Environmental Justice Commitment Plan

Line 5 Wisconsin Segment Relocation Project

August 2021

(Revised July 2023)

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Appendices

1.0 INTRODUCTION

Enbridge Energy, Limited Partnership ("Enbridge") is proposing to relocate a portion of its Line 5 pipeline to no longer cross the Bad River Reservation ("Reservation"). The proposed Line 5 Wisconsin Segment Relocation Project ("Project") will replace the existing Line 5 pipeline segment that traverses through the Reservation with a new, 30-inch outside diameter pipeline segment to be located entirely outside the Reservation. The Project will allow Enbridge to maintain reliable, economic, and secure energy transportation services for its shipping customers.

As part of its commitment to mitigating construction impacts, Enbridge has established this Environmental Justice ("EJ") Commitment Plan ("Plan").

2.0 REGULATORY CONTEXT

While Wisconsin has not formally adopted statutory or administrative rule addressing EJ reviews generally, Enbridge is committed to taking EJ concerns into account as it develops the Project and offers the Plan to set forth its EJ commitments.

The Plan is consistent with Enbridge's corporate goals and commitments, including its Corporate Social Responsibility Policy and Indigenous Peoples Policy. (These policies are available at https://www.enbridge.com/about-us/our-values/sustainability/our-policies)

Enbridge's Corporate Social Responsibility Policy identifies the following areas/standards with respect to community investment:

- Enbridge stresses collaborative, consultative, and partnership approaches in our community investment programs;
- Enbridge will integrate Community Investment considerations into decision-making and business practices, and will assist in local capacity building to develop mutually beneficial relationships with communities;
- Enbridge will contribute to our host communities' quality of life by supporting innovative programs in health, education, social services, and the environment, as well as cultural and civic projects; and
- Enbridge will strive to provide employment and economic opportunities in the communities where we operate.

In addition, Enbridge's Indigenous Peoples Policy includes commitments to:

- Work with Indigenous Peoples to achieve benefits for them resulting from Enbridge's projects and operations, including opportunities in training and education, employment, procurement, business development, and community development;
- Foster understanding of the history and culture of Indigenous Peoples among Enbridge's employees and contractors in order to create better relationships between Enbridge and Indigenous communities; and
- Engage in forthright and sincere consultation with Indigenous Peoples about Enbridge's projects so their input can help define our projects on their land and land traditionally used by Indigenous Peoples.

3.0 PROJECT EFFECTS

The Project involves construction of an approximately 41-mile segment of buried pipeline in Ashland and Iron counties in northern Wisconsin. The Wisconsin Department of Natural Resources ("WDNR") is preparing an Environmental Impact Statement ("EIS") to identify the impacts of the proposed construction of the Project. The final EIS has not yet been published and potential impacts have not been disclosed at the writing of the Plan. Enbridge has completed an assessment of potential Project related environmental justice impacts (see Appendix A – Environmental Justice Assessment Report) to identify potential communities with environmental justice concerns, or communities which may disproportionately feel impacts from operation of the Project. The assessment report was created using:

- the Council on Environmental Quality ("CEQ") Climate and Economic Justice Screening Tool ("CEJST");
- U.S. Environmental Protection Agency EJScreen: Environmental Justice Screening and Mapping tool, which provides users a tool that combines demographic and socioeconomic factors to identify potential EJ populations;
- U.S. Census Bureau data; and
- Wisconsin Department of Public Health data to identify potential EJ communities.

4.0 COORDINATION AND OUTREACH

Enbridge has developed the Plan based on the feedback received during open houses and other engagements since initiating the Project in August 2019. A summary of Enbridge's outreach and public opportunity for involvement to date is included in Appendix B.

Enbridge's coordination and outreach has and will continue to focus on providing information about construction and operation of the Project as well as Enbridge's community investment and outreach programs. Commitments are most effective in the potentially affected communities when those stakeholders understand what those programs and efforts are. As such, a primary focus of Enbridge's ongoing coordination and outreach is to provide opportunities for potentially disproportionately affected communities and individuals to be aware of available programs and opportunities.

Enbridge has conducted and continues to conduct its own engagement, both formal and informal, with Tribal members and other stakeholders in the vicinity of the Project. Enbridge's engagement system is coordinated, systematized, and scalable, and incorporates standardized processes, procedures, tools, and templates to enhance the effectiveness and consistency in Enbridge's approach to all of its projects and operations. This system is based on leading industry practices and global benchmarking systems, and further advances accountability, documented reporting, and continuous improvement.

To ensure that Enbridge's outreach program is effective and appropriate, Enbridge proactively reaches out to stakeholders and communities to understand the local environment and the potential issues and concerns that may exist. Enbridge conducts outreach through surveys, focus groups, and meetings with community members who live in the communities we are planning to construct and operate in. Enbridge also engages and communicates with stakeholders through newsletters, fact

sheets, presentations, project update letters, telephone calls, emails, advertising, social media updates, community events, and open houses, both virtually and in-person.

Community input already received during Enbridge's engagement and outreach efforts has been incorporated into the Plan.

5.0 COMMITMENTS

5.1 EXISTING COMMITMENTS

Because of Enbridge's commitment to community investment and stakeholder input, including from tribes and indigenous communities, Enbridge has made a number of EJ commitments regarding the Project. In Enbridge's experience, continued stakeholder outreach will be important to ensure that individuals and communities in the vicinity of the Project area are aware of these commitments and programs.

A summary of Enbridge's EJ commitments is included below. Most of these commitments already and will continue to involve financial commitments and/or workforce development with respect to communities and individuals in the vicinity of the Project.

5.2 ENVIRONMENTAL CONTROLS

Enbridge is committed to adhering to best environmental practices to address potential environmental effects of the Project. Enbridge will employ a multitude of environmental controls to avoid or mitigate potential environmental effects and comply with all state and federal laws and permit requirements. These environmental controls are included in Enbridge's Environmental Protection Plan ("EPP") and its Agricultural Protection Plan.

5.3 SPILL PREVENTION AND RESPONSE

Spill prevention and response plans are already an integral part of Enbridge's construction activities. With respect to construction activities, Enbridge will utilize: Spill Prevention, Containment, and Control Procedures; Drilling Mud Containment, Response, and Notification Procedures, which are detailed in the EPP.

5.4 INVASIVE SPECIES MITIGATION

Enbridge has also developed procedures to control the spread of undesirable invasive species, which are included in the EPP developed for the Project. The purpose of these procedures is to prevent the introduction of invasive species on lands touched by construction activities and to limit the spread of invasive species already present within the construction right-of-way.

5.5 TRIBAL MONITORS

Consistent with our construction practices, Enbridge will employ tribal monitors during Project construction. Environmental inspectors and tribal monitors will confirm that Enbridge is complying with applicable construction requirements. Enbridge also has an Unanticipated Discoveries Plan that all contractors and employees will be made aware of, and are expected to adhere to, throughout construction of the Project.

5.6 CULTURAL RESOURCES IDENTIFICATION AND AVOIDANCE

Enbridge has or will employ multiple measures responsive to the identification of and avoiding impacts to cultural resources, including:

- Enbridge funded a Tribal Cultural Resources Survey, designed and executed by Dirt Divers, LLC ("Dirt Divers") to support the WDNR's and the United States Army Corps of Engineers' ("USACE") consultation efforts with interested tribes. Dirt Divers is owned and operated by Mr. Jim Jones, a licensed archaeologist who served over 20 years on the Minnesota Indian Affairs Council and is a Leech Lake Band of Ojibwe citizen. The purpose of the survey was to identify tribal cultural resource sites along the Project route that may be affected by the Project. This survey data informed the development of the Project, mitigation measures necessary to avoid or minimize impacts to tribal cultural resources. Qualified, trained, and licensed Anishinaabe and Sioux tribal citizens staffed the crews for the survey performed by Dirt Divers.
- Enbridge employed tribal monitors to be a part of the conventional archaeological survey crews. The use of tribal monitors was important to ensuring that tribal cultural resources were not overlooked during the conventional archaeological survey because the survey took place prior to the aforementioned Tribal Cultural Resources Survey.
- Enbridge supported and funded elder interviews conducted by tribes to supplement the Tribal Cultural Resources Survey Report.

5.7 TRIBAL ECONOMIC PARTICIPATION AND WORKFORCE DEVELOPMENT TRAINING

Enbridge plans to sponsor training and labor education for tribal citizens designed for Indigenous people to enter the construction workforce. Training classes would be offered to tribal citizens, descendants of tribal citizens, and others financially responsible for tribal citizens. At a minimum, the training would include a component to help people overcome barriers while also teaching basic skills for entering the workforce, and a second part designed to deliver construction craft specific training. Enbridge also plans to spend $46 million dollars with Native owned businesses and contractors, and have Native Americans make up at least 10% of the project workforce.

5.8 HUMAN TRAFFICKING AWARENESS AND PREVENTION PROGRAM

Enbridge has established a Human Trafficking Awareness and Prevention Program ("HTAPP") specific to the Project. Content has been developed by Perodigm, a Bad River native-owned media company. The purpose of the HTAPP is to educate Enbridge employees and contractors working on the Project about human trafficking, murdered and missing indigenous women and children, and raise awareness and reporting of these issues amongst colleagues and the communities where they work. This program, in turn, collectively leads towards the assurance that actions and measures are taken to create a supportive, accountable, and honest community.

As part of the HTAPP, Perodigm brought together an Advisory Group with unique knowledge, expertise, and skills to provide recommendations for training. The Advisory Group is diverse with both women and men, is led by a Native woman from the Oneida Nation and includes two Enbridge employees, a sex trafficking investigator/trainer with Paramount Planning / a former TRUST Task Force Commander, a current sex trafficking investigator in Ashland, Wisconsin, three employees of the New Day Advocacy Center in Ashland, Wisconsin, citizens from the Bad River Band of the Lake Superior Tribe of Chippewa

Indians, the St. Croix Chippewa Indians of Wisconsin, and the Stockbridge-Munsee Band of Mohican Indians, as well as a retired Ashland police officer. Additionally, the HTPP will utilize material from know programs such as Truckers Against Trafficking.

5.9 AUTHORIZED HUNTING, FISHING, AND GATHERING

Section 5 of the Treaty of 1837 reserves to members of the Signatory Tribes the right to hunt, fish, and gather upon the lands, rivers, and lakes within the ceded territory, where the Project is located. Article I, Section 26 of the Wisconsin Constitution provides that all Wisconsin citizens have the right to hunt, fish, trap, and take game, subject only to reasonable restrictions prescribed by law. Such reasonable restrictions include, for example, exclusions from privately owned dwellings, buildings, or fenced farm areas not open to the general public for hunting, or actions constituting trespass under Wis. Stat. Ch. 943.

Enbridge will not impede and is committed to the lawful exercise of the right to hunt, fish, or gather on property open to the public. For example, in areas where the rerouted Line 5 crosses public land members of the Signatory Tribes and public can lawfully hunt, fish or gather; however, to ensure public safety, access to the right-of-way will be temporarily restricted during active pipeline construction.

6.0 IDENTIFYING COMMUNITY NEEDS

Enbridge has and will continue to gain insight and learn about community needs through its on-going stakeholder outreach and engagement, which includes continued participation in one-on-one meetings, public meetings, and community events.

7.0 COMMUNICATIONS STRATEGY

Enbridge will focus on effectively communicating opportunities and programs related to the Project to stakeholders. In addition to the significant outreach and community engagement that has already been undertaken, Enbridge plans the following additional outreach efforts:

- Before construction, Enbridge will host open houses in the vicinity of the Project's route to provide the public an opportunity to learn about pipeline construction and meet Project construction management and workers.
- During construction, Enbridge will issue quarterly Project newsletters, which detail the status of and details concerning the status of the Project. The newsletters will be distributed both electronically and in print.
- Additional project information, including handouts and newsletters, will also be available in a dedicated section of Enbridge's website: www.enbridge.com/projects-and-infrastructure/public-awareness/line-5-in-northern-wisconsin.
- Members of the public may also direct questions or otherwise ask about the Project via Enbridge's Line 5 Wisconsin Relocation Project toll-free number: 855-788-7812 or by email at EnbridgeinWI@enbridge.com. Project contact information will be included on all handouts, advertising, and newsletters.

Each of these activities will provide an opportunity for Enbridge to gain feedback on its engagement and the Plan, which can be adjusted in response to such feedback.

Line 5 Wisconsin Segment Relocation Project

Appendix A

Environmental Justice Assessment Report

Environmental Justice Assessment

Enbridge Line 5 Wisconsin Segment Relocation Project

July 10, 2023

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Disclaimer

This document is a working document. This document may change over time because of new information, or further analysis, or deliberation.

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Acronyms and Abbreviations

Acronym	Definition
ACS	American Community Survey
Bad River Band	Bad River Band of the Lake Superior Tribe of Chippewa Indians
Bad River Reservation	Reservation
BG	Block Group
CBG	Census Block Group
CEQ	Center of Environmental Quality
CT	Census Tract
Enbridge	Enbridge Energy, Limited Partnership
EJ	Environmental Justice
EJA	Environmental Justice Analysis
EJP	Environmental Justice Program
EO	Executive Order
ESG	Environmental and Social Governance
FERC	Federal Energy Regulatory Commission
IFC	International Finance Corporation
IWG	Interagency Working Group
Project	Line 5 Wisconsin Segment Relocation Project
NATA	National Air Toxics Assessment
NEPA	National Environmental Policy Act
USEPA	United States Environmental Protection Agency
WDNR	Wisconsin Department of Natural Resources

1. INTRODUCTION

1.1. PROJECT BACKGROUND

Enbridge Energy, Limited Partnership's ("Enbridge") existing Line 5 pipeline is a 645-mile-long, 30-inch diameter crude oil pipeline. The pipeline originates at Enbridge's Superior Terminal, located in Superior, Wisconsin, in the United States, and terminates in Sarnia, Ontario, in Canada.

In Wisconsin, the existing pipeline crosses Douglas, Bayfield, Ashland, and Iron counties. Within Ashland County, the existing Line 5 pipeline crosses through approximately 12 miles of the Bad River Reservation ("Reservation"). Enbridge and the Bad River Band of the Lake Superior Tribe of Chippewa Indians ("Bad River Band") have been in discussions for several years regarding renewal of the pipeline easement on 15 parcels of land through the Reservation. In January of 2017, the Bad River Tribal Council denied renewal of Enbridge's easements on Allottee Lands—lands held in trust by the U.S. Government for the benefit of individual Indian landowners—for the existing Line 5. In July of 2019, Enbridge entered into mediation with the Bad River Band; however, the Bad River Band terminated mediation and are seeking the removal of the pipeline from the Reservation.

In response to the discussions with the Bad River Band and the litigation filed in July of 2019, Enbridge has developed the Line 5 Wisconsin Segment Relocation Project ("Project") to reroute the existing Line 5 pipeline completely outside the Reservation. The proposed Project will replace approximately 20 miles of the existing Line 5 pipeline that traverses the Reservation, beginning near the intersection of State Highway 137 and State Highway 112 in Ashland County, and extending to approximately the intersection of US Highway 2 and State Highway 169 in Iron County, with a new, 30-inch diameter pipe that will be located entirely outside the Reservation. The potential relocation corridor will be approximately 41 miles long (depicted on overview map, Appendix A). Three alternative routes ranging in length from approximately 31.4 miles to 101.6 miles, as well as the existing pipeline corridor were analyzed in addition to the proposed 41-mile pipeline and its associated facilities and access roads. Maps detailing the proposed Project and alternatives are provided in Appendix A.

1.2. PURPOSE OF REPORT

This Environmental Justice Assessment ("EJA") seeks to identify potential communities with Environmental Justice ("EJ") concerns, or communities which may disproportionately feel impacts from Enbridge's operations. According to the United States Environmental Protection Agency ("USEPA"), EJ is the "fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies" (USEPA 2013). Communities most impacted by environmental harms and risks are typically referred to as communities with EJ concerns or "underserved communities." Disproportionate impacts can be a result of greater vulnerability to environmental hazards such as air quality impacts, or lack of opportunity for public

participation due to social mobility, socioeconomic variables, or language barriers. Increased vulnerability may be attributable to an accumulation of negative or lack of positive environmental, health, economic, or social conditions within these populations or places.

This report does not identify individual communities with EJ concerns, rather, we discuss **potential** communities with EJ concerns. According to the USEPA, communities alone should define if they are or are not an "EJ Community", therefore this report does not determine the existence or absence of EJ concerns within a community (USEPA 2019). Potential communities with EJ concerns will be identified so negative or disproportionate impacts can be minimized or eliminated as part of Enbridge's Social Management Plans. Potential negative impacts are discussed below.

1.2.1. Legislation

At the federal level, the Federal Interagency Working Group on Environmental Justice ("EJ IWG") facilitates the implementation of EJ into United States Department agency policies, programs, and activities. There are 16 federal agencies on the EJ IWG, each with their own specific EJ strategy (USEPA 2022a). These agencies work to implement Executive Order ("EO") 12898, which recognizes the role of the National Environmental Policy Act ("NEPA") in identifying and addressing adverse health and environmental impacts of federal programs, policies, and activities on low-income and minority populations, and EO 14008, which required federal agencies to "make achieving environmental justice part of their missions" (Federal Register 1994; 2021). As part of EO 14008, the order directed the Council on Environmental Quality ("CEQ") to develop a new tool: the Climate and Economic Justice Screening Tool ("CEJST"). The USEPA created an online tool known as the USEPA EJScreen: Environmental Justice Screening and Mapping tool, which provides users a tool that combines demographic and socioeconomic factors to identify potential EJ populations (USEPA 2022b).

In Wisconsin, the April 2022 Executive Order #161 directed the Wisconsin Department of Administration to create the Office of Environmental Justice, which will work in collaboration with the Office of Sustainability and Clean Energy. These Offices work to provide strategies that promote environmentally just policy, help prevent disparate outcomes, and encourage engagement with farmers, rural communities, communities of color, Tribal Nations, low-income populations, and other key stakeholders.

The Wisconsin Economic Development Corporation and other state agencies are developing the Wisconsin Environmental Equity Tool, which has not yet been released as of June 2023. The purpose of the Wisconsin Environmental Equity Tool will be to provide a state-specific environmental equity screening and mapping tool using more detailed local and state data. Potential data that may be included in Wisconsin's tool include population data, environmental data, and climate data.

1.2.2. Methodology

Environmental Resources Management, Inc. ("ERM"), Enbridge's environmental Project consultant, developed this EJA in accordance with federal and state guidelines. This report uses

demographic and socioeconomic data to determine if minority and low-income populations are present and what other stressors exist on populations in the Study Area. The EJA utilizes the CEQ's CEJST, USEPA's EJ Screen Tool, United States Census Bureau data, and Wisconsin Department of Public Health data to identify potential EJ communities.

Individuals who list their racial status as any race other than white and/or list their ethnicity as either Hispanic or Latino are considered "people of color" or minorities (EPA 2022c). According to the CEQ, an EJ population is present where a minority population is "meaningfully greater" than the minority population of an appropriate unit of geographic analysis, or a reference population (CEQ 1997). For measurement against a reference population, the CEQ recommends using an "appropriate unit of geographic analysis" that does not "artificially dilute or inflate" the population (CEQ 1997). While "meaningfully greater" is not explicitly defined in the CEQ's guidance, federal guidelines suggest that ten percent (10%) greater than a reference population is considered a reasonable threshold (Federal IWG EJ and NEPA Committee 2019). To identify minority EJ populations in this EJA, the corresponding county (i.e., Ashland County, Iron County, etc.) was used as the reference population.

Guidelines for identifying low-income EJ populations differ depending on federal or state agencies. Low-income EJ populations can be identified using the United States Census Bureau poverty thresholds, using local data sources on poverty, or using the United States Department of Health and Human Services poverty guidelines. Additionally, EJ communities can be identified using: the meaningfully greater analysis, the percent of individuals below the poverty level, percent of households below the poverty level, and/or percent of families with children below the poverty level (Federal IWG EJ and NEPA Committee 2019). NEPA uses the "meaningfully greater" analysis to identify low-income EJ populations. A community is considered an EJ population if the share of population experiencing poverty is over ten percent (10%) and the share of households in poverty is greater than the county share. For the CEJST tool, a community is considered to have a socioeconomic burden, if it meets or exceeds the threshold of 65th percentile for low income, or if it is completely surrounded by disadvantaged communities and is at or above the 50th percentile for low income (CEQ 2023).

Both below poverty and low-income are used throughout this report. The annual income that determines if a family or individual is below poverty is known as the poverty threshold, and is established by the federal government by considering earnings, unemployment compensation, workers compensation, social security, supplemental security income, public assistance, etc. These sources of income are used to establish the poverty threshold, which is then updated to account for inflation. In 2021, the poverty threshold for a family of four with two related children was $27,479. Therefore, if a family of four with two related children made less than $27,479 in 2021, they are considered below poverty. Separately, households are considered low-income if their income is less than or equal to twice the federal "poverty level." (EPA 2013; PRB 2022) A family can be both below poverty and low-income but cannot be only below poverty. For example, if a family makes $20,000 a year, they will be considered both below poverty and low-income. If a family makes $30,000 a year, they will only be considered low-income. A family cannot be below poverty without being low-income. To identify low-income EJ populations in this EJA, the corresponding county was used as the reference population.

In this EJA, potential minority and low-income EJ populations are identified using the following guidelines:

Racial composition:

- Share of nonwhites is over fifty percent **OR**
- Share of nonwhites is at least ten percent (10%) higher than county share.

Poverty rate:

- Share of population experiencing poverty is over ten percent (10%) **AND**
- Share of households in poverty is greater than the county share.

While federal guidelines address race, ethnicity, and income as the key tenets of EJ community identification, federal guidelines recommend including additional demographic factors related to both age and language (USEPA 2019). As previously noted, EJ requires the "fair treatment and meaningful involvement of all people" (USEPA 2013). Populations that are either under 18 years of age, over 65 years of age, or are "linguistically isolated"—populations in which all members in the household that are age 14 and over speak a non-English language and also have difficulty with English—face barriers to participation and should be thoughtfully engaged in the decision-making process.

Additionally, indigenous peoples and people with disabilities should be considered in evaluating potential communities with EJ concerns. In most EJ tools, the presence of tribal lands in an evaluated area designates that area as a potential EJ community, regardless of demographics.

As previously discussed, federal guidelines recommend using an appropriate unit of geographic analysis to define an analysis area and identify potential communities with EJ concerns. Census Block Groups ("CBG"), the smallest geographic unit with published data from the United States Census Bureau, were deemed an appropriate level of geographic analysis for this EJA. For the CEJST tool, the smallest geographic unit is census tracts. Census tracts typically contain multiple block groups within them. The census tracts used in the CEJST tool were delineated in the 2010 United States Census, and therefore, may not fully align with the current tract boundaries. The 2010 outlines were used by the CEJST to align better with the data sets used for the additional burden categories, as some data sets are from prior to 2020. The CBGs or census tracts located within a one-mile radius of each project route alternative have been assessed as the appropriate unit of geographic analysis for assessing impacts on EJ communities for the Project, which are referred to as the Study Area. Guidance for selecting an appropriate Study Area varies from state to state, and from federal agency to agency. As per international standards, the geographical and social reach of a project's impacts should also inform what constitutes an impacted area (IFC, 2012). For this EJA, a one-mile radius was selected because it is sufficiently broad considering the likely concentration of construction and operation activities, noise, visual, economic, and traffic impacts proximal to the Project route and is a standard distance for pipelines used by the Federal Energy Regulatory Commission ("FERC"). 2021 United States Census Bureau American Community Survey 5-year data was used for the race, ethnicity, and poverty data at the CBG

level to ensure the most recent available data was used (i.e., the United States Census Bureau American Community Survey Files #B17017, #B03002, #B01001, and #B16004).

The CEJST tool was created to help federal agencies identify disadvantaged communities that will benefit from programs included in the Justice40 Initiative. The Justice40 Initiative seeks to deliver 40 percent of the overall benefits of investments in climate, clean energy, and related areas to disadvantaged communities (CEQ 2023). The tool uses indicators of burdens in eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. The tool considers burdens in these categories in addition to socioeconomic status to determine whether a community is disadvantaged.

The USEPA EJ Screen tool helps users identify potential communities with EJ concerns through various environmental, demographic, socioeconomic, health, and climate change indicators. The USEPA EJ Screen tool provides information at CBG, town/city, county, and state levels, or within a specified radius. For this analysis, the minority and low-income indicators were used to screen for potential communities with EJ concerns, with unemployment rate and education as secondary indexes.

Using the USEPA EJ Screen and the United States Census Bureau tool, ERM identified potential communities with EJ concerns along the existing route, the proposed Project route, as well as each of the alternative Project routes. These tools are used for screening purposes and to identify potential communities with EJ concerns. However, these tools cannot be used in isolation to determine a community's EJ status.

2. ASSESSMENT AND EVALUATION

2.1. CLIMATE AND ECONOMIC JUSTICE SCREENING TOOL

ERM used the CEJST tool to identify disadvantaged census tracts and characteristics in the Study Area. In order to be considered disadvantaged, a community must be at or above the threshold for a socioeconomic burden (e.g., 65th percentile for low income) and be at or above the threshold for one or more environmental, climate, or other burden. Communities with land that is within the boundaries of Federally Recognized Tribes are also considered disadvantaged.

Across Ashland County, many of the census tracts crossed by the Project route as well as the alternative routes are considered disadvantaged. Where the Project route and alternative routes cross Bayfield County, none of the tracts are designated disadvantaged. Only one tract qualifies as disadvantaged where the Project route and alternative routes cross through Iron County, although it should be noted that CT 1802 is considered Partially Disadvantaged, since Federally Recognized Tribal lands cover two percent (2%) of the tract. This tract has been generally excluded from disadvantaged tract discussions, as the Tribal lands that designate the tract as partially disadvantaged are located at the far northern extent of this sizable census tract and the Project area for the routes are in the other end of the tract.

For each tract, the associated routes are included, but for a more detailed map of the disadvantaged census tracts and where the Project route and alternative routes pass, see

Appendix A. Additionally, not all routes impact each tract equally. For a breakdown of how much of each pipeline route alternative would pass through each disadvantaged tract, see Table 13.

Table 1: CEJST Identified Disadvantaged Census Tracts

Identified Disadvantaged Census Tract	Associated Routes	Burden Thresholds Met	Detailed Burdens and Associated Socioeconomic Thresholds
Number: 55003950800 County: Ashland County State: Wisconsin Population: 3,155 This tract is considered disadvantaged because it meets 1 burden threshold AND the associated socioeconomic threshold.	Existing Line 5 RA-01	Legacy pollution	Proximity to Superfund sites: 97th percentile AND Low Income: 79th percentile
Number: 55003940000 County: Ashland County State: Wisconsin Population: 2,080 This tract is considered disadvantaged because it meets 1 burden threshold AND the associated socioeconomic threshold. The lands of Federally Recognized Tribes that cover 82% of this tract are also considered disadvantaged.	Existing Line 5 Proposed Route RA-01	Health	Asthma: 94th percentile AND Low Income: 88th percentile
Number: 55003950400 County: Ashland County State: Wisconsin Population: 2,168 This tract is considered disadvantaged because it meets more than 1 burden threshold AND the associated socioeconomic threshold.	Existing Line 5 Proposed Route	Health Legacy Pollution	Low life expectancy: 96th percentile Proximity to Superfund sites: 95th percentile AND Low Income: 65th percentile
Number: 55003950600 County: Ashland County	Proposed Route RA-01	Climate Change Energy	Expected population loss rate: 91st percentile

Identified Disadvantaged Census Tract	Associated Routes	Burden Thresholds Met	Detailed Burdens and Associated Socioeconomic Thresholds
State: Wisconsin Population: 1,259 This tract is considered disadvantaged because it meets more than 1 burden threshold AND the associated socioeconomic threshold.	RA-02 RA-03		Energy cost: 91st percentile AND Low Income: 74th percentile
Number: 55003950700 County: Ashland County State: Wisconsin Population: 2,013 This tract is considered disadvantaged because it meets more than 1 burden threshold AND the associated socioeconomic threshold.	RA-03	Climate Change Energy	Expected population loss rate: 91st percentile Energy cost: 94th percentile AND Low income: 70th percentile
Number: 55051180100 County: Iron County State: Wisconsin Population: 2,349 This tract is considered disadvantaged because it meets 1 burden threshold AND the associated socioeconomic threshold.	RA-02 RA-03	Health	Heart disease: 92nd percentile AND Low income: 78th percentile
Number: 26053950600 County: Gogebic County State: Michigan Population: 2,907 This tract is considered disadvantaged because it meets more than 1 burden threshold AND the associated socioeconomic threshold.	RA-02	Health Housing Water and wastewater	Heart disease: 96th percentile Lead paint: 96th percentile Underground storage tanks and releases: 97th percentile AND Low income: 89th percentile

2.2. DEMOGRAPHIC AND SOCIOECONOMIC EJ OVERVIEW

The USEPA's EJ Screening tool was first used to identify CBGs with potential EJ populations, using minority percentage, low-income percentage, unemployment rate, and less than high school education indicators. Table 2 (below) shows these EJ indicators for the Enbridge Line 5 Study Area CBGs, Counties, and the Wisconsin and Michigan state averages. Meaningfully greater populations are shown shaded green, bolded, and italicized.

Table 2: USEPA EJ Screen Indicators for Study Area Route Alternatives

Location	People of Color	Low Income	Unemployment Rate	Less Than High School Education
Existing Line 5				
Wisconsin	19	27	4	7
Ashland County	18	39	6	7
CT 9400.00 BG 1	***54***	***41***	***11***	***13***
CT 9503.00 BG 1	19	***49***	***7***	6
CT 9504.00 BG 1	14	26	6	2
CT 9505.00 BG 1	8	32	1	4
CT 9508.00 BG 3	10	***41***	6	2
Iron County	5	36	6	5
CT 1802.00 BG 2	5	22	6	4
Proposed Route				
Wisconsin	19	27	4	7
Ashland County	18	39	6	7
CT 9400.00 BG 1	***54***	***41***	***11***	***13***
CT 9505.00 BG 1	8	32	1	4
CT 9503.00 BG 1	19	***49***	***7***	6
CT 9504.00 BG 1	14	26	6	2
CT 9505.00 BG 2	13	38	***8***	3
CT 9506.00 BG 1	8	32	2	7
CT 9506.00 BG 2	3	***39***	2	6
Bayfield County	16	30	4	4
CT 9604.02 BG 3	5	28	2	***5***
Iron County	5	36	6	5
CT 1802.00 BG 2	5	22	6	4
Route Alternative 1				
Wisconsin	19	27	4	7
Ashland County	18	39	6	7
CT 9400.00 BG 1	***54***	***41***	***11***	***13***
CT 9503.00 BG 1	19	***49***	***7***	6
CT 9505.00 BG 1	8	32	1	4

Location	People of Color	Low Income	Unemployment Rate	Less Than High School Education
CT 9505.00 BG 2	13	38	***8***	3
CT 9506.00 BG 1	8	32	2	7
CT 9508.00 BG 3	10	***41***	6	2
Iron County	5	36	6	5
CT 1802.00 BG 2	5	22	6	4
Route Alternative 2				
Wisconsin	19	27	4	7
Ashland County	18	39	6	7
CT 9505.00 BG 1	8	32	1	4
CT 9505.00 BG 2	13	38	***8***	3
CT 9506.00 BG 1	8	32	2	7
CT 9506.00 BG 2	3	***39***	2	6
Bayfield County	16	30	4	4
CT 9604.02 BG 1	9	21	4	2
CT 9604.02 BG 3	5	28	2	***5***
Iron County	5	36	6	5
CT 1801.00 BG 1	3	***55***	4	12
CT 1801.00 BG 2	3	***37***	5	4
CT 1801.00 BG 3	3	***46***	***7***	5
CT 1801.00 BG 4	***14***	***46***	6	4
CT 1802.00 BG 1	3	31	5	2
CT 1802.00 BG 2	5	22	6	4
Michigan	26	31	6	9
Gogebic County	9	40	4	6
CT 9506.00 BG 2	4	***60***	3	***9***
CT 9507.00 BG 2	4	19	4	3
Route Alternative 3				
Wisconsin	19	27	4	7
Ashland County	18	39	6	7
CT 9506.00 BG 2	3	***39***	2	6
CT 9507.00 BG 1	4	32	2	***11***
CT 9507.00 BG 2	2	27	***8***	***9***
Bayfield County	16	30	4	4
CT 9602.00 BG 1	10	***36***	2	2
CT 9604.01 BG 1	4	28	5	***8***
CT 9606.00 BG 1	2	24	1	***5***
CT 9606.00 BG 2	3	25	***7***	***5***
Iron County	5	36	6	5

Location	People of Color	Low Income	Unemployment Rate	Less Than High School Education
CT 1801.00 BG 2	3	***37***	5	4
CT 1801.00 BG 3	3	***46***	***7***	5
CT 1801.00 BG 4	***14***	***46***	6	4
CT 1802.00 BG 1	3	31	5	2
Michigan	26	31	6	9
Gogebic County	9	40	4	6
CT 9507.00 BG 2	4	19	4	3

Source: USEPA EJ Screen (version 2.1), 2023
Census Block Groups in Bold are crossed by the Route Alternative. The remaining CBGs are within a one-mile buffer.

The existing Line 5 route crosses a total of three CBGs: one CBG (CT 9400.00 BG 1) has both minority and low-income EJ concerns according to the EJ Screen results. An additional two CBGs (CT 9503.00 BG 1 and CT 9508.00 BG 3) with low-income EJ concerns lie within the one-mile radius of the route. Most of the existing route is in Ashland County and all three EJ indicators exist there as well.

CT 9400.00 BG 1, crossed by the existing route and in the mile radius of the Proposed Route, has a larger percentage of those with less than a High School education and an unemployment rate greater than Ashland County. This CBG is almost entirely overlapped by the Reservation. Many EJ tools automatically designate any census tracts containing tribal lands as disadvantaged communities regardless of other demographic or environmental indicators.

The Proposed Route crosses a total of five CBGs, one of which has a low-income EJ concern (CT 9506.00 BG 2). The one-mile radius incorporates another four CBGs, two of which have EJ concerns (CT 9400.00 BG 1 and CT 9503.00 BG 1). The majority of this route is in Ashland County and all of the EJ indicators are present there as well.

Route Alternative 1 crosses five CBGs, one of which has both minority and low-income indicators. The one-mile radius contains another two CBGs, both of which have low-income EJ indicators. All of the EJ indicators for this route alternative are in Ashland County and only one of the CBGs for Route Alternative 1 is not in Ashland County.

Route Alternative 2 crosses 10 CBGs, three of which have EJ indicators for low-income and one of those also has a minority EJ indicator. The one-mile radius adds an additional four CBGs, three of which have low -income indicators. Most of the EJ indicators for Route Alternative 2 are in Iron County with one in Ashland County and one in Gogebic County, MI.

Route Alternative 3 crosses nine CBGs. Four of them have USEPA EJ Screen indicators, three of which are low-income and one is both low-income and minority. The one-mile radius adds three additional CBGs, one of which has a low-income indicator. Most of the EJ indicators for Route Alternative 3 are in Iron County with one in Ashland County and one in Bayfield County.

2.2.1. United States Census Bureau Demographics

As a second step in analysis, data was pulled directly from the United States Census Bureau. The Census Data from the American Community Survey 5-year estimates is the most current data and racial data is categorized in more detail than in the USEPA EJ Screen tool. The Census measure for below poverty shows poverty status in the past 12 months by household in contrast to the USEPA EJ Screen which depicts low-income as the percent of individuals whose ratio of household income to poverty level in the past 12 months was less than 2.

Meaningfully greater minority and below poverty populations are shown shaded green, bolded, and italicized in Table 3 below.

Table 3: Minority and Below Poverty Population Percentages in the Study Area from the US Census Bureau Data

Census Block Group	White alone	Black or African American alone	Asian alone	American Indian and Alaska Native alone	Native Hawaiian and Other Pacific Islander alone	Some other race alone	Two or more races	Hispanic or Latino	Total Minority	Percent Below Poverty
Existing Line 5										
Wisconsin	80.1	6.2	2.8	0.7	0.0	0.2	2.7	7.2	19.9	10.5
Ashland County	81.9	0.9	0.7	9.7	0.0	0.1	3.5	3.3	18.1	16.7
CT 9400.00 BG 1	42.6	1.0	0.0	47.4	0.0	0.0	2.9	6.0	***57.4***	15.9
CT 9503.00 BG 1	82.6	1.1	0.2	10.1	0.0	0.0	2.7	3.4	17.4	***25.1***
CT 9504.00 BG 1	79.3	0.0	7.4	3.9	0.2	0.0	9.3	0.0	***20.7***	16.3
CT 9505.00 BG 1	91.9	0.0	0.0	0.9	0.0	0.0	4.3	3.0	8.1	7.9
CT 9508.00 BG 3	88.4	8.5	0.0	2.6	0.0	0.0	0.4	0.0	11.6	***25.1***
Iron County	95.0	0.1	0.5	0.8	0.0	0.0	2.1	1.5	5.0	11.1
CT 1802.00 BG 2	94.2	0.0	0.0	0.6	0.0	0.0	4.0	1.1	***5.8***	5.0
Proposed Route										
Wisconsin	80.1	6.2	2.8	0.7	0.0	0.2	2.7	7.2	19.9	10.5
Ashland County	81.9	0.9	0.7	9.7	0.0	0.1	3.5	3.3	18.1	16.7
CT 9400.00 BG 1	42.6	1.0	0.0	47.4	0.0	0.0	2.9	6.0	***57.4***	15.9
CT 9505.00 BG 1	91.9	0.0	0.0	0.9	0.0	0.0	4.3	3.0	8.1	7.9
CT 9503.00 BG 1	82.6	1.1	0.2	10.1	0.0	0.0	2.7	3.4	17.4	***25.1***
CT 9504.00 BG 1	79.3	0.0	7.4	3.9	0.2	0.0	9.3	0.0	***20.7***	16.3
CT 9505.00 BG 2	93.5	0.0	0.1	0.4	0.0	0.0	4.9	1.1	6.5	4.0
CT 9506.00 BG 1	92.2	0.0	0.8	0.7	0.0	0.0	0.6	5.6	7.8	12.0
CT 9506.00 BG 2	95.7	0.0	0.2	3.6	0.0	0.0	0.5	0.0	4.3	11.7

Census Block Group	White alone	Black or African American alone	Asian alone	American Indian and Alaska Native alone	Native Hawaiian and Other Pacific Islander alone	Some other race alone	Two or more races	Hispanic or Latino	Total Minority	Percent Below Poverty
Bayfield County	83.8	0.9	0.5	8.8	0.0	0.1	3.4	2.4	16.2	10.3
CT 9604.02 BG 3	94.5	0.0	0.2	3.7	0.0	0.0	0.7	0.9	5.5	5.0
Iron County	95.0	0.1	0.5	0.8	0.0	0.0	2.1	1.5	5.0	11.1
CT 1802.00 BG 2	94.2	0.0	0.0	0.6	0.0	0.0	4.0	1.1	***5.8***	5.0
Route Alternative 1										
Wisconsin	80.1	6.2	2.8	0.7	0.0	0.2	2.7	7.2	19.9	10.5
Ashland County	81.9	0.9	0.7	9.7	0.0	0.1	3.5	3.3	18.1	16.7
CT 9400.00 BG 1	42.6	1.0	0.0	47.4	0.0	0.0	2.9	6.0	***57.4***	15.9
CT 9503.00 BG 1	82.6	1.1	0.2	10.1	0.0	0.0	2.7	3.4	17.4	***25.1***
CT 9505.00 BG 1	91.9	0.0	0.0	0.9	0.0	0.0	4.3	3.0	8.1	7.9
CT 9505.00 BG 2	93.5	0.0	0.1	0.4	0.0	0.0	4.9	1.1	6.5	4.0
CT 9506.00 BG 1	92.2	0.0	0.8	0.7	0.0	0.0	0.6	5.6	7.8	12.0
CT 9508.00 BG 3	88.4	8.5	0.0	2.6	0.0	0.0	0.4	0.0	11.6	***25.1***
Iron County	95.0	0.1	0.5	0.8	0.0	0.0	2.1	1.5	5.0	11.1
CT 1802.00 BG 2	94.2	0.0	0.0	0.6	0.0	0.0	4.0	1.1	***5.8***	5.0
Route Alternative 2										
Wisconsin	80.1	6.2	2.8	0.7	0.0	0.2	2.7	7.2	19.9	10.5
Ashland County	81.9	0.9	0.7	9.7	0.0	0.1	3.5	3.3	18.1	16.7
CT 9505.00 BG 1	91.9	0.0	0.0	0.9	0.0	0.0	4.3	3.0	8.1	7.9
CT 9505.00 BG 2	93.5	0.0	0.1	0.4	0.0	0.0	4.9	1.1	6.5	4.0
CT 9506.00 BG 1	92.2	0.0	0.8	0.7	0.0	0.0	0.6	5.6	7.8	12.0
CT 9506.00 BG 2	95.7	0.0	0.2	3.6	0.0	0.0	0.5	0.0	4.3	11.7
Bayfield County	83.8	0.9	0.5	8.8	0.0	0.1	3.4	2.4	16.2	10.3
CT 9604.02 BG 1	89.6	0.7	0.1	2.4	0.0	0.3	5.3	1.6	10.4	5.7
CT 9604.02 BG 3	94.5	0.0	0.2	3.7	0.0	0.0	0.7	0.9	5.5	5.0
Iron County	95.0	0.1	0.5	0.8	0.0	0.0	2.1	1.5	5.0	11.1
CT 1801.00 BG 1	96.4	1.2	0.0	0.8	0.0	0.0	1.2	0.6	3.6	***27.2***
CT 1801.00 BG 2	97.8	0.0	0.4	1.3	0.0	0.0	0.0	0.4	2.2	***14.2***
CT 1801.00 BG 3	94.4	0.0	2.7	0.5	0.0	0.0	1.2	1.2	***5.6***	7.8
CT 1801.00 BG 4	85.0	0.0	0.1	2.2	0.0	0.0	9.5	3.2	***15.0***	***13.2***

Census Block Group	White alone	Black or African American alone	Asian alone	American Indian and Alaska Native alone	Native Hawaiian and Other Pacific Islander alone	Some other race alone	Two or more races	Hispanic or Latino	Total Minority	Percent Below Poverty
CT 1802.00 BG 1	98.3	0.0	0.6	0.4	0.0	0.0	0.6	0.0	1.7	10.5
CT 1802.00 BG 2	94.2	0.0	0.0	0.6	0.0	0.0	4.0	1.1	***5.8***	5.0
Michigan	74.0	13.4	3.2	0.4	0.0	0.3	3.3	5.4	26.0	12.9
Gogebic County	90.9	2.4	0.4	2.7	0.3	0.1	1.4	1.8	9.1	16.1
CT 9506.00 BG 2	95.7	0.0	2.4	0.0	0.0	0.0	1.9	0.0	4.3	5.4
CT 9507.00 BG 2	94.4	1.1	0.0	4.2	0.0	0.0	0.2	0.0	5.6	10.5
Route Alternative 3										
Wisconsin	80.1	6.2	2.8	0.7	0.0	0.2	2.7	7.2	19.9	10.5
Ashland County	81.9	0.9	0.7	9.7	0.0	0.1	3.5	3.3	18.1	16.7
CT 9506.00 BG 2	95.7	0.0	0.2	3.6	0.0	0.0	0.5	0.0	4.3	11.7
CT 9507.00 BG 1	96.4	0.0	0.2	1.3	0.0	0.0	0.6	1.5	3.6	9.9
CT 9507.00 BG 2	96.1	1.3	0.0	0.0	0.0	0.0	2.0	0.6	3.9	7.8
Bayfield County	83.8	0.9	0.5	8.8	0.0	0.1	3.4	2.4	16.2	10.3
CT 9602.00 BG 1	89.2	0.7	0.0	5.5	0.0	0.0	0.8	3.8	10.8	9.1
CT 9604.01 BG 1	93.3	0.3	0.5	1.4	0.0	0.0	2.8	1.7	6.7	***11.2***
CT 9606.00 BG 1	94.7	1.6	0.0	0.1	0.0	0.0	2.9	0.7	5.3	4.0
CT 9606.00 BG 2	97.9	0.0	0.7	1.4	0.0	0.0	0.1	0.0	2.1	8.1
Iron County	95.0	0.1	0.5	0.8	0.0	0.0	2.1	1.5	5.0	11.1
CT 1801.00 BG 2	97.8	0.0	0.4	1.3	0.0	0.0	0.0	0.4	2.2	***14.2***
CT 1801.00 BG 3	94.4	0.0	2.7	0.5	0.0	0.0	1.2	1.2	***5.6***	7.8
CT 1801.00 BG 4	85.0	0.0	0.1	2.2	0.0	0.0	9.5	3.2	***15.0***	***13.2***
CT 1802.00 BG 1	98.3	0.0	0.6	0.4	0.0	0.0	0.6	0.0	1.7	10.5
Michigan	74.0	13.4	3.2	0.4	0.0	0.3	3.3	5.4	26.0	12.9
Gogebic County	90.9	2.4	0.4	2.7	0.3	0.1	1.4	1.8	9.1	16.1
CT 9507.00 BG 2	94.4	1.1	0.0	4.2	0.0	0.0	0.2	0.0	5.6	10.5

Source: US Census Bureau, 2021, ACS 2016-2021 File B03002 and File B17017
CBG in Bold are crossed by the Route Alternative. The remaining CBGs are within the one-mile buffer.

Maps depicting the low-income and minority populations in the Study Area are shown in Appendix A.

The existing Line 5 crosses three CBGs, two of which have minority populations meaningfully greater than the corresponding counties. The one-mile radius of the existing Line 5 shows an additional three CBG with meaningfully greater EJ indicators, one with a minority indicator and two with below poverty only. In CT 9400.00 BG 1, which is crossed by the existing route, 57.4 percent (57.4%) of the population is non-white with 47.4 percent (47.4%) designated American Indian on the census. CT 9400.00 BG is the CBG that overlaps the Reservation. The demographics indicate a much higher percentage than the state native population of 0.7 percent (0.7%) as well as being well above the Ashland County native population of 9.7 percent (9.7%). The total minority population in CT 9504.00 BG 1, which is within the one-mile radius, is 20.7 percent (20.7%) with 9.3 percent (9.3%) designated two or more races, 7.4 percent (7.4%) Asian, and 3.9 percent (3.9%) American Indian. The CBGs with high proportions of the population below poverty are in Ashland County and fall within the one-mile radius. Specifically, both CT 9503.00 BG 1 and CT 9508.00 BG 3 have below poverty populations of 25.1 percent (25.1%), in contrast to 16.7 percent (16.7%) in Ashland County.

The Proposed Route crosses five CBGs and an additional four CBGs are within the one-mile radius. CT 1802.00 BG 2, which is crossed by the Proposed Route in Iron County, has a minority percentage indicator, although it exceeds Iron County by less than one percent (1%). Within the one-mile radius, three of the CBGs in Ashland County show indicators for either minority or below poverty.

Route Alternative 1 also crosses CT 9400.00 BG 1 where the Reservation is located, although the route avoids the reservation lands as the CBG is larger than the Reservation. CT 1802.00 BG 2 is also crossed by Route Alternative 1, which has a slightly higher minority population than Iron County. Within the one-mile radius two CBGs have below poverty percentages of 25.1 percent (25.1%), which is significantly higher than the Ashland County below poverty rate of 16.7 percent (16.7%).

Route Alternative 2 crosses the most CBGs of all the routes in the Study Area with 10 CBGs crossed and an additional four CBGs in the one-mile radius. Five of the CBGs have EJ indicators, all of which are located in Iron County. Of those, only one has indicators for both below poverty and minority with two showing minority populations relative to the county and two with below poverty populations indicating a potential EJ community. CT 1801.00 BG 1 has the highest below poverty population with 27.2 percent (27.2%) of the population below poverty. The minority population percent in Iron County is five percent (5%) so the CBGs exceeding that by 10 percent (10%) or more are still not high population percentages at 5.6 percent (536%), 5.8 percent (5.8%), and 15.0 percent (15.0%).

Route Alternative 3 crosses nine CBGs with an additional three CBGs in the one-mile buffer radius. One CBG in Bayfield County has an EJ indicator for below poverty. Two more CBGs in Iron County show higher percentages of below poverty households and two CBGs have higher minority percentages than Iron County. CT 1801.00 BG 4 has both minority and below poverty indicators. Most of the minority and below poverty percentages along Route Alternative 3 are relatively low at the county level and not much higher at the CBG level.

2.3. SUPPLEMENTARY EJ VARIABLES

As previously discussed, EJ requires the meaningful involvement of all people in decision-making processes. Additional socioeconomic and demographic variables–other than percent below poverty and percent minority–that could contribute to a community or group's vulnerability include:

- Language,
- Age,
- Education Level,
- Environmental Exposures, and
- Public Health.

These variables are considered supplementary EJ variables and are discussed further below.

2.3.1. Language

According to the United States Census Bureau's analysis on language spoken at home by ability to speak English, most people who speak a language other than English also speak English either "very well" or "well", however there are pockets of the population that are considered linguistically isolated. A person is considered linguistically isolated if they speak English either "not well" or "not at all".

The linguistically isolated populations for the counties in the Study Area are shown in Table 4 below. No counties in the Study Area have a linguistically isolated population greater than the state reference population and percentages of linguistic isolation are extremely low throughout the Study Area with none of the counties hitting 1 percent (1%). CBG data has not been included as they do not show any areas of linguistic isolation.

Table 4: Linguistically Isolated Population in the Study Area

Location	Spanish Speaker, Speaks English Less than well	Indo-European Speaker, Speaks English Less than well	Asian Pacific Speaker, Speaks English Less than well	Other Languages Speaker, Speaks English Less than well	Total Linguistically Isolated
Michigan	0.5	0.3	0.3	0.4	1.4
Gogebic County	0.0	0.1	0.0	0.1	0.3
Wisconsin	0.9	0.1	0.3	0.0	1.3
Ashland County	0.0	0.1	0.0	0.0	0.2
Bayfield County	0.1	0.0	0.1	0.0	0.2
Iron County	0.2	0.1	0.0	0.0	0.3

Source: US Census Bureau, 2021, ACS 2016-2021 File B16004

2.3.2. Age

Individuals under 17 or over 64 may face barriers to engagement given their age, mobility, and communication ability, and thus these communities can be some of the most at-risk portions of a community. In 1997, President Clinton signed EO 13045, Protection of Children from

Environmental Health Risks and Safety Risks, to ensure that each federal agency prioritized assessing environmental health and safety risks to children (Federal Register Vol. 62, No. 78; 1997). Additionally, individuals that are over 64 are more vulnerable and at-risk economically and socially. Table 5 below shows the age breakdown across the Study Area. Where the population percentage in a CBG of 17 and under or over 64 is greater than the population percentage of those age groups in the county, the value has been shaded green and is in bold type.

Table 5: Age Breakdown in Study Area

Census Block Group	17 and Under	Between 18-64	Over 64
Existing Line 5			
Wisconsin	22.3	61.7	16.0
Ashland County	22.3	59.5	18.2
CT 9400.00 BG 1	**26.9**	60.9	12.1
CT 9503.00 BG 1	17.6	65.9	16.4
CT 9504.00 BG 1	17.0	55.6	**27.4**
CT 9505.00 BG 1	**27.7**	55.5	16.8
CT 9508.00 BG 3	11.7	69.5	**18.8**
Iron County	14.1	56.6	29.3
CT 1802.00 BG 2	**15.1**	58.3	24.9
Proposed Route			
Wisconsin	22.3	61.7	16.0
Ashland County	22.3	59.5	18.2
CT 9400.00 BG 1	**26.9**	60.9	12.1
CT 9505.00 BG 1	**27.7**	55.5	16.8
CT 9503.00 BG 1	17.6	65.9	16.4
CT 9504.00 BG 1	17.0	55.6	**27.4**
CT 9505.00 BG 2	**31.7**	47.3	**20.9**
CT 9506.00 BG 1	15.8	57.5	**26.7**
CT 9506.00 BG 2	15.5	62.4	**22.1**
Bayfield County	17.5	56.5	26.0
CT 9604.02 BG 3	**22.8**	50.3	**27.0**
Iron County	14.1	56.6	29.3
CT 1802.00 BG 2	**15.1**	58.3	24.9
Route Alternative 1			
Wisconsin	22.3	61.7	16.0
Ashland County	22.3	59.5	18.2
CT 9400.00 BG 1	**26.9**	60.9	12.1
CT 9503.00 BG 1	17.6	65.9	16.4
CT 9505.00 BG 1	**27.7**	55.5	16.8
CT 9505.00 BG 2	**31.7**	47.3	**20.9**
CT 9506.00 BG 1	15.8	57.5	**26.7**
CT 9508.00 BG 3	11.7	69.5	**18.8**
Iron County	14.1	56.6	29.3

Census Block Group	17 and Under	Between 18-64	Over 64
CT 1802.00 BG 2	**15.1**	58.3	24.9
Route Alternative 2			
Wisconsin	22.3	61.7	16.0
Ashland County	22.3	59.5	18.2
CT 9505.00 BG 1	**27.7**	55.5	16.8
CT 9505.00 BG 2	**31.7**	47.3	**20.9**
CT 9506.00 BG 1	15.8	57.5	**26.7**
CT 9506.00 BG 2	15.5	62.4	**22.1**
Bayfield County	17.5	56.5	26.0
CT 9604.02 BG 1	**19.2**	58.6	22.3
CT 9604.02 BG 3	**22.8**	50.3	**27.0**
Iron County	14.1	56.6	29.3
CT 1801.00 BG 1	**15.7**	45.1	**39.2**
CT 1801.00 BG 2	**16.5**	64.9	18.6
CT 1801.00 BG 3	14.1	64.6	21.4
CT 1801.00 BG 4	**24.4**	53.3	22.3
CT 1802.00 BG 1	**15.6**	56.9	27.2
CT 1802.00 BG 2	**15.1**	58.3	24.9
Michigan	22.1	61.6	16.3
Gogebic County	15.5	59.9	24.6
CT 9506.00 BG 2	**16.2**	61.1	22.7
CT 9507.00 BG 2	15.0	53.5	**31.5**
Route Alternative 3			
Wisconsin	22.3	61.7	16.0
Ashland County	22.3	59.5	18.2
CT 9506.00 BG 2	15.5	62.4	**22.1**
CT 9507.00 BG 1	13.1	60.7	**26.2**
CT 9507.00 BG 2	15.9	56.2	**27.9**
Bayfield County	17.5	56.5	26.0
CT 9602.00 BG 1	14.0	60.6	25.5
CT 9604.01 BG 1	16.1	54.3	**29.6**
CT 9606.00 BG 1	13.3	51.1	**35.6**
CT 9606.00 BG 2	7.1	47.3	**45.6**
Iron County	14.1	56.6	29.3
CT 1801.00 BG 2	**16.5**	64.9	18.6
CT 1801.00 BG 3	14.1	64.6	21.4
CT 1801.00 BG 4	**24.4**	53.3	22.3
CT 1802.00 BG 1	**15.6**	56.9	27.2
Michigan	22.1	61.6	16.3
Gogebic County	15.5	59.9	24.6
CT 9507.00 BG 2	15.0	53.5	**31.5**

Source: US Census Bureau, 2021
CBGs in Bold are crossed by the Route Alternative. The remaining CBGs are within a one-mile buffer.

The existing Line 5 crosses through three CBGs, with two of those CBGs containing higher populations of those 17 and under. An additional three CBGs are in the one-mile radius of the existing Line 5, with two of those CBGs within the one-mile radius having higher populations of those over 64. None of the existing Line 5 CBGs have both age indicators.

The Proposed Route and one-mile radius include nine CBGs. Of those, five CBGs have higher populations of those under 17 and five CBGs have higher populations of those over 64. Two of the CBGs have both vulnerable age indicators.

Route Alternative 1 and its one-mile radius has seven CBGs. Four of the CBGs have under age 17 indicators and three CBGs contain over age 64 indicators. Only one of the CBGs associated with Route Alternative 1 has both vulnerable age indicators.

Route Alternative 2 and its one-mile radius has a total of 14 CBGs. 10 CBGs have the under age 17 indicators and six CBGs contain the over age 64 indicators. Three of the CBGs associated with Route Alternative 2 have both vulnerable age indicators.

Route Alternative 3 and its one-mile radius has a total of 12 CBGs. Three of the CBGs have under 17 populations greater than the corresponding county. Seven of the CBGs have over age 64 populations greater than the corresponding counties. None of the CBGs Associated with Route Alternative 3 have both vulnerable age indicators.

2.3.3. Education

Educational attainment can also be a marked burden on a community as populations with low rates of High School graduation often earn lower wages and have fewer economic opportunities.

Table 6 below shows additional information on educational attainment across in the Study Area. For the percent with less than a High School Education and the percent with High School as highest level of Education, CBGs with higher percentages than their corresponding counties are shaded green. For Percent with an Associates, Percent with a Bachelors, and Percent with an Advanced Degree, the CBGs with lower percentages than their corresponding counties are shaded green.

Table 6: Educational Attainment

Location	Less than High School (HS) [a]	Percent with HS as Highest Level of Education [a]	Percent with Associates [b]	Percent with Bachelors [b]	Percent with Advanced Degree [b]
Existing Line 5					
Wisconsin	7.1	50.2	11.2	20.7	10.8
Ashland County	6.0	61.0	14.0	13.0	6.0
CT 9400.00 BG 1	10.9	62.7	13.2	10.3	2.1
CT 9503.00 BG 1	3.2	53.0	14.8	21.2	6.8
CT 9504.00 BG 1	5.5	59.1	7.5	16.1	8.7
CT 9505.00 BG 1	4.1	60.2	17.2	13.5	3.6
CT 9508.00 BG 3	3.2	68.0	11.1	12.6	5.1

Location	Less than High School (HS) [a]	Percent with HS as Highest Level of Education [a]	Percent with Associates [b]	Percent with Bachelors [b]	Percent with Advanced Degree [b]
Iron County	4.0	57.0	16.0	17.0	6.0
CT 1802.00 BG 2	4.3	55.3	24.8	10.7	2.5
Proposed Route					
Wisconsin	7.1	50.2	11.2	20.7	10.8
Ashland County	6.0	61.0	14.0	13.0	6.0
CT 9400.00 BG 1	10.9	62.7	13.2	10.3	2.1
CT 9505.00 BG 1	4.1	60.2	17.2	13.5	3.6
CT 9503.00 BG 1	3.2	53.0	14.8	21.2	6.8
CT 9504.00 BG 1	5.5	59.1	7.5	16.1	8.7
CT 9505.00 BG 2	1.4	48.8	28.9	13.5	7.0
CT 9506.00 BG 1	7.3	60.4	13.7	15.0	1.7
CT 9506.00 BG 2	8.4	61.7	11.7	15.3	2.5
Bayfield County	5.0	49.0	13.0	21.0	12.0
CT 9604.02 BG 3	9.4	54.8	14.1	17.5	1.5
Iron County	4.0	57.0	16.0	17.0	6.0
CT 1802.00 BG 2	4.3	55.3	24.8	10.7	2.5
Route Alternative 1					
Wisconsin	7.1	50.2	11.2	20.7	10.8
Ashland County	6.0	61.0	14.0	13.0	6.0
CT 9400.00 BG 1	10.9	62.7	13.2	10.3	2.1
CT 9503.00 BG 1	3.2	53.0	14.8	21.2	6.8
CT 9505.00 BG 1	4.1	60.2	17.2	13.5	3.6
CT 9505.00 BG 2	1.4	48.8	28.9	13.5	7.0
CT 9506.00 BG 1	7.3	60.4	13.7	15.0	1.7
CT 9508.00 BG 3	3.2	68.0	11.1	12.6	5.1
Iron County	4.0	57.0	16.0	17.0	6.0
CT 1802.00 BG 2	4.3	55.3	24.8	10.7	2.5
Route Alternative 2					
Wisconsin	7.1	50.2	11.2	20.7	10.8
Ashland County	6.0	61.0	14.0	13.0	6.0
CT 9505.00 BG 1	4.1	60.2	17.2	13.5	3.6
CT 9505.00 BG 2	1.4	48.8	28.9	13.5	7.0
CT 9506.00 BG 1	7.3	60.4	13.7	15.0	1.7
CT 9506.00 BG 2	8.4	61.7	11.7	15.3	2.5
Bayfield County	5.0	49.0	13.0	21.0	12.0
CT 9604.02 BG 1	7.9	50.9	13.5	17.2	9.0
CT 9604.02 BG 3	9.4	54.8	14.1	17.5	1.5
Iron County	4.0	57.0	16.0	17.0	6.0
CT 1801.00 BG 1	13.6	36.5	7.6	3.1	6.0
CT 1801.00 BG 2	3.6	33.7	2.6	16.7	15.0
CT 1801.00 BG 3	2.4	58.9	20.8	13.7	2.2

Location	Less than High School (HS) [a]	Percent with HS as Highest Level of Education [a]	Percent with Associates [b]	Percent with Bachelors [b]	Percent with Advanced Degree [b]
CT 1801.00 BG 4	4.8	59.9	14.9	14.9	5.0
CT 1802.00 BG 1	2.0	60.2	16.1	13.7	7.1
CT 1802.00 BG 2	4.3	55.3	24.8	10.7	2.5
Michigan	8.4	28.5	32.5	18.6	12.0
Gogebic County	6.0	57.0	15.0	15.0	7.0
CT 9506.00 BG 2	9.5	61.7	11.4	9.0	1.9
CT 9507.00 BG 2	1.6	52.8	9.8	21.5	11.8
Route Alternative 3					
Wisconsin	7.1	50.2	11.2	20.7	10.8
Ashland County	6.0	61.0	14.0	13.0	6.0
CT 9506.00 BG 2	8.4	61.7	11.7	15.3	2.5
CT 9507.00 BG 1	4.7	73.6	5.4	11.4	3.6
CT 9507.00 BG 2	7.5	61.6	17.6	7.1	4.8
Bayfield County	5.0	49.0	13.0	21.0	12.0
CT 9602.00 BG 1	2.6	57.5	12.8	21.7	4.0
CT 9604.01 BG 1	7.9	50.9	13.5	17.2	9.0
CT 9606.00 BG 1	3.5	52.6	7.9	23.7	9.6
CT 9606.00 BG 2	4.1	39.8	15.1	23.8	13.1
Iron County	4.0	57.0	16.0	17.0	6.0
CT 1801.00 BG 2	3.6	33.7	2.6	16.7	15.0
CT 1801.00 BG 3	2.4	58.9	20.8	13.7	2.2
CT 1801.00 BG 4	4.8	59.9	14.9	14.9	5.0
CT 1802.00 BG 1	2.0	60.2	16.1	13.7	7.1
Michigan	8.4	28.5	32.5	18.6	12.0
Gogebic County	6.0	57.0	15.0	15.0	7.0
CT 9507.00 BG 2	1.6	52.8	9.8	21.5	11.8

Source: US Census Bureau, 2021

[a] CBGs with higher percentages than their corresponding counties are shaded green.
[b] CBGs with lower percentages than their corresponding counties are shaded green.

Overall, educational attainment in the CBGs in the Study Area does not vary dramatically from the associated counties. The first two columns – percent with less than a high school degree and percent with high school as highest level of education, will be the focus of the EJ analysis because they are the most impactful on the earning power of a population.

The existing Line 5 crosses two CBGs with variation in educational attainment: CT 9400.00 BG 1 and CT 9508.00 BG 3. In CT 9400.00 BG 1, the most significant variation is in the percent of the population with less than a high school education 10.9 percent (10.9%) compared to Ashland County at 6.0 percent (6.0%) and the state of Wisconsin at 7.1 percent (7.1%).

On the Proposed Route, there are several additional CBGs with variation in education levels. Of the CBGs crossed by the Proposed Route, three have higher percentages of those with less than a high school education as compared to Ashland County and Iron County. The difference in the

Iron County CBG is minor, as are the two in Ashland County with only CT 9506.00 BG 2 exceeding the county and state levels by a full percentage point.

Route Alternative 1 also crosses three CBGs with higher rates of those with less than a high school education with two CBGs in Ashland County and one CBG in Iron County. Again, variations of the CBGs from the state and counties are relatively small.

Route Alternative 2 crosses six CBGs with higher rates of those with less than or with only a high school education. The differences in the percentages are still within reasonable margins and are largely insignificant when accounting for variations in data collection. The one-mile radius does show one CBG in Iron County with a much higher rate of those with less than a high school education: CT 1801.00 BG 1, which shows 13.6 percent (13.6%) of the population with less than a high school education compared to Iron County with only four percent (4.0%). However, that same CBG has a significantly lower rate compared to the Iron County of those with only a high school education, 36.5 percent (36.5%) and 57.0 percent (57.0%), respectively.

Route Alternative 3 crosses seven CBGs with higher rates of those with less than or with only a high school education. Only one of the CBGs crossed by Route Alternative 3 does not have educational variances from the associated counties. Similar to the other routes, the educational variations between the CBGs and the relevant counties are minor with only a couple of the rates showing a change of more than ten percent (10%).

Route Alternatives 2 and 3 both cross more CBGs and are significantly longer than the other routes, though a straight comparison in the number of CBGs with educational variances is not the best measure of the education burden on these communities.

2.3.4. Environmental and Health Indicators

The overall environmental and public health outcomes for the counties in the Study Area are shown in Table 7,Table 8, and Table 9.

Table 7 presents supplementary indicators from the USEPA EJ Screen Tool as percentiles of the state populations. Percentiles differ from percentages. Where percentages are an absolute term, percentiles are relative. The percentile indicates what percent of the state population has an equal or lower value, so high percentiles mean that the majority of the reference population has a lower risk (e.g., a hazard in the 90th percentile indicates that only 10 percent (10%) of the population is at a higher exposure). The Air Toxics Respiratory Hazard Index measures the ratio of exposure concentration to a health-based reference concentration. The Air Toxics Cancer Risk measures the lifetime cancer risk from inhalation of air toxics. Both Air Toxics measurements are taken from the National Air Toxics Assessment (“NATA”) and provide insight into the overall air quality of the region. Superfund and hazardous waste proximity both provide a count of proposed or listed superfund sites within five kilometers, each divided by distance in kilometers. CBGs with environmental indicators in the 80th percentile or above are shaded green in Table 7 below.

The pollutants in Table 8 are the air toxic contaminants included in the Wisconsin Environmental Health (“EPH”) Tracking Tool for which there are annual average air concentration data available. The data for these tables come from the WDNR. Under relevant provision of the Wisconsin

Administrative Code, industrial facilities must report air contaminant emissions that exceed certain reportable levels. The annual average air concentrations are therefore based on reportable levels.

Table 9 provides an overview of the public health of the population by measure of metrics for asthma and heart disease. Data for this table is from the Wisconsin Department of Health Services and the Michigan Department of Health & Human Services databases. Relative asthma levels are considered through emergency department visits, using an age-adjusted rate per 10,000 population. For a similar comparison metric, heart attacks are measured in hospitalizations, using an age-adjusted rate among persons 35 and over per 10,000 population. County asthma and heart disease rates greater than the state values are shaded green.

Table 7: USEPA EJ Screen Supplementary Indicators for Study Area Route Alternatives by Percentile

Location	Air Toxics Respiratory Hazard Index (percentile)	Air Toxics Cancer Risk (percentile)	Superfund Proximity (percentile)	Hazardous Waste Proximity (percentile)
Existing Line 5				
Wisconsin				
Ashland County	81	59	94	29
CT 9400.00 BG 1	55	<1	49	21
CT 9503.00 BG 1	98	97	97	*33*
CT 9504.00 BG 1	99	97	93	28
CT 9505.00 BG 1	55	<1	68	18
CT 9508.00 BG 3	55	97	95	44
Iron County	55	<1	6	1
CT 1802.00 BG 2	55	<1	17	3
Proposed Route				
Wisconsin				
Ashland County	81	59	94	29
CT 9400.00 BG 1	55	<1	49	21
CT 9505.00 BG 1	55	<1	68	18
CT 9503.00 BG 1	98	97	97	33
CT 9504.00 BG 1	99	97	93	28
CT 9505.00 BG 2	55	<1	26	6
CT 9506.00 BG 1	55	97	18	3
CT 9506.00 BG 2	55	97	17	3
Bayfield County	55	78	37	9
CT 9604.02 BG 3	55	97	34	7
Iron County	55	<1	6	1
CT 1802.00 BG 2	55	<1	17	3
Route Alternative 1				

Location	Air Toxics Respiratory Hazard Index (percentile)	Air Toxics Cancer Risk (percentile)	Superfund Proximity (percentile)	Hazardous Waste Proximity (percentile)
Wisconsin				
Ashland County	81	59	94	29
CT 9400.00 BG 1	55	<1	49	21
CT 9503.00 BG 1	98	97	97	33
CT 9505.00 BG 1	55	<1	68	18
CT 9505.00 BG 2	55	<1	26	6
CT 9506.00 BG 1	55	97	18	3
CT 9508.00 BG 3	55	97	95	44
Iron County	55	<1	6	1
CT 1802.00 BG 2	55	<1	17	3
Route Alternative 2				
Wisconsin				
Ashland County	81	59	94	29
CT 9505.00 BG 1	55	<1	68	18
CT 9505.00 BG 2	55	<1	26	6
CT 9506.00 BG 1	55	97	18	3
CT 9506.00 BG 2	55	97	17	3
Bayfield County	55	78	37	9
CT 9604.02 BG 1	55	97	60	12
CT 9604.02 BG 3	55	97	34	7
Iron County	55	<1	6	1
CT 1801.00 BG 1	55	<1	7	<1
CT 1801.00 BG 2	55	<1	8	<1
CT 1801.00 BG 3	55	<1	7	<1
CT 1801.00 BG 4	55	<1	8	<1
CT 1802.00 BG 1	55	<1	9	<1
CT 1802.00 BG 2	55	<1	17	3
Michigan				
Gogebic County	50	16	5	4
CT 9506.00 BG 2	50	69	6	4
CT 9507.00 BG 2	50	<1	6	5
Route Alternative 3				
Wisconsin				
Ashland County	81	59	94	29
CT 9506.00 BG 2	55	97	17	3
CT 9507.00 BG 1	55	<1	7	8
CT 9507.00 BG 2	55	<1	4	19

Location	Air Toxics Respiratory Hazard Index (percentile)	Air Toxics Cancer Risk (percentile)	Superfund Proximity (percentile)	Hazardous Waste Proximity (percentile)
Bayfield County	55	78	37	9
CT 9602.00 BG 1	55	97	12	1
CT 9604.01 BG 1	55	97	14	1
CT 9606.00 BG 1	55	97	8	4
CT 9606.00 BG 2	55	97	12	3
Iron County	55	<1	6	1
CT 1801.00 BG 2	55	<1	8	<1
CT 1801.00 BG 3	55	<1	7	<1
CT 1801.00 BG 4	55	<1	8	<1
CT 1802.00 BG 1	55	<1	9	<1
Michigan				
Gogebic County	50	16	5	4
CT 9507.00 BG 2	50	<1	6	5

Table 8: Air Quality

Location	Annual Average Air Concentrations 2018 (µg/m3)						Seasonal average daily maximum (ppb)
	Benzene	Formaldehyde	Acetaldehyde	Carbon tetrachloride	1,3-butadiene	$PM_{2.5}$	Ozone
Wisconsin	0.26	0.71	0.55	0.38	0.01	7.8	41.5
Ashland County	0.26	0.66	0.57	0.38	0.01	6.2	35.1
Bayfield County	0.26	0.66	0.56	0.38	0.01	5.7	34.8
Iron County	0.25	0.65	0.57	0.38	0.01	5.7	35.3
Michigan	0.25	0.67	0.52	0.38	0.01	8.7	43.8
Gogebic County	0.26	0.63	0.56	0.38	0.01	5.4	35.2

Source: Wisconsin Department of Health Services, 2023; Michigan Department of Health & Human Services, 2023; EPA AirToxScreen, 2018

Table 9: State-Wide Health Data

Location	Asthma – Emergency Department Visits [a] – 2021	Heart Attack Hospitalizations [b] – 2018
Wisconsin	27.2	37.8
Ashland County	33.9	53.6
Bayfield County	23.9	24.9
Iron County	2.73	31.2
Michigan	6.5	37.9
Gogebic County	**	13.6

Source: Wisconsin Department of Health Services, 2023; Michigan Department of Health & Human Services, 2023

[a] Age-adjusted rate per 10,000 population

[b] Age-adjusted rate among persons 35 and over per 10,000 population

** Data suppressed due to privacy concerns from small population sizes

Overall, the supplementary environmental indicators in Table 7 show higher percentile values predominantly in tracts across Ashland County. As a whole, Ashland County is above the 80th percentile under the Air Toxics Respiratory Hazard Index and above the 90th percentile for Superfund Proximity, compared to state values. For the existing Line 5, three out of the six CBGs have additional environmental indicators above the 90th percentile. For the Proposed Route, four out of nine CBGs are above the 90th percentile for at least one of the supplementary indicators. For Route Alternatives 1, 2, and 3, there are three out of seven CBGs, four out of 14 CBGs, and five out of 12 CBGs above the 90th percentile for at least one of the supplementary indicators, respectively. As mentioned above, the majority of these CBGs are located in Ashland County, which is environmentally above the state average. For Route Alternatives 2 and 3, all of the tracts that the routes would pass through in Bayfield County are above the 90th percentile for Air Toxics Cancer Risk which is well above the average for the county.

In terms of air quality, none of the counties have annual concentrations of contaminants that are higher than the state values. Comparative to other data points, the values for Air Toxics from the USEPA EJ Screen as listed in Table 7 provide a more comprehensive picture of how the counties and tracts compare to state values.

In line with the results discussed from Table 7, Table 9 shows increased health risks primarily for Ashland County, more so than any other county.

3. SUMMARY OF POTENTIAL COMMUNITIES WITH EJ CONCERNS

3.1. POTENTIAL COMMUNITIES WITH EJ CONCERNS MATRIX

The matrix below demonstrates the vulnerability of the Study Area and highlights the importance of identifying other socioeconomic characteristics alongside percent below poverty and minority populations.

Table 10: EJ Variables Matrix

Variables	Percent Minority	Percent Below Poverty	Percent Linguistically Isolated	Percent Age - 17 and Under	Percent Age - 65 and Older	Percent Less than HS Education	Air Toxics Respiratory Index (%ile)	Air Toxics Cancer Risk (%ile)	Superfund Proximity (%ile)	Hazardous Waste Proximity (%ile)
Census Block Groups										
Existing Line 5										
Wisconsin	19.9	10.5	1.3	22.3	16.0	7.1				
Ashland County	18.1	16.7	0.2	22.3	18.2	6.0	81	59	94	29
CT 9400.00 BG 1	57.4	15.9		26.9	12.1	10.9	55	0	49	21
CT 9503.00 BG 1	17.4	25.1		17.6	16.4	3.2	98	97	97	33
CT 9504.00 BG 1	20.7	16.3		17.0	27.4	5.5	99	97	93	28
CT 9505.00 BG 1	8.1	7.9		27.7	16.8	4.1	55	0	68	18
CT 9508.00 BG 3	11.6	25.1		11.7	18.8	3.2	55	97	95	44
Iron County	5.0	11.1	0.3	14.1	29.3	4.0	55	0	6	1
CT 1802.00 BG 2	5.8	5.0		15.1	24.9	4.3	55	0	17	3
Proposed Route										
Wisconsin	19.9	10.5	1.3	22.3	16.0	7.1				
Ashland County	18.1	16.7	0.2	22.3	18.2	6.0	81	59	94	29
CT 9400.00 BG 1	57.4	15.9		26.9	12.1	10.9	55	0	49	21
CT 9505.00 BG 1	8.1	7.9		27.7	16.8	4.1	55	0	68	18
CT 9503.00 BG 1	17.4	25.1		17.6	16.4	3.2	98	97	97	33
CT 9504.00 BG 1	20.7	16.3		17.0	27.4	5.5	99	97	93	28
CT 9505.00 BG 2	6.5	4.0		31.7	20.9	1.4	55	0	26	6
CT 9506.00 BG 1	7.8	12.0		15.8	26.7	7.3	55	97	18	3
CT 9506.00 BG 2	4.3	11.7		15.5	22.1	8.4	55	97	17	3
Bayfield County	16.2	10.3	0.2	17.5	26.0	5.0	55	78	37	9
CT 9604.02 BG 3	5.5	5.0		22.8	27.0	9.4	55	97	34	7
Iron County	5.0	11.1	0.3	14.1	29.3	4.0	55	0	6	1
CT 1802.00 BG 2	5.8	5.0		15.1	24.9	4.3	55	0	17	3

Route Alternative 1										
Wisconsin	19.9	10.5	1.3	22.3	16.0	7.1				
Ashland County	18.1	16.7	0.2	22.3	18.2	6.0	81	59	94	29
CT 9400.00 BG 1	57.4	15.9		26.9	12.1	10.9	55	0	49	21
CT 9503.00 BG 1	17.4	25.1		17.6	16.4	3.2	98	97	97	33
CT 9505.00 BG 1	8.1	7.9		27.7	16.8	4.1	55	0	68	18
CT 9505.00 BG 2	6.5	4.0		31.7	20.9	1.4	55	0	26	6
CT 9506.00 BG 1	7.8	12.0		15.8	26.7	7.3	55	97	18	3
CT 9508.00 BG 3	11.6	25.1		11.7	18.8	3.2	55	97	95	44
Iron County	5.0	11.1	0.3	14.1	29.3	4.0	55	0	6	1
CT 1802.00 BG 2	5.8	5.0		15.1	24.9	4.3	55	0	17	3
Route Alternative 2										
Wisconsin	19.9	10.5	1.3	22.3	16.0	7.1				
Ashland County	18.1	16.7	0.2	22.3	18.2	6.0	81	59	94	29
CT 9505.00 BG 1	8.1	7.9		27.7	16.8	4.1	55	0	68	18
CT 9505.00 BG 2	6.5	4.0		31.7	20.9	1.4	55	0	26	6
CT 9506.00 BG 1	7.8	12.0		15.8	26.7	7.3	55	97	18	3
CT 9506.00 BG 2	4.3	11.7		15.5	22.1	8.4	55	97	17	3
Bayfield County	16.2	10.3	0.2	17.5	26.0	5.0	55	78	37	9
CT 9604.02 BG 1	10.4	5.7		19.2	22.3	7.9	55	97	60	12
CT 9604.02 BG 3	5.5	5.0		22.8	27.0	9.4	55	97	34	7
Iron County	5.0	11.1	0.3	14.1	29.3	4.0	55	NA	6	1
CT 1801.00 BG 1	3.6	27.2		15.7	39.2	13.6	55	NA	7	0
CT 1801.00 BG 2	2.2	14.2		16.5	18.6	3.6	55	0	8	0
CT 1801.00 BG 3	5.6	7.8		14.1	21.4	2.4	55	0	7	0
CT 1801.00 BG 4	15.0	13.2		24.4	22.3	4.8	55	0	8	0
CT 1802.00 BG 1	1.7	10.5		15.6	27.2	2.0	55	0	9	0
CT 1802.00 BG 2	5.8	5.0		15.1	24.9	4.3	55	0	17	3
Michigan	26.0	12.9	1.4	22.1	16.3	8.4				
Gogebic County	9.1	16.1	0.3	15.5	24.6	6.0	50	16	5	4
CT 9506.00 BG 2	4.3	5.4		16.2	22.7	9.5	50	69	6	4
CT 9507.00 BG 2	5.6	10.5		15.0	31.5	1.6	50	0	6	5
Route Alternative 3										
Wisconsin	19.9	10.5	1.3	22.3	16.0	7.1				
Ashland County	18.1	16.7	0.2	22.3	18.2	6.0	81	59	94	29
CT 9506.00 BG 2	4.3	11.7		15.5	22.1	8.4	55	97	17	3
CT 9507.00 BG 1	3.6	9.9		13.1	26.2	4.7	55	0	7	8
CT 9507.00 BG 2	3.9	7.8		15.9	27.9	7.5	55	0	4	19
Bayfield County	16.2	10.3	0.2	17.5	26.0	5.0	55	78	37	9
CT 9602.00 BG 1	10.8	9.1		14.0	25.5	2.6	55	97	12	1
CT 9604.01 BG 1	6.7	11.2		16.1	29.6	7.9	55	97	14	1
CT 9606.00 BG 1	5.3	4.0		13.3	35.6	3.5	55	97	8	4
CT 9606.00 BG 2	2.1	8.1		7.1	45.6	4.1	55	97	12	3

Iron County	5.0	11.1	0.3	14.1	29.3	4.0	55	0	6	1
CT 1801.00 BG 2	2.2	14.2		16.5	18.6	3.6	55	0	8	0
CT 1801.00 BG 3	5.6	7.8		14.1	21.4	2.4	55	0	7	0
CT 1801.00 BG 4	15.0	13.2		24.4	22.3	4.8	55	0	8	0
CT 1802.00 BG 1	1.7	10.5		15.6	27.2	2.0	55	0	9	0
Michigan	26.0	12.9	1.4	22.1	16.3	8.4				
Gogebic County	9.1	16.1	0.3	15.5	24.6	6.0	50	16	5	4
CT 9507.00 BG 2	5.6	10.5		15.0	31.5	1.6	50	0	6	5

	>10 percent from Reference Population or above the 90th percentile
	Between 0 and 10 percent greater than Reference Population
	Lower than the Reference Population

Table 11 below summarizes the findings from the CEJST tool. As part of conditions for considering a community disadvantaged, the census tract must be above the 65th percentile low-income threshold. To align with this standard, the table below only mentions additional environmental, climate, or other burdens for communities that meet the socioeconomic status burden and are designated disadvantaged by the CEJST tool.

Table 11: CEJST Summary Table

Variables	Low Income	Proximity to Superfund Sites	Asthma	Low life Expectancy	Expected Population Loss	Energy Cost	Heart Disease	Lead Paint	Underground Storage Tanks & Releases	Considered Disadvantaged
Census Block Groups										
Existing Route										
Wisconsin										
Ashland County										
CT 9504	65	95		96						**Yes**
CT 9503	50									No
CT 9508	79	97								**Yes**
CT 9505	62									No
CT 9400	88		94							**Yes**
Iron County										
CT 1802	60									No
Proposed Route										
Wisconsin										
Ashland County										

CT 9504	65	95		96						**Yes**
CT 9503	50									No
CT 9505	62									No
CT 9400	88		94							**Yes**
CT 9506	74				91	91				**Yes**
Bayfield County										
CT 9604	59									No
Iron County										
CT 1802	60									No
Route Alternative 1										
Wisconsin										
Ashland County										
CT 9508	79	97								**Yes**
CT 9503	50									No
CT 9505	62									No
CT 9400	88		94							**Yes**
CT 9506	74				91	91				**Yes**
Iron County										
CT 1802	60									No
Route Alternative 2										
Wisconsin										
Ashland County										
CT 9505	62									No
CT 9506	74				91	91				**Yes**
Bayfield County										
CT 9604	59									No
Iron County										
CT 1802	60									No
CT 1801	78						92			**Yes**
Michigan										
Gogebic County										
CT 9506	89						96	96	97	**Yes**
CT 9507	44									No
Route Alternative 3										
Wisconsin										
Ashland County										
CT 9506	74				91	91				**Yes**
CT 9507	70				91	94				**Yes**
Bayfield County										
CT 9602	56									No
CT 9604	59									No
CT 9606	50									No
Iron County										

CT 1802	60									No
CT 1801	78						92			**Yes**
Michigan										
Gogebic County										
CT 9507	44									No
		> 65th percentile low income								
		Meets threshold								

The matrices in Tables 10 and 11 above demonstrate the vulnerability of the Study Area and highlights the importance of identifying other socioeconomic characteristics alongside percent below poverty and minority populations.

3.2. ROUTE ALTERNATIVE MILAGE THROUGH POTENTIAL EJ COMMUNITIES

The existing Line 5, the Proposed Route, and Alternative Routes 1, 2, and 3 all have various degrees of EJ impacts on the communities they propose to pass through.

Using only the percent minority and percent low income from the United States Census Bureau data, ERM has calculated how many miles each potential project route cross through the different CBGs. The route with the fewest miles through an EJ Community is the Proposed Route, with 10.5 miles of the line running through potential EJ CBGs. Those 10.5 miles represent 25.5 percent (25.5%) of that route section. Route Alternative 3 has 20.8 percent (20.8%) of the segment running through EJ CBGs; however, the actual mileage for that alternative is 101.5 miles, with 21.1 miles running through potential EJ communities.

These findings are supported by the findings from the CEJST tool. ERM calculated how many miles of each potential project route crossed through different Census Tracts. The Proposed Route has the fewest number of miles of line passing through a disadvantaged community, with 7.7 miles, which represents 18.7 percent (18.7%) of the total for that route. Route Alternative 2 has the next fewest, with 16.2 miles through disadvantaged communities, which represents 27.9 percent (27.9%) of the total for that route.

Table 12 below shows the CBGs crossed by each route, their potential EJ status, and how many miles of each route cross each CBG. Table 13 shows Census Tracts crossed by each route, their disadvantaged community status, and how many miles of each route cross each tract.

Table 12: Mileage Through Potential EJ Communities for Each Route (Based on Census Bureau Data)

Location	Potential EJ Community using US Census Demographic Data	Miles crossed
Existing Line 5		
Wisconsin		
Ashland County		
CT 9400.00 BG 1	Yes	13.3
CT 9505.00 BG 1		3.6
Iron County		
CT 1802.00 BG 2	Yes	3.5
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**16.8 / 20.4** **82.4%**
Proposed Route		
Wisconsin		
Ashland County		
CT 9505.00 BG 1		13.6
CT 9505.00 BG 2		9.3
CT 9506.00 BG 1		6.7
CT 9506.00 BG 2		1.0
Iron County		
CT 1802.00 BG 2	Yes	10.5
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**10.5 / 41.1** **25.5%**
Route Alternative 1		
Wisconsin		
Ashland County		
CT 9400.00 BG 1	Yes	16.7
CT 9505.00 BG 1		1.7
CT 9505.00 BG 2		3.0
CT 9506.00 BG 1		1.9
Iron County		
CT 1802.00 BG 2	Yes	8.0
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**24.7 / 31.4** **78.7%**
Route Alternative 2		
Wisconsin		
Ashland County		
CT 9505.00 BG 1		2.0
CT 9505.00 BG 2		9.2
CT 9506.00 BG 1		7.7
CT 9506.00 BG 2		4.4
Bayfield County		
CT 9604.02 BG 1		4.5
CT 9604.02 BG 3		7.8
Iron County		

Location	Potential EJ Community using US Census Demographic Data	Miles crossed
CT 1801.00 BG 2	Yes	4.0
CT 1801.00 BG 4	Yes	<0.1
CT 1802.00 BG 1		9.4
CT 1802.00 BG 2	Yes	9.0
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**13.1 / 58.0** **22.6%**
Route Alternative 3		
Wisconsin		
Ashland County		
CT 9506.00 BG 2		17.0
CT 9507.00 BG 1		8.4
Bayfield County		
CT 9602.00 BG 1		4.4
CT 9604.01 BG 1	Yes	16.8
CT 9606.00 BG 1		13.7
CT 9606.00 BG 2		17.3
Iron County		
CT 1801.00 BG 2	Yes	1.9
CT 1801.00 BG 4	Yes	2.4
CT 1802.00 BG 1		19.6
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**21.1 / 101.5** **20.8%**

Table 13 Mileage Through Potential EJ Communities for Each Route (Based on CEJST)

Location	Disadvantaged Census Tract (CEJST)	Miles crossed
Existing Line 5		
Wisconsin		
Ashland County		
CT 9400	Yes	13.3
CT 9505		3.6
Iron County		
CT 1802		3.5
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**13.3 / 20.4** **65.2%**
Proposed Route		
Wisconsin		
Ashland County		
CT 9505		22.9
CT 9506	Yes	7.7
Iron County		
CT 1802		10.5

Location	Disadvantaged Census Tract (CEJST)	Miles crossed
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**7.7 / 41.1** **18.7%**
Route Alternative 1		
Wisconsin		
Ashland County		
CT 9400	Yes	16.7
CT 9505.		4.7
CT 9506	Yes	1.9
Iron County		
CT 1802		8.0
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**18.6 / 31.3** **59.4%**
Route Alternative 2		
Wisconsin		
Ashland County		
CT 9505		11.2
CT 9506	Yes	12.1
Bayfield County		
CT 9604		12.3
Iron County		
CT 1801	Yes	4.1
CT 1802		18.4
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**16.2 / 58.1** **27.9%**
Route Alternative 3		
Wisconsin		
Ashland County		
CT 9506	Yes	17.0
CT 9507	Yes	8.4
Bayfield County		
CT 9602		4.4
CT 9604		16.8
CT 9606		31
Iron County		
CT 1801	Yes	4.3
CT 1802		19.6
Total EJ Miles Crossed/Total Miles **Percent of line in EJ block groups**		**29.7 / 101.5** **29.3%**

While socioeconomic and EJ impacts are important in the selection of a route, they must also be weighed against the environmental impacts found in the EIR and the Draft Environmental Impact Statement. A route avoiding most social impacts may not be preferred when impacts to wildlife, wetlands, and other environmental factors are considered.

Based on the findings in this EJA report, the Proposed Route crosses the least miles of EJ communities. The Proposed Route crosses 7.7 miles of an EJ census tract using the CEJST tool

definition of a disadvantaged community and 10.5 miles of an EJ CBG using the guidelines FERC recommends for United States Census Data. Alternative 2 is the second least impactful. Therefore, the recommendation for route selection from an EJ perspective is the Proposed Route.

4. REFERENCES

Center for Environmental Quality [CEQ]. 1997. *Environmental Justice Guidance Under the National Environmental Policy Act*. Accessed: March 2023. Available online: https://www.energy.gov/sites/default/files/nepapub/nepa_documents/RedDont/G-CEQ-EJGuidance.pdf.

Center for Environmental Quality [CEQ]. 2023. Climate and Economic Justice Screening Tool (CEJST). Accessed May 2023. Available online: https://screeningtool.geoplatform.gov/en/#8.51/46.5388/-90.7012

Federal Register. 1994. *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. Accessed: March 2023. Available online: https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf

Federal Register. 1997. *Protection of Children from Environmental Health Risks and Safety Risks.* Accessed: March 2023. Available online: https://www.govinfo.gov/content/pkg/FR-1997-04-23/pdf/97-10695.pdf

Federal Register. 2021. *Tackling the Climate Crisis at Home and Abroad*. Accessed: March 2023. Available online: https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad

Federal Interagency Working Group on Environmental Justice. 2019. *Community Guide to Environmental Justice and NEPA Methods.* Accessed: March 2023. Available online: https://www.energy.gov/sites/default/files/2019/05/f63/NEPA%20Community%20Guide%202019.pdf.

International Finance Corporation [IFC]. 2012. *IFC Performance Standards on Environmental and Social Sustainability*. Accessed: March 2023. Available online: https://www.ifc.org/wps/wcm/connect/c02c2e86-e6cd-4b55-95a2-b3395d204279/IFC_Performance_Standards.pdf?MOD=AJPERES&CVID=kTjHBzk.

Michigan Department of Health & Human Services. 2023. *MiTracking: Michigan Environmental Public Health Tracking.* Accessed March 2023. Available online: https://mitracking.state.mi.us/

Population Reference Bureau [PRB]. 2022. *How Poverty in the United States is Measured and Why it Matters*. Accessed: March 2023. Available online: https://www.prb.org/resources/how-poverty-in-the-united-states-is-measured-and-why-it-matters/.

The State of Wisconsin, Office of the Governor, 2022. *Executive Order #161 Relating to the Creation of the Office of Environmental Justice.* https://evers.wi.gov/Documents/EO/EO161-OEJ.pdf

US Census Bureau. 2021a. Table B17017: Poverty Status in the Past 12 Months by Household Type by Age of Householder. Accessed: March 2023. Available online: https://data.census.gov/table?q=b17017&tid=ACSDT1Y2021.B17017.

US Census Bureau. 2021b. Table B03002: Hispanic of Latino Origin by Race. Accessed: March 2023. Available online: https://data.census.gov/table?q=b03002.

US Census Bureau. 2021c. Table DP03: Selected Economic Characteristics. Accessed: March 2023. Available online: https://data.census.gov/table?q=DP03.

US Census Bureau. 2021d. Table B16004: Language Spoken at Home. Accessed: March 2023. Available online: https://data.census.gov/table?q=B16004.

US Census Bureau. 2021e. Table: B11022 Household Type by Relative. Accessed: March 2023. Available online: https://data.census.gov/table?q=B11022.

US Census Bureau. 2021f. Table: B11016 Household Type by Size. Accessed: March 2023. Available online: https://data.census.gov/table?q=B11016.

US Census Bureau. 2021g. Table: B15002 Education Level. Accessed: March 2023. Available online: https://data.census.gov/table?q=B15002.

US Census Bureau. 2021h. Table: B19055 Social Security Income. Accessed: March 2023. Available online: https://data.census.gov/table?q=B19055.

US Census Bureau. 2021i. Table: B23025 Unemployment. Accessed: March 2023. Available online: https://data.census.gov/table?q=B23025.

US Census Bureau. 2021j. Table: B25010 Average Household Size. Accessed: March 2023. Available online: https://data.census.gov/table?q=b25010.

US Census Bureau. 2021k. Table: B25044 Vehicles Available. Accessed: March 2023. Available online: https://data.census.gov/table?q=B25044.

US Census Bureau. 2021l. Table: B25077 Median Home Value. Accessed: March 2023. Available online: https://data.census.gov/table?q=B25077.

US Census Bureau. 2021m. Table: B01001 Age by Sex. Accessed: March 2023. Available online: https://data.census.gov/table?q=B01001.

US Census Bureau. 2021n. American Community survey 5-year data (2009-2021). Accessed: March 2023. Available online: https://www.census.gov/data/developers/data-sets/acs-5year.html

US EPA. 2013. Environmental Justice-Related Terms as Defined Across the PSC Agencies. Accessed: September 2022. Available online: https://www.epa.gov/sites/default/files/2015-02/documents/team-ej-lexicon.pdf.

US EPA. 2022a. *Federal EJ Strategies*. Accessed: March 2023. Available online: https://www.epa.gov/environmentaljustice/federal-ej-strategies

US EPA. 2022b. *What is EJScreen?*. Accessed: March 2023. Available online: https://www.epa.gov/ejscreen/what-ejscreen

US EPA. 2019. *EJScreen Technical Documentation.* Accessed: March 2023. Available online: https://www.epa.gov/sites/default/files/2021-04/documents/ejscreen_technical_document.pdf.

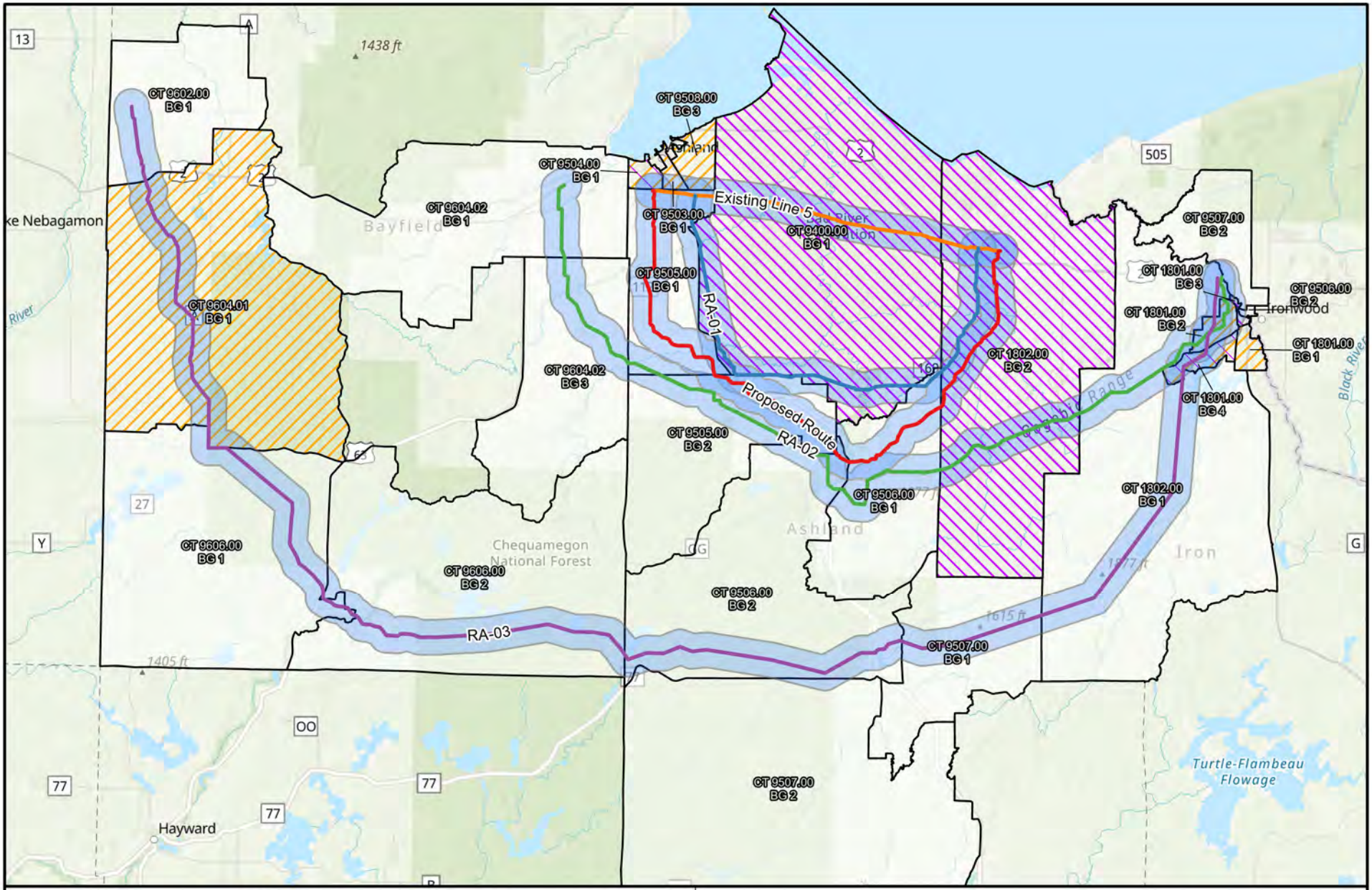
US EPA. 2023. *EJScreen Technical Documentation.* Accessed: March 2023. https://ejscreen.epa.gov/mapper/

US EPA. 2018. "2018 AirToxScreen: Assessment Results." Accessed: March 2023. Available online: https://www.epa.gov/AirToxScreen/2018-airtoxscreen-assessment-results

Wisconsin Department of Health Services. 2023. *Wisconsin Environmental Public Health Data Tracker*. Accessed March 2023. Available online: https://dhsgis.wi.gov/DHS/EPHTracker/#/all/Asthma/asthmaIndex/NOTRACT/Emergency%20Department%20Visits.

Wisconsin Economic Development Corporation. *The Wisconsin Environmental Equity Tool.* https://wedc.org/community/environmental-equity/

APPENDIX A MAPS



Demographic Indicators in the Study Area

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin

Enbridge Energy

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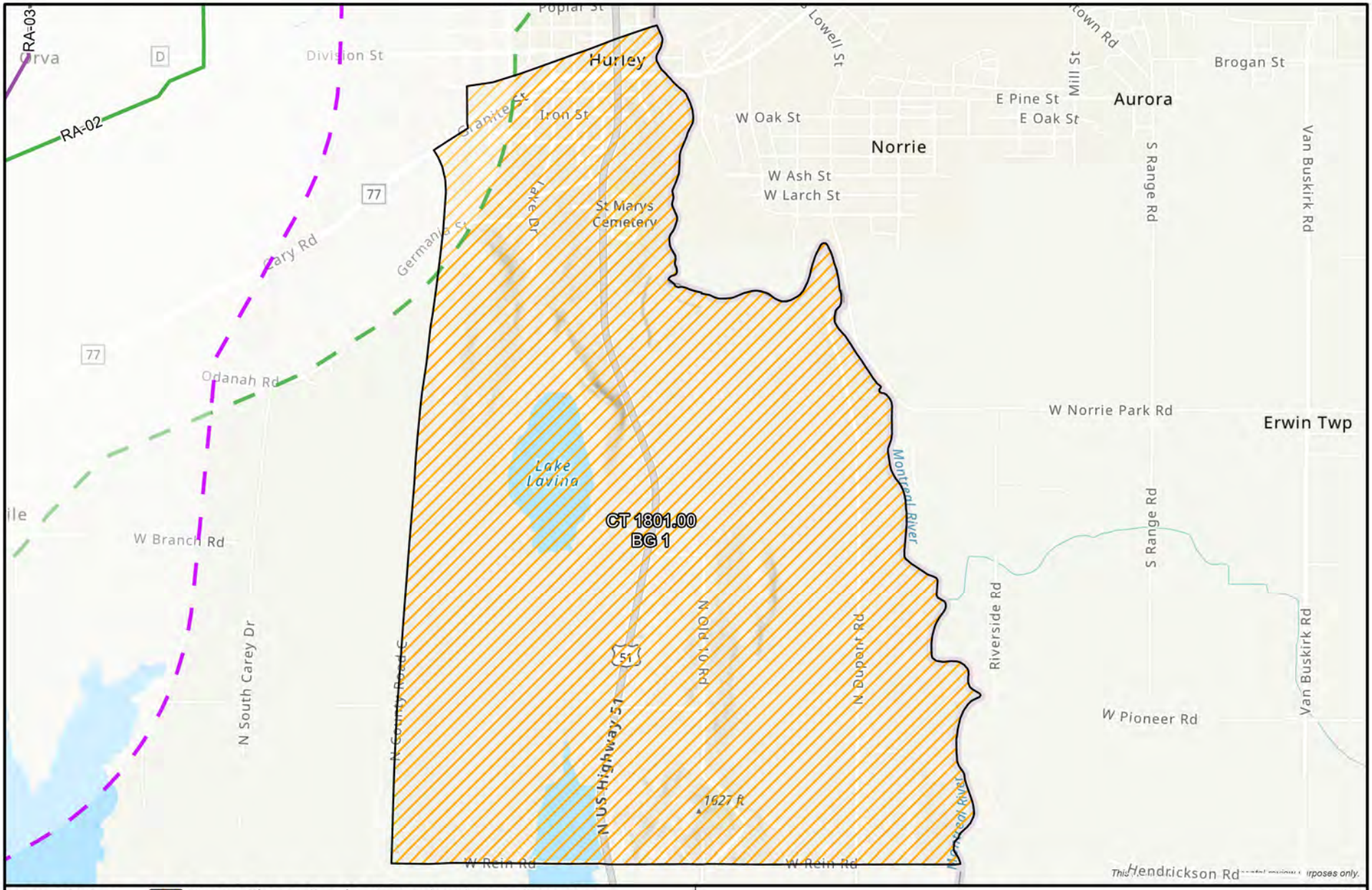

1 Mile Buffer

RA-02

Greater Than or Equal to County Low-Income Percentage

1:28,000

0 0.5 1 Miles

ERM

Page 1 of 10

Block Group: CT 1801.00 BG 1

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin

Enbridge Energy

ENBRIDGE

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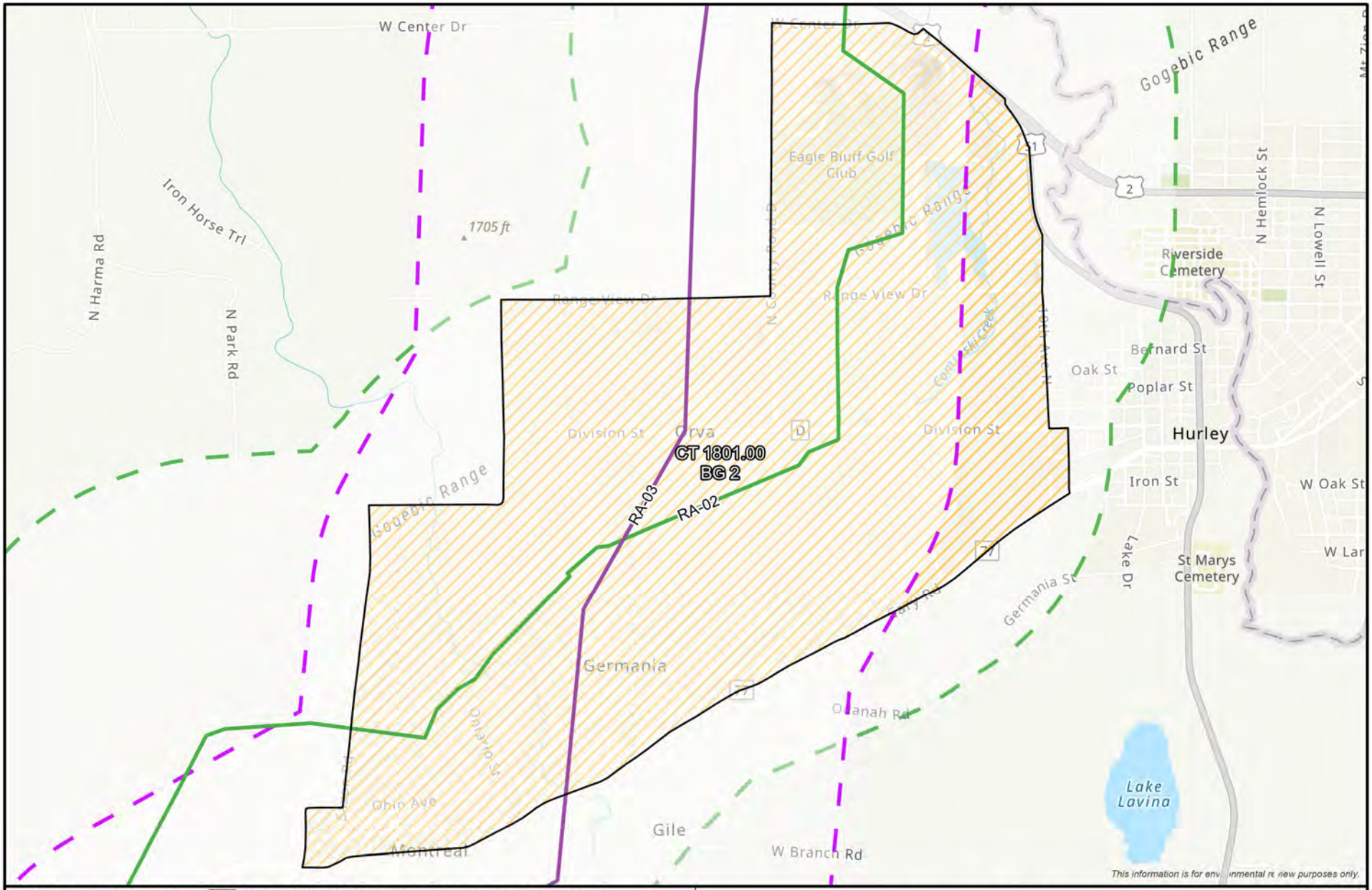


Direct Centerline Impact
- RA-02
- RA-03

1 Mile Buffer
- RA-02
- RA-03

Greater Than or Equal to County Low-Income Percentage

1:32,000

0 0.5 1 Miles

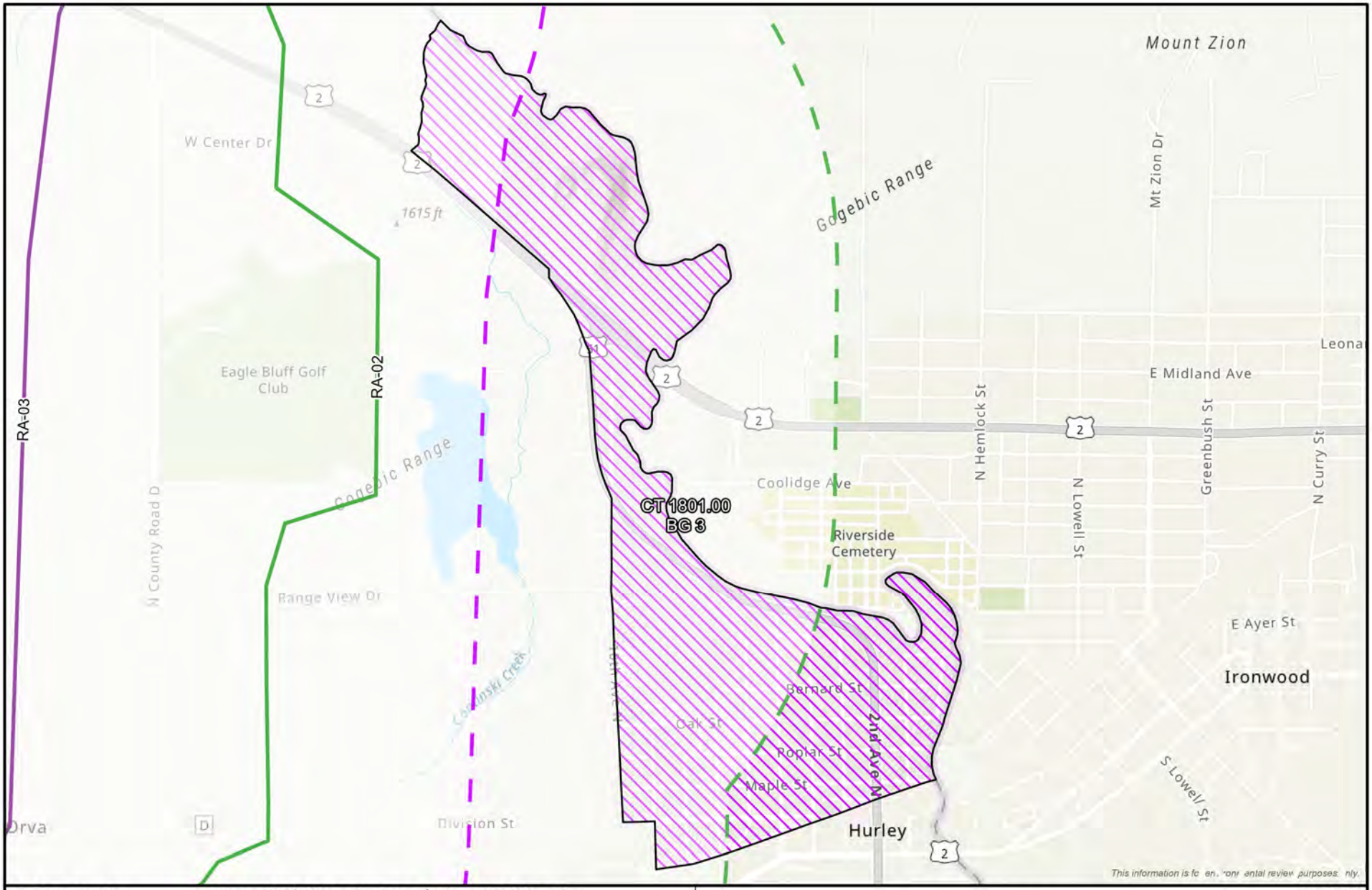
Block Group: CT 1801.00 BG 2

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin
Enbridge Energy

ERM

ENBRIDGE



1 Mile Buffer

RA-02

RA-03

Over 50% Minority Population OR Minority Population Greater Than 10% Above the County Minority Percentage

1:19,000

0 0.5 1 Miles

ERM

Block Group: CT 1801.00 BG 3

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin

Enbridge Energy

ENBRIDGE

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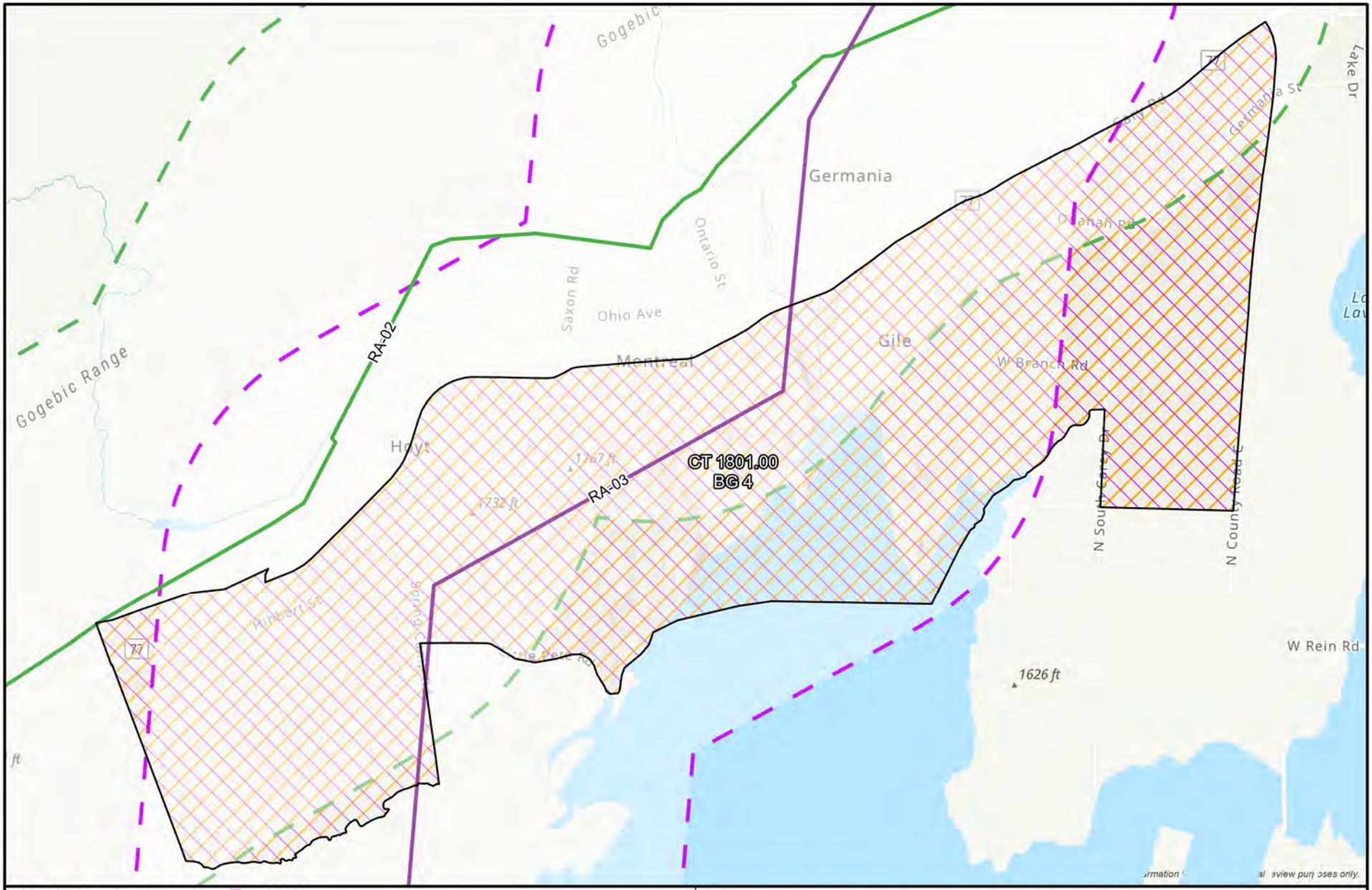
Gogebic
Germania
Lake Dr
Germania St
Ontario St
Saxon Rd
Ohio Ave
RA-02
Gogebic Range
Montreal
Gile
W Branch Rd
Hoyt
1767 ft
1732 ft
CT 1801.00
BG 4
RA-03
N South County Rd
N County Road C
Hulbert St
W Rein Rd
1626 ft
ft
Direct Centerline Impact
RA-02
RA-03
1 Mile Buffer
RA-02
RA-03
Low-Income Population and Minority Population
1:32,000
0
0.5
1
Miles
N
ERM
Page 4 of 10
Block Group: CT 1801.00 BG 4
Line 5 Wisconsin Segment Relocation Project
Ashland and Iron Counties, Wisconsin
Enbridge Energy
ENBRIDGE
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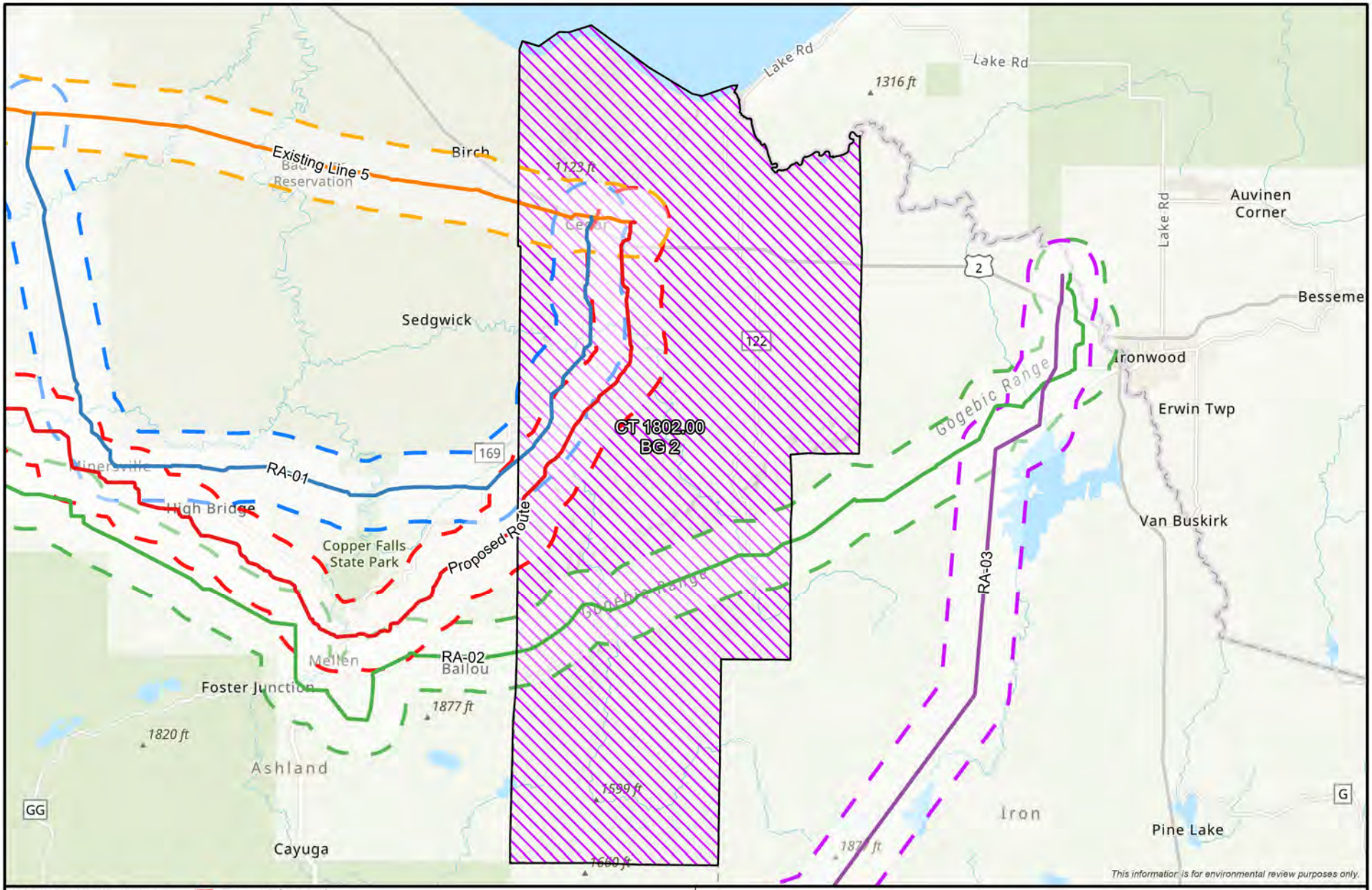

Direct Centerline Impact
- Existing Line 5
- Proposed Route
- RA-01
- RA-02

1 Mile Buffer
- Existing Line 5
- Proposed Routed
- RA-01
- RA-02
- Over 50% Minority Population OR Minority Population Greater Than 10% Above the County Minority Percentage

1:254,000

0 0.5 1 Miles

ERM

Block Group: CT 1802.00 BG 2

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin

Enbridge Energy

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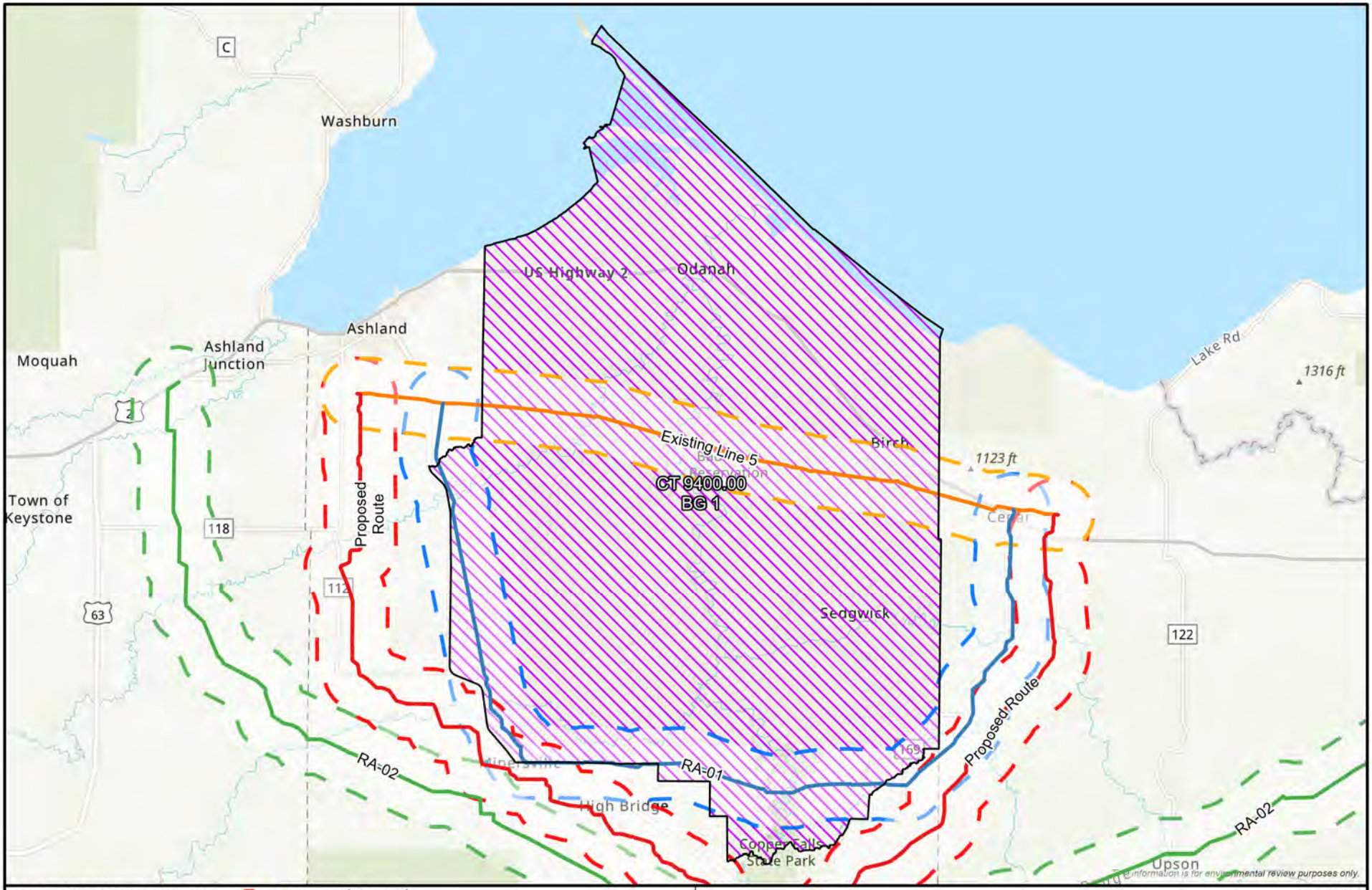

Direct Centerline Impact

- Existing Line 5
- RA-01

1 Mile Buffer

- Existing Line 5
- Proposed Routed
- RA-01
- Over 50% Minority Population OR Minority Population Greater Than 10% Above the County Minority Percentage

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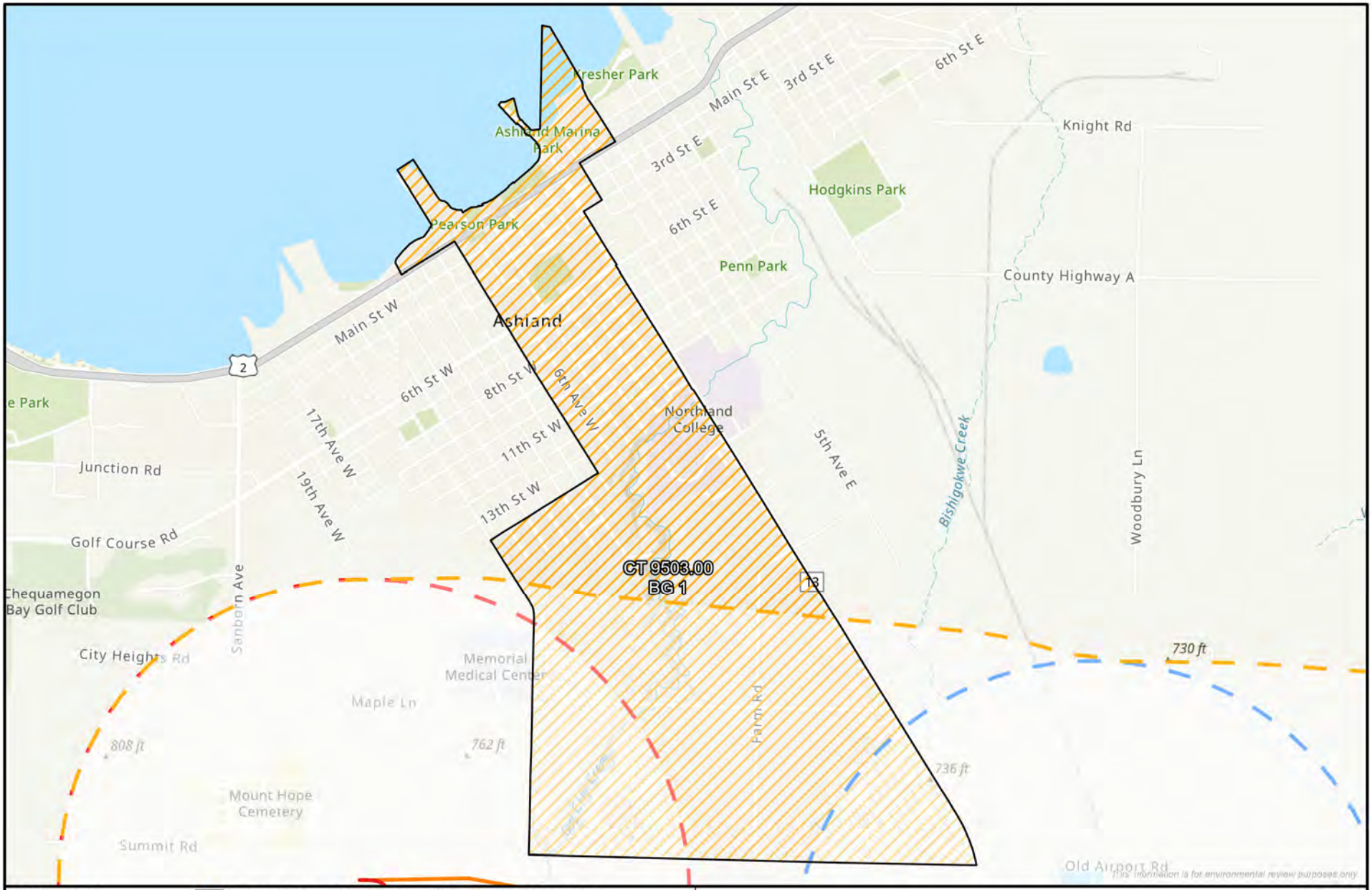
ERM

Block Group: CT 9400.00 BG 1

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin
Enbridge Energy

ENBRIDGE



1 Mile Buffer
Existing Line 5
Proposed Routed
RA-01

Greater Than or Equal to County Low-Income Percentage

1:29,000

0 0.5 1 Miles

ERM

This information is for environmental review purposes only.

Block Group: CT 9503.00 BG 1

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin
Enbridge Energy

ENBRIDGE

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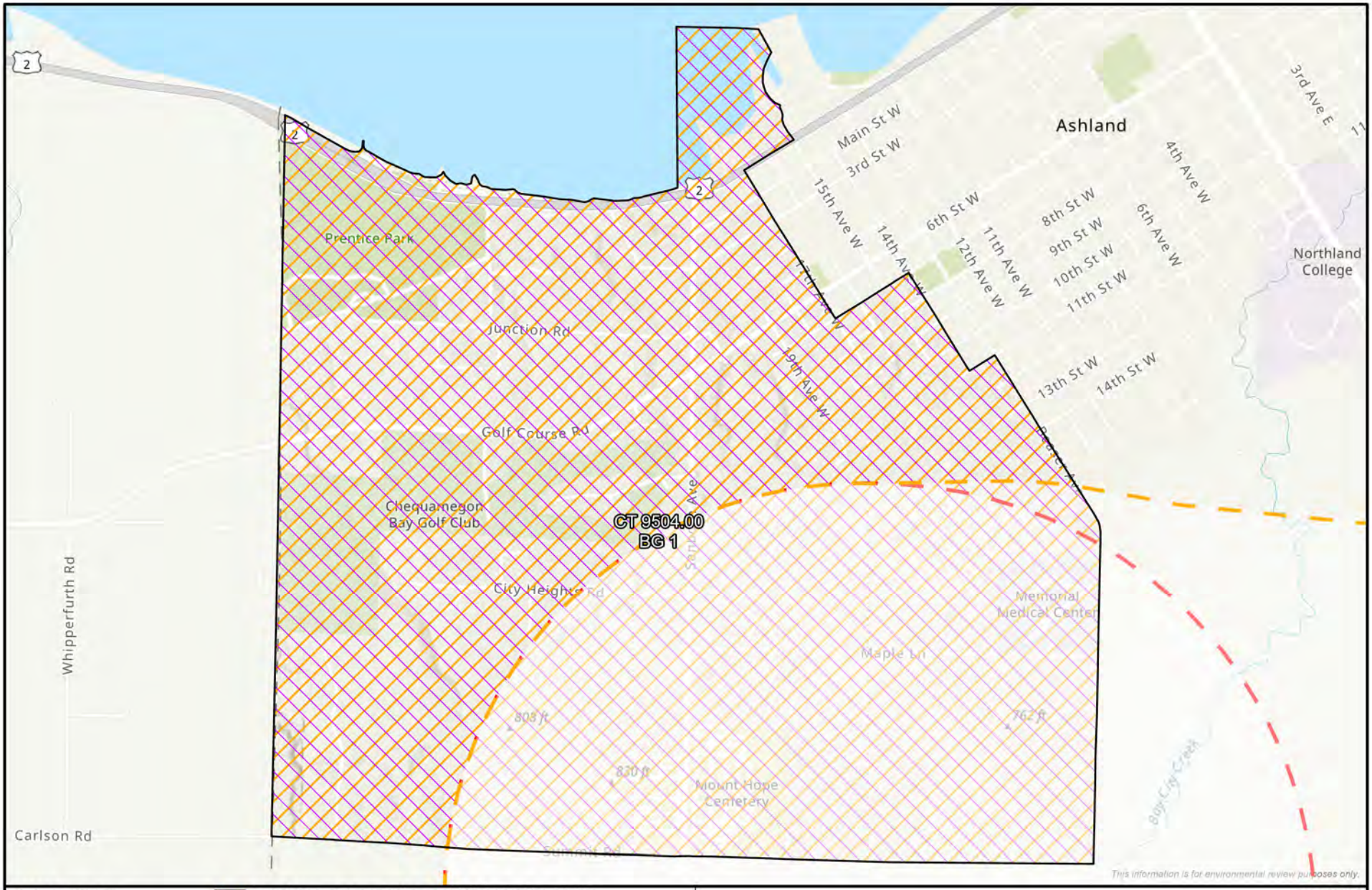

1 Mile Buffer
Existing Line 5
Proposed Routed

Low-Income Population and Minority Population

1:21,000

0 0.5 1 Miles

ERM

Block Group: CT 9504.00 BG 1

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin
Enbridge Energy

ENBRIDGE

1 Mile Buffer
Existing Line 5
RA-01

Greater Than or Equal to County Low-Income Percentage

1:43,000

0 0.5 1 Miles

ERM

Page 9 of 10

Block Group: CT 9508.00 BG 3

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin
Enbridge Energy

ENBRIDGE

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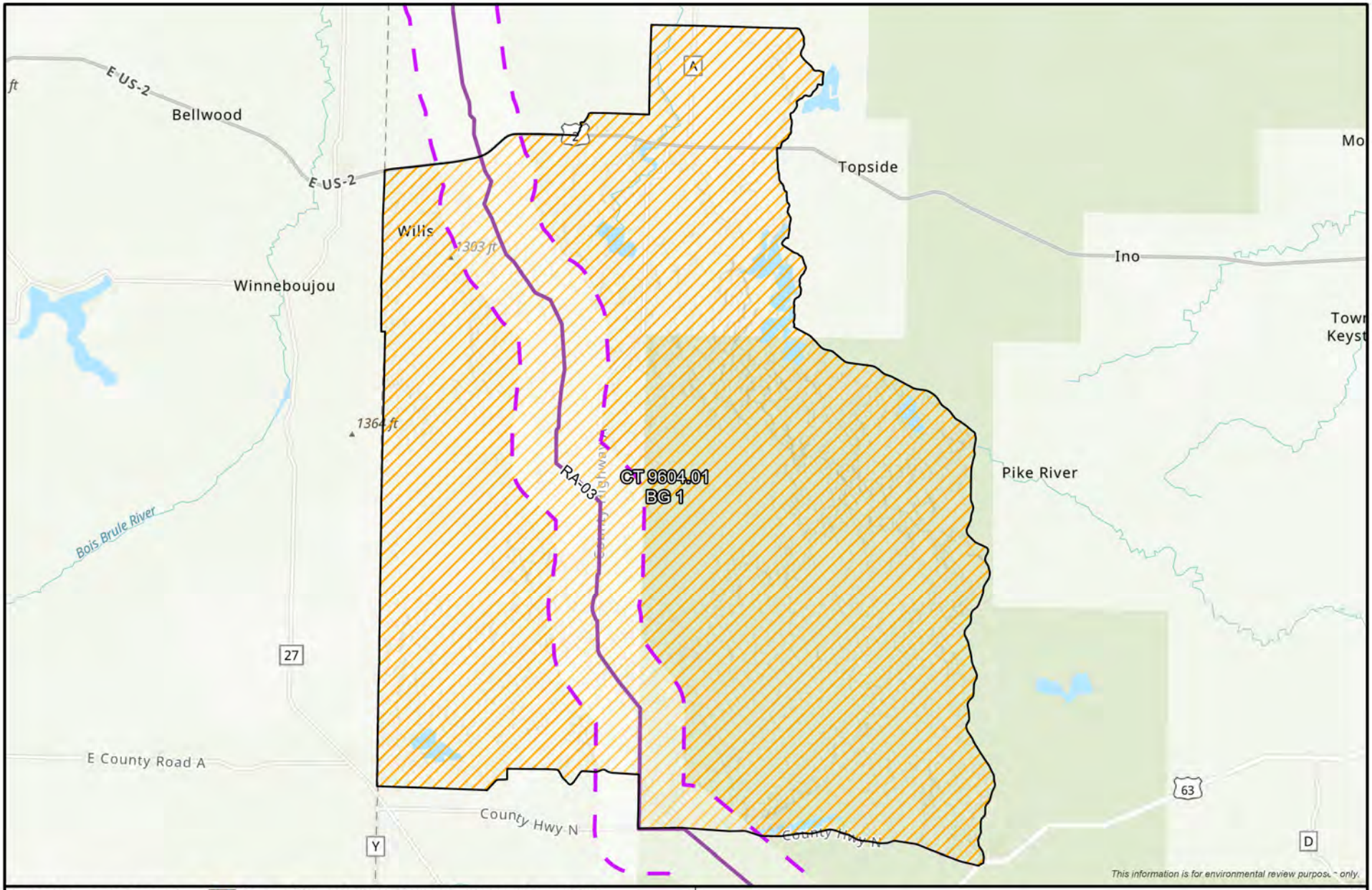


Direct Centerline Impact
RA-03

1 Mile Buffer
RA-03

Greater Than or Equal to County Low-Income Percentage

1:198,000

0 0.5 1 Miles

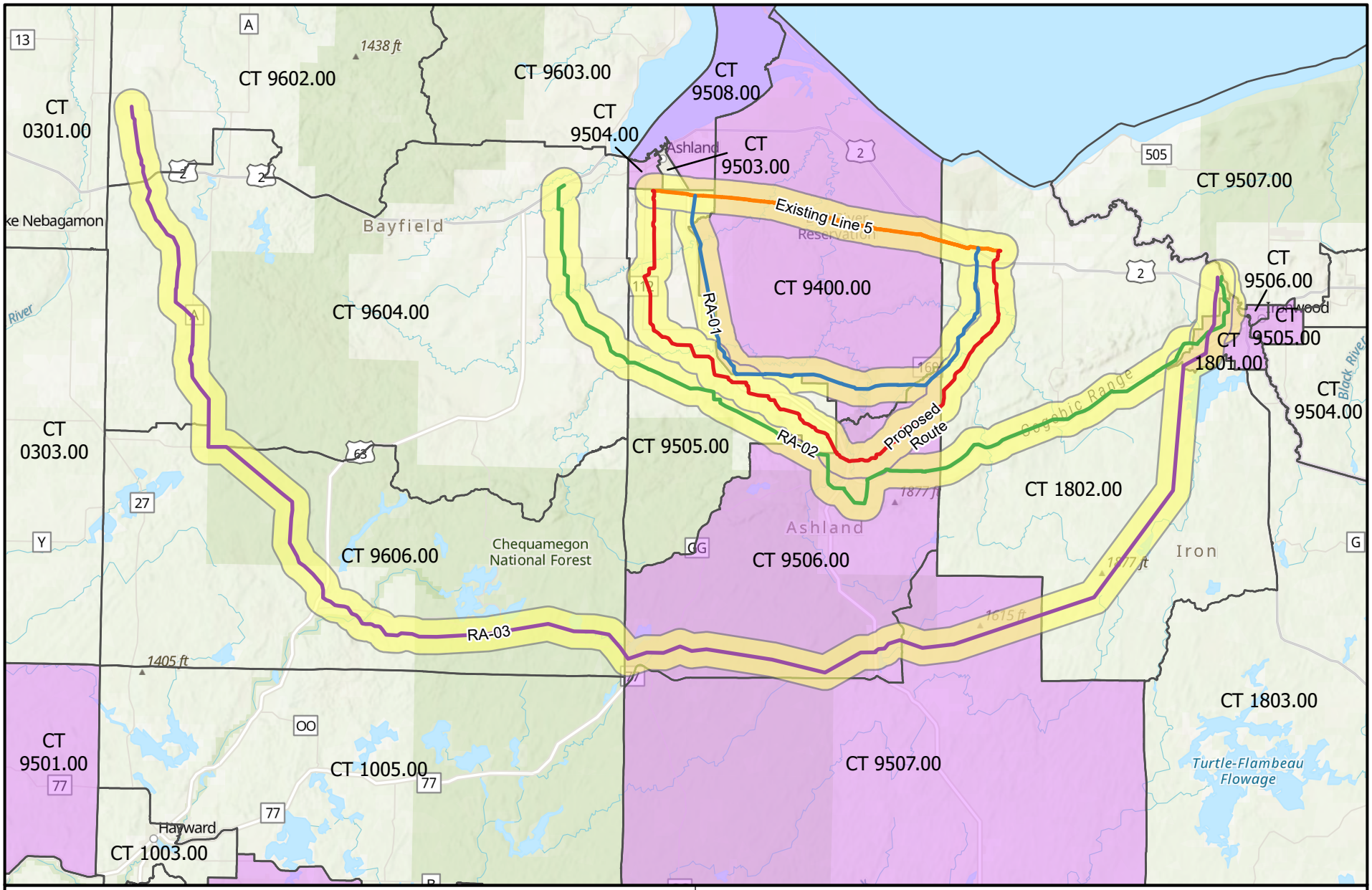
ERM

Block Group: CT 9604.01 BG 1

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin
Enbridge Energy

ENBRIDGE



CEJST Designated Disadvantaged Census Tracts in the Study Area

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin
Enbridge Energy

ENBRIDGE

ERM

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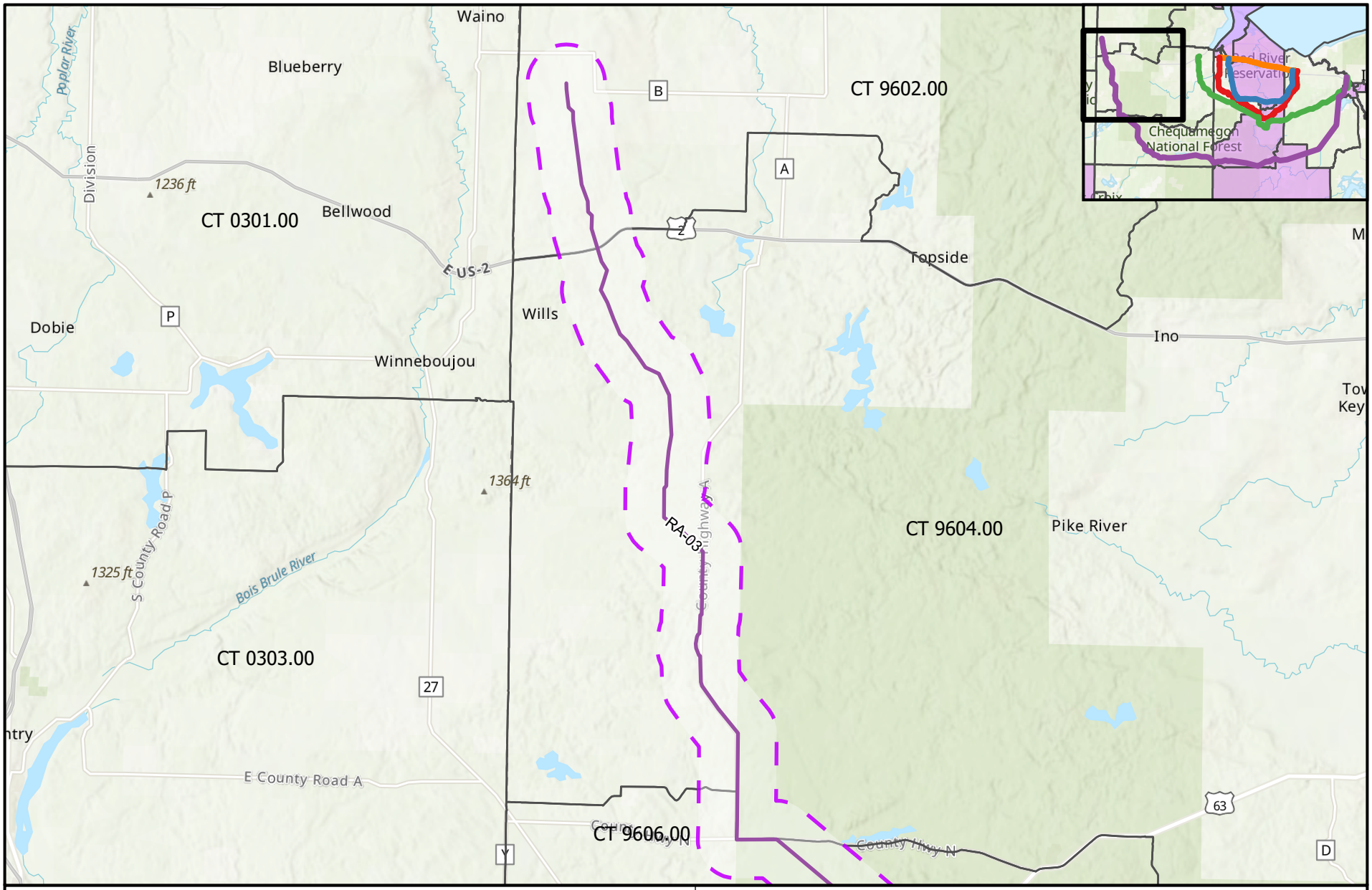

Census Tract Boundary

Direct Centerline Impact

RA-03

Route 1-Mile Buffer

RA-03

1:225,000

0 2 4 Miles

Page 1 of 5

CEJST Designated Disadvantaged Census Tracts in the Study Area - Map Set

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin

Enbridge Energy

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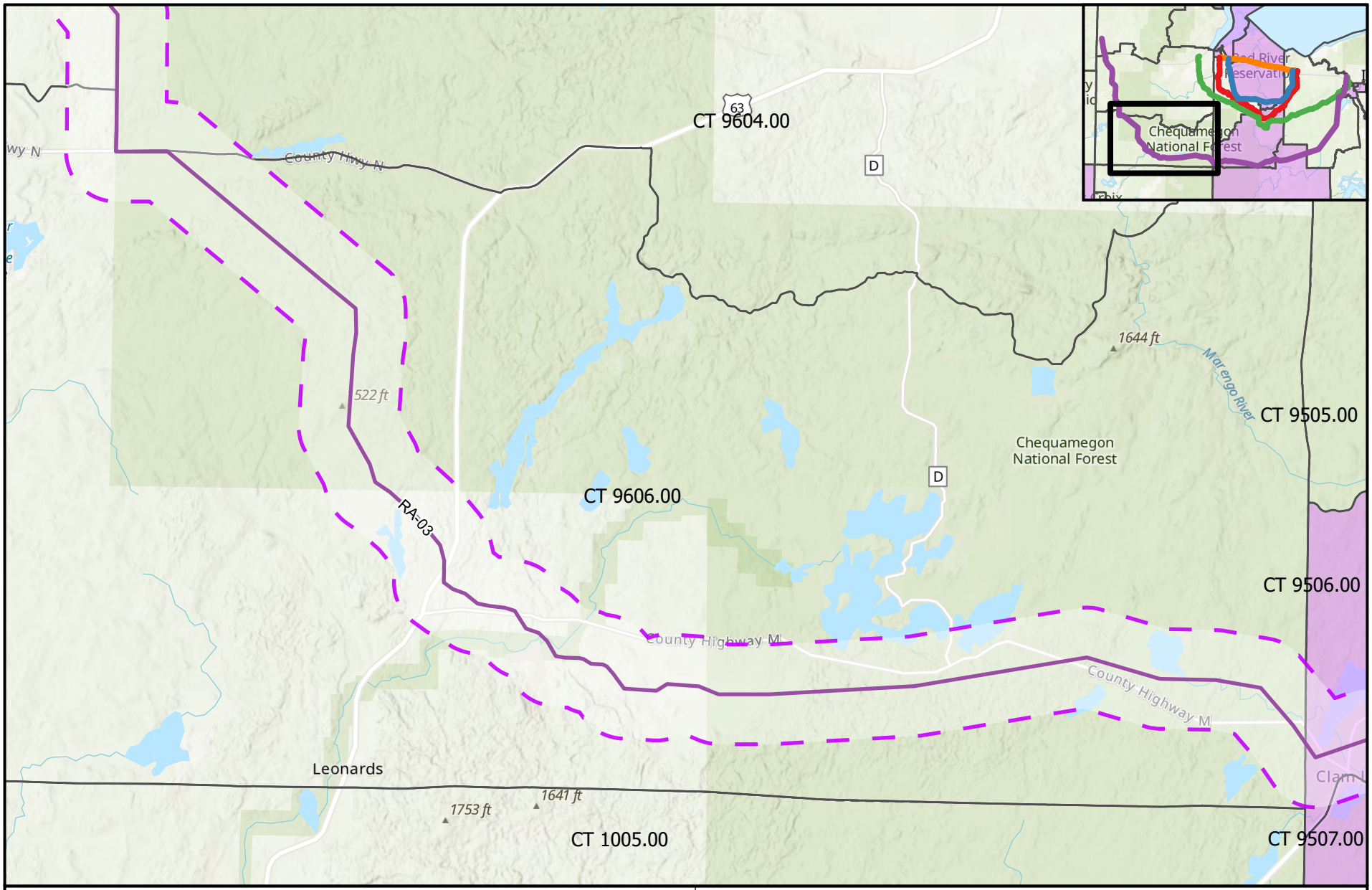


Census Tract Boundary

Tract Identified as Disadvantaged

Direct Centerline Impact

RA-03

Route 1-Mile Buffer

RA-03

1:175,000

0 1.5 3 Miles

CEJST Designated Disadvantaged Census Tracts in the Study Area - Map Set

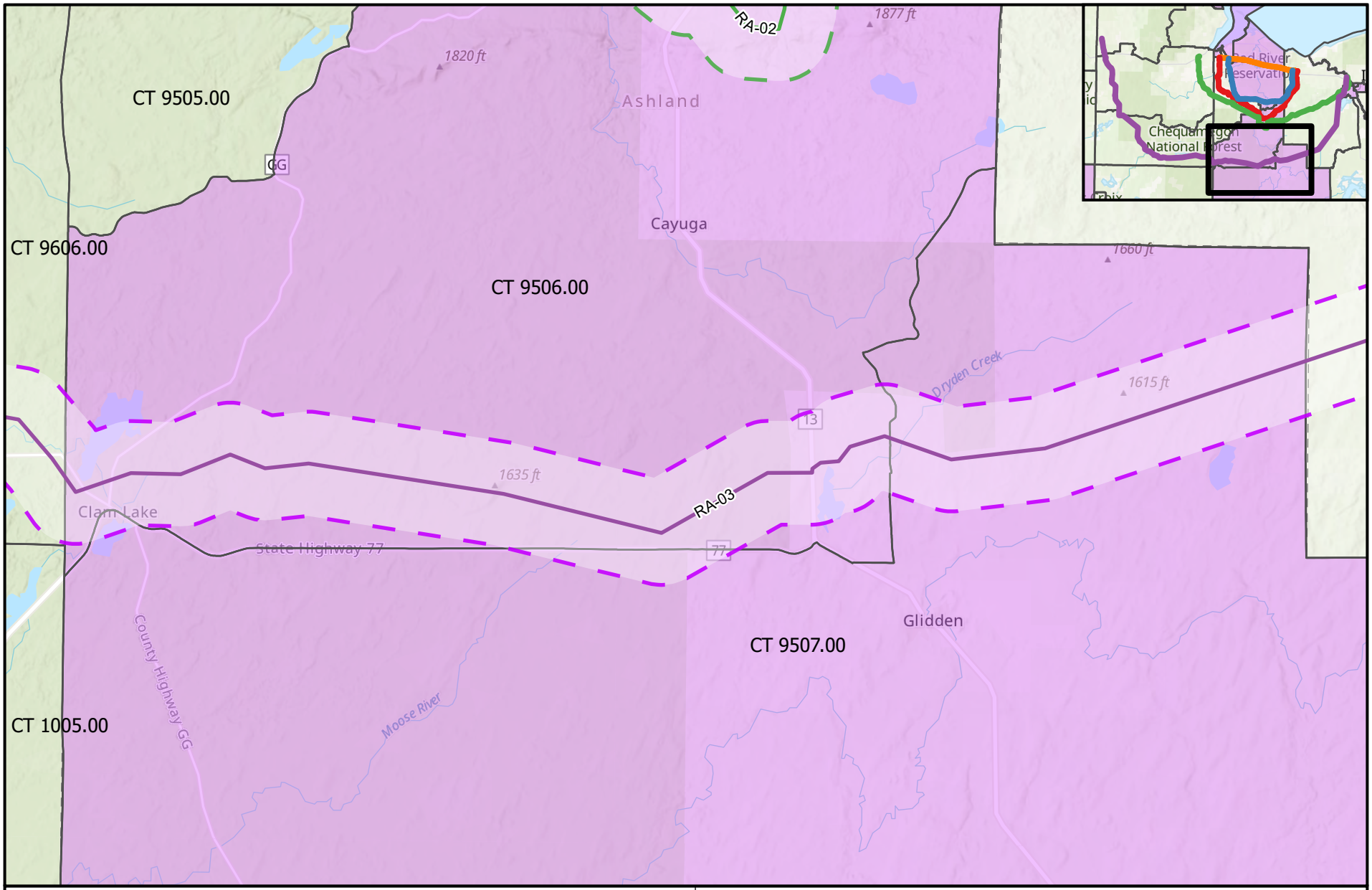
Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin

Enbridge Energy

ENBRIDGE

ERM



Census Tract Boundary

Tract Identified as Disadvantaged

Direct Centerline Impact

RA-03

Route 1-Mile Buffer

RA-03

1:168,000

0 1.5 3 Miles

CEJST Designated Disadvantaged Census Tracts in the Study Area - Map Set

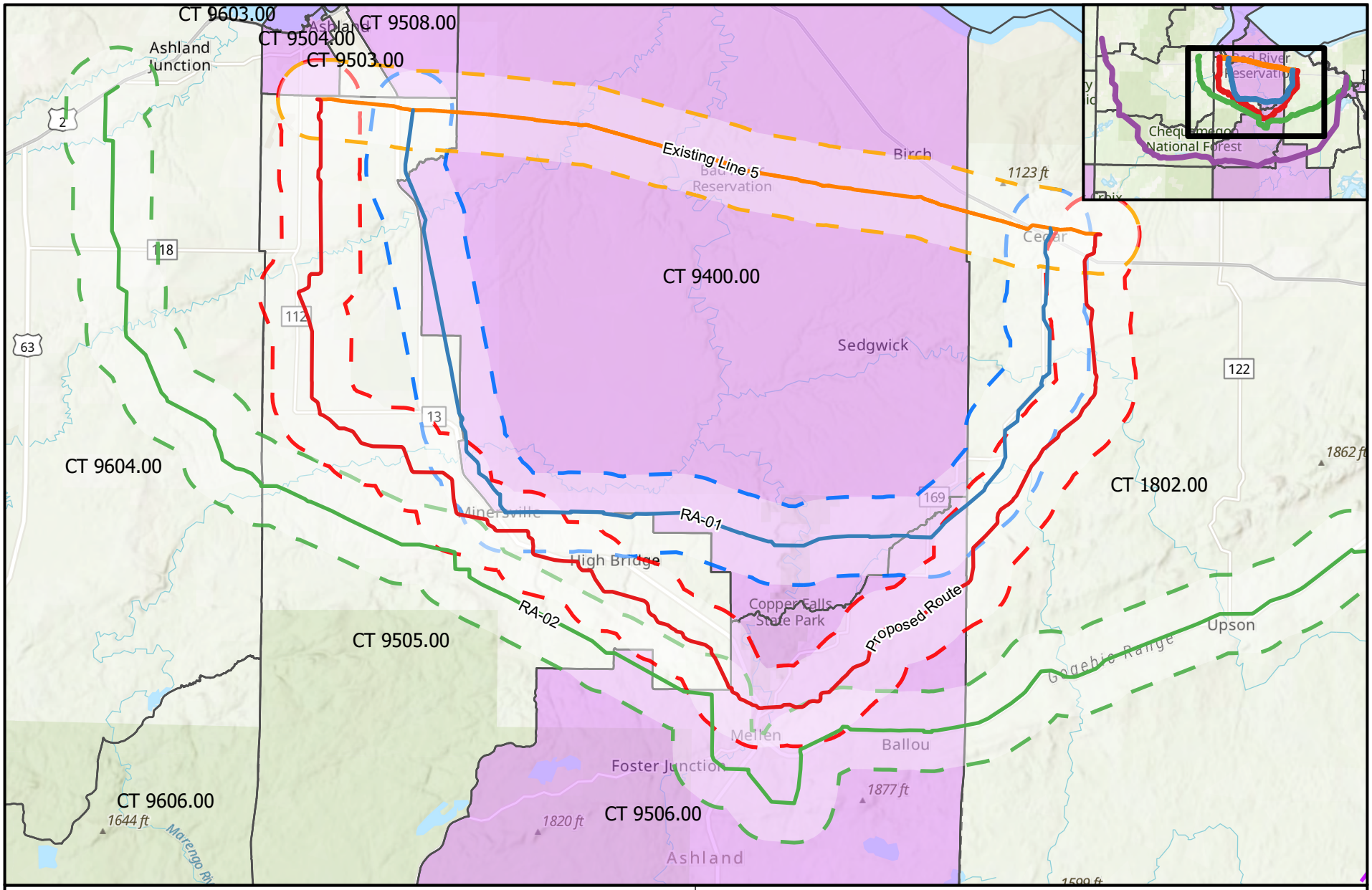
Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin

Enbridge Energy

ENBRIDGE

ERM



Census Tract Boundary

Tract Identified as Disadvantaged

Direct Centerline Impact

- Existing Line 5
- Proposed Route
- RA-01
- RA-02

Route 1-Mile Buffer

- Existing Line 5
- Proposed Routed
- RA-01
- RA-02

1:222,000

0 2 4 Miles

CEJST Designated Disadvantaged Census Tracts in the Study Area - Map Set

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin

Enbridge Energy

ENBRIDGE

ERM

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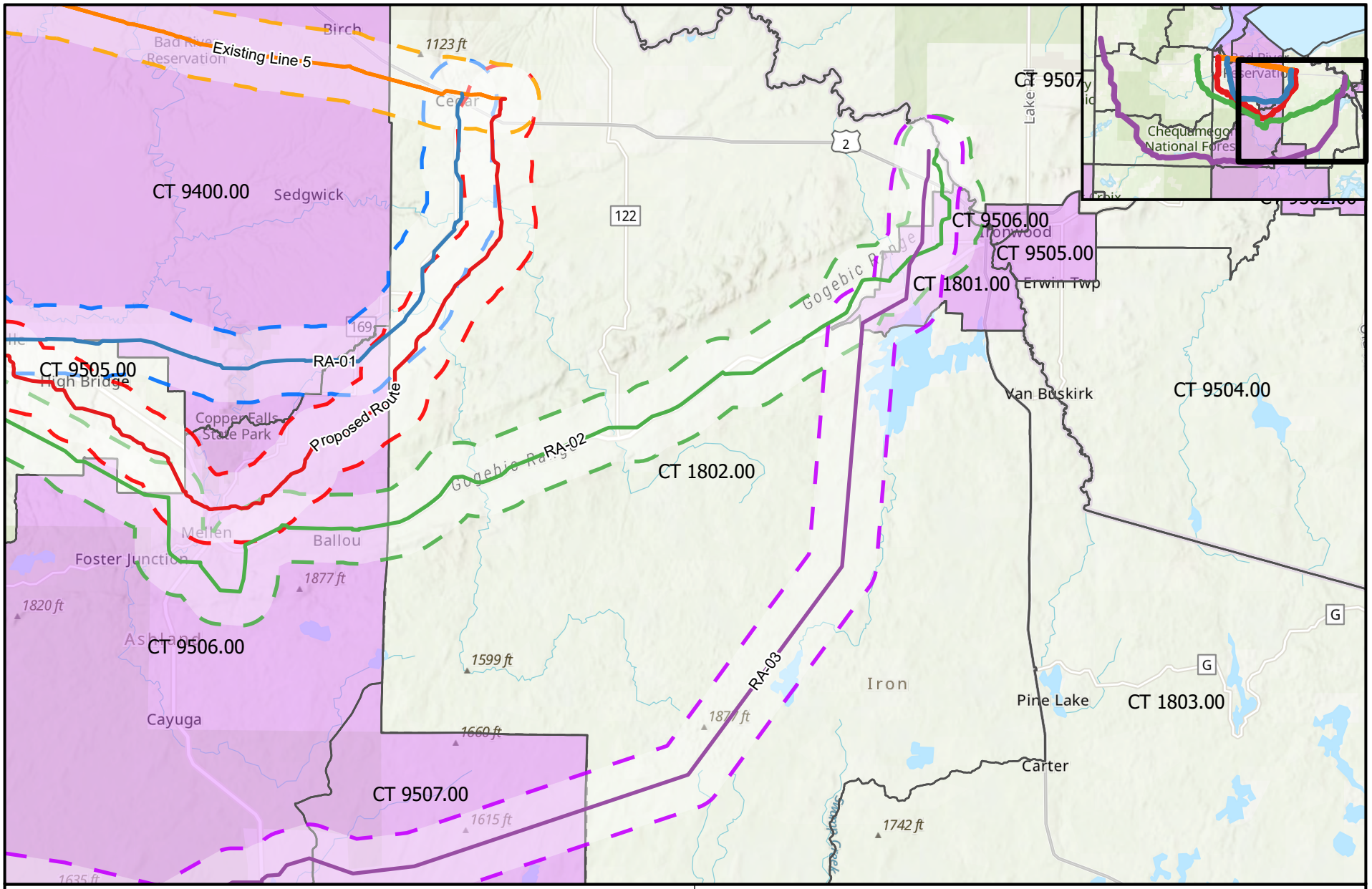

Census Tract Boundary

Tract Identified as Disadvantaged

Direct Centerline Impact

- Existing Line 5
- Proposed Route
- RA-01
- RA-02
- RA-03

Route 1-Mile Buffer

- Existing Line 5
- Proposed Routed
- RA-01
- RA-02
- RA-03

1:256,000

0 2.5 5 Miles

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CEJST Designated Disadvantaged Census Tracts in the Study Area - Map Set

Line 5 Wisconsin Segment Relocation Project

Ashland and Iron Counties, Wisconsin

Enbridge Energy

ENBRIDGE

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Line 5 Wisconsin Segment Relocation Project

Appendix B

Community Outreach Summary

Line 5 Wisconsin Segment Relocation Project
Community Outreach Summary

Enbridge has proudly operated in Wisconsin since the early 1950s and has been safely transporting the energy that fuels quality of life. Enbridge's pipelines deliver the products that heat homes and businesses, power the economy, and empower society. As the first-choice North American energy delivery company, Enbridge's commitment to safety and community is a top priority and investing in programs, organizations, and initiatives that focus on health, safety, environment, and community is foundational.

Being a good neighbor means the world to Enbridge, and we work hard to live up to that "good neighbor" status in a variety of ways – economically, socially, and culturally. As a company, and as individuals who live and work in communities across Wisconsin, Enbridge wants to make our communities safer, healthier, smarter, greener, more enriching, and more inspiring.

Enbridge is committed to early engagement and meaningful dialogue with communities and Tribes along our pipeline rights-of-way, based on mutual respect and trust. Wherever Enbridge's operations neighbor with Indigenous communities and intersect their tribal, treaty, and traditional lands, Enbridge seeks to partner and engage with them to reduce Enbridge's operational impacts and maximize the social and economic benefits.

COMMUNITY OUTREACH

Since planning for the Line 5 Wisconsin Segment Relocation Project ("Project") began, Enbridge has hosted five informational meetings in the Project area (Ashland, Bayfield, and Iron counties) that were open to the public. At these meetings, Enbridge had subject matter experts from across North America present and engage with local residents, including answering questions about Enbridge's operations of its pipeline system as well as the Project specifically. These public meetings were held on:

- May 23, 2018 in Ashland, Wisconsin;
- March 24, 2021 in Ashland, Wisconsin;
- March 25, 2021 in Hurley, Wisconsin;
- November 2, 2022 in Ashland, Wisconsin; and
- November 3, 2022 in Mellen, Wisconsin.

Notice of these public meetings was broadly transmitted in a number of ways, including:

- Direct Mail Letters to Stakeholders – Letters providing notice were sent to comprehensive stakeholder lists for area counties, which included Federal and State officials, county, city and township elected/appointed officials, and local sheriffs, police, fire and emergency and safety management.
- Direct Mail Letters to Landowners – Notice letters were also sent to all landowners that would be crossed by the proposed Project route and/or workspace as well as adjacent landowners.

- Proximity Postcards – Postcard notifications were mailed to residents, businesses, schools, contractors, and others that live, operate, or have businesses in proximity to the Project areas.
- Newspaper Advertising – Newspaper ads were run in the weeks leading up to the community meetings to notify the general public of meeting dates and locations.
- Digital Advertising – Community meetings were posted on the Enbridge Connect web portal that offers opportunities to gather information on meetings and directly call Enbridge representatives with questions or to receive additional information. Geo-targeted social media ads were also placed in the weeks leading up to the meetings.
- Email – Public notice letters were also emailed to potential attendees and stakeholders when email addresses were known.
- Meeting Locations – The locations for the aforementioned community meetings were selected with a focus on accessibility, convenience, and community significance. Local businesses were used for any catering, equipment rental or operational needs to conduct the public meetings.

Outreach for the Wisconsin meetings in Ashland County, including the City of Mellen, per calendar year for 2021 and 2022 consisted of approximately:

- Invitation Letters: 2,000
- Proximity Post Cards: 4,500
- Advertising Reach: 12,000

ADDITIONAL COMMUNITY OUTREACH AND ENGAGEMENT

Since 2018, Enbridge has tracked 169 local engagements in Ashland, Bayfield and Iron counties, which has consisted of:

- One-on-one meetings;
- Tours;
- Events;
- Presentations;
- Sponsorships; and
- Group meetings.

Enbridge employees have also made 25 presentations to local groups, including local governments, and Enbridge has hosted or sponsored 39 local events, including gas and propane promotional giveaways for local residents.

Community Engagement Advisors

Enbridge employs Community Engagement Advisors across its pipeline system. The primary role of Community Engagement Advisors is to:

- Implement strategic engagement with key stakeholders for Enbridge's major projects and operations activities. Key stakeholders include local governments, influential business leaders, landowners, emergency responders, and non-government organizations; and
- Maintain, cultivate, and document relationships and engagement activities with community leaders, local organizations, and Indigenous communities.

Community Ambassadors

Enbridge also utilizes Community Ambassadors across its pipeline system to assist Enbridge in community outreach efforts, including identifying engagement opportunities and concerns that are important to the community/region.

The current Community Engagement Advisor and Community Ambassador that are supporting the Project were both born and raised in Wisconsin. The Community Ambassador is a former police chief in the area and is extremely knowledgeable of the concerns and issues that are important to the community. The Community Engagement Advisor is active across the entirety of the Line 5 corridor in Northern Wisconsin.

TRIBAL ENGAGEMENT

Enbridge employs tribal engagement professionals who are dedicated to engaging with tribes and Indigenous communities in Wisconsin and elsewhere that have an interest in the Project. Generally, their responsibility is to develop and maintain relationships with tribal governments and communities. They are also responsible for communicating important information about Enbridge's projects, operations, and its business.

Enbridge also works with Tribal Liaisons, who are tribal members of tribes potentially impacted by the Project. The Project has six Tribal Liaisons from Bad River Band of Lake Superior Tribe of Chippewa Indians, Lac Courte Oreilles Band of Lake Superior Chippewa, and Fond du Lac Band of Lake Superior Chippewa. Tribal Liaisons are on-the-ground and meet with individuals in multiple Wisconsin and Minnesota tribal communities each day. The primary focus of Enbridge's Tribal Liaisons is to:

- Engage in conversations that seek to understand Tribal citizens' and Indigenous organizations' concerns about Enbridge and the Project;
- Bring community knowledge, concerns, and questions to Enbridge's attention; and
- Assist in strengthening and expanding Tribal and Indigenous relationships.

Engagement with tribes focuses heavily on one-on-one conversations and small group study circle meetings where a focused discussion centers around a specific topic(s) is fostered. Between Enbridge's tribal engagement professionals and Tribal Liaisons, hundreds of one-on-one meetings have occurred since Enbridge began survey work for the Project in 2019. Additionally, small group study circle meetings (from 4 to 23 participants per meeting) were held on the following dates:

- November 12, 2019 in Ashland, Wisconsin;
- December 11, 2019 in Ashland, Wisconsin;
- December 12, 2019 in Ashland, Wisconsin;
- December 13, 2019 in Ashland, Wisconsin;
- January 7, 2020 in Ashland, Wisconsin;
- January 9, 2020 in Ashland, Wisconsin;
- January 31, 2020 in Ashland, Wisconsin;
- February 4, 2020 in Ashland, Wisconsin;
- April 13, 2021 (2 sessions held) in Ashland, Wisconsin;
- April 14, 2021 in Ashland, Wisconsin;
- May 20, 2021 in Ashland, Wisconsin;
- June 26, 2021 in Odanah, Wisconsin;
- July 17, 2021 in Ashland, Wisconsin;

- August 13, 2021 in Ashland, Wisconsin; and
- March 15, 2023 in Ashland, Wisconsin.

Enbridge is also developing a Human Trafficking Awareness and Prevention Program for the Project. As part of this program, Enbridge has hosted working group sessions made up of Wisconsin Tribal members and community members to identify and discuss specific topics and issues that tribes and local communities think should be included in the program. Working group sessions were held on:

- February 23, 2021 in Ashland, Wisconsin;
- April 9, 2021 in Ashland, Wisconsin;
- May 19, 2021 in Ashland, Wisconsin;
- October 26, 2021 in Ashland, Wisconsin; and
- January 25, 2022 Virtual.

ADDITIONAL TRIBAL OUTREACH AND ENGAGEMENT

Enbridge has hosted a number of informational site visits and tours of Enbridge's existing facilities to assist Tribal members understand how the pipeline system operates, how a pipeline is built and maintained, and how sites where past activities resulted in leaks are cleaned up and restored. These visits include:

- October 9, 2021 visit to Line 6B release site in Marshall, Michigan;
- May 16, 2022 tour at Superior Terminal in Superior, Wisconsin and Line 3 Replacement corridor near Cloquet, Minnesota;
- June 1, 2022 visit to Line 6B release site in Marshall, Michigan; and
- September 30, 2022 visit to Line 6B release site in Marshall, Michigan;
- May 25, 2023 visit to Line 6B release site in Marshall, Michigan.

Enbridge has also held informational meetings about potential employment opportunities on the Project and has sponsored workforce development training, including the following:

- September 2019, five-day empowerment training in Ashland, Wisconsin;
- April 13, 2022 workforce informational meeting in Ashland, Wisconsin;
- June 29, 2022 safety training and workforce informational meeting in Odanah, Wisconsin;
- June 30, 2022 flagger training in Ashland, Wisconsin;
- March 23, 2023 flagger training in Ashland, Wisconsin; and
- March 24, 2023 flagger training in Ashland, Wisconsin.

Attending the sponsored workforce development training opportunities provides attendees with training and networking relevant to the Project as well as other work and career opportunities outside of the Project.

Through this engagement, Enbridge has built relationships and has enhanced its understanding of the employment needs, desires, and goals of Tribal members. Moreover, Enbridge notifies Tribal members of potential job opportunities in the region that may fit their experience and skillset. Enbridge also makes introductions to companies to assist interested individuals with their job search.

Enbridge also hires Indigenous Monitors to work with the Project teams, such as environmental survey teams, to ensure tribal and cultural resources are protected in accordance with all Project plans.

PERMITTING

Review and permitting decisions for the Project involve the United States Army Corps of Engineers ("USACE") and the Wisconsin Department of Natural Resources ("WDNR"). Each permit includes a separate public engagement process that follows all applicable state and federal rules and statutes to gather feedback, concerns, and potential impacts from the public.

USACE

On February 10, 2020, Enbridge submitted an application to the St. Paul District of the USACE for work under navigable waters of the United States and for discharges of dredged or fill material into waters of the United States. The USACE St. Paul District is evaluating the permit authorization request under a standard individual permit process. The USACE review process includes robust opportunities for public comment as the USACE prepares an Environmental Assessment.

WDNR

On February 11, 2020, Enbridge filed permit applications with the WDNR. To date, the WDNR has completed a Draft Environmental Impact Statement ("DEIS") to inform decision-makers and the public about the environmental and socioeconomic effects of the Project. Similar to the USACE process, the WDNR permit review process includes multiple opportunities for fulsome public engagement and input. These opportunities include:

- On June 8, 2020, the WDNR issued a public notice [PDF] announcing a public hearing and comment period on the proposed scope of the EIS;
- On July 1, 2020, the WDNR held a public hearing on the proposed scope of the EIS and on Enbridge's application for a waterway and wetland permit;
- The WDNR received more than 32,000 public comments on the DEIS – from individuals, businesses, organizations, governing bodies, agencies, and government officials; and
- WDNR released a DEIS in December 2021 on the Project.

Following submittal of the respective federal and state environmental permit applications, Enbridge hosted three open houses along the Project route. Enbridge's open houses were held on:

- February 18, 2020 in Ashland, Wisconsin;
- February 19, 2020 in Mellen, Wisconsin; and
- February 20, 2020 in Hurley, Wisconsin.

Notice of the open house meetings were delivered broadly through:

- Invitations to the open houses sent to elected officials, landowners, and other stakeholders through formal notification letters and mailings;
- Stakeholder outreach, including phone calls and email communications to elected and public officials in the area;
- Third-party organizational membership communications; and
- Newspaper ads in the Mellen Weekly Record, Ashland Daily Press, and the Daily Globe.

Enbridge also hosted three sessions with tribal representatives to review the Project's spill modeling analysis. Sessions were held on:

- January 26, 2023
- February 28, 2023
- March 2, 2023