood) of rivers and streams. The second is the floodplain fringe, which is essentially a holding area providing storage of floodwater. Construction within the boundaries of floodplains and their floodways are regulated; however, encroachments on a floodway have far more impact and restrictions than encroachments on the floodplain fringe. Environmental documents for projects that receive federal aid or will require federal action must include an evaluation of all encroachments into regulatory floodplains.

As shown in Table 13, there is an approximate total of 520 acres of floodplains (comprised of 21 acres of floodway and 499 acres of flood study) in the study area. As typical, these floodplains are generally associated with the perennial streams and waterbodies that are located within the study area – the Eel River, Lake Manitou, and the Tippecanoe River.

Table 13. Floodplains in the Study Area

Floodplains	Fulton County	Miami County	Total ¹
Floodplain Zone (acres)	426	73	499
Floodway (acres)	0	21	21
			Total 520

Source: FEMA DFIRM; IDNR Floodplain Information Portal 2.0

There are no floodplains in the Cass County portion of the study area.

Flood Mitigation Assistance Grant Program

FEMA's Flood Mitigation Assistance (FMA) is a competitive grant program that provides funds that can be used for projects that reduce or eliminate the risk of repetitive flood damage. States, local communities, and federally recognized tribes and territories can apply for FMA funding; however, parcels purchased through the FMA Grant program can encumber future development.

- According to the Deputy Director of the Fulton County Management Agency, as of December 5, 2022, there are no known -parcels within the study area in Fulton County.
- According to the Administrator of Planning and Zoning for Miami County, as of December 15, 2022, there are no known -parcels within the study area in Miami County.

3.2.5. WILDLIFE HABITAT

Aerial imagery of the study area is available in *Attachment C Constraints Map Series*. Most of the ProPEL US 31 North study area has been developed for agricultural purposes with some residential and commercial land uses interspersed – all of which led to the loss, alteration, and fragmentation of natural habitats. Although the study area is predominantly characterized by agricultural land usage, cropland can provide both terrestrial and aquatic habitats for many plant and animal species. Additionally, there are various other habitat types found throughout the corridor, including but not limited to: surface waters, riparian corridors, tree stands and forests, and designated wildlife preserves. Typical wildlife in the study area includes white-tailed deer, various land fowl, coyotes, cottontail rabbits, several squirrel species, as well as many types of migratory birds, fish, reptiles, amphibians, and insects.

Most of the forested area located within the study area are limited to smaller stands, including those on residential properties, which are isolated by croplands; however, there are larger and sometimes contiguous forests along the riparian corridors and floodplains of the Eel River, Tippecanoe River, Nyona Lake, and Lake Manitou, as well as the Manitou Wetlands Complex. These ecosystems are considered quality potential habitat for many bird, mammal, reptile, and amphibian species, including the protected species documented in Section 3.2.6. Surface waters in the area, including streams, wetlands, and lakes, are also sources of wildlife habitat, including mollusks, fish, and reptiles. The Manitou Wetlands Complex is one of the largest dedicated state nature preserves in the state. The majority of the complex consists of high-quality marshland with isolated forested islands. These wetlands are considered to be some of the highest quality available in the state; thus, they are considered prime wildlife habitat. Other wetlands throughout the study area provide similar wildlife habitat. Additionally, the waterbodies themselves serve as important aquatic habitat as well as travel corridors, especially through agricultural or developed landscapes. The riparian corridors of the Eel River and the Tippecanoe River, as well as several other small streams within the study area, support a great diversity of upland and wetland-adapted plant and animal species and provides habitat for both wildlife and aquatic organisms. Although they often comprise only a small percentage of total land area, riparian zones represent a vital element in the overall landscape, acting as both a buffer and an ecological link between water-based and land-based ecosystems.



Tippecanoe River within the Study Area

Despite their intended goal of providing human and livestock sustenance, crop fields also act as wildlife habitat, providing both food and shelter. Taller crops, and even cover crops, can yield substantial food supply, refuge, as well as thermal cover for terrestrial species. Various agricultural management practices have significant positive or negative impacts on wildlife and habitat quality. Crop rotation and cover crops can improve soil health and provide plant and insect diversity, and planting winter crops can provide early spring green growth for nesting habitat and leftover seeds and foods from a prior crop. In contrast, many practices can inhibit wildlife sustainability. Various herbicides and pesticides limit plant and insect biodiversity, and natural and artificial fertilizers can often oversaturate the nutrients found in the soil and surrounding water systems.

3.2.6. PROTECTED SPECIES

The Endangered Species Act of 1973 (ESA) is the primary federal law that serves to protect federally endangered, threatened, and proposed species, including the habitat they may occupy. Section 7(a)(2) of the ESA states that each federal agency shall insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in destruction or adverse modification of designated critical habitat. Data on potential protected species was obtained from both state and federal sources, as detailed below.

State Databases

The IDNR Division of Natural Heritage (IDNR-DNH) and IDNR Division of Fish and Wildlife (IDNR-DFW) maintain online listed species databases that provide species location information by county. The lists for Fulton and Miami Counties are available at the following links: https://www.in.gov/dnr/nature-preserves/files/np_fulton.pdf and https://www.in.gov/dnr/nature-preserves/files/np_miami.pdf. The IDNR database documents 40 state-listed species that may occur in Fulton and/or Miami Counties including: nine mollusk species; three fish species; three reptile species; nine bird species; two mammal species; and fourteen vascular plant species.

On August 24, 2023, IDNR's Division of Fish & Wildlife provided an Early Coordination/Environmental Assessment report that documented 13 State Endangered, Rare, or Species of Special Concern that have been identified within a half-mile of US 31, including: ten mussels, seven birds, one reptile/amphibian, two fish, one mammal, one insect, and one plant. The report also noted further coordination would be required for any work on the bridges over the Eel or Tippecanoe Rivers, or work near Manitou Lake and its associated wetlands. A copy of the report is provided in *Attachment H Protected Species Resources*.

Federal Databases

The USFWS Information Planning and Consultation (IPaC) online project planning tool identified ten protected species as potentially occurring within the study area, as documented in *Attachment H Protected Species Resources* and summarized in Table 14: six clam species; three bat species; and one insect species. The IPaC planning tool as used for this study is an automatically generated summary list for informational purposes and does not initiate nor constitute consultation under the ESA.

In a letter dated August 22, 2023, USFWS confirmed the federally protected species, and also noted that critical habitat for the round hickorynut mussel includes the entire Tippecanoe River within Fulton County, in addition to sections in adjacent counties. No critical habitat for other protected species was identified. A copy of the USFWS letter, which includes a map of the identified critical habitat, is provided in *Attachment H Protected Species Resources*.

A half-mile bat review, which looks at confidential USFWS GIS layers for potential documented roost trees, capture locations, acoustic record, and/or hibernaculum records for both the Northern long-eared bat and the Indiana bat, was conducted by INDOT for the ProPEL US 31 North study area. No reports within the database indicated the presence of any endangered bat species in or within a half-mile of the study area (see *Attachment H Protected Species* for a copy of the coordination email). Further consideration of these species, including confirmation of the potential presence of species via Section 7 ESA consultation and the Range-wide Programmatic Agreement for the Indiana Bat and Northern Long-eared Bat, will occur, as needed, during subsequent NEPA review for any reasonable alternatives advanced from the ProPEL US 31 North study.

Additionally, the Migratory Bird Treaty Act (MBTA) makes the taking, killing, or possessing of migratory birds unlawful, and protects a total of 1,027 species. Several of these species may use bridges as an alternate nesting location as a result of the loss of traditional habitat. Other migratory bird species can be found along our roadsides or in other habitat that may be impacted by transportation projects. The USFWS IPaC planning tool identified 11 migratory bird species of particular concern, either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention within the limits of the study area:

- Bald Eagle (*Haliaeetus leucocephalus*)
- Black Tern (*Chlidonias niger*)
- Bobolink (*Dolichonyx oryzivorus*)
- Canada Warbler (*Cardellina canadensis*)
- Cerulean Warbler (*Dendroica cerulea*)
- Chimney Swift (*Chaetura pelasgica*)
- Lesser Yellowlegs (*Tringa avipes*)
- Prothonotary Warbler (*Protonotaria citrea*)
- Red-headed Woodpecker (*Melanerpes erythrocephalus*)
- Upland Sandpiper (*Bartramia longicauda*)
- Wood Thrush (*Hylocichla mustelina*)

Table 14. Federal Listed Species in the Study Area

Species Name	Common Name	Federal Status
Clams		
<i>Obovaria subrotunda</i>	Round Hickorynut	Threatened
<i>Plethobasus cyphyus</i>	Sheepnose Mussel	Endangered
<i>Pleurobema clava</i>	Clubshell	Endangered
<i>Theliderma cylindrica</i>	Rabbitsfoot	Threatened
<i>Villosa fabalis</i>	Rayed Bean	Endangered
<i>Simpsonaias ambigua</i>	Salamander Mussel	Proposed Endangered
Mammals		
<i>Myotis sodalis</i>	Indiana Bat	Endangered
<i>Myotis septentrionalis</i>	Northern Long-eared Bat	Endangered
<i>Perimyotis subflavus</i>	Tricolored Bat	Proposed Endangered
Insects		
<i>Danaus plexippus</i>	Monarch butterfly	Candidate ¹

Source: USFWS IPaC

Note: ¹ This insect is not yet proposed for listing; however, USFWS intends to develop a proposed rule to list the monarch butterfly as its priorities allow.

Potential Presence within Structures

Inspection reports for major INDOT highway structures and waterway crossings of US 31 within the study area were analyzed to determine the potential presence of birds or bats utilizing the Indiana Bridge Inspection Application System (BIAS), as shown in Table 15 below, ordered from south to north. The US 31 crossings over the Eel River (INDOT Structure Nos. 031-52-04859 DNBL and 031-52-04859 DSBL) were the only structures found to have migratory birds subject to protection under the MBTA inhabiting the undersides. No reports in the inspection data indicated the presence of bat species along the structures.

Table 15. Summary of Major INDOT Structures/Crossings and Protected Species Presence

INDOT Bridge Number	Structure Location	Bat Presence	Bird Presence
031-52-04859 DNBL	US 31 northbound (NB) over Eel River	No	Yes
031-52-04859 DSBL	US 31 southbound (SB) over Eel River	No	Yes
031-25-05874 BNB	US 31 NB over SR 25	No	No
031-25-05874 BSB	US 31 SB over SR 25	No	No
014-25-08437 A	SR 14 over US 31 SB/NB	No	No
031-25-05351 BNBL	US 31 NB over Tippecanoe River	No	No
031-25-05351 BSBL	US 31 SB over Tippecanoe River	No	No

Source: BIAS

3.3. CULTURAL RESOURCES

Information on previously identified above-ground and archaeological cultural resources that are listed in or eligible for listing in the National Register of Historic Places (National Register) was collected from previous studies. Further consideration of cultural resources will occur, as needed, as part of the subsequent NEPA review for any reasonable alternatives advanced from the ProPEL US 31 North study. Formal determinations of National Register eligibility would occur in the future during the Section 106 process and additional properties that may be eligible could be identified at that time. The State Historic Preservation Office (SHPO) reviewed the memoranda referenced below and, in a letter dated August 3, 2023, acknowledged their role in evaluating the historic significance of the noted properties as part of Section 106 of the National Historic Preservation Act (NHPA), as needed. A copy of their letter is included in *Attachment I Above-Ground Cultural Resources Identification Memorandum & SHPO Letter* to this report.

3.3.1. ABOVEGROUND

An *Above-Ground Cultural Resources Identification Memorandum* was prepared for the ProPEL US 31 North study and is included as *Attachment I* to this report. There is one property in the study area, in Miami County, that is listed in the National Register: the Leedy Barn-NR-1072.

The Indiana Historic Sites and Structures Inventory (IHSSI) assesses the significance of each property in terms of its historical significance, architectural merit, and integrity before being given one of four ratings – Outstanding, Notable, Contributing, or Non-contributing. A rating of Outstanding means that the property has enough historic or architectural significance that it is already listed or should be considered for listing in the National Register. A rating of Notable means that the property is above average in its architectural or historical importance and that further research or investigation may reveal that the property could be eligible for listing. Properties identified as “Outstanding” and “Notable” per the IHSSI were treated as potentially eligible for the purposes of the ProPEL US 31 North study. A total of 13 above-ground properties were identified as either “Outstanding” or “Notable” resources in the study area.

- Four properties (three “Outstanding” and one “Notable”) are located in Fulton County.
- Nine properties (two “Outstanding” and seven “Notable”) are located in Miami County. One of the “Outstanding” properties is the NRHP-listed Leedy Barn.

Five cemeteries were also identified in the study area (see Section 3.1.6): four in Miami County and one in Fulton County.

3.3.2. ARCHAEOLOGY

An *Archaeological Cultural Resources Identification Memorandum* was prepared for the ProPEL US 31 North study based on previous studies; however, in accordance with 54 USC 307103 and Indiana Code 14-21-1, which provides protection for archaeological sites and burial sites, information related to such resources is not publicly shared herein. In summary, a total of two previously documented archaeological sites were identified



The Leedy Barn in the Study Area (Listed on the National Register)

as either “Eligible” or “Potentially Eligible” in the study area. One site is in Fulton County and one site is in Miami County.

3.3.3. HOOSIER HOMESTEADS

The Hoosier Homestead Award Program (HHAP) under the Indiana State Department of Agriculture recognizes families with farms that have been owned by the same family for 100 years or more, consequently creating economic, cultural, and social advancements in the state. In addition to length of ownership requirements, farms must also be at least 20 acres in size or produce over \$1,000 in agricultural products annually. Farms in Indiana can qualify for three awards based on length of ownership: the Centennial Award (100 years), the Sesquicentennial Award (150 years), and the Bicentennial Award (200 years). The HHAP provides a public, comprehensive list of awarded farmsteads by county. Fulton County has 52 Centennial Farms and one Sesquicentennial Farm, and Miami County has 87 Centennial Farms and nine Sesquicentennial Farms. Further consideration of these farmsteads will occur, as needed, as part of subsequent NEPA review for any reasonable alternatives advanced from the ProPEL US 31 North study.

3.4. SECTION 4(f) RESOURCES

Section 4(f) of the USDOT Act of 1966 protects publicly owned and accessible parks, recreation areas, and wildlife and waterfowl refuges from use by transportation projects utilizing federal funding. It also protects historic sites, regardless of ownership and accessibility. These properties may only be used for transportation purposes if there is no prudent or feasible alternative for their use and the program or project encompasses all possible planning to minimize harm resulting from its use.

Potential Section 4(f) resources were identified based on available data and are shown in *Attachment C Constraints Map Series* and summarized in Table 16. Impacts to these resources will be avoided and/or minimized during the ProPEL US 31 North study. Further consideration of Section 4(f) resources will occur, as needed, as part of the subsequent NEPA review for any reasonable alternatives advanced from the ProPEL US 31 North study. Formal evaluation to determine Section 4(f) eligibility, use, and impacts would occur in the future for these resources or additional resources identified at that time.

Table 16. Potential Section 4(f) Resources in the Study Area

Potential Section 4(f) Resources	Miami County	Fulton County	Total
Parks & Recreational Facilities ¹	0	4	4
Wildlife Refuges	0	0	0
Historic Properties	9	4	13
		Total	17

Source: Source: RFI GIS Data; aerial imagery; field reconnaissance; and county planning documents

¹ Note that the Total shown includes the Richland Restoration Nature Park (previously Fulton County Landfill), which is currently under development and anticipated to be recognized as a Section 4(f) resource.

There are no potential Section 4(f) resources in the Cass County portion of the study area.

Parks and Recreational Facilities

The following four resources, which were previously detailed in Section 3.6.1, were identified as public recreational facilities and are potentially Section 4(f) resources.

- *Nickel Plate Trail*. Although most of the trail within the study area is owned and operated by a private entity, there is a portion of the trail corridor that is owned by the City of Rochester. This segment of trail begins at its intersection with Wabash Avenue and runs north to the trailhead in Rochester. Due to its public ownership and its intended use as a recreational resource, this section of the trail in Fulton County is a Section 4(f) resource.
- *Manitou Wetlands Complex*. This complex of nature preserves and conservation areas in Fulton County is publicly owned and managed by IDNR. According to the City of Rochester 2008-2012 Park & Recreation Master Plan, the reserves are designated for recreational use. Recreational uses in this complex include a dedicated hunting area as well as hiking trails throughout. Due to its intended use and public ownership, these preserves are recognized as Section 4(f) resources.
- *Prairie Edge Nature Park*. Due to its recreational use and public ownership, this property in Fulton County is a Section 4(f) resource.
- *Richland Restoration Nature Park (previously Fulton County Landfill)*. It is currently deeded to the City of Rochester Parks & Recreation Department, who have begun to develop the space as a public park. It is partially used by the Fulton County Sheriff's Office as well. Due to its new intended use for recreation and its public-entity management, this property is anticipated to be recognized as a Section 4(f) resource.



The Nickel Plate Trail in the Study Area

Note that the other resources discussed in Section 3.1.6 are not anticipated to be considered 4(f) resources either due to their private ownership or have specified use intentions that are not recreational.

Historic Properties

Additionally, Section 4(f) protects historic sites either listed in the National Register, eligible to be listed in the National Register, or of state and local significance, regardless of public ownership. These resources are described in Section 3.3 above.

3.5. SECTION 6(f) RESOURCES

The Land and Water Conservation Fund (LWCF) Act of 1965 established the LWCF, which was created to preserve, develop, and assure accessibility to outdoor recreation resources, and to strengthen the health and vitality of the public. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF funding to a non-recreation use. The program is administered by NPS at the national level and by the IDNR, Division of Outdoor Recreation at the state level. There are no Section 6(f) resources, neither past nor planned, located within the study area as documented in *Attachment J LWCF Table*, which includes a complete list of Section 6(f) properties located in Cass, Miami, and Fulton Counties.

3.6. MINERAL RESOURCES/PETROLEUM WELLS

Indiana Geological and Water Survey's Environmental Assessment Report

A report was generated for the ProPEL US 31 North study area by the Indiana Geological and Water Survey identifying potential geological hazards that could impact future constructability. Geological hazards in proximity to the study area include a high liquefaction potential and various floodways (see Section 3.2.4). Within the study area, there is a high potential for both bedrock resources as well as sand and gravel resources. Additionally, there are active or abandoned mineral resource extraction sites in the area, including petroleum wells and abandoned industrial minerals sand gravel pits. These resources were further identified using the Indiana RFI GIS data, and the approximate locations are shown in the mapping provided in *Attachment C Constraints Map Series* and summarized below.

- Two abandoned industrial minerals sand gravel pits within the study area:
 - Northwest of the CR 750 South/CR 1250 South intersection; and
 - Southwest of the CR 450 North intersection along Meridian Road.
- Six petroleum wells within the study area:
 - Southwest of CR 400 North;
 - Northeast of CR 400 North;
 - Northeast of CR 550 North/North Mexico Road/Old US 31;
 - Northwest of CR 900 North;
 - Southwest of SR 16/CR 700 North; and
 - Southwest of CR 825 South crossing along CR South 375 East.

3.7. AIR QUALITY

The Clean Air Act (CAA) and the 1990 CAA Amendments require USEPA to establish National Ambient Air Quality Standards (NAAQS) for pollutants that are considered to be harmful to the public health and environment. USEPA set forth primary and secondary standards for six criteria or principal pollutants: particulate matter (PM), sulfur dioxide (SO₂), carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), and lead. Indiana's Ambient Air Quality Standards are identical to the federal standards.

An air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harm. The primary standards are intended to protect public health, while the secondary standards are intended to protect public welfare, and are based on a pollutant's effect on visibility, vegetation, crops, and other materials. When levels of pollutants within a region do not exceed the standards, an area is considered in attainment of the NAAQS. When air quality does not meet the NAAQS for one of the criteria pollutants, the area is said to be in "nonattainment" for that pollutant.

According to the USEPA's Green Book, which provides detailed information about NAAQS designations, classifications, and attainment status, Miami and Fulton Counties (i.e., the physical location of the US 31 corridor), as well as Cass County, are all currently in attainment for all criteria pollutants.

Further consideration of air quality, including determination of potential exemption from air quality analysis in accordance with 40 CFR Part 93.126, will occur, as needed, as part of subsequent NEPA review for any reasonable alternatives advanced from the ProPEL US 31 North study.

3.7.1. GREENHOUSE GAS

Regulations & Guidance

In alignment with federal requirements and guidelines established in the Bipartisan Infrastructure Law (BIL) and other federal policies, INDOT developed a Carbon Reduction Strategy (CRS) to support efforts to reduce carbon dioxide (CO₂) emissions from the transportation sector in Indiana. The CRS, which was developed in consultation with Metropolitan Planning Organization (MPO) partners, was published for public comment in December 2022. The CRS identified five categories of activities than can support carbon reduction and detailed projects and strategies within each category:

- *Electric Vehicles/Alternative Fuels/Energy Efficiency*: Strategies that support electric or alternative fuel vehicle adoption or improve overall energy efficiency and lower carbon fuel sources for the transportation network.
- *Active Modes*: Strategies that encourage active transportation such as walking, biking, and transit.
- *Transportation Demand Management*: Strategies that reduce demand for travel on roadways by incentivizing reduced trip making and higher occupancy modes of travel.
- *Technology Solutions*: Strategies that deploy advanced technology solutions for roadway operations and communications and improve traffic flow.
- *Other*: Projects or programs that can demonstrate a reduction of carbon emissions when implemented.

INDOT will implement the CRS through four specific actions:

- Develop carbon reduction performance measure and targets that can help guide future transportation investments;
- Identify early opportunities for carbon reduction within the current statewide transportation improvement program;
- Identify new opportunities for carbon reduction in each project and strategy category; and
- Integrate carbon reduction into the transportation planning process.

Study Approach

In January 2023, the Council on Environmental Quality (CEQ) issued interim guidance to assist agencies in analyzing greenhouse gas (GHG), the climate change effects of their proposed actions, and the potential impacts of climate change on the proposed action under NEPA. CEQ's intent with the interim guidance is to provide greater clarity and more consistency in how agencies address climate change in NEPA reviews. The guidance was effective immediately, but may be revised based on input received during a 60-day public comment period. FHWA has not yet released agency-specific direction regarding implementation of the CEQ guidance. As the ProPEL US 31 North study progresses, consideration will be given to integrating GHG considerations into the study in coordination with FHWA.

3.8. NOISE

A *Noise-Sensitive Areas Identification Memorandum* was prepared for the ProPEL US 31 North study and is included as *Attachment K* to this report. The purpose of the memo was to identify the noise-sensitive land uses and potential receptors areas along the corridor, including those that will require further analysis to determine if noise abatement is potentially reasonable and feasible per INDOT's Traffic Noise Analysis Procedure (Noise Policy). The memo was prepared in support of the data-gathering phase of the study.

The *Noise-Sensitive Areas Identification Memorandum* identified six areas (one in Miami County and five in Fulton County) as “Areas for Further Noise Abatement Investigation” where levels of activity are potentially sufficient to warrant mitigation.

- The east side of US 31 from SR 16 to CR 400 West (six single-family residences and one potential outdoor use).
- The east side of US 31 from Old US 31 to SR 25 (six single-family residences and one potential outdoor use).
- The east side of US 31 from SR 25 to SR 14 (single-family and mobile home residences, and potential outdoor use).
- The west side of US 31 from 3rd Street to the Tippecanoe River (single-family and duplex residences).
- The east side of US 31 from 3rd Street to the Tippecanoe River (one single-family residence and a nature preserve).
- The west side of US 31 from the Tippecanoe River to CR 700 North (four single-family residences and potential outdoor use).

3.9. HAZARDOUS MATERIALS

The federal government regulates hazardous materials under multiple statutes including the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and their respective amendments. The USEPA maintains an online database of regulated sites and facilities; resource information was additionally derived from the IDEM Virtual File Cabinet (VFC). Hazardous materials include substances or materials determined by the USEPA to be capable of posing an unreasonable risk to health, safety, or property, such as asbestos, lead-based paint, heavy metals, dry-cleaning solvents, and common fuels. Typically, sites with potential for hazardous materials exist at or near facilities that generate, store, or dispose of these substances, or at locations of past releases or leaks of these substances, such as gas stations or industrial sites.

There are eight parcels within the study area with a potential for hazardous materials, as shown in *Attachment C Constraints Map Series* and detailed below in Table 17, ordered from south to north. The facility types include: four sites with potential for Underground Storage Tank (UST) or Leaking Underground Storage Tank (LUST), including two gas stations; two landfills (former and active); one former Confined Animal Feeding Operation (CAFO) site; and one institutional control site.

Table 17. Potential Hazardous Materials Sites in the Study Area

Facility Name	Facility Type(s)	ID	Nearest US 31 Crossing	Notes
Private Property	CAFO	45771	9532 Old US Hwy 31	No longer operating as a confined feeding operation per IDEM inspection on November 9, 2021.
Specks Garage	LUST	20103	East of the East CR 650 South/West CR 1350 North	This property is currently an overgrown, vacant lot. The tank was closed and a No Further Action status was granted by IDEM on September 15, 2004.
Fulton County Highway Department	LUST	20859	Southeast of the SR 25 interchange	The three tanks on this property were installed in 1965 and declared permanently out of use in 1992.
Gas America #64	UST; LUST	19474	Northeast of the SR 25/Main Street interchange	Currently in use as a Speedway fuel station, in violation of several IDEM standards as of September 2021.
Paradise Truck Plaza #115	LUST, Institutional Control(s)	20661	Southwest of the CR South 50 East/Sweetgum Road intersection	Currently in use as a fuel station, in violation of several IDEM standards as of March 2021.
Fulton County Landfill	Brownfield, Landfill, Institutional	24876	East of the CR 450 North intersection	The final closure certification was approved September 20, 2017, and the post-closure use includes the Richland Restoration Nature Park. This property and an adjacent parcel are still under an environmental restrictive covenant for suspect groundwater contamination.
Textron	Institutional	15791	East of the CR 450 North intersection	Currently owned and operated as Acument Global Technologies and is currently under groundwater remediation monitoring.
County Line Landfill	Landfill	13577	Northwest of the CR 700 North intersection	Currently in use and includes two open flares used for electricity production.

Source: IDEM Virtual File Cabinet

4. SOURCES

This section documents data sources that were used to compile this report, in alphabetical order, from federal, state, and local agencies; previous area studies; existing literature and websites; windshield survey of the study area; and readily available geospatial mapping and environmental data.

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