Goal 1
Quality of Life

Quality of life refers to the general well-being of individuals and society. It includes social and environmental conditions, and while it often refers to less definable and more qualitative concepts such as livability, quality of life factors determine whether or not people actually want to spend time in a particular place. The development of a safe, accessible, and sustainable transportation network is intrinsically connected to regional quality of life. In particular being able to use the transportation system efficiently brings people together in a safe and equitable manner and ensures the region's environment is protected.

Using concepts borrowed from WILMAPCO, the MTP Steering Committee developed four evaluation criteria for Quality of Life for the MRMPO PPP. These four criteria do not encompass all social and environmental factors that affect quality of life. Rather, the PPP incorporates a number of common quality of life considerations related to transportation that can be measured and quantified.

The first criterion under the Quality of Life goal is air quality. Although the AMPA is designated a limited maintenance area for carbon monoxide and is required to implement a twenty-year maintenance plan, air quality in the Albuquerque area is relatively good. However, increasing VMT and continued peripheral development may cause air quality to deteriorate over time. Without advocating particular land use policies, the PPP recognizes air quality as a regional priority and rewards transportation projects which have the greatest impact toward improving air quality in the metropolitan area.

The second consideration is safety, which holds that transportation projects should promote safe movement across and within the region. This criterion specifically encourages safety improvements to the roadway system by addressing intersections and roadway segments with high crash rates or dangerous conditions and implementing strategies which address existing problems and promote safe transportation options.

Quality of Life Criteria

1) Air Quality
2) Safety
3) Environmental Justice
4) Preservation of Existing Infrastructure

The third criterion in this goal is environmental justice. Environmental justice is the practice of fair representation and inclusion of all people with respect to federal laws, regulations, and policies. This criterion encourages the promotion of social justice and equitable distribution of federal transportation funds by targeting minority and low-income communities. These communities have historically received fewer infrastructure improvements and are often the communities that stand to benefit most from improvements to the transportation infrastructure.

The final criterion is the preservation of existing infrastructure. Nationally, many roads and bridges are in substandard conditions, creating safety concerns and limiting the overall efficiency of the transportation network. This criterion draws attention to the fact that it is often more efficient in terms of expenditures and impact on the system to improve the existing infrastructure than to create new roadways. Therefore the PPP highlights projects that ensure the existing infrastructure is in a state of good repair and operates at an optimal level.[1] (on next page)

As with other goals and performance measures of the PPP, no individual criterion will outweigh all others. That is to say,

"The development of a safe, accessible, and sustainable transportation network is intrinsically connected to regional quality of life."

addressing one Quality of Life criterion does not necessarily indicate a “good” project or guarantee the project will receive a high score. Rather, the best projects – and those which will score the highest - are those which address a number of facets of quality of life and create a positive impact on the transportation system in a number of ways.

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[1] *While not reflected in the quality of life evaluation criteria, preserving the existing infrastructure also maintains economic productivity and the regional standard of living by ensuring the efficient movement of people, goods, and services.*

A. Air Quality

The air quality criterion measures the effect individual transportation projects will have on air quality for the AMPA and rewards projects that have the most beneficial impact. For the purposes of the PPP, air quality impact will be measured in changes in the quantity of emissions produced as the result of a proposed transportation project. The baseline to which projects will be compared is the "no-build" scenario, which provides congestion and air quality conditions in future years assuming no changes are made to the transportation infrastructure. Changes to the transportation infrastructure are reflected in the "build" scenario (which adds the proposed facility to the transportation network). By measuring differences between the two scenarios, one can observe the impact on region-wide emissions totals resulting from a proposed transportation project and determine if the project leads to better air quality conditions than would otherwise be present if the project were not completed.

Emissions reductions may be achieved by improved speeds resulting from more efficiently operated roadways and new infrastructure or the removal of traffic from the roadways altogether. MRMPO analysis will measure emissions levels for individual transportation projects for three different types of pollutants:

- CO – Carbon monoxide
- NOX – Nitrogen oxide
- VOC – Volatile organic compounds

These three types of emissions constitute the most pressing air quality needs for the region. The AMPA is already designated a limited maintenance area for carbon monoxide, while volatile organic compounds and nitrogen oxide are the precursors for ozone. (MRMPO expects the region to fall into ozone non-attainment in the near future.) Comparison will be based on a measurement of the number of kilograms (kg) of each pollutant that can reasonably be expected to be reduced as a result of the implementation of a particular project in a given year.

Goal: Quality of Life
Performance Measure #1: Air Quality

Purpose: Improve air quality by prioritizing projects that result in reduced VMT and reduced emissions

Components:
1. Emissions factors with/without project (3 points)
2. Cost-benefit analysis (3 points)

Scoring Method: Quantitative/Thresholds
1. Change emissions
2. Project cost/emissions reduced

Maximum Points = 6

For the project prioritization process MRMPO will conduct two types of analysis depending on the transportation project in question. These two methods can be considered "off-model" and "on-model" analysis respectively, however both methods will consider the magnitude of emissions change as a result of the project. Off-model calculations are based on the mode-shift created by a project; in other words, the number of single-occupancy vehicle trips reduced or eliminated by individual commuters shifting to transit, bicycles, or walking to work. Off-model analysis will be conducted for transit and pedestrian/bicycle projects using a series of formulas and equations that consider the number of vehicles on the roads, the fleet mix (percent share of different types of vehicles), per capita VMT, and average vehicle speeds. The equations assume that a number of vehicles moving at an average speed along a roadway produce a certain level of emissions. If a number of those vehicles are removed from the roadway as a result of commuters shifting to a less polluting form of travel, such as bicycling or public transit, emissions are thus reduced.

On-model analysis calculates the impact of roadway capacity expansion projects using MRMPO's travel demand model. Based on improvements to the roadway network (i.e. the "build" scenario), new VMT and average

speeds can be obtained. The emissions totals can be deduced by applying VMT totals to the MOBILE 6.2 air quality model in order to extract emissions levels based on overall system performance. By comparing emission changes between the "build" and "no-build" scenarios for a given horizon year, the emissions impact of an individual capacity expansion project can be assessed.[2]

A third category of transportation projects can be referred to as "efficiency improvements." These are roadway projects which are designed to improve the efficiency of the transportation system but do not add new infrastructure or capacity and are not inputted into the MRMPO travel demand model. (MRMPO currently does not have the capacity to calculate the emissions changes resulting from roadway changes such as intersection improvements, signal coordination, safety improvements, ITS elements, or street repaving and restoration.) However, it can be fairly assumed that roadway efficiency improvements will result in increased speeds and lower emissions totals. Until that can be quantified at the individual project-by-project level, roadway efficiency projects will not be subject to analysis and will receive a mid-level point score for both elements of the air quality criterion.

Once emissions changes are obtained for individual projects they will be compared through **cost-benefit analysis**. Cost-benefit analysis is intended to highlight the cost associated with the reduction or change in each unit of pollution as the result of a transportation project. In particular the cost-benefit analysis will reveal the projects which most efficiently and economically result in air quality improvements. For scoring purposes, the estimated total cost, including construction, will be used when determining the benefit of the project relative to the cost. Projects which achieve significant decreases in emissions levels and require minimal federal dollars will be rewarded most heavily in the PPP.

Notes

It is important to note that MRMPO and the AMPA region are not currently required to perform project level air quality analysis. However, the inclusion of emissions changes as a criterion in the PPP is voluntary recognition of the importance of air quality for regional quality of life. The consideration of air quality is also an effort to prepare for the time when the AMPA falls into non-attainment status for one or more of the previously mentioned pollutants. Non-attainment conditions would limit the types of projects for which the Albuquerque region may receive federal funding, and all transportation projects would have to undergo analysis to ensure resulting emissions do not exceed current totals.

[2] Off-model analysis may use the same "build/no-build" terminology since the build scenario reflects the presence of a project, such as a bicycle trail, even if the analysis is not undertaken with the travel demand model. (In this case the no-build scenario would refer to the conditions absent the project).

HOW TO SCORE

Scoring in the PPP is based on two elements:

1. ***Emissions reduction*** – measured in the magnitude of emissions reduced.
2. ***Cost-benefit analysis*** – measured in the cost of reducing each unit of pollutant.

Each will be worth up to three points for a maximum of six points in the air quality criterion. The first component reveals how great the emissions reduction impact is, while the second component determines the efficiency in achieving that reduction as measured in the total federal dollars required to reduce each unit of pollutant. This second piece in particular allows one to determine which projects achieve the greatest impact for the least cost.

1. Emissions reduction (3 points)

All projects which result in emissions reductions will receive three (3) points. Projects which do not change emissions totals or result in emissions increases will receive zero (0) points.

Project Impact	Points
Emissions Reduction	3
Emissions Increase	0

2. Cost-benefit analysis (3 points)

The air quality cost-benefit component rewards projects which most efficiently reduce CO, NOX, and VOC emissions. To find the cost-benefit value the project cost is divided by the emissions reduction (measured in kilograms) resulting in a dollars-per-kilogram value for each of the three types of emissions. The lower the cost of reducing each kilogram of pollutant, the greater the value the project represents in achieving air quality benefits.

Pollutant	Cost of Reducing 1kg	Points
Carbon Monoxide (CO)	Top 1/2 of project list	1
Nitrogen Oxide (NOX)	Top 1/2 of project list	1
Volatile Organic Compound (VOC)	Top 1/2 of project list	1

All projects will be measured and placed in a list for each pollutant type. Points are awarded to the top half of projects which have a positive cost-benefit score. In other words, only projects which reduce emissions are eligible, and only the most efficient of those emissions-reducing projects will receive points for this component. This method highlights the projects which achieve the greatest impact relative to other projects under consideration. Projects may earn up to three points in the cost-benefit analysis component if they rank in the top half of each pollutant list.

Efficiency improvements projects will be awarded a standard one point for each element of air quality (emissions reduction and cost-benefit) for a total of two (2) points for the criterion.

B. Safety

The emphasis placed on safety in the PPP is consistent with NMDOT's Comprehensive Transportation Safety Plan (CTSP), which was introduced to fulfill requirements of SAFETEA-LU. The overall goal of the CTSP is to reduce New Mexico's crash fatality rate 20 percent between 2006 and 2010 by providing safe infrastructure that reduces the risk of traffic accidents. Although 2010 has passed, the goals of reducing fatalities and improving roadway safety conditions remain relevant and are expected to be a continuous goal for all transportation agencies.

As a Quality of Life performance measure in the PPP, the safety criterion is meant to ensure users of the transportation network in the AMPA have secure, reliable transportation options. This performance measure was developed to highlight locations that could benefit from safety improvements – both from a vehicle and pedestrian perspective – and to encourage projects that mitigate and improve dangerous conditions. Roadway, transit, pedestrian and bicycle safety are considered by the PPP according to the matrix above.

Goal: Quality of Life
Performance Measure #2: Safety

Purpose: Ensure projects address safety-needs areas and contain strategies that address safety concerns

Components:
1. Vehicle Crash Rates (3)
2. Pedestrian Risk Area (2)
3. Safety strategy (2)

Scoring Method:
1. Qualitative/Definition
2. Quantitative/Thresholds
3. Qualitative/Project Description

Maximum Points = 7

	Roadway	Transit	Bicycle	Pedestrian
1. Vehicle Crash Rates	Intersection Vehicle Crash Rates	Intersection Vehicle Crash Rates	Intersection Bicycle Crash Rates	Pedestrian Composite Index
2. Pedestrian Risk Area	Pedestrian Crash Rates	Pedestrian Crash Rates	Pedestrian Crash Rates	Pedestrian Crash Rates
3. Safety Stategy	Safety Strategies List	Safety Strategies List	Safety Strategies List	Safety Strategies List

Vehicle Crash Rates (Roadway, Transit, and Bicycle) – MRMPO maintains a database of crash rates by intersection in the AMPA and develops a regional average based on the number of crashes per 1,000,000 vehicles. The AMPA average is based on a rolling five-year data set that includes all categories of crashes (vehicle, bicycle, truck, etc.) for a specific road segment. MRMPO assigns crashes to the nearest intersection for each road segment. The crash rates of individual intersections are compared to the AMPA average to determine high-incident locations. These locations are considered to be areas that could benefit from specific safety improvement projects.

Pedestrian Composite Index (Pedestrian) - MRMPO maintains a Pedestrian Composite Index (PCI) for the entire AMPA, a tool used to assess pedestrian needs from a regional perspective by identifying areas or markets by their potential for pedestrian activity. The PCI considers transportation, land use, and safety elements and groups those elements into categories. The first category – Pedestrian Activity Index – is comprised of positive indicators or generators of pedestrian activity (e.g. pedestrian volume, presence of schools or parks), while the second category – Pedestrian Deterrent Index – consists of elements that discourage pedestrian activity

AMPA Average:
1.2303 crahes per million vehicles
Normalized based on the intersection traffic volume

Formula: $\frac{\text{(No. of Crashes * 1,000,000)}}{\text{AWDT * 365}}$

(e.g. absence of pedestrian facilities, high pedestrian crash rates, high traffic speed or volume). High marks for Pedestrian Activity and low marks for Pedestrian Deterrent indicate an area where there is considerable potential for pedestrian activity and few types of impedance, indicating the need for improvements is low. By contrast, a low Pedestrian Activity score and a high Pedestrian Deterrent score indicates an inhospitable pedestrian environment with much room for improvement. The most urgent projects are those located in areas with high levels of activity or pedestrian generators and high levels of pedestrian deterrents. The unit of analysis for the PCI is the Census block level. By analyzing a series of adjacent blocks one can determine an overall PCI score for a project area and understand the extent to which pedestrian activity should be improved.

Pedestrian Risk Area – In addition to vehicle crash data, the PPP considers pedestrian safety by identifying locations which are prone to pedestrian-related incidents. Because of the disproportionate risk of injury faced by pedestrians in a traffic incident, the PPP does not measure the rate in which they occur, as it does for vehicle crashes. Rather, the PPP considers the magnitude or overall number of the crashes by location.

To develop an analysis tool, MRMPO compared pedestrian crash intensity from 2000-2009 relative to the surrounding area and relative to the overall region (for reference see Appendix Figure C). MRMPO translated these map into a composite map of pedestrian risk roadways that conveys dangerous points in a linear manner. The High Pedestrian Risk Roadways map, found in Appendix Figure D, is used to determine the extent to which projects address pedestrian risk areas.

Safety Strategy – While other components of the criterion measure the degree of safety concerns for a project location, it is also important to consider the type of project being undertaken and whether or not it includes proven safety strategies. Specifically, the safety strategies element encourages projects that prevent vehicle crashes and reduce the risk of injuries, improve roadway conditions, or protect non-motorized travelers. The types of strategies which may be appropriate vary by mode type and can be found in the section below. It should be noted that it is possible for locations with low or non-existent crash rates to receive points in the strategy criterion under the safety strategy element. In those situations the onus is on the member agency to explain the need for a safety project if there is no measurable problem. Some projects may be high priorities from a safety perspective regardless of area crash rates, including safe route to schools and pedestrian crossings to transit facilities. However, if a project does not generate crash rate location points but earns points for containing a safety strategy, the project may be called into question unless a justification for the project from a safety perspective can be given. Similarly, projects that address high risk areas but do not feature proven safety strategies may require explanation.

Purpose of Safety Strategies Criterion

Encourage projects that
- Prevent vehicle crashes
- Improve conditions of roadways
- Protect non-motorized travelers

HOW TO SCORE

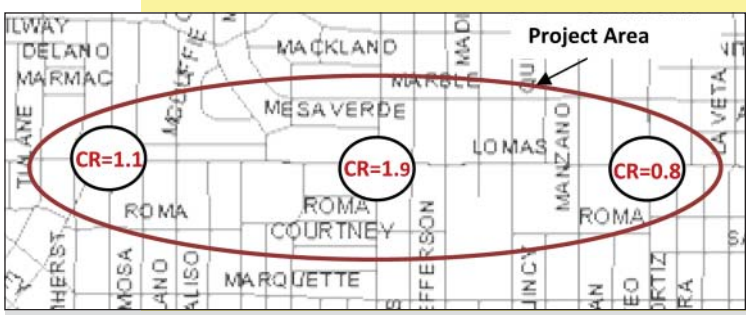
1. **Vehicle Crash Rates/PCI**
2. **Pedestrian Risk Area**
3. **Safety Strategy**

1. Vehicle Crash Rates (3 points)

Individual project crash rate scores are derived from the composite average of crash rates along all intersections in the project area. Points are awarded if the project area surpasses certain thresholds for crash rates (see table below). The point structure is created so that it is difficult to receive maximum points for crash rate locations. Only a small percentage of AMPA intersections have crash rates at the highest threshold level, therefore member agencies must specifically target high-crash intersections in order to receive maximum points. For roadway projects consult Appendix Figure A; for bicycle projects consult Figure B.

CRASH RATE SCORING TABLE

Crash Rate vs. AMPA Average	Points
0 - 0.99	0
1 - 1.49	1
1.5 - 1.99	2
2+	3



Project Area Crash Rate Average = $\frac{(1.1 + 1.9 + 0.8)}{3}$ **= 1.26**

Project area crash rate average vs. AMPA average crash rate (1.3071) = 0.969

Projects awarded to project = 0

Pedestrian Composite Index

Each census block contains its own PCI score which range from 0 to 5 for Pedestrian Generators and 0 to 3 for Pedestrian Deterrents. The Pedestrian Generator and Pedestrian Deterrents scores are added together to create a total PCI score for the Census block. An average of Census block scores in the project area is taken to generate an overall PCI score.

PCI POINTS TABLE

PCI Score <1.0	**= 0 points**
PCI Score 1.0 - 1.49	**= 1 point**
PCI Score 1.5 - 1.99	**= 2 points**
PCI Score 2.0+	**= 3 points**

2. Pedestrian Risk Area (2 points)

Up to two points are awarded to projects located in high pedestrian risk areas. These areas are determined based on the volume of pedestrian-related crashes (relative to the surrounding area and to the region). Appendix Figure D translates that data into roadway segments with corresponding pedestrian risk levels.

Majority of project located in High Pedestrian Risk Area	**= 2 points**
Majority of project located in Medium Pedestrian Risk Area	**= 1 point**
Portion of project located in High Pedestrian Risk Area	**= 1 point**

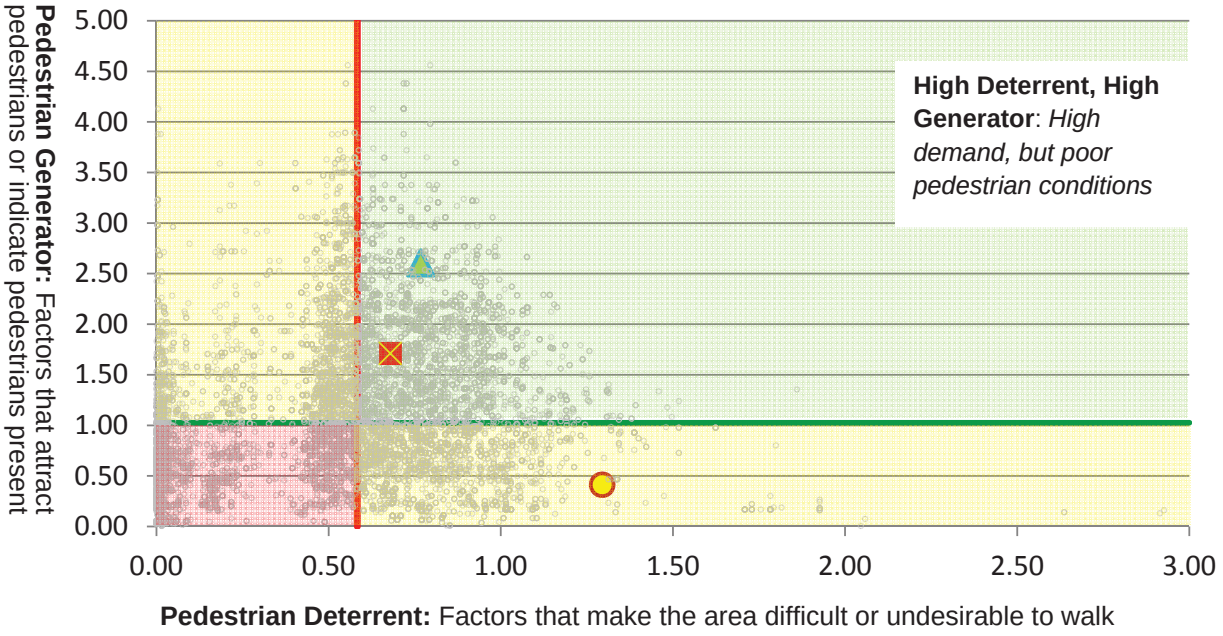
3. Safety Strategy (2 points)

Two points will be awarded if the project contains a proven safety strategy from the list contained in the Guidebook. The strategy must be listed in the TIP application or points will not be awarded. The list of safety strategies is organized by project type rather than mode and is a composite of a series of sources (see "References" at the end of this section for more information).

Project contains a proven Safety Strategy	**= 2 points**

(see page 30 for Safety Strategy List)

Pedestrian Composite Index: How Pedestrian Market And Pedestrian Deterrent Variables Are Used To Prioritize Areas For Pedestrian Improvement Projects



- Regional roadway and trail segments
- Median regional deterrent score (0.58)
- Median regional generator score (1.03)
- PCI score for Central Ave – Girard to Louisiana (0.77, 2.61)
- PCI score from San Pedro Dr – Lomas to Constitution (0.68, 1.71)
- PCI score from 2nd St – Woodward to Desert (1.29, 0.41)

Green: Both the generator and the deterrent score "are" high.

Yellow: Either the generator or the deterrent score is high.

Red: Both generator and deterrent scores are low.

Safety Strategy List

Purpose of Safety Strategies Criterion
Encourage projects that:
- Prevent vehicle crashes
- Improve condition of roadways
- Protect non-motorized travelers

Geometric Improvements
- Road Diet/Lane reduction
- Narrower lanes
- Roundabouts
- Intersection geometry changes (e.g. Reduce crossing distance, change turn radii)
- Acceleration/deceleration lanes

Physical Projects
- Corridor Access Management – consolidating or eliminating existing driveways and entrances
- Safety Edges (paved shoulders)
- Roadway countermeasures – safety Rumble Strips, guardrails, barriers, crash cushions
- Signage
  - Enhanced delineation around turns
  - Pedestrian/bicycle crossing signs
  - Variable message signs/warning signs
- Pedestrian Crossing Improvements
  - Median Refuges
  - Signals/Sensors/Signal detection
  - Protected pedestrian/bicycle intersection crossing
  - Crossings at transit stops or stations
- Railroad crossings
- Lighting improvements
- Truck climbing lanes
- Bridge repair/reconstruction
- Parallel off-street bicycle facilities
- Wildlife-related strategies crossings/ fencing

Programmatic Strategies
- Bicycle/pedestrian education programs
- Driver awareness/education programs
- Comprehensive safety plan
- Transit facility security
- Incident Management Plans
- Courtesy Patrol

References

- FHWA Proven Safety Countermeasures – http://safety.fhwa.dot.gov/provencountermeasures/
- Iowa Comprehensive Highway Safety Plan, September 2006 – http://www.iowadot.gov/traffic/shsp/default.html
- List of projects exempt from FHWA conformity analysis as identified by 40 CFR 90.126
- Texas Transportation Institute. "Safety Guidelines for Rural and Small Urban Transit Agencies," September 2002
- National Cooperative Highway Research Program. Guidance for Implementation of the AASHTO Strategic Highway Safety Plan, "Volume 18A: A Guide for Reducing Collisions Involving Bicycles," 2008
- National Highway Traffic Safety Administration. Uniform Guidelines for State Highway Safety Programs, "Guideline 14: Pedestrian and Bicycle Safety," November 2006

C. Environmental Justice

Federal transportation authorization legislation requires that the planning process be consistent with Title VI of the Civil Rights Act by ensuring that discrimination not occur in the implementation of federal programs or the awarding of federal assistance. However, it is one thing to ensure that a project complies with Title VI, and it is another to focus transportation projects on communities with infrastructure and development needs. The MRMPO PPP specifically highlights and rewards those projects which improve the transportation conditions in environmental justice communities.

Environmental justice is "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."[3] For the purposes of the PPP, environmental justice communities are those with a high percentage (more than 50 percent) of minority and/or low-income populations.[4] The environmental justice criterion specifically determines whether a project will impact environmental justice communities and has been included to encourage member agencies to consider these communities during project development.

Given the federal certification requirements for NEPA and the required compliance with Title VI, it can be safely assumed that federally-funded transportation projects will not cause adverse effects on proximate communities. Therefore all projects which are located in high minority and/or low-income communities, regardless of the project's purpose, are eligible for points in the PPP because it is assumed that they will ultimately not cause significant adverse effects on these communities and would likely benefit the environmental justice community in some way.

Goal: Quality of Life
Performance Measure #3:
Environmental Justice

Purpose: Improve transportation options for low-income and minority communities

Components:
1. Minority population (2)
2. Income level (2)

Scoring Method: Quantitative/Thresholds
Points awarded based on percent of project area which is considered low-income or minority

Maximum Points = 4

Notes

The TIP application will ask member agencies to explain in narrative form the impact the project will have on the surrounding community, be it positive or negative. As it is understood that projects must go through the NEPA certification process and establish member agencies' efforts to avoid, minimize, or mitigate negative impacts to local communities, the MRMPO prioritization process will not require the same level of detail. The narrative provided in the TIP application will not generate points as part of the project prioritization process but may assist in the discussion regarding the intangible benefits of each project.

[3] *Environmental Protection Agency. http://www.epa.gov/environmetaljustice/ Referenced May 19, 2010*
[4] *Most definitions of environmental justice communities consider income and minority levels in a specific community relative to regional averages. Rather than compare these factors to the AMPA average income and minority levels, the PPP will simply consider the population and income characteristics themselves.*

HOW TO SCORE

To assess the impact of a transportation project on an environmental justice community, the composite minority population and median household income levels will be taken for all DASZs in the project area.These two components are worth up to two points each in the PPP.

1. Percent Minority Population (3 points)
Minority population totals are based on 2010 Census data and are analyzed for the PPP at the Block Group level (see Appendix Figure E).[5] The PPP will consider the overall minority population percent in the Block Groups immediately adjacent to the project area.

MINORITY POPULATION IN PROJECT AREA

Percentage	Points
0 - 49.99%	0
50% - 74.99%	1
75% +	2

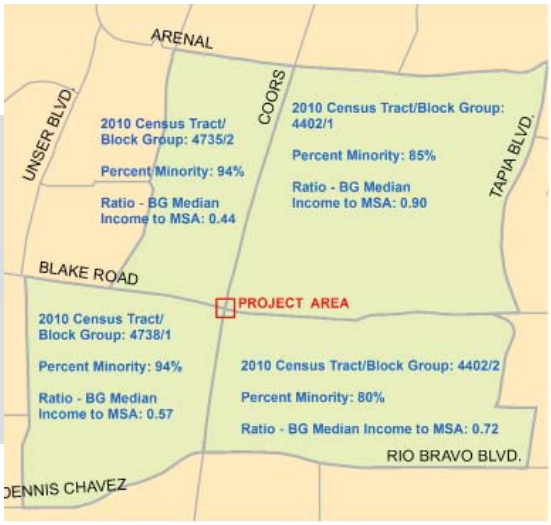
2. Median Household Income (3 points)
Median household income at the Block Group level is taken from the 2006-2010 American Community Survey (see Appendix Figure F). Points are awarded based on the weighted average of all Block Groups in the project area. (A weighted average is used since not all Block Groups contain the same population size.)

MEDIAN HOUSEHOLD INCOME IN PROJECT AREA

Income Status	Points
Above Median Income	0
75% - 99.9% of Median Income	1
<75% of Median Income	2

Finding Composite Minority Population and Income Ratio Example

Block Group	Income Ratio	Total Population	Percent Minority	Minority Population
4735/2	0.44	725	94%	682
4402/1	0.90	168	85%	143
4402/2	0.72	361	80%	289
4738/1	0.57	1097	94%	1031
Totals		**2351**	**91%**	**2145**



[5] *The most recent minority population by percentage estimates are derived from 2010 Census data. Many environmental justice calculations compare the characteristics of the community affected by the project to the regional average. In the AMPA the overall minority population is approximately 50%, making the calculation of community characteristics more straightforward than comparing against the regional average.*

D. Preserve Existing Infrastructure

According to TRIP, a national transportation research group, 32 percent of U.S. roadways are in poor or mediocre conditions and 25 percent of U.S. bridges are structurally deficient or functionally obsolete.[6] With these statistics in mind, and given the improvements in safety and efficiency that accompany a well-maintained transportation system, the PPP and the 2035 MTP emhasize maintaining the existing transportation system in a state of good repair. Furthermore, preservation projects generally support alternate modes including walking, bicycling, and public-transit through improvements to the existing infrastructure. For these reasons this criterion specifically rewards projects that reduce the need for large new capital investments in surface transportation through the preservation of and improvements to the existing network.

This quantitative criterion is designed to capture the extent to which a project is dedicated to maintenance, rehabilitation, or reconstruction (i.e. preservation). The greater the project's emphasis on preservation – as measured in costs – the greater the number of points awarded. This approach requires member agencies and project applicants to provide information on the distribution of costs within the project itself. If that information is not provided as part of the application, the project will not receive points for the preserve existing infrastructure criterion.

Activities that are considered preservation projects include, but are not limited to the following:

- reconstruction, resurfacing and pavement rehabilitation
- intersection improvements that do not add general purpose lanes (e.g. intersection turn-lanes, crosswalks)
- safety features including lighting, signal timing and coordination
- ITS implementation
- pedestrian facility improvements

Goal: Quality of Life
Performance Measure #4:
Preserve Existing Infrastructure

Purpose: Preserve and enhance existing facilities rather than create new ones

Components:
Project costs dedicated to rehabilitation/reconstruction/maintenance (3)

Scoring Method: Quantitative/Thresholds
Points awarded based on extent of project funding dedicated to rehabilitation/reconstruction

Maximum Points = 3

- bicycle facility improvements
- transit vehicle and equipment replacement
- facility repairs
- track repairs and upgrades

Design activities related to the development of reconstruction or rehabilitation activities may be included in the overall percentage of project costs dedicated to preservation.

Improvements to bridges are also considered in the PPP under the preserve existing infrastructure criterion. Bridge improvements are fundamental for the safety of transportation system users in the region, and are critical for the movement of people and goods across the AMPA. Of particular interest are projects which result in a bridge's removal from the deficient bridge list. The list applies to bridges which are structurally deficient (i.e. require physical improvements to ensure safety) or functionally obsolete (i.e. incapable of meeting travel demands) as determined by the FHWA.

Notes

If a project brings pedestrian infrastructure into compliance with Americans with Disabilities Act (ADA) standards, the project will receive a minimum of one point regardless of the cost of the project. By awarding points to projects which achieve ADA compliance, the PPP recognizes the improvement in mobility resulting from the project.

[6] *"Key Facts About America's Road and Bridge Conditions and Federal Funding," http://www.tripnet.org, May 2010*

HOW TO SCORE

The *preserve existing infrastructure* criterion is worth a maximum of three (3) points. The project applicant is to provide an estimate of overall project cost dedicated to rehabilitation and reconstruction activities. Points will be awarded based on thresholds (see table below) related to the percent of the assumed project cost dedicated to preservation activities. A project which results in the removal of a bridge from the deficient bridge list receives an automatic three points.

FUNDS DEDICATED TO PRESERVATION

Percentage	Points
0-24.9%	0
25-49.9%	1
50-74.9%	2
75-100%	3

ADDITIONAL CONSIDERATIONS

Project removes bridge from structurally deficient bridge list	**= 3 points**
Preservation project achieves ADA compliance	**= 1 point**