2050 PATH FORWARD
Leading the Way for Transportation Innovation

Technical Memo: Environmental Justice

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NORTH FLORIDA TPO

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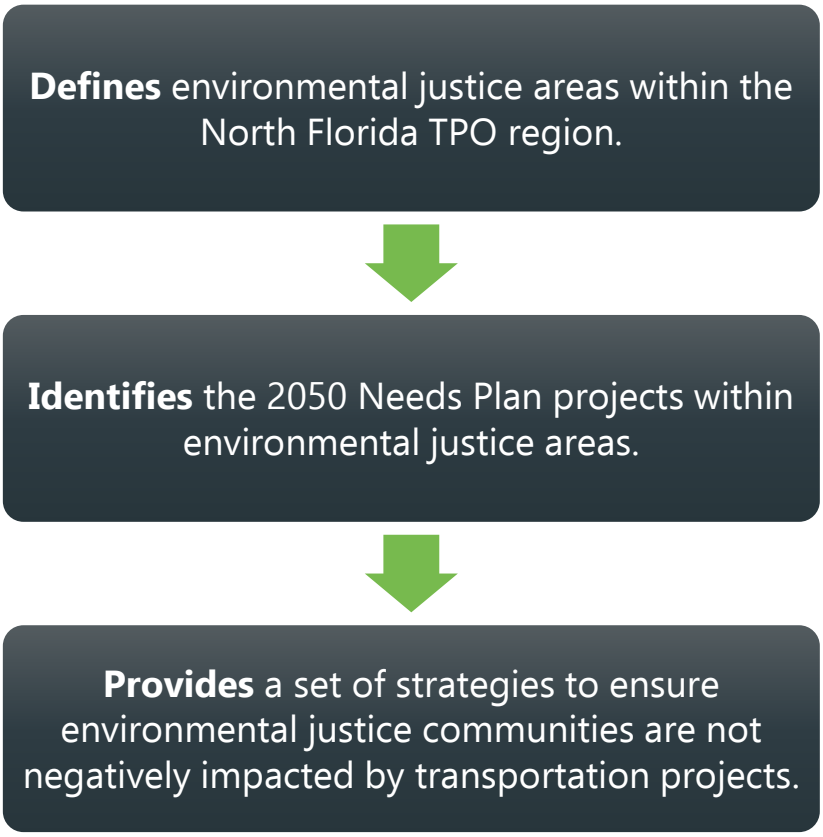
1.0 Introduction

Environmental justice plays a crucial role in long range transportation plans (LRTPs), particularly in ensuring that the benefits and burdens of transportation projects are equitably distributed across all communities, especially those that have been historically marginalized. North Florida's diverse population, which includes significant low-income and minority communities, faces unique challenges that necessitate a well-rounded approach to environmental justice when it comes to long range transportation planning. Including environmental justice within the North Florida Transportation Planning Organization's (TPO) LRTP ensures that these communities do not disproportionately bear the negative impacts of transportation infrastructure, while also being provided equitable access to benefits such as improved connectivity, economic opportunities, and enhanced quality of life.

1.1 Approach

The three-step approach to environmental justice evaluation within the 2050 LRTP involves defining environmental justice areas within the region, identifying 2050 needs plan projects within these areas, and providing strategies to ensure these communities are not negatively impacted. This approach ensures that transportation planning is equitable and inclusive, addressing the needs and concerns of disadvantaged communities.



1.2 Base Data

A comprehensive regional environmental justice evaluation for Northeast Florida requires a compilation of key data points which highlight the region's diverse population that may be subject to socioeconomic vulnerabilities. The sources used to establish the base data were the Environmental Protection Agency's (EPA) EJScreen tool and Justice40's Climate and Economic Justice Screening Tool (CEJST). The three data points utilized in the analysis are described below.

Demographic Index (EJScreen): Based on the average of two socioeconomic indicators: low-income and people of color. These are the two economic factors explicitly named in Executive Order 12898 on EJ. This data is presented as percentiles by Census Block Group (CBG).

Supplemental Demographic Index (EJScreen): Combines five socioeconomic factors: low income, unemployed, less than high school education, limited English speaking (LEP), low life expectancy averaged together for each CBG. This index provides additional perspective on potential community vulnerability.

Transportation Factor (Justice40): Identifies census tracts as "transportation disadvantaged" based on following criteria: at or above the 90th percentile for diesel particulate matter exposure **OR** transportation barriers **OR** traffic proximity and volume **AND** are at or above the 65th percentile for low income.

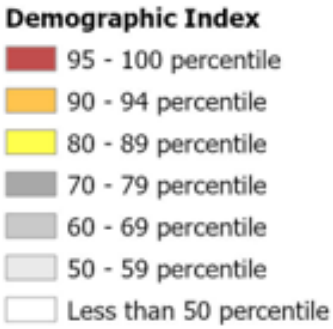
Collectively, these data sets form the basis of the environmental justice analysis, enabling the TPO to properly plan transportation projects that do not disproportionately impact identified disadvantaged communities in a negative way. Each data set as described in further detail and displayed graphically for the region on the following pages.

EJScreen

EJScreen uses percentiles to compare certain populations and environmental factors with the rest of the country. The data is based on nationally consistent datasets and an approach that combines environmental and demographic indicators in maps and reports. The two datasets from EJScreen utilized in this analysis were the Demographic Index and Supplemental Demographic Index.

Demographic Index

EJScreen's Demographic Index presents the average of two primary socioeconomic factors used in environmental justice analysis: low-income[1] population and minority[2] population.



The Demographic Index for the North Florida TPO region is displayed in **Figure 1-1**. The CBGs with a higher Demographic Index are largely concentrated in central Duval County. There are some additional CBGs with a higher Demographic Index percentile located in southwest St. Johns County.

Supplemental Demographic Index

The Supplemental Demographic Index combines five socioeconomic factors (low income, unemployed, less than high school education, LEP, low life expectancy) averaged together for each census block group to provide an additional perspective on EJ areas.

The Supplemental Demographic Index for the North Florida TPO region is displayed in **Figure 1-2.** The CBGs with a higher Supplemental Demographic Index are concentrated in central Duval County and scattered throughout Clay, Nassau, and St. Johns counties.

Justice40

The Justice40 initiative provides a Climate and Economic Justice Screening Tool (CEJST) to identify disadvantaged communities that are marginalized by underinvestment and overburdened by pollution. The data point used in this analysis from Justice40 was the Transportation Factor, which highlights transportation in disadvantaged communities.

Transportation Disadvantaged

The Transportation Factor from Justice40 identifies areas that are transportation disadvantaged by either proximity to traffic, transportation barriers, or diesel pollution and are low income. The Transportation Factor areas within the North Florida TPO region are displayed in **Figure 1-3**. The

[1] Low income population is defined as those individuals whose ratio of household income to poverty level in the past 12 months was less than 2 (as a fraction of individuals for whom ratio was determined.
[2] Minority population defined as any group or individual who is not classified as non-Hispanic white.

transportation disadvantaged areas are located in western Nassau County, central Duval County, western Clay County, and southern St. Johns County.

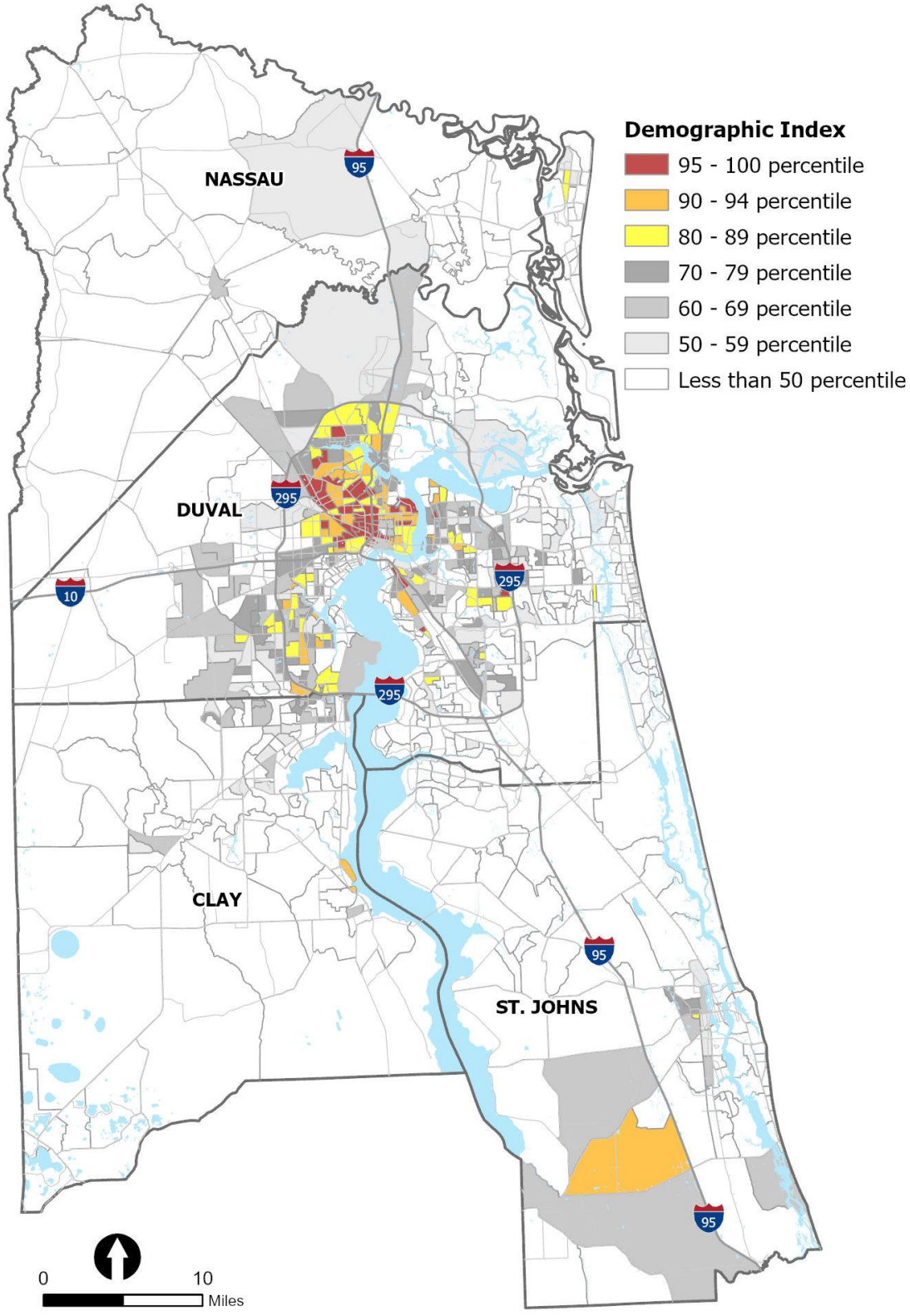


Figure 1-2 Supplemental Demographic Index

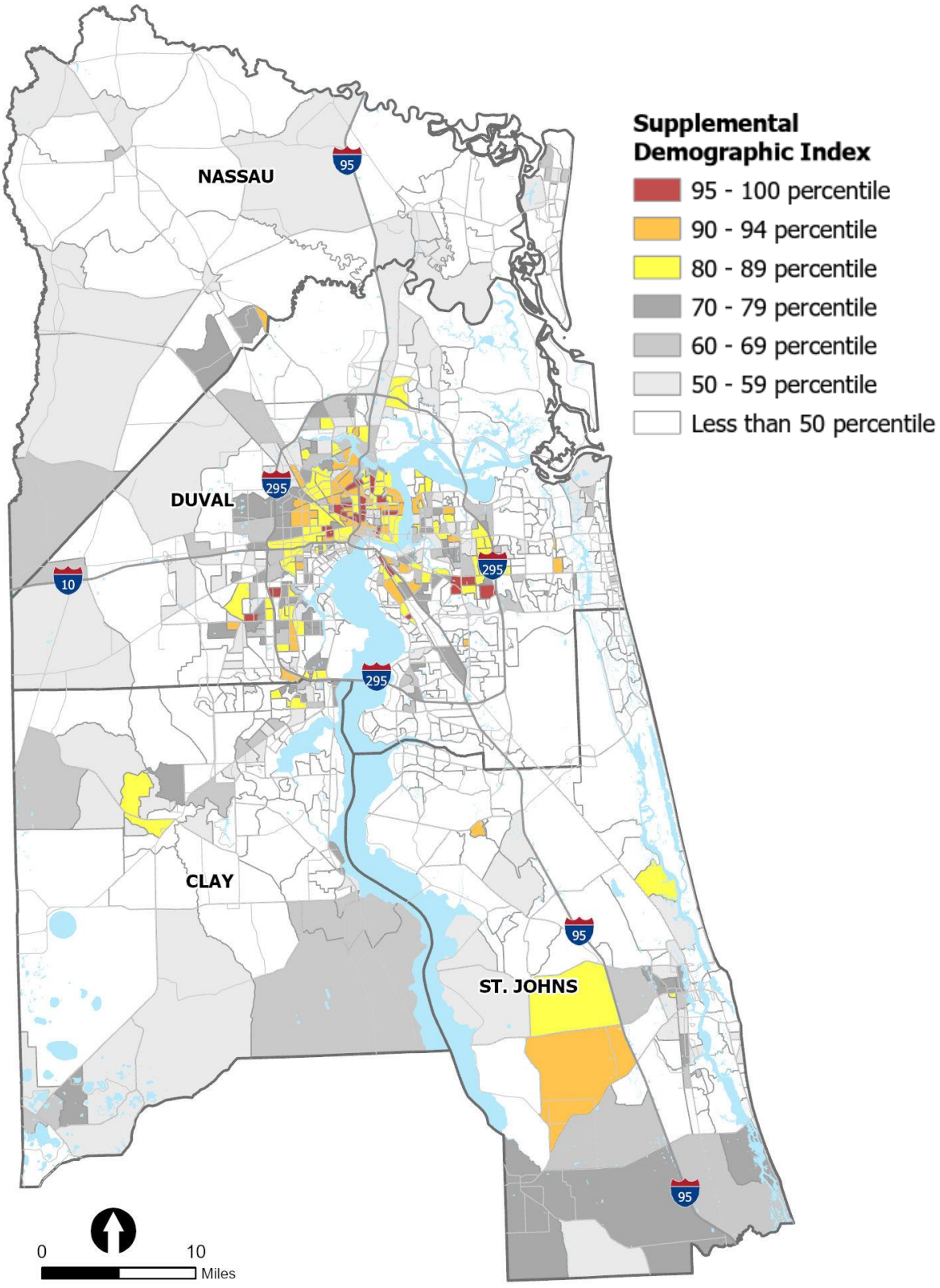
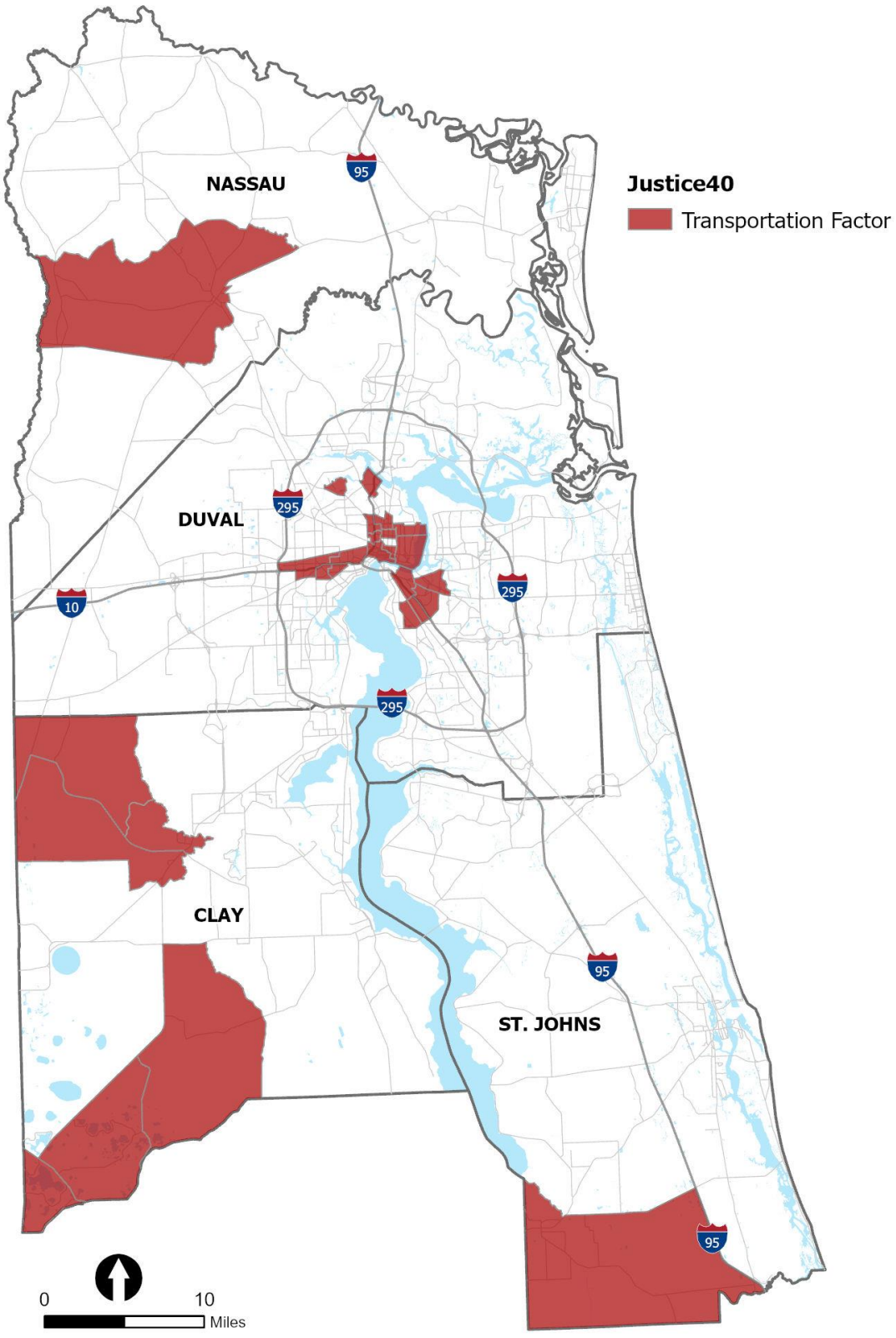


Figure 1-3 Transportation Disadvantaged Area



2.0 Environmental Justice Analysis

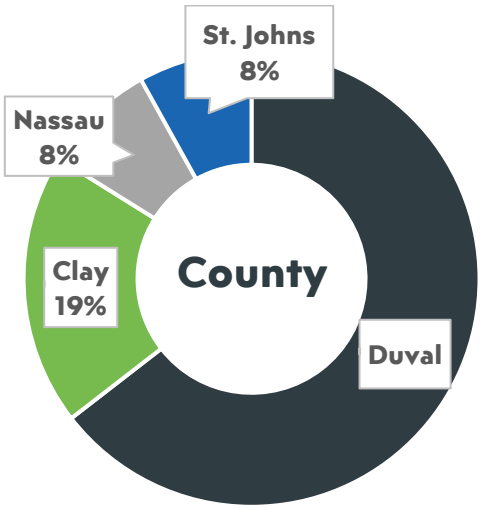
Using the environmental justice base data for the region detailed in **Section 1.2**, the 2050 Needs Plan Projects were spatially evaluated for their environmental justice impacts. The analysis yielded a list of 62 projects that are located within identified environmental justice areas[3]. A complete list of the projects is on the following page in **Table 2-1**. **Figures 2-2 through 2-7** display the identified environmental justice projects layered on top of the base data.

Environmental Justice Project Locations

A majority of the environmental justice projects (40 projects total, 65%) are located in central Duval County (see **Figure 2-2**). Clay County had the second most projects (12 projects total, 19%). St. Johns and Nassau counties have five projects each. **Figure 2-1** provides the breakdown of projects by county.

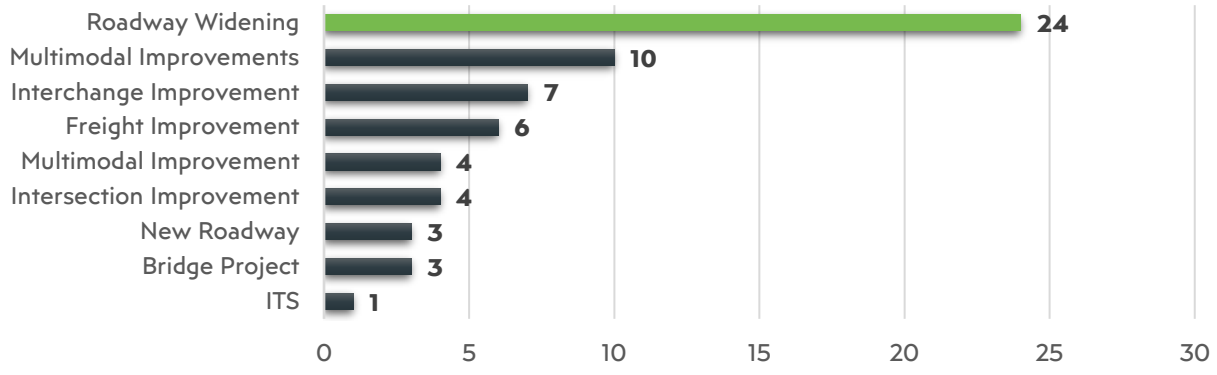
Figure 2-1 Environmental Justice Projects by County

County	# Projects	% Projects
Duval	40	65%
Clay	12	19%
Nassau	5	8%
St. Johns	5	8%
Grand Total	**62**	**100%**



Environmental Justice Project Type

Nine of the 12 project types within the needs plan were reflected in the environmental justice projects list. The most common project types were roadway widening (24), multimodal improvements (10), and interchange improvements (7).



[3] Identified environmental justice areas are defined as those located within the 80th to 100th percentile on EJScreen's Demographic Index or Supplemental Demographic Index or within Justice40's transportation disadvantaged areas.

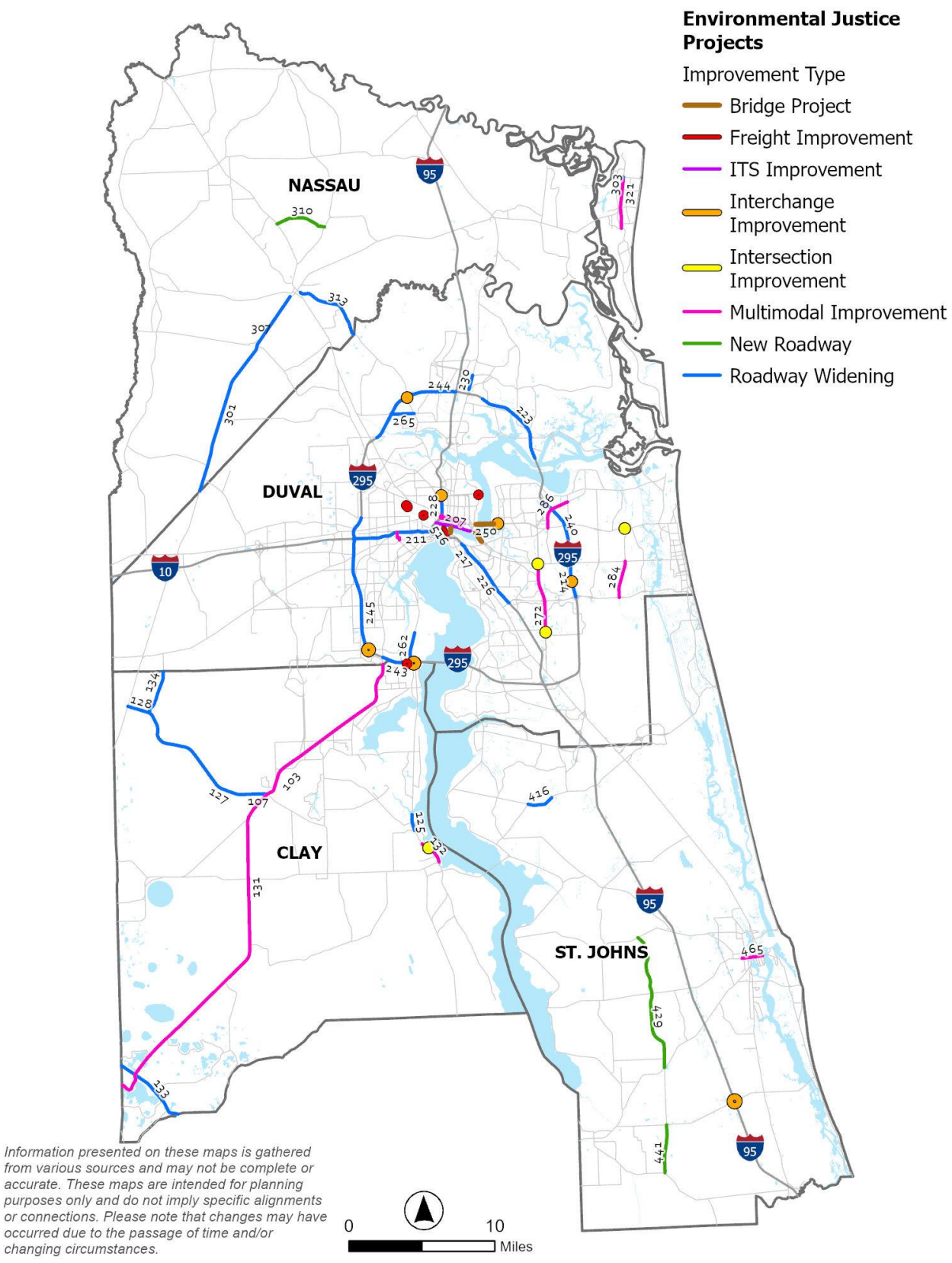
Table 2-1 Environmental Justice Projects List

Proj. #	Facility	Limits	Improvement Type
Clay County Projects			
102	US 17	at Governors Creek Bridge	Intersection Improvement
103	Blanding Boulevard (SR 21)	First Coast Expressway (SR 23) to CR 218	Roadway Widening
107	CR 218	Pine Tree Road to Masters Road	Roadway Widening
120	I-295	at US 17	Interchange Improvement
125	US 17	End of 6 lane south of Town Center Boulevard to CR 315	Roadway Widening
127	CR 218	Masters Road to Blue Jay	Roadway Widening
128	CR 218	Blue Jay to 301	Roadway Widening
131	Blanding Boulevard (SR 21)	Putnam County Line to Duval County Line	Multimodal Improvement
132	US 17	Orion Road to SR 16	Multimodal Improvement
133	SR 100	Clay/Bradford line to Clay/Putnam line	Roadway Widening
134	CR 217	CR 218 to Normandy Boulevard (SR 228) Duval County	Roadway Widening
504	Wells Road	at CSX Railroad Crossing	Freight Improvement
Duval County Projects			
200	I-295 (SR 9A)	at Collins Road	Interchange Improvement
205	Beach Boulevard (SR 212)	at Southside Boulevard	Intersection Improvement
207	Bay Street	I-95 to Festival Park Avenue	ITS
211	I-10 (SR 8)	I-295 (SR 9A) to I-95 (SR 9)	Roadway Widening
214	I-295 (SR 9A)	Beach Boulevard (SR 212) to JTB (SR 202)	Roadway Widening
216	I-95 (SR 9)	at US 1/MLK/20th Street	Interchange Improvement
217	I-95 (SR 9)	South of Emerson Street (SR 126) to Atlantic Boulevard (SR 10)	Roadway Widening
223	I-295 (SR 9A)	Dames Point Bridge to N of Pulaski	Roadway Widening
226	I-95 (SR 9)	JTB (SR 202) to South of Emerson Street	Roadway Widening
228	I-95 (SR 9)	US 90 (Beaver Street to SR 115/MLK	Roadway Widening
230	US 17 (Main Street)	New Berlin Road to Airport Center Drive	Roadway Widening

Proj. #	Facility	Limits	Improvement Type
232	Arlington Expressway (SR 115)	at University Boulevard (SR 109)	Interchange Improvement
234	Atlantic Boulevard (SR 10)	at Hodges Boulevard	Intersection Improvement
236	Hart Bridge (SR 228)	South Bank to North Bank	Bridge Project
240	I-295 (SR 9A)	Southside Connector (SR 113) to Beach Boulevard (US 90)	Roadway Widening
243	I-295 (SR 9A)	South of Roosevelt Boulevard (US 17) to Blanding Boulevard (SR 21)	Roadway Widening
244	I-295 (SR 9A)	North of New Kings Road South to West of I-95 (SR 9) Interchange	Roadway Widening
245	I-295 (SR 9A)	North of Collins Road Interchange to North of Commonwealth	Roadway Widening
246	I-295 (SR 9A)	at UNF/Town Center	Interchange Improvement
247	I-295 (SR 9A)	at Lem Turner (SR 115)	Interchange Improvement
249	Main Street Bridge (US 90/SR 10)	South Bank to North Bank	Bridge Project
250	Mathews Bridge (SR 115)	East bank to west bank	Bridge Project
258	Southside Boulevard (SR 115)	at Baymeadows Road (SR 152)	Intersection Improvement
262	Roosevelt Boulevard (US 17)	Collins Road to NAS Birmingham Gate	Roadway Widening
265	Dunn Avenue (SR 104)	Lem Turner Road (SR 115) to I-295 (SR 9A)	Roadway Widening
271	Moncrief Road	13th Street to US 1 (Kings Road)	Multimodal Improvements
272	Southside Boulevard (SR 115)	Old Baymeadows Road to Beach Boulevard (US 90)	Multimodal Improvements
273	Beaver Street (US 90/SR 10)	I-95 (SR 9) to Liberty Street	Multimodal Improvements
274	Union Street (SR 139/228)	I-95 (SR 9) to Liberty Street	Multimodal Improvements
275	State Street (SR 139/228)	I-95 (SR 9) to Liberty Street	Multimodal Improvements
276	Arlington Expressway	North Liberty Street to A. Philip Randolph Boulevard	Multimodal Improvements

Proj. #	Facility	Limits	Improvement Type
282	Emerald Trail	Hogan's Creek to Riverwalk	Multimodal Improvements
284	Hodges Boulevard Shared Use Path	JTB (SR 202) to Beach Boulevard	Multimodal Improvements
285	Luna, Green & Melba Street Bicycle Project	Post Street to Lenox Avenue	Multimodal Improvements
286	Monument Road	Atlantic Boulevard to St. Johns Bluff Road	Multimodal Improvements
509	Jaxport	at west parcel entrance to Tallyrand	Freight Improvement
516	St. Johns River Bridge	Florida East Coast Railroad (FEC)	Freight Improvement
518	McQuade/Broadway Street	CSX Railroad Crossing	Freight Improvement
523	FEC/CSX Rail Lines	at the Moncrief Rail Yard	Freight Improvement
524	Amtrak	at the Moncrief Rail Yard	Freight Improvement
Nassau County Projects			
301	US 301	West of Callahan to Town of Baldwin (Duval County)	Roadway Widening
303	14th Street	Sadler Road to Atlantic Avenue	Roadway Widening
310	Sauls Road	US 1 to Musselwhite Road	New Roadway
313	Lem Turner Road (SR 115)	Duval County line to US 1	Roadway Widening
321	14th Street	Bailey Simmons Trail to Fernandina Beach Schools to Waterfront Trail	Multimodal Improvement
St. Johns County Projects			
416	CR 210	Green Briar to Cimarrone	Roadway Widening
429	St. Johns Parkway (CR 2209)	CR 208 to SR 207	New Roadway
438	I-95	at CR 206	Interchange Improvement
441	CR 305	SR 206 to SR 13	New Roadway
465	Kings Street	Avenida Menendez to N Rodriguez Street	Multimodal Improvement

Figure 2-2 Environmental Justice Projects Map



Information presented on these maps is gathered from various sources and may not be complete or accurate. These maps are intended for planning purposes only and do not imply specific alignments or connections. Please note that changes may have occurred due to the passage of time and/or changing circumstances.

Figure 2-3 Environmental Justice Projects and Demographic Index

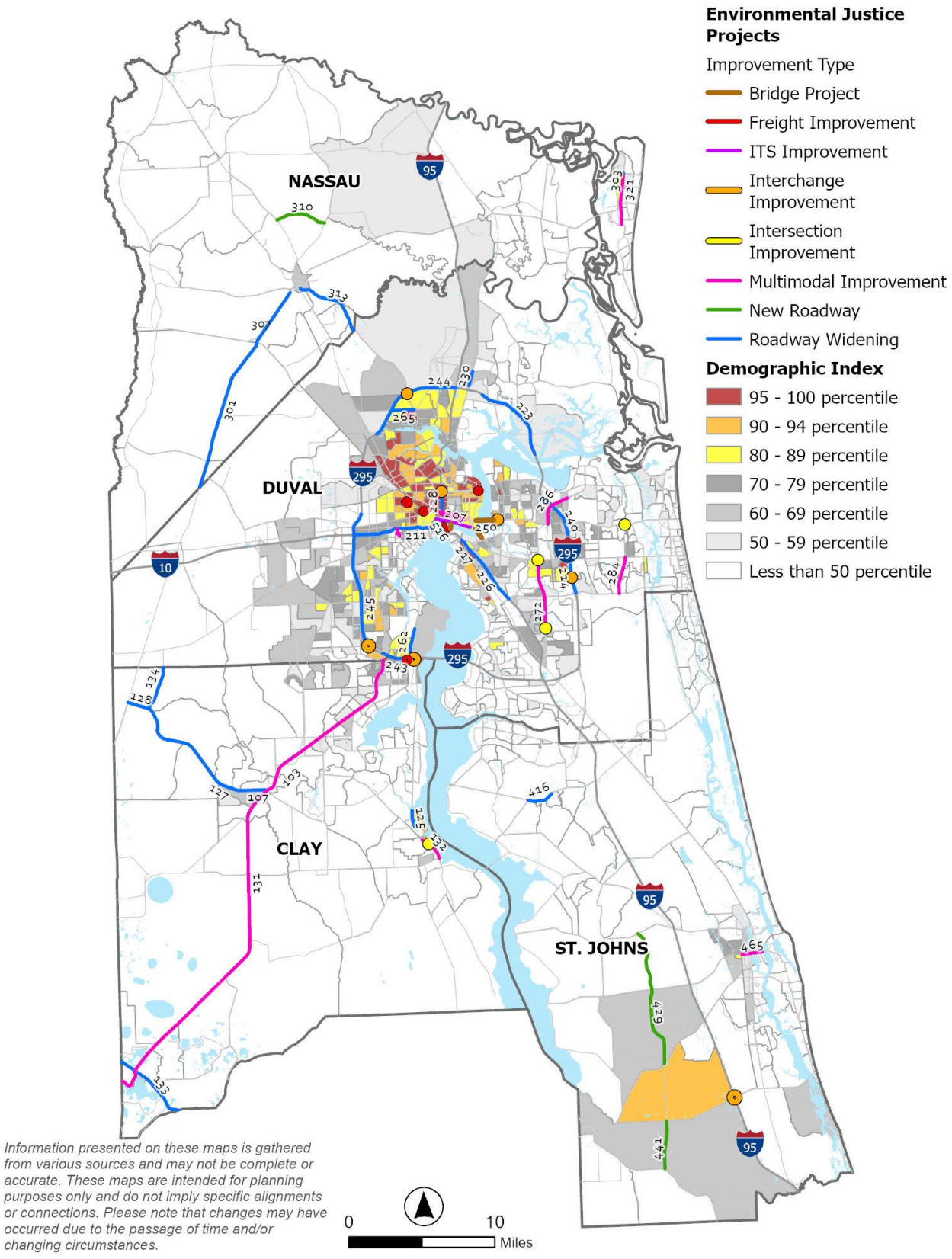


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Figure 2-4 Environmental Justice Projects and Supplemental Demographic Index

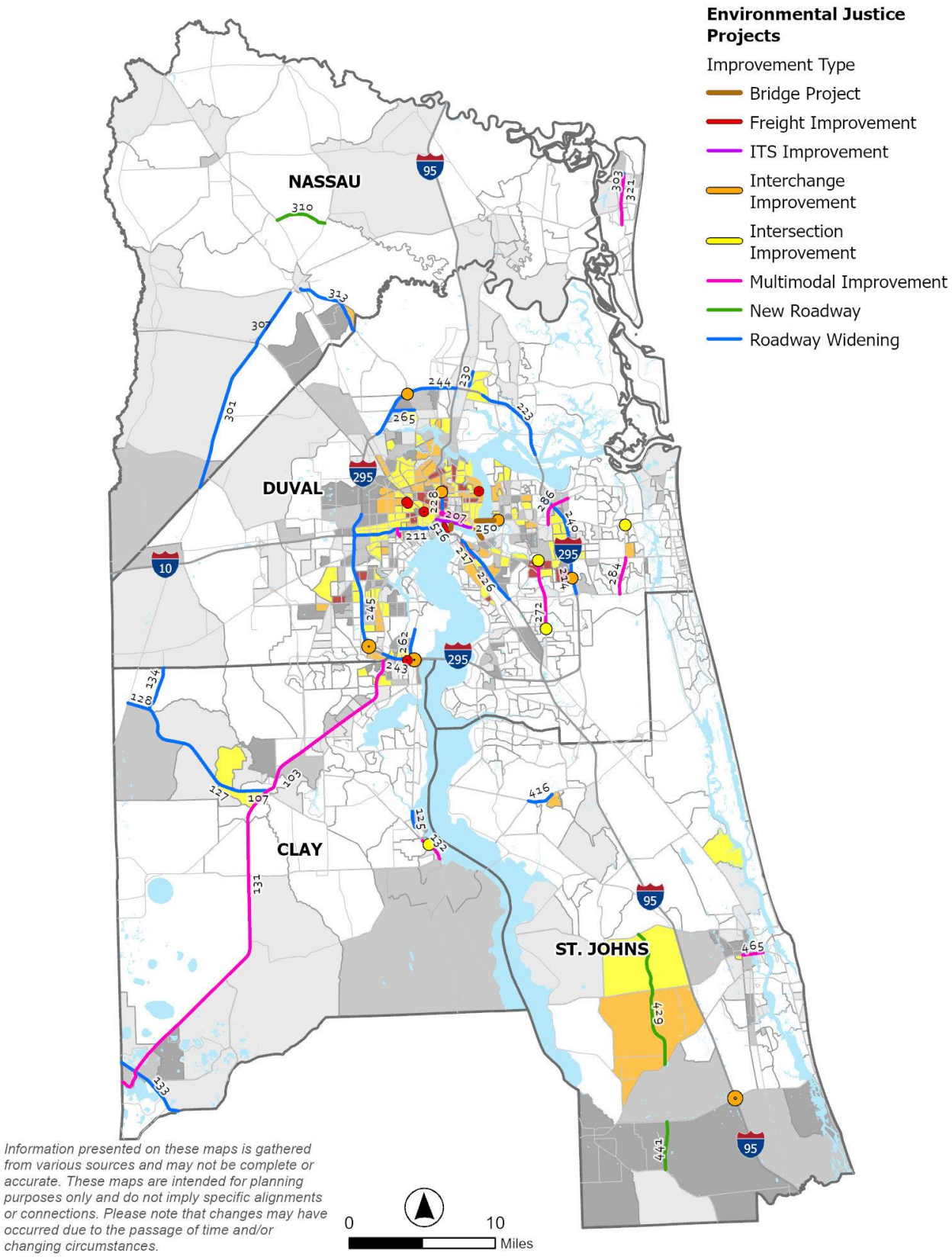

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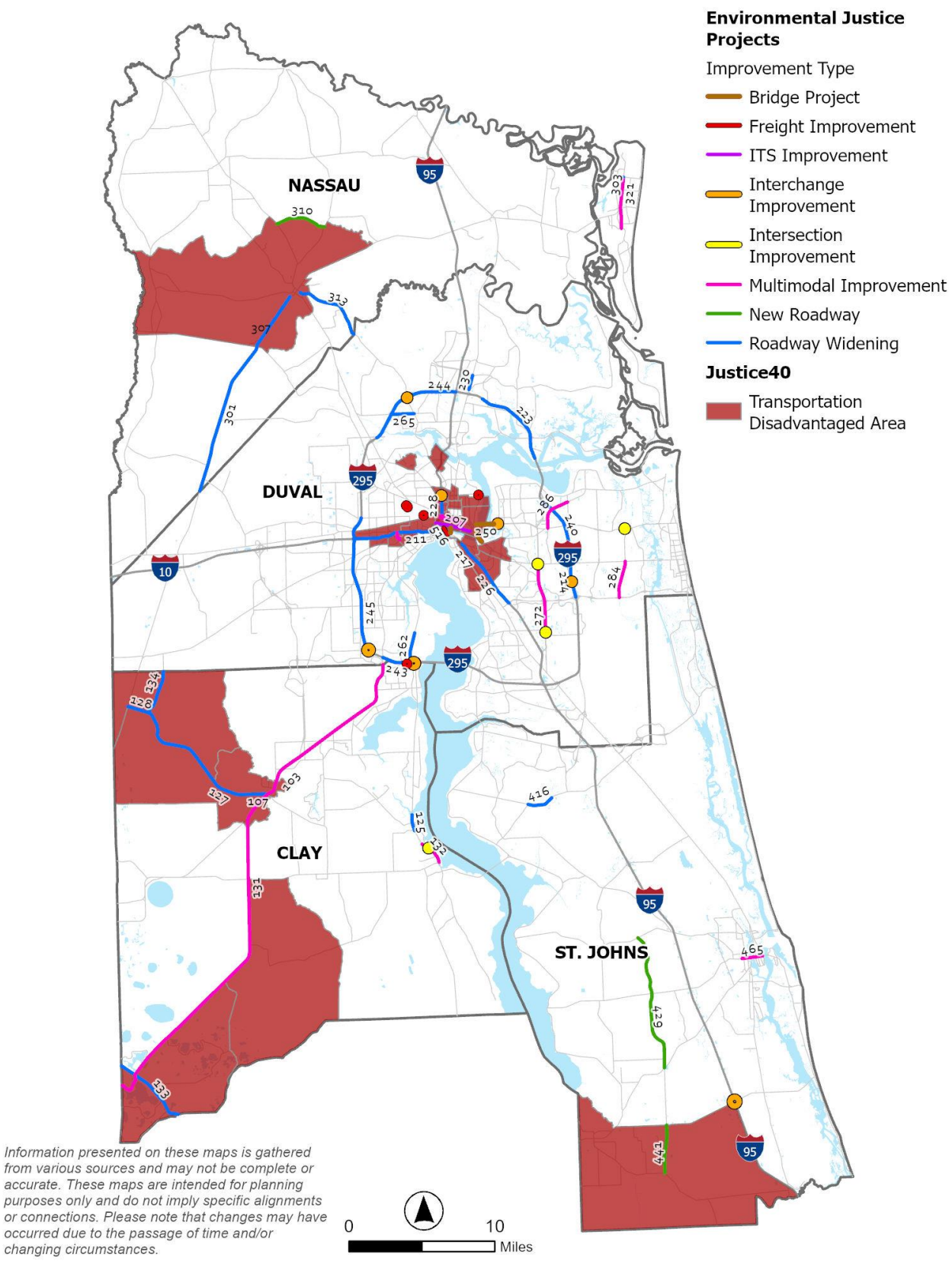
Figure 2-5 Environmental Justice Projects and Transportation Disadvantaged Areas



3.0 Key Strategies

Now that the environmental justice projects within the 2050 Needs Plan have been identified, the North Florida TPO can implement five key strategies within the region to ensure that the needs and concerns of the surrounding communities are addressed, promoting equitable and sustainable development. These strategies can be applied as part of the LRTP project selection process.

The list of strategies are displayed in **Figure 3-1** were derived from combining best practices and guidelines from various authoritative sources including the EPA, FHWA, USDOT, American Planning Association (APA), the National Cooperative Highway Research Program (NCHRP), CDC, and the Equity in Infrastructure Project (EIP). The strategies are described in further detail on the following page in **Figure 3-2**.

By synthesizing best practices and guidelines from these sources, the North Florida TPO can develop comprehensive strategies that ensure environmental justice is central to implementing the LRTP, addressing the unique needs of disadvantaged communities effectively and equitably.

Figure 3-1 Environmental Justice Strategies

Figure 3-2 Environmental Justice Strategy Descriptions

Strategy 1: Inclusive Community Engagement

- **Early and Continuous Involvement**: engage disadvantaged communities early in the planning process and maintain ongoing dialogue. This includes holding public meetings, workshops, and focus groups in accessible locations and times.
- **Stakeholder Collaboration**: Partner with community leaders, local organizations, and advocacy groups to build trust and facilitate meaningful participation.

Strategy 2: Equitable Impact Assessments

- **Health and Environmental Assessments**: Conduct thorough health and environmental assessments to identify potential adverse effects of transportation projects on disadvantaged communities.
- **Social Impact Analysis**: Assess how transportation projects might affect social factors such as access to employment, education, healthcare, and recreational opportunities. Consider the impacts on housing affordability and potential displacement.

Strategy 3: Mitigation and Enhancement Strategies

- **Mitigation Measures**: Develop and implement strategies to mitigate any identified adverse impacts. This can include noise barriers, and traffic calming measures to enhance safety.
- **Enhancement Initiatives**: Create initiatives that provide direct benefits to disadvantaged communities, such as improved public transportation options, pedestrian and bicycle infrastructure, and green spaces.

Strategy 4: Prioritize and Allocate Resources

- **Targeted Investments**: Direct funding and resources towards projects that specifically benefit disadvantaged communities. Ensure that these projects are prioritized in regional transportation plans and funding programs.
- **Equity in Project Selection**: Incorporate equity criteria into the project selection process, ensuring that projects serving disadvantaged communities receive due consideration and support.

Strategy 5: Monitoring and Accountability

- **Performance Metrics**: Establish clear performance metrics to track impacts projects may have on disadvantaged communities. Use these metrics to evaluate effectiveness of implemented measures and make any adjustments.
- **Regular Reporting**: Provide transparent and regular reports to the public and stakeholders on the progress and outcomes of transportation projects. Ensure accountability by publicly sharing successes and challenges.