

Environmental Justice Tool Guide

This document is intended to accompany the Environmental Justice chapter of MnDOT's [Highway Project Development Process](#). This document provides additional guidance to steps 1 and 2-a of the HPDP EJ chapter. The document describes how to use the Environmental Protection Agency's EJSCREEN tool and the U.S. Census Bureau's American Fact Finder to review demographics within or near the project area for low income and/or minority populations. Note that additional steps may be required (See the Environmental Justice chapter of HPDP), and a narrative is required in the body of the environmental document.

EJSCREEN Tool- EJSCREEN is a web based mapping tool to assess environmental and demographic information, and to compare selected locations to the rest of the state, EPA region, or the nation. EJSCREEN highlights places for further review for the potential for EJ concerns, but should not be used to label areas as "EJ Communities". Baseline screening in EJSCREEN should be supplemented with local information and experience. EJSCREEN assists in the process of identifying potential EJ populations by depicting indicators typical of EJ populations.

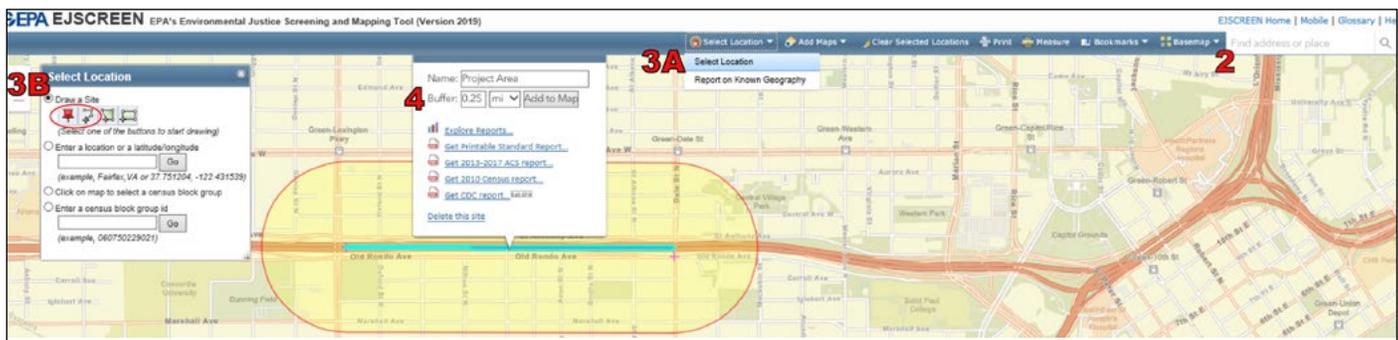
- The EJSCREEN Map is located here: <https://ejscreen.epa.gov/mapper/>

Step 1: Identify the Preliminary Environmental Justice (EJ) Study Area

The first step is to identify the preliminary area of analysis. A quarter-mile (0.25) from the project limits is typically used as a starting point for analysis, but could vary depending on the project. The buffer area can change as new project information is learned.

Set Location Using EJ Screen

- Navigate to <https://ejscreen.epa.gov/mapper/>
- Search for the location of the project area
- 3A. Click on **Select Location** → Click **Select Location** → 3B. Choose a draw a site tool. Use pushpin for spot improvement projects, and path/trail tool for corridor projects.
- Click on your site set the buffer to 0.25 mile → Click **add to map**
- Repeat for detour route



Step 2: Are there readily-identifiable low income and/or minority populations in the EJ study area?

Identify Indicators of Minority Populations and Low Income Populations

The next step is to identify minority populations within the buffer area, and to compare the results to **county or city data**. For EJ analysis data from **the smallest unit of government should be used for comparison to data from the project area**. County level data is typically used for linear transportation projects. City level data can be used for spot improvements such as bridge or intersection projects.

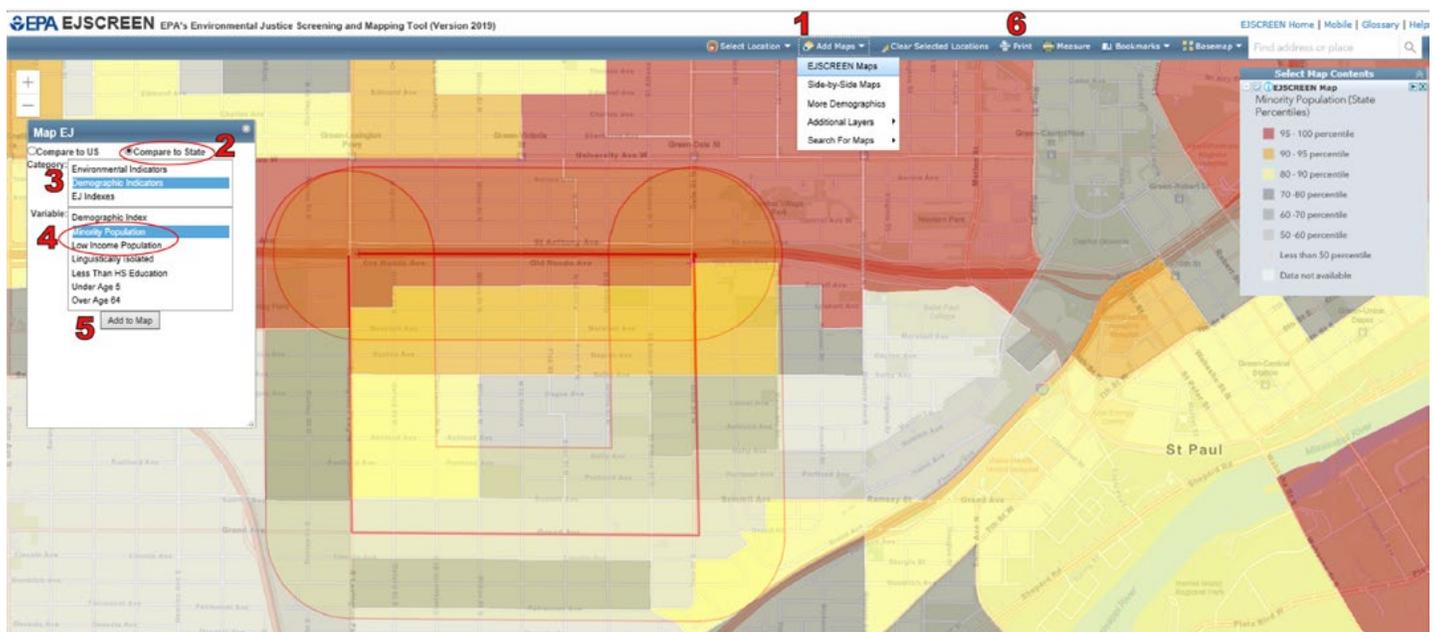
Step 2A: Compile demographic data

2A-1. Maps

EJSCREEN maps of the demographic indicators for minority and low income populations should be included. It is important to note that there are only two comparison options, nationwide and statewide. These maps are a good quick assessment, but do not show the county or city level comparisons. Obtaining the data tables in the following steps is a critical step in compiling the demographic data.

1. Click **Add Maps** and select **EJSCREEN Maps**
2. Click **Compare to State**
3. Select Category: **Demographic Indicators**
4. Select Variable: **Minority Population**
5. Click **Add to Map**
6. Print map
7. Repeat steps 1-7 for the **Low Income Population** variable.

Attach the maps to the environmental justice appendices of the environmental document.



2A-2. Demographic Data for Minority and Low Income Populations

Project Area Data

1. Click on the project area.
2. Click on **Explore Reports**. This will open up all the EJ Indicators and Indexes on a new table.
3. Click *Unselect All* on the environmental indicators tab so that all of the check boxes are blank. Repeat for the Demographic Indicators Tab, and the EJ Indicators Tab.
4. Select *Minority Population* and *Low Income Population*
5. Scroll to the bottom of the Explore Reports box and select *Get Data Table*.
6. Enter the data in value column in the data tables of the Standard Attachment for Environmental Justice Analysis (available on HPDP).
6. Repeat for the Detour Route

The screenshot shows the EPA EJSCREEN interface. A map of St. Paul, MN, is displayed with a red circle highlighting a project area (1). A dropdown menu is open over the project area, showing options like 'Explore Reports...' (2). The 'Explore Reports' window is open, showing 'Environmental Indicators' with 'Unselect All' circled (3). A bar chart below shows population percentiles for various indicators.

The screenshot shows the EPA EJSCREEN interface. The 'Tabular View' window is open, showing demographic data for the project area (6). The 'Explore Reports' window is open, showing 'Demographic Indicators' with 'Minority Population' and 'Low Income Population' selected (4). A bar chart below shows population percentiles for these indicators.

#	Category	Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
24	Demographic	Minority Population	77%	19%	97	25%	91	39%	82
25	Demographic	Low Income Population	52%	25%	90	31%	82	33%	80

Comparison Data- City or County

When conducting EJ analysis it is ideal to use the smallest unit of geography for comparison. For linear transportation projects it is best to use county level data. For spot improvement projects, like a bridge replacement or intersection improvements, it is best to use city level data. A linear project including both rural and non-rural areas should be broken into segments/nodes if city-level information is readily available in EJSCREEN for a given area. Data on all counties should be used for projects that intersect multiple counties.

1. County/City data needs to be added to the map. Click **Select Location**→ Click **Report on Known Geography**
2. Choose County/City in the drop down box.
3. Click anywhere on the map and the name of county/city will appear in the gray box, and a blue mask will appear over the map. Note that for Corridor Projects- a maximum of 5 counties/cities can be added at one time.
4. Click **submit** and the blue mask will turn green.
5. Click anywhere on the map outside of the buffer area. Choose the **Explore Report** link to obtain the county/city level data.
6. Click on **Get Data Table**. This will open a new table.
7. Enter the data in value column in the data tables of the Standard Attachment for Environmental Justice Analysis (available on HPDP).

The screenshot displays the EPA EJSCREEN interface. On the left, the 'Report on Known Geography' panel shows a dropdown menu with 'Ramsey County' selected and a 'Submit' button (4). The main map area shows a green overlay on a street grid. In the center, the 'Explore Reports' panel is open, showing 'Demographic Indicators' with checkboxes for 'Minority Population' and 'Low Income Population'. Below this is a bar chart titled 'Demographic Indicators for the Selected Area Compared to All People's Black Groups in the State/Region/US'. The chart shows two bars for 'Minority Population' and 'Low Income Population', both reaching approximately 33% on the 'Population Percentile' scale. A 'Get Data Table' button (6) is at the bottom right of this panel. On the right side, the 'Tabular View' panel shows a table for 'Ramsey County, MINNESOTA, EPA Region 5 (Population: 537,300)'. The table has columns for '#', 'Category', 'Selected Variables', 'Value', 'State Avg.', '%ile in State', 'EPA Region Avg.', '%ile in EPA Region', 'USA Avg.', and '%ile in USA'. The 'Value' column for 'Minority Population' (37%) and 'Low Income Population' (33%) is circled in red, with a red '7' next to it.

#	Category	Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
24	Demographic	Minority Population	37%	19%	85	25%	78	30%	58
25	Demographic	Low Income Population	33%	25%	72	31%	80	35%	55

A study area where the percentage of minority and/or low income persons is 10 percentage points higher than the county average; or represents greater than 50 percent of the total geographic unit would be a strong indicator of minority and/or low income persons population for purposes of the EJ analysis. The standard attachment and maps should be attached to the environmental justice appendices of the environmental document. This is just the first step in an environmental justice analysis. See the summary of steps on the next page, and consult the Environmental Justice chapter of the HPDP for detailed guidance. A narrative and statement of findings should be included in the environmental document.

EJSCREEN is only a first step. Return to the Environmental Justice Guidance for the remaining parts of Step 2 through Step 7.

Summary of remaining steps to complete Step 2:

2-b. Conduct field review of the EJ study area via on-line maps/photography (Google maps) and/or on-the-ground (walk or drive the area). Identify locations of potential indicators of EJ populations in the EJ study area, including: affordable housing types such as manufactured home communities and public housing, community facilities, businesses readily-identifiable as serving EJ populations.

2-c. Consult local representatives who are knowledgeable about community demographics. Contact relevant city or county officials who would be familiar with EJ study area demographic makeup. Contact organized groups that represent, provide services to, or are cultural/social centers for minority and/or low-income persons who may reside in the EJ study area. Contact Tribal Governments in the EJ study area.

2-d. Conduct public outreach with special effort for EJ population engagement.

Talk directly to people who live, work or own businesses in and near the EJ study area. Include specific efforts in the project's public engagement process to reach EJ populations, e.g. announcements and meeting materials translated into languages known to be common in the study area, project staff presence at local events, advertising/project information at community gathering places, interpreters at public meetings, working with local agencies on outreach, etc.

2-e. Based on the data collection above, determine whether there is or is not an identifiable EJ population in the EJ study area.

- If there is an identifiable EJ population in the EJ study area, depict the boundaries of the EJ population(s) on a map relative to project construction limits. This can be a simple mark-up of the EJSCREEN maps using ink pens or editing tools in the PDF. Go to Step 3 of the Environmental Justice Guidance.
- If there is not an identifiable EJ population in the EJ study area, then no further study is needed regarding EJ impacts; go to Step 7.

Complete steps 3-7 as directed by the guidance document for the remainder of the EJ analysis.

Definitions

Percent Minority is defined by EJSCREEN as the percent of individuals in a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino. That is, all people other than non-Hispanic white-alone individuals. The word "alone" in this case indicates that the person is of a single race, not multiracial.

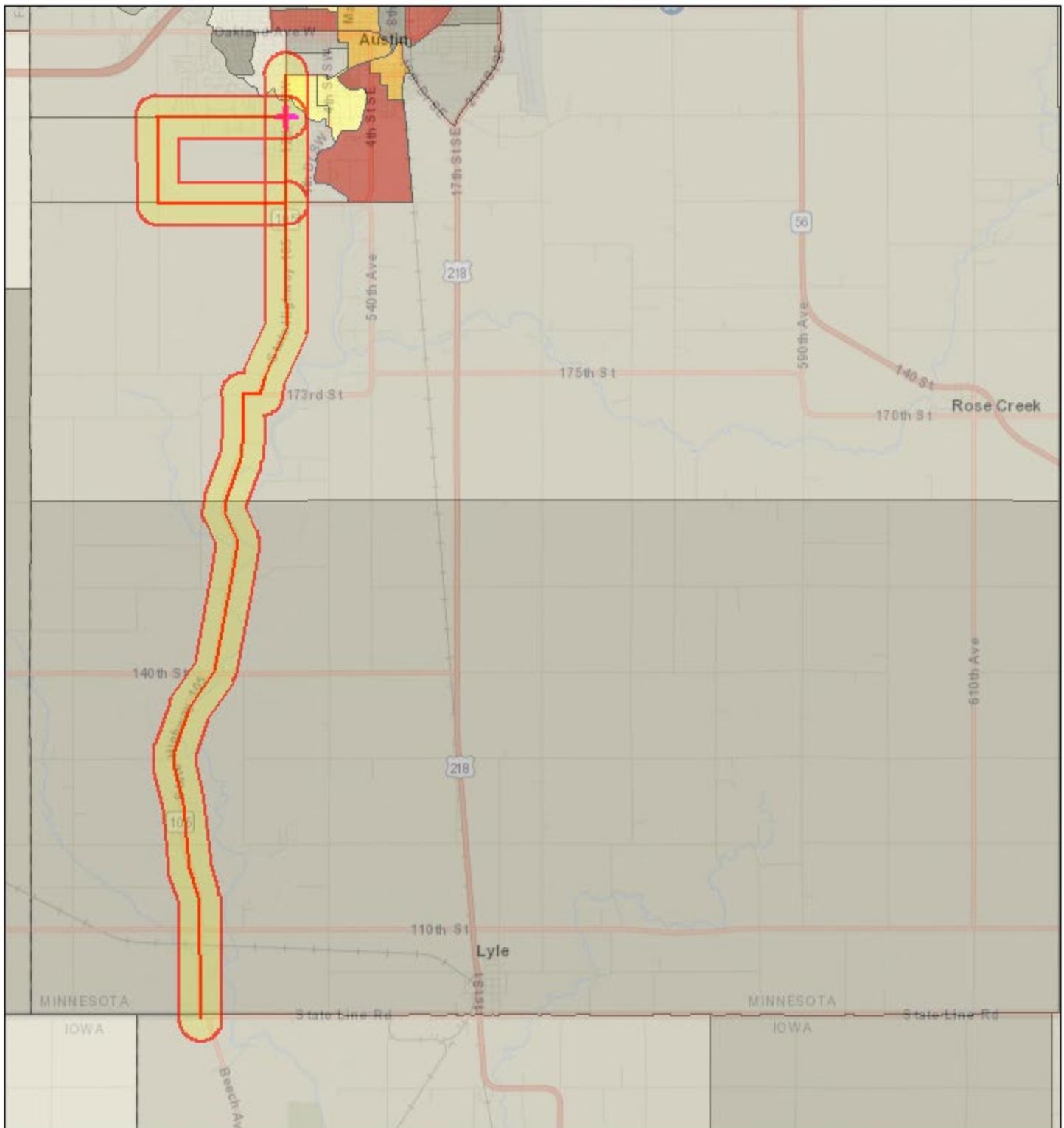
Minority Population is defined as any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

Minority Community is generally defined as one where the minority population is either 10 percentage points higher than the county average; or greater than 50 percent of the total geographic unit; or determined based on input from local officials or stakeholders¹.

Percent Low-Income as is defined by EJSCREEN as the percent of a block group's population in households where the household income is less than or equal to twice the federal "poverty level." This is a conservative and acceptable metric for analysis.

¹ Webinar Series on Environmental Justice: Guidance for Conducting Community Impact Assessments, December 6, 2012, FHWA Office of Human Environment.

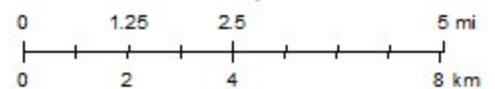
Demographic Indicators- Low Income Population



April 1, 2019

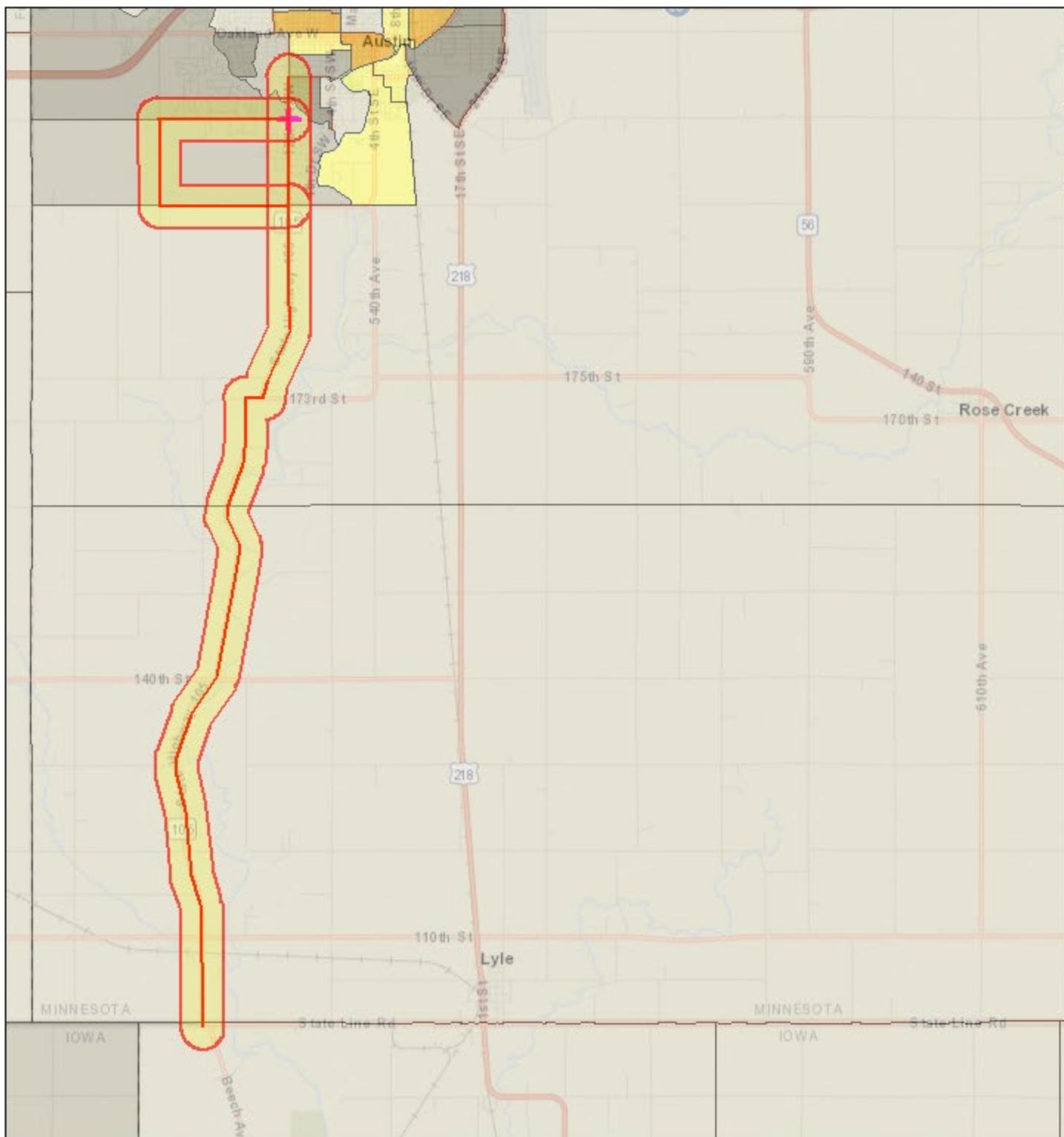
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|  | Buffer Area |  | 50 -60 percentile |
|  | Digitized Line |  | 60 -70 percentile |
|  | Digitized Point |  | 70 -80 percentile |
| EJSCREEN State Percentiles | |  | 80 - 90 percentile |
|  | Data not available |  | 90 - 95 percentile |
|  | Less than 50 percentile |  | 95 - 100 percentile |



EPA OEI, OEJ, and OP
 Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

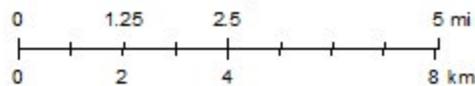
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