

FINAL ENVIRONMENTAL JUSTICE REPORT (AUGUST 2018)

Introduction:

Each MPO is required by federal and state laws and policies to plan for and implement transportation system improvements that will provide a fair share of benefits to all residents, regardless of race, ethnicity or income level. These laws require MPOs to conduct analyses to determine (under Title VI) whether transportation and land use changes identified in the 2018 RTP/SCS result in disparate impacts to minority communities and populations, and with respect to Environmental Justice specifically (Executive Order 12898), to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on low-income populations and minority populations resulting from the transportation and land use changes in the Plan. Environmental Justice is important because it includes the full and fair participation by all potentially affected communities in the transportation decision making process.

This report summarizes key findings from the Environmental Justice Analysis for TCAG's 2018 RTP/SCS for the Tulare County region. **It includes a number of revisions from the draft Environmental Justice Report posted on TCAG's website in May 2018, including those based on public comments received on the draft report.**

Title VI and Environmental Justice:

Title VI of the Civil Rights Act of 1964 (Title VI) states that "No person...shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Title VI establishes the basis for transportation agencies to disclose to the public the benefits and burdens of proposed projects on minority populations. Civil rights have expanded to include sex, age, and disability through the Federal-Aid Highway Act of 1973, Age Discrimination Act of 1975, the Rehabilitation Act of 1973, and Americans with Disability Act of 1990. Title VI was further amended in 1987 to extend non-discrimination requirements for federal aid recipients to all of their programs and activities, not just those funded with federal funds. At the state level, California Government Code §11135 prohibits discrimination on the basis of sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation by any agency receiving state funding. Additionally, Title VI not only bars intentional discrimination, but also unjustified disparate impact discrimination. Disparate impacts result from policies and practices that are neutral on their face (i.e., there is no evidence of intentional discrimination), but have the effect of discrimination on protected groups. Title VI prohibits discrimination by recipients of federal financial assistance on the basis of race, color, and national origin, including the denial of meaningful access for limited English proficient (LEP) persons.

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Furthering the principles of environmental justice (EJ), the 1994 Presidential Order (Executive Order 12898) directed every federal agency to make environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of all programs, policies, and activities on minority populations and low-income populations. Reinforcing Title VI, this Executive Order ensures that every federally funded project nationwide considers the human environment when undertaking the planning and decision-making process. The Presidential memorandum accompanying E.O. 12898 underscored certain provisions of existing law that help ensure all communities and persons live in a safe and healthful environment, and identified Title VI as one of several federal laws that should be applied “to prevent minority communities and low-income communities from being subject to disproportionately high and adverse environmental effects.”¹

To implement and ensure compliance with these laws and policies, federal and state agencies have issued a series of orders, regulations and guidance on environmental justice. The U.S. Department of Transportation (DOT) issued DOT Order 5610.2 in 1997 to “summarize and expand upon the requirements of Executive Order 12898 on Environmental Justice.” The order is used as a framework for incorporating Environmental Justice into every DOT activity, policy, and program. Expanding on DOT Order 5610.2, in December 1998 the Federal Highway Administration (FHWA) issued FHWA Order 6640.23 that requires the FHWA to implement Environmental Justice practices described in both DOT Order 5610.2 and Executive Order 12898 into all FHWA activities. DOT Order 5610.2 was updated in 2012, reaffirming DOT’s commitment to environmental justice and clarifying certain aspects of the original Order.² FHWA Order 6640.23A was issued in June 2012, updating and replacing the previous 1998 Order.³ TCAG is subject to these laws and executive orders.

The overlap between the statutory obligation placed on Federal agencies under Title VI to ensure nondiscrimination in federally assisted programs administered by State and local entities, and the administrative directive to Federal agencies under the Executive Order to address disproportionate adverse impacts of Federal activities on minority and low-income populations explains why Title VI and Environmental Justice are often paired. The clear objective of the Executive Order and Presidential memorandum is to ensure that Federal agencies promote and enforce nondiscrimination as one way of achieving the overarching objective of environmental justice.⁴

The Environmental Justice Analysis is intended to measure both the benefits and burdens associated with the transportation investments included in the 2018 Regional Transportation

¹ https://www.epa.gov/sites/production/files/2015-02/documents/clinton_memo_12898.pdf

² DOT Order 5610.2(a), https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/

³ FHWA Order 6640.23A, <https://www.fhwa.dot.gov/legsregs/directives/orders/664023a.cfm>

⁴ FTA Circular 4702.1B: Title VI Requirements and Guidelines For Federal Transit Administration Recipients https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Title_VI_FINAL.pdf

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Plan, and to make sure that the environmental justice communities living within Tulare County share equitably in the benefits of the Plan's investments without bearing a disproportionate share of the burdens. To that end, TCAG will ensure nondiscrimination practices because of race, color, or national origin as specified in Title VI as well as sex, race, color, religion, ancestry, national origin, ethnic group identification, age, mental disability, physical disability, medical condition, genetic information, marital status, or sexual orientation as specified in California Government Code §11135.

Environmental Justice Analysis:

Historically within the U.S., benefits from infrastructure have disproportionately benefited wealthy areas, while disproportionately effecting low-income communities. This dynamic has been experienced with many kinds of projects. Within Tulare County, however, there has not been any specific evidence of disproportionate effects of transportation projects. Nevertheless, given TCAG's awareness of the potential for uneven development and negative impacts on specific communities, and because Tulare County has higher levels of minorities, unemployment, poverty, and poorer air quality than state and national averages, achieving social equity and environmental justice in transportation systems development continues to be a regional goal for TCAG. TCAG is committed to supporting intelligent investments that will provide residents with access to opportunities that will raise their quality of life.

Though new transportation projects can provide economic opportunities for all communities that utilize the systems to reach their destinations, without proper and inclusive planning and development practices, transportation systems—especially freeway expansion projects with high percentage of heavy duty trucks—can degrade the health, safety and welfare of the communities that they run through. Historically, this has happened both from physically dividing communities as well as placing health burdens from pollution on lower income communities that many freeways are routed through.

TCAG has been attempting to minimize and avoid negative and disproportionate impacts through inclusive planning and outreach efforts to marginalized communities, as well as extensive outreach County-wide. This involves opening dialogue that is inclusive to all communities which could potentially be impacted by proposed developments and in the drafting of the Regional Transportation Plan.

In addition to outreach, TCAG has developed performance measures for capacity increasing projects and has established clear policy goals and objectives to address inequitable impacts from new transportation investment in the County. The performance measures applied to capacity building projects require these projects to ensure equity in the distribution of potential benefits and burdens resulting from proposed transportation investments to communities. TCAG also requires that these projects be financially and environmentally sustainable as to not fall into disrepair or have negative impacts on the surrounding environment following construction.

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TCAG also has incorporated policy goals and supporting objectives into the 2018 RTP/SCS that directly address environmental justice concerns. This Environmental Justice Policy is supported by objectives that require transportation planning that takes place to be consistent with Title VI of the Civil Rights Act, federal and state environmental justice requirements and to include targeted and extensive outreach efforts to communities that are defined as environmental justice communities. Below is an excerpt from the 2018 RTP/SCS Policy Element.

2018 RTP/SCS Policy Element

ENVIRONMENTAL JUSTICE

Goal: ENSURE THAT TRANSPORTATION INVESTMENTS DO NOT DISCRIMINATE ON THE BASIS OF RACE, COLOR, NATIONAL ORIGIN, SEX, AGE OR DISABILITY.

Objective: Require regional transportation planning that is consistent with Title VI and Environmental Justice Federal Requirements.

Policy:

1. Assure that transportation project benefits and burdens are not inequitably distributed throughout the region.

Objective: Include targeted outreach to environmental justice communities in transportation planning.

Policies:

1. Provide environmental justice communities opportunities for input into transportation plans, programs, and projects in a manner consistent with Title VI of the 1964 Civil Rights Act and Executive Order 12898 on Environmental Justice, including the prohibition of intentional discrimination and adverse disparate impact with regard to race, ethnicity or national origin.

2. Provide outreach to various environmental justice communities within Tulare County, including, but not limited to, the Tule River Tribe and primarily Spanish-speaking communities.

3. Avoid, minimize, or mitigate disproportionately high and adverse human health environmental effects, including social and economic effects, on minority populations and low-income populations.

4. Ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.

This analysis will look at just how TCAG and its member agencies have made equitable infrastructure decisions up to today, and demonstrate how the 2018 RTP/SCS will not create any new disparities present in the equitable distribution of resources in Tulare County through its 2042 horizon year.

Tulare County Demographics:

Table EJ -1, as seen below, displays a comparison of population characteristics of Tulare County and the State of California as a whole, as indicated by the most recent U.S. Census Bureau American Community Survey (ACS). As indicated in the chart, Tulare County as a whole has widespread poverty and high unemployment. The state median income is 47% higher than the County, and the percentage of Tulare County residents beneath the poverty line is 72% higher than that of the state as a whole. **Table EJ-1** also compares demographic characteristics of EJ Transportation Analysis Zones (TAZs) and non-EJ TAZs (these TAZs are defined later in this report).

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As further demonstrated by Table EJ-1, the County’s Hispanic population is so large that Tulare County a majority-minority county. Tulare County is also in one of the poorest air quality region in the nation, with residents suffering from higher rates of asthma and other respiratory issues. The vast majority of Tulare County communities are considered disadvantaged based on CalEnviroScreen 3.0 designation (**Figure EJ -4**).

Table EJ -1

| <i>Population Characteristics in 2015 (2011-2015 5 year ACS data)</i> | | | | |
|---|-------------------|----------------------|----------------------|----------------------|
| | California | Tulare County | EJ TAZ | Non-EJ TAZ |
| Population | 38,421,464 | 454,033 | 151,530 ¹ | 234,506 ¹ |
| Population Density (person per square mile) | 235 | 94 | 3382 ² | 3934 ² |
| Median Household Income (\$ Annual) | 61,818 | 42,031 | 28,485 | 53,309 |
| Poverty Percentage | 16.30% | 28.10% | 51.8% | 23.6% |
| Unemployment Rate | 6.25% | 11.50% | 14.40% | 11% |
| White (non-Hispanic) | 38.70% | 30.70% | 21.40% | 38% |
| Hispanic | 38.40% | 62.40% | 73% | 55% |
| Other Minority | 22.90% | 6.90% | 5.60% | 7.00% |
| Language Isolation (Limited English Speaking) | 9.50% | 13.90% | 21% | 12.20% |

Tulare County Mode Choice:

Tulare County is in a rural, agricultural-dominated area, featuring three major population centers of Visalia, Tulare, and Porterville. Visalia, Tulare, Porterville, and Dinuba have fixed-route bus systems that connect their cities. The County also runs the Tulare County Area Transit (TCAT) system, which connects most towns and cities together. The transit system has seen its ridership double in the past decade, but transit mode split remains low at 0.40% as indicated by the 2012 California Household Travel Survey (CHTS) (**Table EJ -2**).

CHTS data shows that lower levels of residential density and a longer average trip distance in Tulare County results in a higher share of residents driving, but with a higher than average rate of carpooling and a slightly below-average amount of walking compared to its San Joaquin Valley neighbors. Despite a longer trip distance, a lack of congestion keeps commute times acceptable. Contributing factors to higher levels of carpooling in Tulare County include the Calvans program, a ride-share for agricultural workers, students, and commuters founded in Tulare County, reducing a staggering 21 million PLM (Passenger lane miles) per year (Calvans ridership data). Other factors may include the length of transit trips, weather, income levels, and a high youth population of 31.2%.

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Table EJ -2 CHTS results in Tulare County

| Purpose | MODE SPLIT BY PURPOSE | | | | | | | |
|----------------------|---------------------------|---------------------|-----------------------|------------------------|-----------------|--------------|--------------|---------------|
| | Total (All Modes) CHTS | Drove Alone CHTS | Shared Ride 2 CHTS | Shared Ride 3+ CHTS | Transit CHTS | Walk CHTS | Bike CHTS | Other CHTS |
| HBW | 16% | 80% | 9% | 5% | 0.3% | 5% | 1% | 0% |
| HBO | 59% | 24% | 28% | 31% | 0.5% | 13% | 1% | 3% |
| NHB | 26% | 42% | 27% | 18% | 0.3% | 12% | 0% | 1% |
| Total (All Purposes) | 100% | 37% | 25% | 24% | 0.4% | 11% | 1% | 2% |

Notes: 2012 California Household Travel Survey, Weekday Trips, re-weighted by F&P. Includes only internal-to-internal, weekday person trips for all modes. School bus trips are categorized as Other.



Figure EJ -1 "Bike and Stride" outreach event in Porterville CA

TCAG Outreach Efforts:

TCAG strives to be an integral part of the community and to earnestly engage with, and incorporate, resident's comments and concerns into projects and plans. Being a minority-majority county, located in a highly-polluted area, with an above- average poverty and unemployment rate, environmental justice is an issue that TCAG has taken to the core of its planning activities.

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In 2015, and in advance of the 2018 update to the RTP/SCS, TCAG released and implemented a comprehensive Public Participation Plan (PPP)⁵ to guide TCAG staff and Board members, contractors, consultants and elected officials in how public participation is to be approached. The primary goal of the PPP is to include low-income, minority, elderly and those identified by the American with Disabilities Act into a continuous planning process, in addition to any large scale planning efforts that will be taking place in the future. The PPP also includes efforts to coordinate with the Tule River Tribe, whose reservation boundaries fall completely within Tulare County. The PPP is regularly updated and fine-tuned for each RTP/SCS cycle as the needs of County residents may change over time, providing a guiding hand for outreach measures for TCAG planning, projects, and programs.



Figure EJ -2 "Bike and Stride" outreach event in Ivanhoe CA



Figure EJ -3 Outreach for TCAG RTP Porterville CA Fair

Through various planning efforts, including the 2018 RTP/SCS development and approval process, TCAG reached out to community members of all backgrounds and incorporated comments and feedback from the public to better plan and coordinate investments. One of the more interactive outreach events that TCAG leads every year is the Unmet Transit Needs outreach through the Social Services Transportation Advisory Council (SSTAC). This process allows for transit users and residents of the county to submit any issues they have experienced with any transit agency in the county. Many success stories have come out of the process including the implementation of the College of the Sequoias transit pass in 2011 which provides passes to each student included with their tuition. The unmet needs assessment identifies dozens of other issues every year that are addressed by the TCAG Board when reasonable to meet. Additionally, in 2016 TCAG received a sustainable communities planning grant from Caltrans for the implementation of the "Bike and Stride" program, which included public outreach in person to well over 2,500 kids and adults at events including school assemblies, bike rodeos, and community events, which featured helmet and safety awareness as well

⁵ <http://www.tularecog.org/wp-content/uploads/2018/02/Final-2015-TCAG-Public-Participation-Plan.pdf>

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as the encouraging of biking as an alternative mode of transportation. Hosting events as well as partnering with community organizations, Bike and stride was featured in many disadvantaged areas is another way TCAG is inclusionary with RTP/SCS implementation.

For the 2018 RTP/SCS, TCAG conducted a major outreach effort that included 71 outreach events that ranged from venues such as City Council Meetings, the Tulare County Fair, and countless other public events and venues throughout the County. By partnering with local nonprofit agencies and conducting outreach in unusual venues, TCAG was able to solicit feedback from as wide a range of residents as possible to create a plan that is responsive to the needs of the most vulnerable and at-risk. Outreach for the 2018 RTP/SCS was held throughout the fall of 2017, and discussed in detail in the Public Outreach Chapter of the RTP/SCS. This process solicited comments and opinions from residents who would not have otherwise been able to participate in or be aware of the RTP/SCS process taking place. These events were in addition to extensive social media outreach and surveys, which connected with approximately 35,000 residents, with posts in both English and Spanish, and garnered hundreds of reactions and shares. TCAG also distributed a future land use scenario survey County-wide, which received over 2,000 responses. Recognizing that not all members of the public could attend the public workshops, TCAG solicited assistance from Community Services Employment Training (CSET) to extend outreach efforts to popular local gathering locations and events in disadvantaged communities throughout the region. Some locations were also suggested by the Leadership Council for Justice and Accountability. Both organizations serve traditionally underrepresented and underserved communities. As indicated, TCAG employed a wide range of outreach in order to reach the maximum amount of residents and solicit the widest range of feedback in the planning process as possible.

Methodology:

TCAG also separately conducted a review of projects for environmental justice issues, using US Census data from the 5-year 2015 American Community Survey for areas with majority minority and low income populations and the CalEnviroScreen 3.0 tool. This data was catalogued and analyzed, by census tract, to identify communities in the state which are considered disadvantaged. This was done by the Office of Environmental Health Hazard Assessment, an agency within the California Environmental Protection Agency. The OEHHA designated the communities as disadvantaged in accordance with SB 535. SB 535, passed in 2012, directed the state's Cap and Trade Program to dedicate 25% of its funding toward projects that provide benefits toward designated disadvantaged communities.

To determine if the proposed 2018 RTP/SCS overburdened or over benefitted any disadvantaged populations, performance measures have been created to analyze the social equity impacts within these identified environmental justice areas. Five performance measures were chosen to identify if the RTP/SCS is fulfilling the environmental justice and Title VI requirements set forth by the federal and state governments. These performance measures look to identify any disparities in investment, levels of service, transit access or any other issues in areas

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designated by TCAG and CalEPA that are environmental justice areas in regards to the RTP/SCS and the future investments by TCAG and its member agencies.

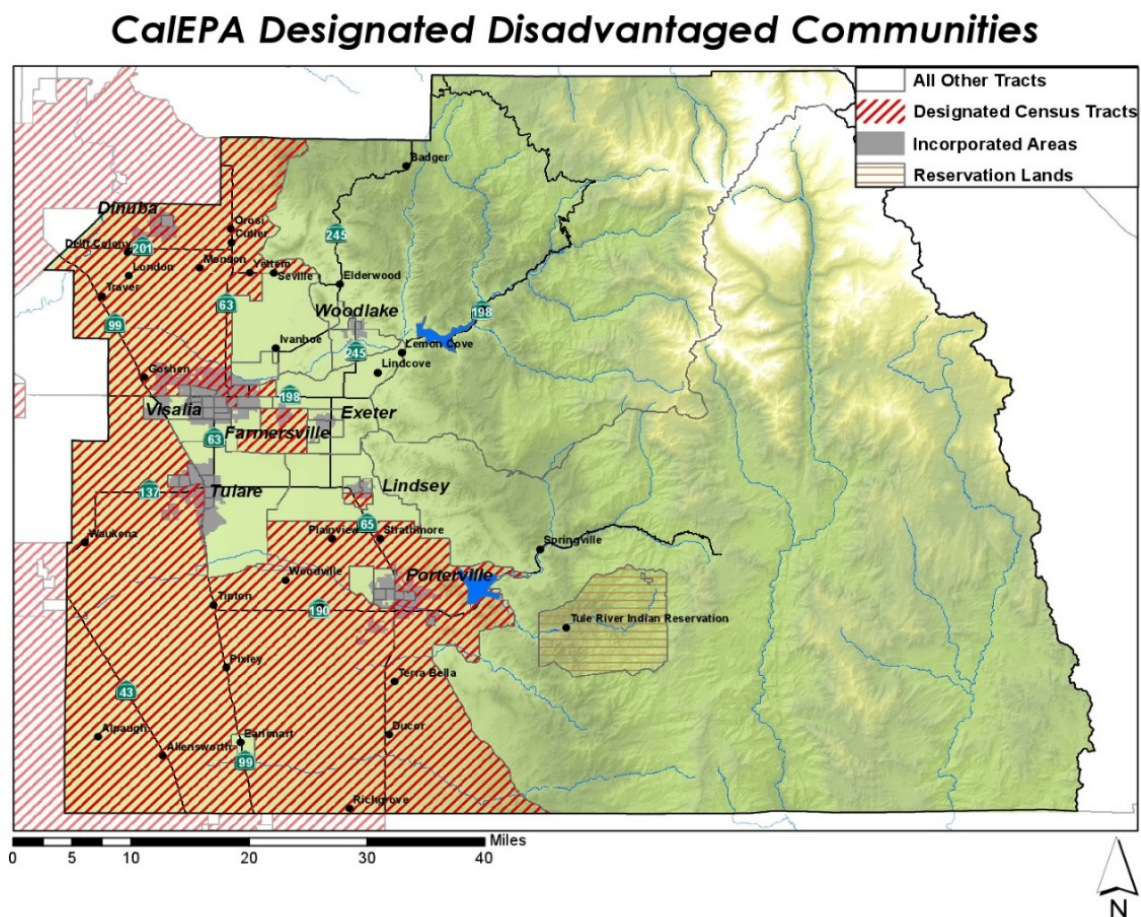
- **Measure #1: Percentage of residents within Environmental Justice communities (TAZ) within walking distance (1/4 mile) to transit service.**
 - Residents within environmental justice communities rely more on transit. Low income and minority residents also experience a higher cost burden from transportation and housing. This measure will indicate the adequacy of transit access to disadvantaged communities.
- **Measure #2: Share of RTP/SCS related projects planned to 2042 that would benefit Environmental Justice communities.**
 - Environmental justice means investments should be spread across communities equitably and not upgrade infrastructure solely in those communities with means, taking conscious action to spread investments to ensure equity in the distribution of potential benefits of proposed transportation investments.
- **Measure #3: Share of residents in Environmental Justice communities within 500 feet of a freeway in comparison to those that are not.**
 - Proximity to freeways has been shown to lower the quality of life and public health of people. The share of residents in environmental justice communities who drive alone is lower than non-environmental justice communities and the county as a whole. These communities therefore then may see less benefit and more burdens from capital improvements. Identifying if these disadvantaged communities are shouldering more burdens from transportation infrastructure helps guide the planning process.
- **Measure #4: Average trip time by mode (auto and transit) for environmental justice communities compared to non-environmental justice communities to areas of interest in the County (employment centers, parks, schools and medical facilities).**
 - Getting to work, school and amenities in a reasonable amount of time is vital for the quality of life of county residents. This measure looks at the time for two modes of transportation that it takes residents in both environmental justice communities and non-environmental justice communities and compares the difference, if any, that it takes to get to resources and amenities.
- **Measure #5: Roads and highways operating at Level of Service D or below within environmental justice communities and non-environmental justice communities.**
 - Level of service of roads measures how congested a certain stretch of road is and how much that could cause travel delays. This measure shows how investments in road infrastructure are hindering travel in certain communities.

There are a wide variety of income levels throughout the County and different concentrations of racial or ethnic minorities, and many areas of the County are sparsely populated. Hence, TCAG needed to identify which areas of the County should be measured for its environmental justice review and analysis. To identify these areas that may be disproportionately affected, TCAG initially used the California EPA's CalEnviroScreen 3.0 (**Figure EJ -4**) tool to identify Census Tracts which are designated by the state as environmental

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justice tracts⁶. The CalEnviroScreen 3.0 is a tool developed by the CalEPA to identify census tracts in the state which are to receive at least a 25% share of the revenue from the Carbon Emissions Cap and Trade program. The tracts that are designated to receive this share of funding are the tracts which received a score in the upper 75th percentile of the State. The score is calculated from a large number of different indicators which covers both demographics and pollution data to get to a final score for every census tract in the state. These are then divided by percentiles and ranked for their designation.

Figure EJ -4



TCAG took these tracts and further divided them into Transportation Area Zones (TAZ) (Figure EJ -5) that are used for modeling purposes in developing projections for various plans, including the 2018 RTP/SCS. All TAZs located within CalEPA's census tract designation were initially considered for designation as disadvantaged by TCAG. TAZs were designated as disadvantaged by staff based on the correlation between the American Community Survey block

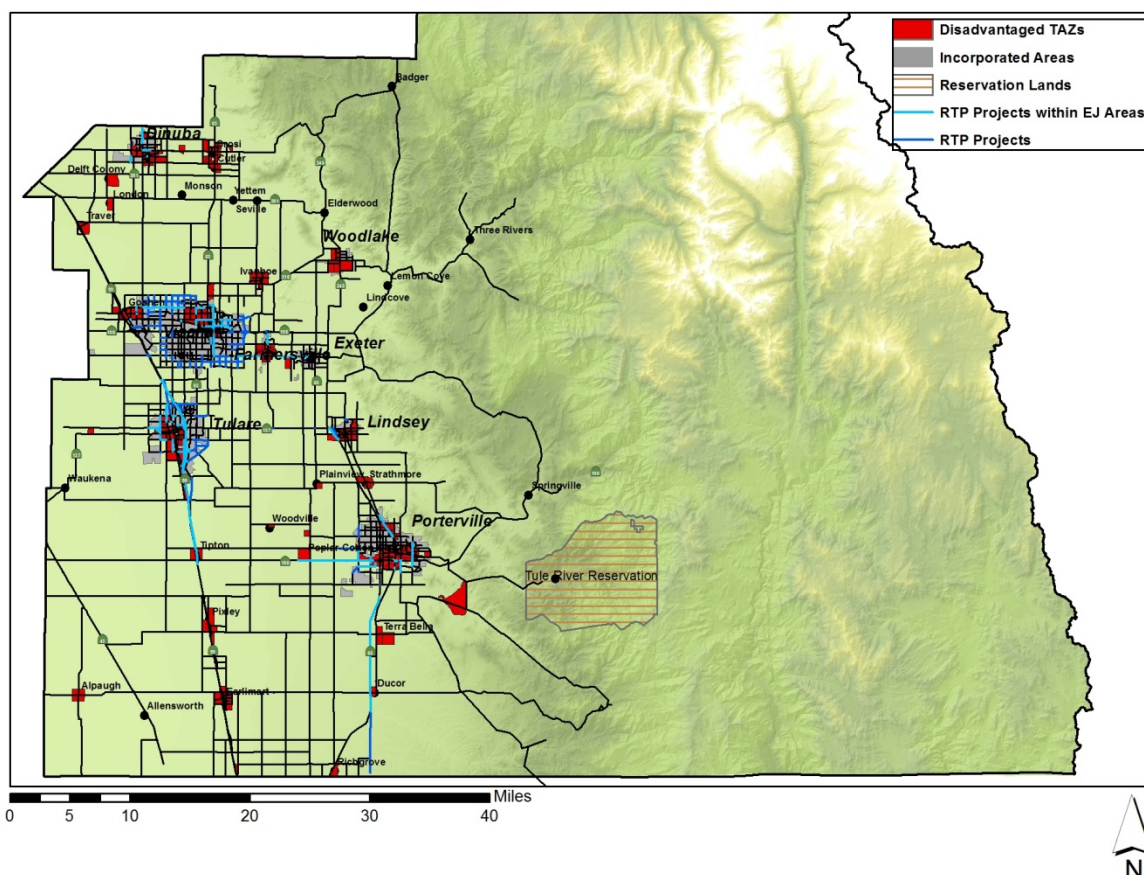
⁶ <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>

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group data and local knowledge of certain areas of the County **which have concentrations of poverty or minority populations**. After this, TAZs within the state designated census tracts were eliminated if they did not meet a density threshold of 1 housing unit every 5 acres. This was done to eliminate large swaths of census tracts that are comprised of mainly farms or industrial uses which could skew input and output data. These final designated TAZs make up the population to be considered as environmental justice communities. These TAZs are spread out into both urban and rural communities. The second part of Figure EJ-5 compares locations of designated environmental justice communities to locations of 2018 RTP/SCS transportation investments.

Figure EJ -5

**TCAG Designated Disadvantaged Communities
and 2018 RTP/SCS Investment Locations**



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Performance Measure Analysis:

- **Measure #1: Percentage of residents within Environmental Justice communities (TAZ) within walking (1/4 mile) distance to transit service.**

Figure EJ -6

| <i>Access to Transit Stops (within 1/4 mile)</i> | | |
|--|---------------|-------------------|
| Community | EJ TAZ | Non-EJ TAZ |
| Total Area (sq. mi.) | 44.80 | 59.60 |
| Area within 1/4 mile (sq. mi.) | 23.16 | 31.33 |
| Percentage of Area | 51.7% | 52.6% |
| Total Population | 151,530 | 234,506 |
| Population within 1/4 mile of Transit | 78,347 | 123,263 |
| Population Density (per sq. mi.) | 3,382 | 3,934 |

Source: TCAG Travel Demand Model

Environmental justice areas have nearly half of the household income and are more than twice as likely to commute via transit as non-environmental justice communities. **Figure EJ -6** displayed above shows the total coverage of TAZ areas that are served by transit stops in Tulare County, indicating that the percentage of Tulare County residents in designated environmental justice areas served by transit is within 1% of the percentage of Tulare County residents in areas not designated. The areas that are most notably not served by nearby transit service tend to be communities in very rural sections of the County. However, Tulare County offers fixed route services to most of those rural communities, albeit with low headways. Lower density raises challenges in providing fixed route-services to rural areas when looking at the fiscal realities of fare box cost recovery. Other, and in some cases, more effective alternatives for rural areas are offered in the County and being studied in the San Joaquin Valley, including carpool services, Calvans, and micro-transit. This analysis serves as a baseline for future progress that could be made in this area.

- **Measure #2: Share of RTP/SCS projects planned to 2042 that would benefit Environmental Justice communities.**

In the 2018 RTP/SCS, TCAG identifies roadways and other infrastructure which may be improved from 2018 to 2042. The 2018 RTP/SCS calls for over \$6 billion for projects throughout the County that would go towards roads and bridges, transit and active transportation, and other projects. TCAG analyzed whether the 2018 RTP/SCS projects are equally benefiting TCAG-designated Disadvantaged Communities by evaluating the total distance and percentage of RTP Road Projects in Disadvantaged Communities.

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Figure EJ -7

| <i>Share of RTP Roadway Projects in EJ Communities</i> | |
|--|---------------|
| Total Distance of RTP Road Projects (Lane miles) | 287 |
| Total Distance of Road Projects within EJ Communities (Lane miles) | 156 |
| Share of Roadway Projects within EJ Communities | 54.3% |
| Share of Roadway Projects within .5 miles of EJ Communities | 62.7% |
| Share of Roadway Projects within 1 mile of EJ Communities | 72.1% |
| Average Year of Project Delivery (EJ Areas) | 2028.7 |
| Average Year of Project Delivery (non EJ Areas) | 2029.2 |
| Share of RTP Road Project Investment (EJ Areas) (\$) | 68.9% |
| Share of RTP Road Project Investment (non EJ Areas) (\$) | 31.1% |
| EJ Communities Share of Population in Region | 33.4% |

Source: TCAG Travel Demand Model

Figure EJ -7 above shows that the total distance in lane miles of roadway investments planned for Tulare County amount to roughly 287 miles of roadway and of that approximately 156 miles will be invested within EJ communities countywide. This amounts to roughly 54% of planned projects to be done within EJ communities. EJ communities make up approximately 34% of the total population of Tulare County.

This shows that EJ communities will be receiving a larger share or benefit of roadway projects than their share of county population. Hence, the 2018 RTP/SCS provides for an equitable share of those investments to Disadvantaged Communities. However, roadways and bridges are not the only infrastructure investments in the 2018 RTP/SCS; the Plan also includes investments for transit, active transportation, and operations and maintenance of surface infrastructure in the County.

Figure EJ -8

| <i>Investment Share of RTP Projects</i> | <i>2018 RTP</i> | <i>2014 RTP</i> |
|---|------------------------|------------------------|
| Roads and Highways Total | 71.7% | 86.8% |
| Highway Capacity Expansion | 25.6% | 35.2% |
| Local Roadway Expansion | 10.5% | 16.0% |
| Road and Highway Maintenance | 35.6% | 35.6% |
| Transit Total | 21.7% | 12.8% |
| Active Transportation Total | 4.7% | 0.4% |
| Other (ITS) | 1.9% | 0% |
| Total Investment | \$5.731 Billion | \$5.175 Billion |

Source: 2018 RTP/SCS & 2014 RTP/SCS Financial Chapters

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Figure EJ -8 above displays the breakdown of the total investments planned to be made in the 2018 RTP/SCS compared to the 2014 RTP/SCS. The total roadway capacity improvement expenditures account for less than half of the planned total expenditures, while transit and active transportation investments will see about a fourth of the total. SB1 has had an impact on transportation investments by mode shifting significant funding from highway capacity to road maintenance, transit, and active transportation projects.

As displayed below in **Figure EJ -9** below, residents in environmental justice communities are more than twice as likely to take transit, less likely to drive alone and more likely to use active transportation in their commute to work. This indicates that a significant and increased share of investments in the RTP for transit and active transportation projects will further benefit the residents of environmental justice communities.

Figure EJ -9

| Commute Mode Share and Transportation Info | | | | |
|---|-------------------|----------------------|---------------|-------------------|
| | California | Tulare County | EJ TAZ | Non-EJ TAZ |
| Drive (Total) | 83.90% | 91.50% | 91.63% | 90.20% |
| Drive (Alone) | 73.90% | 77.60% | 71.14% | 78.00% |
| Drive (Carpool) | 10% | 13.90% | 20.49% | 12.20% |
| Transit | 5.20% | 0.75% | 1.01% | 0.40% |
| Active Transportation (Walk, Bike) | 3.80% | 2.50% | 2.94% | 2.30% |
| Median Commute Time (Minutes) | 28 | 22.7 | 25.93 | 24.26 |
| No vehicle Available at Home | 3.50% | 2.70% | - | - |

Source: 2015 U.S. Census ACS and TCAG Travel Demand Model

- **Measure #3: Share of residents in Environmental Justice communities within 500 feet of a major freeway corridor in comparison to those that are not.**

Freeways are known to cause health problems to communities that they are located within or adjacent to. Nationally, these infrastructure investments have historically benefited the users at the expense of those adjacent communities, which are often disadvantaged. For this analysis, only high volume freeway corridors which exceed 25,000 vehicles per day were considered. A 500 foot buffer was applied to these corridors, representing a distance in which vehicle emissions are generally accepted to have a health impact in surrounding areas, and then overlaid on the environmental justice TAZs. The results shown in **Figure EJ -10** and **Figure EJ-11** show that just 2.9% of the population living in environmental justice communities are within 500 feet of a freeway, however, of the total population living near freeways, 33.1% are in environmental justice communities. This indicates that while pollution mitigation efforts are still needed County-wide, the health impacts of freeways is not disproportionate for environmental justice communities in Tulare County.

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Figure EJ -10

**TCAG Designated Disadvantaged Communities
Population within 500 feet of Freeways**

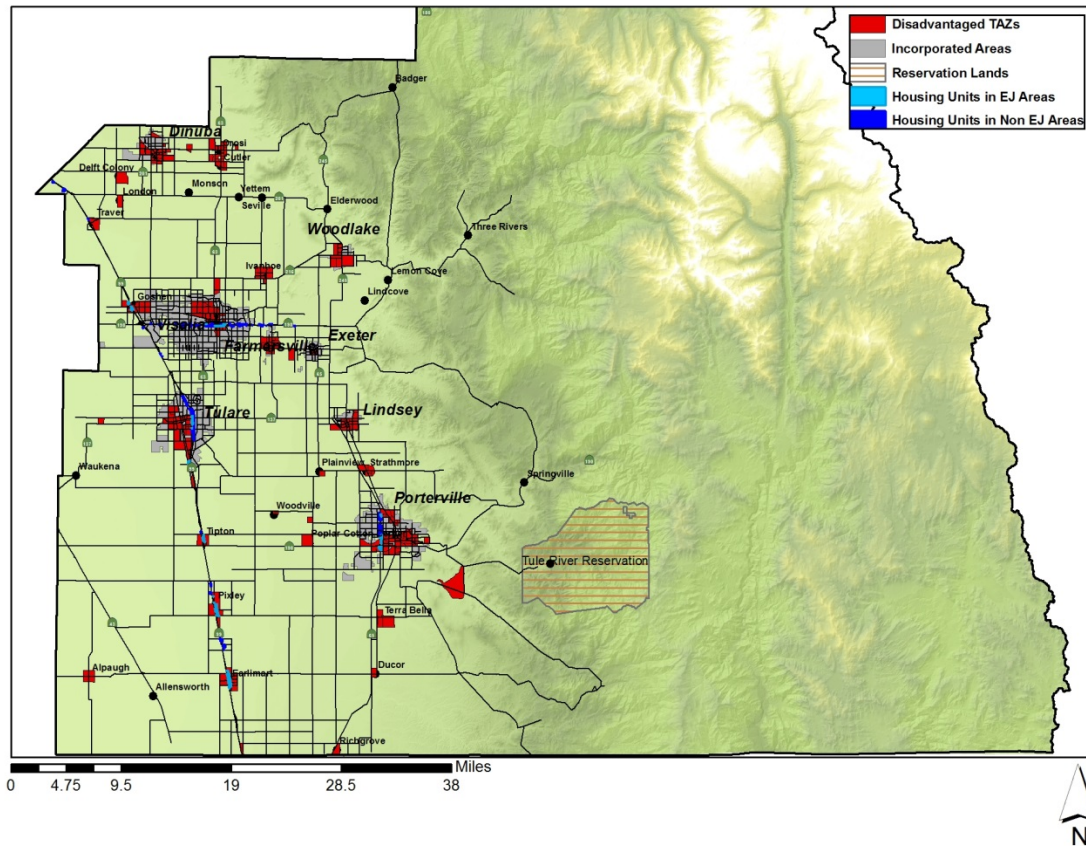


Figure EJ -11

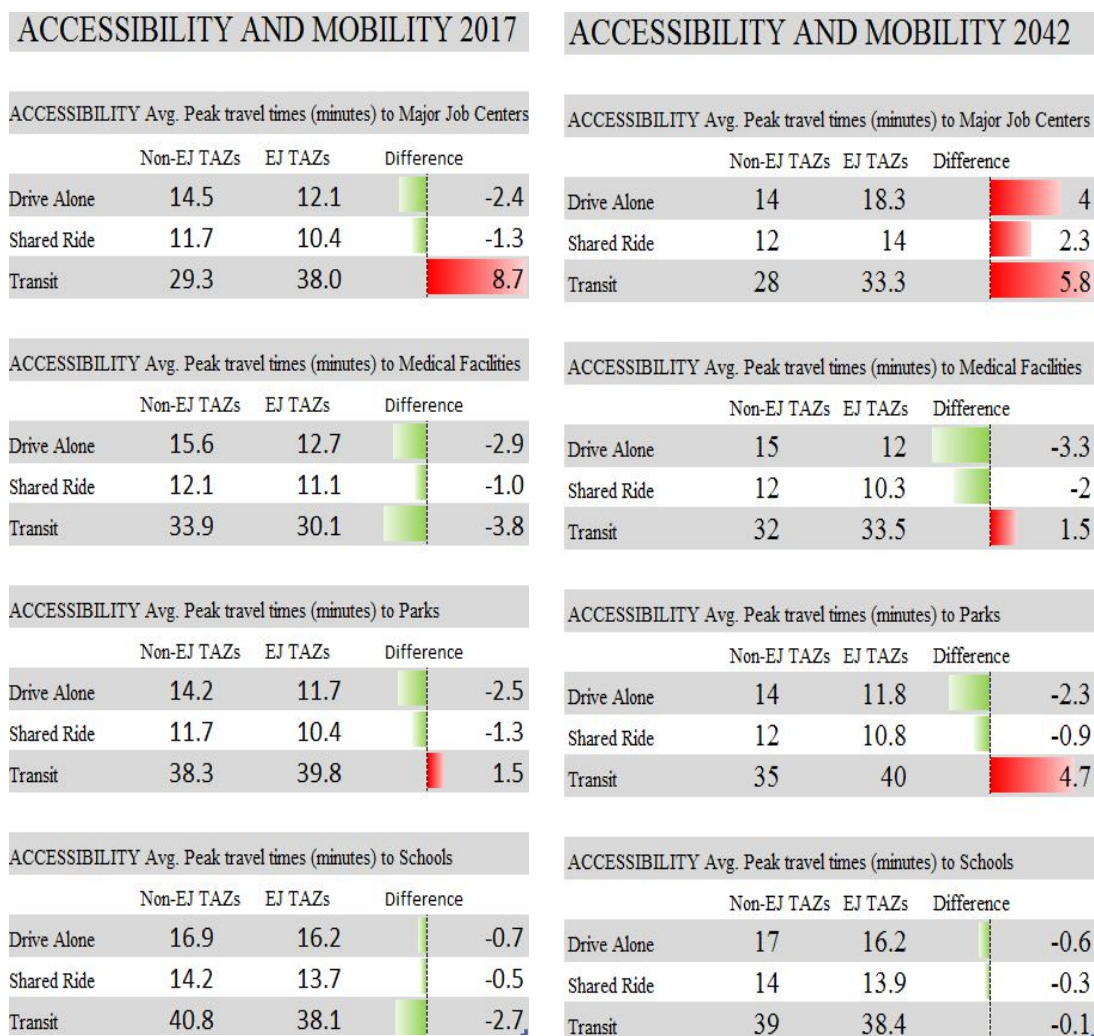
| <i>Population within 500 feet of Freeways</i> | | |
|---|---------------|-------------------|
| Community | EJ TAZ | Non-EJ TAZ |
| Housing Units | 1,406 | 2,772 |
| Population | 4,334 | 8,767 |
| % of Population near Freeways | 33.1% | 66.9% |
| % of Total Population | 2.9% | 3.7% |
| Total Population | 151,530 | 234,506 |

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- **Measure #4:** Average trip time by mode (auto and transit) for environmental justice communities compared to non-environmental justice communities to areas of interest in the County (employment centers, parks, schools and medical facilities).

The amount of time it takes to get to work, home, and amenities in the County is vital for its residents to enjoy a high quality of life and to lower both direct and indirect transportation costs. This regional analysis measures the driving and transit trip times from Environmental Justice areas vs. Non-Environmental Justice areas to major employment centers, major medical facilities, parks, and schools. The models were run for both present travel conditions and in 2042.

Figure EJ -12



Source: TCAG Travel Demand Model

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The results in **Figure EJ -12** above show differences between EJ and Non-EJ TAZs for transit accessibility to job centers and parks. This transit travel time difference (5 minutes) may not be that significant considering the remote location of many disadvantaged communities that typically have much lower headways due to high operating costs and low farebox recovery resulting in longer trip times as compared to urban transit services. Regardless, transit travel times did improve to major job centers over the life of the RTP/SCS for EJ communities. Considering all 5 metrics, however, there appear to be no disproportionate impacts on disadvantaged communities as a whole with respect to accessibility and mobility within the Tulare County Region. This analysis serves as a baseline for future progress that could be made in this area.

- **Measure #5:** Roads and highways operating at Level of Service D or below within environmental justice communities and non-environmental justice communities.

Traffic delays can be an economically limiting factor for many and an environmental concern for everyone. Roadways operating at level of service D or lower are roads that experience moderate to significant delays which slow down vehicles and increase commute times. Tulare County’s rural nature with a diffused population and employment centers results in a smaller portion of areas with significant congestion. This analysis will look to see if travel delays are more significant in environmental justice areas today and in 2042 with and without the proposed RTP/SCS projects.

Figure EJ -13

| Roadways Operating at LOS D or Lower in Tulare County | |
|---|------------------------|
| LOS Data (LOS D or Below) | Amount of Roadway (mi) |
| 2017 Total | 19.05 |
| 2017 in EJ TAZ | 1.04 |
| 2042 Total w/o RTP Projects | 39.2 |
| 2042 w/o RTP Projects in EJ TAZ | 1.97 |
| 2042 Total with RTP Projects | 15.01 |
| 2042 with RTP Projects in EJ TAZ | 1.6 |

Source: TCAG Travel Demand Model

Figure EJ -13 above displays the amount of roadways in the County and in environmental justice TAZs experiencing a LOS at or below a D rating. Within environmental justice TAZs, the amount of roadways experiencing moderate to severe delays is 1.04 miles. 2018 RTP/SCS planned projects would reduce the amount of roadways experiencing LOS D or lower in the County overall by 62% over a no project baseline, while in the environmental justice TAZs this reduction would be 19%. However, there is an insignificant amount of roadway experiencing poor service levels in environmental justice TAZs overall, so there is no

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disproportionate effect in environmental justice TAZs when considering the actual mileage of congested roadways affected.

Conclusion:

The performance metrics measured in this analysis show that disadvantaged communities in Tulare County are receiving an equitable share of investments TCAG's 2018 RTP/SCS within the financial constraints that exist. Furthermore, the analysis showed that even with lower residential density levels in primarily rural unincorporated areas, environmental justice communities were just as well served by transit than non-environmental justice communities. Results showed that environmental justice communities will receive more in roadway expenditures than their proportion of population in the region, while also benefitting more from the transit investments in the plan than non-environmental justice communities. Additionally, environmental justice communities are not being burdened more than other communities in regards to vehicle emissions from major freeways. The final two mobility and accessibility measures demonstrate that environmental justice communities are not being burdened by additional traffic and travel delays while also generally having sufficient connections to areas of interest County-wide.

Through this analysis, TCAG has determined that the 2018 RTP/SCS does not result in disparate impacts on minority populations under Title VI of the Civil Rights Act of 1964. TCAG further has determined that the 2018 RTP/SCS does not have disproportionately high and adverse human health or environmental effects on low income and minority populations as defined by Environmental Justice Executive Order 12898. TCAG's robust public involvement program provided access to the planning process inclusive of environmental justice communities with membership on the RTP Roundtable Committee and extensive workshops in disadvantaged communities.

The inclusion of environmental justice considerations in the 2018 RTP/SCS will be an ongoing process that extends to project implementation. TCAG is committed to refining and improving the techniques it uses to measure impacts on Environmental Justice Communities, to better assess the benefits and burdens of the planning process on the various populations within the Tulare County Region.