# 2023-2026 TIP Environmental Justice Benefits and Burdens Analysis

Presidential Executive Order 12898 on Environmental Justice (EJ) focuses federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities. Within the transportation field, environmental justice is guided by three core principles:

* To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
* To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
* To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

In 2019, the South Central Pennsylvania MPO EJ Process Development Study was released. The Unified Environmental Justice Process and Methodology Guide was the result of an inter-regional collaborative process by MPOs in PennDOT District 8, PennDOT Central Office, the Federal Highway Administration, and the Federal Transit Administration.

A key portion of the new methodology is the definition of Low-Income and Minority Populations.

* Low-Income – The FHWA and USDOT EJ Orders define a “low-income” individual as a person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines.
* Minority Populations – The FHWA and USDOT EJ Orders define a “minority” individual as a person who is:
  + (1) Black
  + (2) Hispanic or Latino
  + (3) Asian American
  + (4) American Indian and Alaskan Native
  + (5) Native Hawaiian and Other Pacific Islander

The core methods outlined in the guide are:

* Identify Environmental Justice Populations
* Assess Conditions and Identify Needs
* Evaluate Benefits and Burdens of Program
* Identify and Address Disproportionately High and Adverse Impacts

This report summarizes the activities, analyses, and outcomes that were completed as a part of the SEDA-COG MPO 2023 Transportation Program development process in compliance with Environmental Justice policies.

###### **Identify Environmental Justice Populations**

In response to the identified EJ policies, a distributive geographic analysis was conducted to identify the locations and concentrations of minority and low-income populations. The demographic profile describes the social composition of the SEDA-COG MPO region and illustrates how demographic patterns vary spatially.

The identification of these populations is essential to establishing effective strategies for engaging them in the transportation planning process. When meaningful opportunities for interaction are established, the transportation planning process can draw upon the perspectives of communities to identify existing transportation needs, localized deficiencies, and demand for transportation services. Mapping of these populations not only provides a baseline for assessing impacts of the transportation investment program, but also aids in the development of an effective public involvement program.

MPOs are expected to:

* Avoid the use of thresholds. The use of thresholds can cause some populations to be unaccounted for in the analysis because they are not of a certain size in comparison to the region.
* When mapping, use more disaggregated Census geographies (e.g., block groups). The more aggregated the geographic level of the analysis, the higher the probability that pockets of low-income and minority populations will be missed.
* Consider geographically dispersed or transient persons. USDOT guidance directs funding recipients to consider all people present in an area, not just the residents. Non-resident persons who travel through or to an area and belong to minority or low-income populations should be considered.
* Verify data and be aware of limitations. Much of the data used in the process are estimates and may have significant margins of error.
* Engage representatives and leaders of minority or low-income populations. MPOs should conduct outreach to leaders of minority or low-income populations to verify data and gain a deeper understanding of the culture and diversity of the area.

The American Community Survey (ACS) provides information on the characteristics of the population – and is not meant to count the population. ACS data are sample data and different samples would yield different estimates of the actual population value. Approximately 1 in 38 U.S. households per year receives an invitation to participate in the ACS. The margin of error is a measure of the possible variation of the estimate around the population value. ACS estimates carry larger margins of error than decennial Census sample estimates. This is especially true for small areas and population groups. Due to the small population located within certain Census tracts in the SEDA-COG MPO region, margin of error must be considered when considering the population represented by the data.

**Table 1** provides a summary of the U.S. Census ACS 2015-2019 5-Year Estimates data at the county and MPO levels. The regional average of minority populations is 7.34%. This is an increase from the 2011-2015 ACS dataset of 7.02%. The regional average for population for whom poverty status is determined has remained consistent from previous years at ~13%.

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| **Table 1: Profile of Traditionally Underserved Populations in the SEDA-COG MPO Region** | **SEDA-COG MPO Region** | | | | | | | | | |
| **Clinton County** | **Columbia County** | **Juniata County** | **Mifflin County** | **Montour County** | **North- umberland County** | **Snyder County** | **Union County** | **Total Population** | **Regional Threshold** *(Average Concentration)* |
| **Total Population** | **38,915** | **65,715** | **24,624** | **46,276** | **18,259** | **91,761** | **40,483** | **45,111** | **371,144** | *7.34%* |
| **Minority Population1** | 1,880 | 4,462 | 742 | 1,429 | 1,582 | 6,897 | 1,990 | 7,147 | 26,129 |
| **Senior Population2** | 7,121 | 12,443 | 4,896 | 9,787 | 3,768 | 19,142 | 7,419 | 7,996 | 72,572 | *19.6%* |
| **Total Population for whom Poverty Status is Determined** | **37,185** | **61,000** | **24,326** | **45,537** | **17,546** | **87,589** | **38,125** | **36,023** | **347,331** | *13.05%* |
| **Low-Income Population3** | 5,777 | 9,150 | 2,637 | 6,127 | 1,836 | 11,552 | 3,983 | 4,258 | 45,320 |
| **Total Population Age 5 or Older** | **36,838** | **62,775** | **23,208** | **43,417** | **17,207** | **87,029** | **38,314** | **43,026** | **351,814** | *1.96%* |
| **Limited English Proficiency Population4** | 613 | 559 | 941 | 1,159 | 301 | 1,256 | 902 | 1,174 | 6,905 |
| **Total Civilian Non-Institutionalized Population** | **38,358** | **64,957** | **24,386** | **45,674** | **17,584** | **87,881** | **40,150** | **39,694** | **358,684** | *14.8%* |
| **Disabled Population5** | 6,368 | 9,037 | 3,327 | 7,288 | 2,423 | 14,574 | 4,842 | 5,216 | 53,075 |
| **Total Households** | **14,690** | **26,372** | **9,372** | **19,043** | **7,404** | **39,075** | **14,794** | **14,533** | **145,283** | *9.3%* |
| **Zero Vehicle Households6** | 1,450 | 1,721 | 729 | 2,118 | 1,016 | 4,141 | 1,043 | 1,290 | 13,508 |
| **Female Head of Household with own Children7** | 474 | 990 | 184 | 793 | 348 | 1,513 | 497 | 494 | 5,293 | *3.64%* |

**Source:** U.S. Census Bureau, American Community Survey (ACS), 2015-2019 5-Year Estimates

**Notes:**

1 Minority Population: Table DP05, ACS Demographic and Housing Estimates, - RACE- Calculated as "Total Population" minus "One race - White".

2 Senior Population: Table DP05, ACS Demographic and Housing Estimates, SEX AND AGE - Value given as "Total Population: 65 years and over".

3 Low-Income Population: Table S1701, Poverty Status in the Past 12 Months - Value given as "Population for whom poverty status is determined: Below poverty level".

4 Limited English Proficiency Population: Table S1601, Language Spoken At Home - Value given as "Population 5 years and over: Language other than English: Speak English less than 'very well'".

5 Disabled Population: Table S1810, Disability Characteristics - Value given as "Total civilian non-Institutionalized population: With a disability".

6 Zero Vehicle Households: Table B08201, Household Size by Vehicles Available - Value given as "Total Households: No vehicle available".

7 Female Head of Household with Children: Table DP02, Selected Social Characteristics in the United States, Households by Type - Value given as "Family households: Female householder, no husband present family: With own children under 18 years".

For the statewide 2023 Transportation Improvement Program (TIP) environmental justice analysis, basic data and maps were developed by the Williamsport Area Transportation Study (WATS) MPO. All the data were refreshed, and the ACS-specific data were updated to the 2015-2019 estimates. The following statement explains the methodology used in the identification of minority and low-income populations from the Statewide Environmental Justice Analysis Methodology 2023-2026 Pennsylvania Transportation Improvement Program:

*“The process followed for the 2021-2024 program update classified low income and*

*minority population percentages based on natural breaks of the percentages of those*

*populations present within the block groups of each county in Pennsylvania. The result of*

*this was to create a custom classification of symbol intervals for each county. The*

*presence of 67 different interval scales would lead to conducting 67 separate analyses*

*downstream in the workflow.*

*Instead, WATS staff found that when Census block groups were classified into intervals based on the ratio of census block group minority/low income percentage to county or region overall*

*minority/low income percentage (i.e. a ratio of “1” indicates a census block group has the*

*same minority or low income percentage as the county average) that they were able to produce*

*a uniform scale usable across all counties or regions in the state. One side effect of this*

*approach is that it resulted in some counties not having all intervals. However, it gives us a*

*uniform and easily communicated and understood way of classifying the relative*

*concentrations of low income and minority populations across the state of Pennsylvania.*

*As an example, based on the procedure described above, WATS staff defined interval “1” as being all Census block groups with a minority population percentage less than half the countywide or regional minority population percentage. The result is that any counties or regions with no Census block groups that fit that criterion do not have that interval. By standardizing the intervals across the state, we are able to make apples-to-apples comparisons between counties and regions and also the ability to scale the analysis up to larger geographic*

*scales (or down to smaller scales) which gives us a stronger analytical product.”*

**Figures 1 and 2** show the ratios of low income or minority population percentage in a Census block group to the MPO region low income or minority population percentage. As evidenced by the low-income map specifically, low-income populations are more densely represented in the northcentral portion of the region, as well as central Juniata County. The minority map similarly shows a high representation in the northcentral portion of the region but brings in some additional areas of Columbia, Montour, and southern Northumberland counties. It is important to note that two of the Census block groups in the northeastern portion of Union County are home to federal prisons.

**Figure 1: Concentrations of Low Income Population**

Diagram, map

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**Figure 2: Concentrations of Minority Population**

**Map

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**Figures 3 and 4** show dot density mapping of low income and minority populations by census block group.

**Figure 3: Dot Density Concentrations of Low Income Population**

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**Figure 4: Dot Density Concentrations of Minority Population**

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**Tables 2 and 3** show the breakdown of low income and minority population totals across the block groups within these intervals throughout the SEDA-COG MPO region. The intervals referenced (1 through 5) are the same intervals shown on Figures 1 and 2 by the green gradient of color [lighter green equals interval 1; darkest green equals interval 5].

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| **Table 2: Low Income Population by Interval** | | | |
| **Low Income Population Interval** | **Low Income Population** | **Total Population** | **Percent Low Income** |
| 1 | 4,042 | 102,058 | 3.96% |
| 2 | 11,389 | 117,211 | 9.72% |
| 3 | 15,487 | 89,521 | 17.30% |
| 4 | 12,600 | 35,478 | 35.51% |
| 5 | 1,802 | 3,063 | 58.83% |
| **Total** | **45,320** | **347,331** | **13.05%** |

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| --- | --- | --- | --- |
| **Table 3: Minority Population by Interval** | | | |
| **Minority Population Interval** | **Minority Population** | **Total Population** | **Percent Minority** |
| 1 | 3,153 | 192,795 | 1.64% |
| 2 | 4,125 | 77,201 | 5.34% |
| 3 | 5,039 | 48,871 | 10.31% |
| 4 | 8,412 | 40,293 | 20.88% |
| 5 | 6,515 | 11,984 | 54.36% |
| **Total** | **27,244** | **371,144** | **7.34%** |

**Assess Conditions and Identify Needs**

**Safety Conditions: Figures 5 and 6** highlight the bicycle and pedestrian fatalities in the region. The fatalities do not appear to be clustered in any specific area.

**Figure 5: Concentrations of Low Income Population with Bicycle and Pedestrian Fatalities**

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**Figure 6: Concentrations of Minority Population with Bicycle and Pedestrian Fatalities**

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**Tables 4 and 5** show bicycle and pedestrian crash data by interval in the SEDA-COG MPO region. The same color gradient applies to these tables as was discussed above in the Identification of EJ Populations section. These charts do include a column for horse and buggy crashes as well. This is particularly important to the MPO region, as there is a large Amish and Plain Sect population.

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| **Table 4: Low Income Bicycle and Pedestrian Crash Data** | | | | | | | |
| **Low Income Population Interval** | **Low Income Population** | **Total Population** | **Percent Low Income** | **People on Bicycles Involved in Crashes (2015 - 2019)** | **Pedestrians Involved in Crashes (2015 - 2019)** | **Total Persons Using Nonmotorized Modes Involved in Crashes (2015 - 2019)** | **Horse and Buggy Crashes (2015 - 2019)** |
| 1 | 4,042 | 102,058 | 3.96% | 23 | 85 | 147 | 11 |
| 2 | 11,389 | 117,211 | 9.72% | 34 | 75 | 177 | 22 |
| 3 | 15,487 | 89,521 | 17.30% | 30 | 96 | 175 | 15 |
| 4 | 12,600 | 35,478 | 35.51% | 18 | 79 | 110 | 2 |
| 5 | 1,802 | 3,063 | 58.83% | 0 | 19 | 21 | 0 |
| **Total** | **45,320** | **347,331** | **13.05%** | **105** | **354** | **630** | **50** |

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| **Table 5: Minority Bicycle and Pedestrian Crash Data** | | | | | | | |
| **Minority Population Interval** | **Minority Population** | **Total Population** | **Percent Minority** | **People on Bicycles Involved in Crashes (2015 - 2019)** | **Pedestrians Involved in Crashes (2015 - 2019)** | **Total Persons Using Nonmotorized Modes Involved in Crashes (2015 - 2019)** | **Horse and Buggy Crashes (2015 - 2019)** |
| 1 | 3,153 | 192,795 | 1.64% | 44 | 145 | 293 | 36 |
| 2 | 4,125 | 77,201 | 5.34% | 34 | 85 | 163 | 13 |
| 3 | 5,039 | 48,871 | 10.31% | 16 | 57 | 89 | 3 |
| 4 | 8,412 | 40,293 | 20.88% | 5 | 62 | 74 | 0 |
| 5 | 6,515 | 11,984 | 54.36% | 1 | 8 | 11 | 0 |
| **Total** | **27,244** | **371,144** | **7.34%** | **100** | **357** | **630** | **52** |

**Tables 6 and 7** show general crash data by interval in the SEDA-COG MPO region. Most of the crashes fall in the first interval of minority and low-income populations.

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| **Table 6: Low Income Crash Data** | | | | | | | |
| **Low Income Population Interval** | **Low Income Population** | **Total Population** | **Percent Low Income** | **Total Reportable Crashes (2015 - 2019)** | **Persons Involved in Reportable Crashes (2015 - 2019)** | **Crash Fatalities (2015 - 2019)** | **Crash Suspected Serious Injuries (2015 - 2019)** |
| 1 | 4,042 | 102,058 | 3.96% | 6,408 | 13,580 | 85 | 286 |
| 2 | 11,389 | 117,211 | 9.72% | 6,720 | 13,451 | 90 | 344 |
| 3 | 15,487 | 89,521 | 17.30% | 5,523 | 12,091 | 79 | 241 |
| 4 | 12,600 | 35,478 | 35.51% | 1,961 | 4,681 | 11 | 69 |
| 5 | 1,802 | 3,063 | 58.83% | 210 | 486 | 1 | 6 |
| **Total** | **45,320** | **347,331** | **13.05%** | **20,822** | **44,289** | **266** | **946** |

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| **Table 7: Minority Crash Data** | | | | | | | |
| **Minority Population Interval** | **Minority Population** | **Total Population** | **Percent Minority** | **Total Reportable Crashes (2015 - 2019)** | **Persons Involved in Reportable Crashes (2015 - 2019)** | **Crash Fatalities (2015 - 2019)** | **Crash Suspected Serious Injuries (2015 - 2019)** |
| 1 | 3,153 | 192,795 | 1.64% | 11,194 | 23,240 | 161 | 577 |
| 2 | 4,125 | 77,201 | 5.34% | 4,914 | 10,690 | 75 | 188 |
| 3 | 5,039 | 48,871 | 10.31% | 2,314 | 5,078 | 18 | 87 |
| 4 | 8,412 | 40,293 | 20.88% | 1,889 | 4,198 | 11 | 61 |
| 5 | 6,515 | 11,984 | 54.36% | 295 | 686 | 3 | 20 |
| **Total** | **27,244** | **371,144** | **7.34%** | **20,606** | **43,892** | **268** | **933** |

**Bridge Conditions: Figures 7 and 8** show the poor bridge condition by deck area for the region. Most of the poor condition bridges are under 3,000 square feet.

**Figure 7: Concentrations of Low Income Populations with Poor Bridges**

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**Figure 8: Concentrations of Minority Populations with Poor Bridges**

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**Tables 8 and 9** highlight the bridge conditions by interval in the SEDA-COG MPO region.

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| **Table 8: Low Income Bridge Condition** | | | | | | |
| **Low Income Population Interval** | **Low Income Population** | **Total Population** | **Percent Low Income** | **Bridges in Poor Condition or Worse** | **Bridges in Fair Condition or Better** | **Total Bridges** |
| 1 | 4,042 | 102,058 | 3.96% | 65 | 1,199 | 1,264 |
| 2 | 11,389 | 117,211 | 9.72% | 132 | 1,550 | 1,682 |
| 3 | 15,487 | 89,521 | 17.30% | 60 | 903 | 963 |
| 4 | 12,600 | 35,478 | 35.51% | 11 | 165 | 176 |
| 5 | 1,802 | 3,063 | 58.83% | 0 | 4 | 4 |
| **Total** | **45,320** | **347,331** | **13.05%** | **268** | **3,821** | **4,089** |

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| **Table 9: Minority Bridge Condition** | | | | | | |
| **Minority Population Interval** | **Minority Population** | **Total Population** | **Percent Minority** | **Bridges in Poor Condition or Worse** | **Bridges in Fair Condition or Better** | **Total Bridges** |
| 1 | 3,153 | 192,795 | 1.64% | 151 | 2,410 | 2,561 |
| 2 | 4,125 | 77,201 | 5.34% | 75 | 819 | 894 |
| 3 | 5,039 | 48,871 | 10.31% | 24 | 309 | 333 |
| 4 | 8,412 | 40,293 | 20.88% | 5 | 149 | 154 |
| 5 | 6,515 | 11,984 | 54.36% | 0 | 20 | 20 |
| **Total** | **27,244** | **371,144** | **7.34%** | **255** | **3,707** | **3,962** |

**Pavement Conditions: Figures 9 and 10** show the fair and poor International Roughness Index (IRI) for roads in the MPO region. The Route 11 & 15 corridors (from Shamokin Dam-Northumberland) are highly traveled and see high numbers of truck traffic. Some of this situation may be alleviated with the completion of the Central Susquehanna Valley Transportation (CSVT) Project.

**Figure 9: Concentration of Low Income Populations with IRI**

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**Figure 10: Concentration of Minority Populations with IRI**

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**Tables 10 and 11** show the IRI data for minority and low-income populations.

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| **Table 10: Low Income IRI** | | | | | | | | | |
| **Low Income Population Interval** | **Low Income Population** | **Total Population** | **Percent Low Income** | **Federal Aid Segment Miles with EXCELLENT IRI** | **Federal Aid Segment Miles with GOOD IRI** | **Federal Aid Segment Miles with FAIR IRI** | **Federal Aid Segment Miles with POOR IRI** | **Federal Aid Segment Miles with OTHER IRI** | **Total Federal Aid Segment Miles (IRI)** |
| 1 | 4,042 | 102,058 | 3.96% | 224 | 85 | 18 | 4 | 1 | 332 |
| 2 | 11,389 | 117,211 | 9.72% | 331 | 131 | 30 | 6 | 2 | 499 |
| 3 | 15,487 | 89,521 | 17.30% | 191 | 85 | 27 | 7 | 1 | 311 |
| 4 | 12,600 | 35,478 | 35.51% | 39 | 22 | 10 | 5 | 0 | 76 |
| 5 | 1,802 | 3,063 | 58.83% | 1 | 2 | 1 | 1 | 0 | 5 |
| **Total** | **45,320** | **347,331** | **13.05%** | **787** | **324** | **85** | **23** | **3** | **1,223** |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table 11: Minority IRI** | | | | | | | | | |
| **Minority Population Interval** | **Minority Population** | **Total Population** | **Percent Minority** | **Federal Aid Segment Miles with EXCELLENT IRI** | **Federal Aid Segment Miles with GOOD IRI** | **Federal Aid Segment Miles with FAIR IRI** | **Federal Aid Segment Miles with POOR IRI** | **Federal Aid Segment Miles with OTHER IRI** | **Total Federal Aid Segment Miles (IRI)** |
| 1 | 3,153 | 192,795 | 1.64% | 489.60 | 175.06 | 47.46 | 6.70 | 1.54 | 720.35 |
| 2 | 4,125 | 77,201 | 5.34% | 170.49 | 67.39 | 18.73 | 6.87 | 1.82 | 265.31 |
| 3 | 5,039 | 48,871 | 10.31% | 48.13 | 28.99 | 11.66 | 4.68 | 0.00 | 93.46 |
| 4 | 8,412 | 40,293 | 20.88% | 42.09 | 24.79 | 8.87 | 1.78 | 0.00 | 77.52 |
| 5 | 6,515 | 11,984 | 54.36% | 9.57 | 6.78 | 1.88 | 1.23 | 0.04 | 19.51 |
| **Total** | **27,244** | **371,144** | **7.34%** | **759.89** | **303.00** | **88.60** | **21.26** | **3.41** | **1,176.14** |

**Transit Conditions: Figures 11 and 12** show the fixed route transit facilities in the SEDA-COG MPO region. The SEDA-COG MPO region has only one fixed route transit system. It is the Lower Anthracite Transportation System (LATS). LATS has two seasonal routes to the Susquehanna Mall in the winter and Knoebels Amusement Park in the summer. LATS also has a fixed route throughout the southeast corner of Northumberland County.

**Figure 11: Concentrations of Low Income Populations with Transit Providers**

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**Figure 12: Concentrations of Minority Populations with Transit Providers**

**Diagram, map

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**Evaluation of Benefits and Burdens of Program**

The Benefits and Burdens Analysis provides feedback on the equity of the Transportation Improvement Program (TIP), examines the impact that it has on minority and low-income populations, and identifies any disproportionate impacts.

Benefits are the positive impacts from investment such as enhancements in transportation services/options, improved public safety, congestion relief, increased economic vitality, reduced travel times, etc. Burdens, on the other hand, are the adverse effects of investment such as pollution (noise and air), disruption of community cohesion, displacement of persons or businesses, destruction or decrease of economic vitality, adverse employment effects, decline in tax base or property values, diminished esthetics, disruption of businesses, parking/access to transit, congestion, or the denial, delay or reduction of receipt of benefits.

Per federal guidance, the evaluation of benefits and burdens for a program is to include project categorization, mapping, and a qualitative narrative.

**Figure 13 and Figure 14** show the distribution of TIP projects throughout the region. The TIP projects are well distributed throughout the MPO region. The asset management projects that are located in areas with greatest minority population concentration may contribute to some short-term impacts during construction but will generally benefit those residents by improving traveling conditions and safety for all users. Bicycle, pedestrian, and transit projects would likely result in the least adverse impact and add the most benefit for minority and low-income populations.

Included on the TIP are five transit projects that do not lend themselves to being mapped. Those projects are as follows:

**MPMS 115130 – Upgrade server/networking (Call A Ride Service, Inc.), $8,000**

**MPMS 115132 – Replace 5 computers (Call A Ride Service, Inc.), $7,500**

**MPMS 115139 – Purchase 20 Tablets (Call A Ride Service, Inc.), $6,000**

**MPMS 115140 – Replace small transit bus (Call A Ride Service, Inc.), $1,125,000**

**MPMS 115127 – Purchase Vehicles (Geisinger Health System Foundation), $2,050,000**

**Figure 13: Concentrations of Low Income Populations with TIP Projects**

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**Figure 14: Concentrations of Minority Populations with TIP Projects**

**Map

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**Table 12** is a categorization of all 2023 Draft TIP Projects. Each project was evaluated for proximity to low income or minority populations, as well as categorized as:

* Projects of Concern **–** High Potential for Adverse Impacts:
  + New Right-of-Ways
  + Roadway Expansion
* Lower Potential for Adverse Impacts/Potentially Beneficial:
  + Roadway and Bridge Maintenance
* Low Potential for Adverse Impacts/Inherently Beneficial:
  + Transit o Bike/Ped o Safety
  + Studies

**Table 12** also uses a gradient color scheme for low-income and minority indications. The color scheme corresponds to the mapping included on the prior pages for the project distribution.

**Table 12:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Project** | **County** | **Project Title** | **Minority** | **Low Income** | **High/Medium/Low Impact** |
| 3763 | Clinton | T-537 over Fishing Creek |  |  | Medium |
| 3840 | Clinton | Rauchtown Bridge |  |  | Medium |
| 3850 | Clinton | SR 1001 Improvements |  |  | High |
| 69038 | Clinton | Bridge over Laurel Run |  |  | Medium |
| 85149 | Clinton | SR 0880 Rauchtown Cr II |  |  | Medium |
| 93356 | Clinton | Big Fishing Creek Br #3 |  |  | Medium |
| 101535 | Clinton | Bridge over Long Run |  |  | Medium |
| 110355 | Clinton | 2022 Bridge Preservation |  |  | Medium |
| 112744 | Clinton | Sulphur Run BOX |  |  | Medium |
| 113133 | Clinton | SR 120 over Dry Run |  |  | Medium |
| 114298 | Clinton | SR 120 West Port Fill Sli |  |  | Medium |
| 114972 | Clinton | SR 120 Slide Restoration |  |  | Medium |
| 117159 | Clinton | SR 4001 ov Summerson Run |  |  | Medium |
| 5375 | Columbia | T-373 over Roaring Creek |  |  | Medium |
| 5635 | Columbia | SR 487 ov Tb Roaring Crk |  |  | Medium |
| 78825 | Columbia | SR 4049 over W Branch Fis |  |  | Medium |
| 82774 | Columbia | SR 1020 over Pine Creek |  |  | Medium |
| 88034 | Columbia | SR 2005 over Roaring Cree |  |  | Medium |
| 88051 | Columbia | SR 1020 over Fishing Cree |  |  | Medium |
| 88777 | Columbia | SR 4008 ov Tb Fishing Crk |  |  | Medium |
| 88803 | Columbia | SR 487 over Tributary Roa |  |  | Medium |
| 93643 | Columbia | SR 1001 over Tributary to |  |  | Medium |
| 98396 | Columbia | SR 1012 over Tributary to |  |  | Medium |
| 98398 | Columbia | SR 1013 over Stony Brook |  |  | Medium |
| 98400 | Columbia | SR 1014 over Tributary to |  |  | Medium |
| 98483 | Columbia | Catawissa Crk. to SR 2009 |  |  | Medium |
| 98506 | Columbia | SR 42 to Airport Rd |  |  | Medium |
| 98941 | Columbia | SR 254 ov Tb Fishing Crk |  |  | Medium |
| 99404 | Columbia | Briar Cr Boro to Berwick |  |  | Medium |
| 100443 | Columbia | Roaring Cr to Southern Dr |  |  | Medium |
| 103011 | Columbia | SR 487 over Abandoned RR |  |  | Medium |
| 103833 | Columbia | T-557 over Little Fishing |  |  | Medium |
| 106181 | Columbia | SR 239 over Fishing Creek |  |  | Medium |
| 107019 | Columbia | Adjacent Box Beam Bridge |  |  | Medium |
| 107105 | Columbia | SR 11 to SR 339 |  |  | Low |
| 107106 | Columbia | SR 11 to Frost Valley Rd |  |  | Low |
| 107107 | Columbia | Frost Valley Rd to School |  |  | Low |
| 107111 | Columbia | Reagans Alley to SR 11 |  |  | Medium |
| 107112 | Columbia | SR 61 to Midvalley Rd |  |  | Low |
| 107113 | Columbia | Montour Co to White Hall |  |  | Medium |
| 107116 | Columbia | Briar Cr to SR 1025 |  |  | Medium |
| 107118 | Columbia | SR 42 to Columbia Co Main |  |  | Medium |
| 109577 | Columbia | I-80 Bridge Piers Rehab |  |  | Medium |
| 109587 | Columbia | SR 339 from Smith Hollow |  |  | Medium |
| 114157 | Columbia | SR 1027 over Tributary of |  |  | Medium |
| 114231 | Columbia | SR 4016 over Black Run |  |  | Medium |
| 116203 | Columbia | Park Blvd to Luzern Co |  |  | Low |
| 116356 | Columbia | Park St to Shaffer Rd (SR |  |  | Low |
| 116528 | Columbia | Martzville to SR 1025 |  |  | Low |
| 117137 | Columbia | Poor House Rd to White Ch |  |  | Medium |
| 117139 | Columbia | Gaswell Rd to Roaring Cr |  |  | Medium |
| 117495 | Columbia | T-316 over Mugser Run, C |  |  | Medium |
| 117566 | Columbia | SR 11 AND SR 225 Bridge P |  |  | Medium |
| 117567 | Columbia | SR 93 over North Branch o |  |  | Medium |
| 117568 | Columbia | SR 42 AND 93 over North B |  |  | Medium |
| 117576 | Columbia | SR 4020 over Green Creek |  |  | Medium |
| 117577 | Columbia | SR 2001 over Roaring Cree |  |  | Medium |
| 117840 | Columbia | SEDA-COG HFST |  |  | Low |
| 4096 | Juniata | Mahantango Creek Bridge |  |  | Medium |
| 4160 | Juniata | Stoney Run Bridge |  |  | Medium |
| 4190 | Juniata | Bridge over NS Railroad |  |  | Medium |
| 69423 | Juniata | 2023 SEDACOG Bridge Prese |  |  | Medium |
| 69512 | Juniata | SR 0850 Little Laurel Run |  |  | Medium |
| 85170 | Juniata | SR 0850 over Trib. Tuscar |  |  | Medium |
| 85176 | Juniata | SR 0075 over Trib Tuscaro |  |  | Medium |
| 85178 | Juniata | SR 0075 over Trib Tuscaro |  |  | Medium |
| 85183 | Juniata | SR 0333 over Trib Juniata |  |  | Medium |
| 85187 | Juniata | SR 2002 over Trib. Doe Ru |  |  | Medium |
| 85191 | Juniata | SR 3002 over Locust Run |  |  | Medium |
| 85206 | Juniata | SR 3023 over Tuscarora Cr |  |  | Medium |
| 93721 | Juniata | Trib Stony Run |  |  | Medium |
| 105566 | Juniata | SR 35 Stop 35 to Sheetz A |  |  | Medium |
| 109717 | Juniata | SR 2003 over Doe Run II |  |  | Medium |
| 112751 | Juniata | Trib Cocolamus Creek BOX |  |  | Medium |
| 112752 | Juniata | Trib Stony Run BOX |  |  | Medium |
| 113143 | Juniata | SR 3008 over Trib Tuscaro |  |  | Medium |
| 113146 | Juniata | SR 3019 over Doyle Run |  |  | Medium |
| 114302 | Juniata | 2024 SEDA-COG Bridge Pres |  |  | Medium |
| 116886 | Juniata | 2025 SEDA-COG Bridge Pres |  |  | Medium |
| 116889 | Juniata | 2027 SEDA-COG Bridge Pres |  |  | Medium |
| 111074 | Juniata | River Rd RR Warning Device |  |  | Low |
| 4551 | Mifflin | SR 1002 over Dry Creek |  |  | Medium |
| 4582 | Mifflin | Lewistown Narrows Rehab |  |  | Medium |
| 69387 | Mifflin | Long Hollow Run Bridge |  |  | Medium |
| 72767 | Mifflin | Lewistown to Co. Line Bet |  |  | Medium |
| 81491 | Mifflin | Co. Line to Belleville |  |  | Medium |
| 85276 | Mifflin | Br Long Hollow II |  |  | Medium |
| 85290 | Mifflin | SR 0522 over Jacks Creek |  |  | Medium |
| 85299 | Mifflin | Lewistown Bridge |  |  | Medium |
| 85300 | Mifflin | Lewistown Bridge II |  |  | Medium |
| 91608 | Mifflin | SR 1012 Laurel Run Br |  |  | Medium |
| 93314 | Mifflin | McVeytown Strodes Mills |  |  | Medium |
| 93316 | Mifflin | Valley St. Betterment |  |  | Medium |
| 95971 | Mifflin | T-439 ov Kishacoquillas |  |  | Medium |
| 105922 | Mifflin | SR 22 ov Branch Long Holl |  |  | Medium |
| 110175 | Mifflin | T-420 over Kish Creek |  |  | Medium |
| 112745 | Mifflin | Branch Jacks Creek BOX |  |  | Medium |
| 112749 | Mifflin | Branch Kishacaquillas Cre |  |  | Medium |
| 113151 | Mifflin | SR 2008 over Br Jacks Cre |  |  | Medium |
| 113153 | Mifflin | SR 22 over Abandoned RR |  |  | Medium |
| 113155 | Mifflin | SR 3017 over Trib Juniata |  |  | Medium |
| 114010 | Mifflin | SR 522 Betterment |  |  | Medium |
| 114048 | Mifflin | Kish Pike RR Device Insta |  |  | Low |
| 114303 | Mifflin | 2025 SEDA-COG Bridge Pres |  |  | Medium |
| 114470 | Mifflin | PA 103 Slide Area |  |  | Medium |
| 116799 | Mifflin | SR 22 over Wakefield Run |  |  | Medium |
| 116986 | Mifflin | Tributary Jacks Creek BOX |  |  | Medium |
| 117782 | Mifflin | Walnut St RR Device Insta |  |  | Low |
| 6303 | Montour | T-396 over E Branch Chill |  |  | Medium |
| 93524 | Montour | SR 54 over Stony Brook |  |  | Medium |
| 93650 | Montour | SR 3007 over Tributary to |  |  | Medium |
| 98507 | Montour | SR 642 over Mauses Creek |  |  | Medium |
| 98610 | Montour | Cherry St to Byrd Ave |  |  | Medium |
| 98991 | Montour | SR 54 Wbl ov Mahoning Crk |  |  | Medium |
| 100483 | Montour | SR 54 from SR 254 to SR 3 |  |  | Medium |
| 103841 | Montour | T-308 over Beaver Run Bri |  |  | Medium |
| 103853 | Montour | SR 54 Corridor Safety Imp |  |  | Low |
| 105525 | Montour | I-80 West Bound from Stum |  |  | Medium |
| 105527 | Montour | I-80 West from Klondike R |  |  | Medium |
| 106671 | Montour | T-392 over Mud Run Bridge |  |  | Medium |
| 107128 | Montour | SR 54 under Market Street |  |  | Medium |
| 112358 | Montour | I-80 ITS Camera #1 Danvil |  |  | Low |
| 115544 | Montour | 1500ft W of Montour St to |  |  | Medium |
| 115547 | Montour | North'd Co to 1500ft W of |  |  | Medium |
| 116227 | Montour | Ferry St to Cherry St |  |  | Medium |
| 116307 | Montour | Northumberland Co to Bald |  |  | Low |
| 117036 | Montour | SR 2008 Bloom Road Bike L |  |  | Low |
| 117506 | Montour | T-412 over Sechler Run |  |  | Medium |
| 6615 | Northumberland | SR 4020 over Little Shamo |  |  | Medium |
| 6667 | Northumberland | SR 4018 over Unnamed Trib |  |  | Medium |
| 6725 | Northumberland | SR 901 over SEDA-COG Rail |  |  | Medium |
| 78935 | Northumberland | SR 225 over Mahantango Cr |  |  | Medium |
| 85622 | Northumberland | SR 405 ov Tb Delaware Run |  |  | Medium |
| 85623 | Northumberland | SR 147 over Tributary to |  |  | Medium |
| 87909 | Northumberland | SR 54 from Montour County |  |  | Medium |
| 87944 | Northumberland | SR 61 from Lancaster Swit |  |  | Medium |
| 87994 | Northumberland | SEDA-COG Scour Contract |  |  | Medium |
| 88778 | Northumberland | SR 54 over Shamokin Creek |  |  | Medium |
| 88798 | Northumberland | Substructure Contract |  |  | Medium |
| 93642 | Northumberland | T-802 over S Branch of Ro |  |  | Medium |
| 97550 | Northumberland | SR2024 ov SBr Roaring Crk |  |  | Medium |
| 97593 | Northumberland | SR 54 from SR 901 to Locu |  |  | Medium |
| 97679 | Northumberland | W Br Susq Rvr to Milton |  |  | Medium |
| 97708 | Northumberland | SR 54 from south of SR 90 |  |  | Medium |
| 98531 | Northumberland | SR 1007 over Tributary of |  |  | Medium |
| 98540 | Northumberland | SR 4004 over Tributary N |  |  | Medium |
| 98674 | Northumberland | SR 147 to Housels Run |  |  | Medium |
| 99006 | Northumberland | SR 61 over Dark Run |  |  | Medium |
| 99009 | Northumberland | SR 61 over SR 2029 AND 90 |  |  | Medium |
| 99176 | Northumberland | SR 11 from SR 147 to C St |  |  | Medium |
| 99177 | Northumberland | SR 1024 to Montour County |  |  | Medium |
| 99391 | Northumberland | Kulpmont to Lancaster Swi |  |  | Medium |
| 102810 | Northumberland | CSVT to SR 11 |  |  | High |
| 103917 | Northumberland | T-696 over Plum Creek |  |  | Medium |
| 103928 | Northumberland | 8th St over Shamokin Crk |  |  | Medium |
| 109833 | Northumberland | SR 147 (CSVT Gap) from E |  |  | Medium |
| 110224 | Northumberland | SR 61 from 5th St to Dark |  |  | Medium |
| 110829 | Northumberland | SR 61 - Paxinos Drainage |  |  | Low |
| 111352 | Northumberland | SVRR RRX Northumberland C |  |  | Low |
| 111760 | Northumberland | SR 44 to Lycoming Co |  |  | Medium |
| 113177 | Northumberland | T-633 over Muddy Run |  |  | Medium |
| 113695 | Northumberland | SR 4010 from Front St to |  |  | High |
| 114101 | Northumberland | Bridge Painting Off Syste |  |  | Low |
| 114134 | Northumberland | SR 1016 over Muddy Run |  |  | Medium |
| 114142 | Northumberland | SR 3003 over Mouse Creek |  |  | Medium |
| 114158 | Northumberland | SR 4012 over Deicks Run |  |  | Medium |
| 114175 | Northumberland | SR 4004 over Tributary of |  |  | Medium |
| 115084 | Northumberland | Bottle Run Rd to SR 54 |  |  | Low |
| 115507 | Northumberland | Water St to SR 147 |  |  | Medium |
| 115509 | Northumberland | Pine St to Montour Co |  |  | Low |
| 115579 | Northumberland | North'd SR 254 Grind AND |  |  | Medium |
| 115583 | Northumberland | Shamokin Cr to Church St |  |  | Medium |
| 115584 | Northumberland | Church St to Shikellamy A |  |  | Medium |
| 115656 | Northumberland | Epoxy Overlay BOF SEDA-CO |  |  | Medium |
| 115821 | Northumberland | SR 225 to SR 61 |  |  | Low |
| 116005 | Northumberland | SR 61 to Ash St |  |  | Medium |
| 116221 | Northumberland | Warrior Run MTF |  |  | Low |
| 116314 | Northumberland | SR 45 to Old Rt 45 (T571) |  |  | Medium |
| 116833 | Northumberland | Ferry Ln to Walnut St |  |  | Medium |
| 117570 | Northumberland | SR 45 AND 1014 over West |  |  | Medium |
| 117608 | Northumberland | SR 3018 over Mahantango C |  |  | Medium |
| 117615 | Northumberland | SR 11 over W Branch Susqu |  |  | Medium |
| 6797 | Snyder | SR 3016 over Aline Creek |  |  | Medium |
| 6860 | Snyder | T-481 over Tuscarora Crk |  |  | Medium |
| 6886 | Snyder | US 522 over Tributary to |  |  | Medium |
| 6899 | Snyder | SR 522 over Beaver Creek |  |  | Medium |
| 6902 | Snyder | SR 522 over Tb Middle Crk |  |  | Medium |
| 93648 | Snyder | SR 2007 over Tributary to |  |  | Medium |
| 98548 | Snyder | SR 1011 over Tb Penn's Cr |  |  | Medium |
| 98578 | Snyder | SR 3010 over Tributary to |  |  | Medium |
| 98885 | Snyder | SR 204 to SR 11 |  |  | Medium |
| 98887 | Snyder | SR 1023 to SR 1017 |  |  | Medium |
| 99120 | Snyder | SR 35 ov Tb Middle Creek |  |  | Medium |
| 99121 | Snyder | SR 35 over Tb Middle Cree |  |  | Medium |
| 99241 | Snyder | SR 11 from Ulsh Road to P |  |  | Medium |
| 104616 | Snyder | SR 522 from Willow Ave to |  |  | Medium |
| 106278 | Snyder | SR 11 North Bound from Pe |  |  | Low |
| 106279 | Snyder | Penns Creek to SR 522 SB |  |  | Low |
| 109837 | Snyder | Dry Run to Union Co |  |  | Medium |
| 113404 | Snyder | Dinius Ave to Water Tower |  |  | Medium |
| 113787 | Snyder | Roosevelt Ave to SR 15/11 |  |  | Medium |
| 114097 | Snyder | Epoxy Overlay BOF SEDA-CO |  |  | Medium |
| 114143 | Snyder | SR 3006 over Trib of West |  |  | Medium |
| 114176 | Snyder | SR 3016 over Tributary of |  |  | Medium |
| 115551 | Snyder | SR 11 to Union Co |  |  | Low |
| 115553 | Snyder | Brosius Hill Rd to Sunny |  |  | Medium |
| 116339 | Snyder | Old Trail Rd to App Rd |  |  | Medium |
| 116340 | Snyder | Gregor Hill Ln to Spring |  |  | Medium |
| 116341 | Snyder | Smalsh Barrick Rd to Moun |  |  | Low |
| 116342 | Snyder | Paxtonville Rd to Mill St |  |  | Medium |
| 116343 | Snyder | Penn Twp Line to Market S |  |  | Low |
| 116538 | Snyder | Front St to Market St |  |  | Medium |
| 117579 | Snyder | SR 4016 over N Branch Mid |  |  | Medium |
| 117704 | Snyder | T-487 over Tributary to P |  |  | Medium |
| 72352 | Union | T-421 over White Deer Hol |  |  | Medium |
| 87904 | Union | SR 45 from Kaiser Run Rd |  |  | Low |
| 97551 | Union | SR 1011 to North'd Co WB |  |  | Medium |
| 97720 | Union | SR 3007 to Buffalo |  |  | Medium |
| 97746 | Union | JPM Rd to Col John Kelly |  |  | Low |
| 98735 | Union | SR 192 Union County Bridg |  |  | Medium |
| 98772 | Union | SR 1003 over Tributary to |  |  | Medium |
| 98786 | Union | SR 2003 over Tributary to |  |  | Medium |
| 98826 | Union | SR 3006 over Cold Run |  |  | Medium |
| 98828 | Union | SR 3014 over Turkey Run |  |  | Medium |
| 98903 | Union | Front St to Stein Ln |  |  | Medium |
| 99141 | Union | SR 1011 over Tributary to |  |  | Medium |
| 99253 | Union | N of I-80 toWhite Deer Cr |  |  | Medium |
| 99273 | Union | White DeerTwp toAllenwood |  |  | Medium |
| 99407 | Union | PA44 to Lycoming Co Line |  |  | Medium |
| 105516 | Union | I-80 West Bound from Unio |  |  | Medium |
| 108425 | Union | Joe Rd to SR 1010 |  |  | Medium |
| 110231 | Union | Mile Run to SR 1010 EB |  |  | Medium |
| 110337 | Union | T-357 ov N Branch of Buff |  |  | Medium |
| 110599 | Union | Ikeler St. to T-387 Hafer |  |  | Medium |
| 110828 | Union | SR 45 to Orchard Ln |  |  | Medium |
| 113459 | Union | T-319 over Penns Creek (U |  |  | Medium |
| 113612 | Union | I-80 WB from Mile Run to |  |  | Medium |
| 113788 | Union | Bull Run to Northumberlan |  |  | Medium |
| 114379 | Union | Snyder Co line to SR 304 |  |  | Low |
| 115562 | Union | Winfield to Martin St |  |  | Medium |
| 115565 | Union | S. Hill Rd to Columbia Av |  |  | Medium |
| 116133 | Union | SR 15 West Branch Hwy to |  |  | Low |
| 116344 | Union | Haffer Rd to Zeigler Rd |  |  | Low |
| 116349 | Union | Hardee's Dr to Bull Run |  |  | Low |
| 116350 | Union | Johnson Mill Rd to SR 15 |  |  | Low |
| 116351 | Union | SR 1008 to Deitrich Rd |  |  | Low |
| 116352 | Union | Zeigler Rd to SR 1004 |  |  | Medium |
| 116353 | Union | SR 1004 to SR 1008 |  |  | Medium |
| 116354 | Union | Penn St to Kaiser Run Rd |  |  | Low |
| 117418 | Union | SR 15 to Susquehanna Rive |  |  | Low |
| 117420 | Union | JPM RD to 3rd St |  |  | Medium |
| 117901 | Union | West Shore RRX, SR 1011 a |  |  | Low |

The Environmental Justice Benefits and Burdens Analysis identifies where high concentrations of minority and low-income populations reside in the SEDA-COG MPO region. The analysis is accomplished through mapping and tabular summaries to indicate where these populations exceed the regional averages, and how those populations may be impacted by current transportation conditions and proposed transportation spending. Based on the distribution of current TIP funding and the analysis of asset conditions, there do not appear to be disparities in investment linked to concentrations of minority or low income populations.

Overall, minority populations within the SEDA-COG MPO region have increased (at 7.3% in the 2015-2019 ACS data) and – aside from the Census block groups influenced by incarcerated populations – are concentrated in the more densely populated cities, boroughs, and towns. Low-income populations represent a larger portion of the region (13.05%) and are concentrated in the more densely populated areas of the region, but also occur in the more secluded rural areas of each county. The locations of these populations demonstrate the need for the SEDA-COG MPO to consider alternative travel modes in these locations, as minority and low-income populations are more likely to not have access to a vehicle.

The SEDA-COG MPO will continue to evaluate changing conditions coming with the CSVT Project, as it dominates much of the funding in the TIP. In 2021, a special impact study was completed in conjunction with the Williamsport Area Transportation Study (WATS) MPO, to evaluate the impacts along the CSVT corridor. With the help of Michael Baker International, the study outlined a series of implementation steps that can be completed as the CSVT begins to open. To find out additional information on the study, please visit lyco.org/CSVT.

The SEDA-COG MPO has considered the needs of traditionally underserved populations in the development of the TIP by providing opportunities for public comment and completing this analysis to show geographically what projects are going to impact these populations. Upon examination of Table 12, there is only one project that is shown to have a high impact on a high-density area of minority populations. Through this analysis the SEDA-COG MPO was better able to highlight where areas of low-income and minority populations are located and what projects will impact them the most. This process allows better communication during the planning and construction process to mitigate the impacts.