

Environmental Justice Guidance  
for  
Michigan Transportation  
Plans, Programs and Activities

January 2011

[Page left blank intentionally]

## TABLE OF CONTENTS

Page

I.	INTRODUCTION .....	1
A.	Purpose .....	1
B.	MDOT’S Relationship to Environmental Justice .....	1
II.	LEGAL HISTORY OF ENVIRONMENTAL JUSTICE .....	3
III.	PUBLIC INVOLVEMENT AND ENVIRONMENTAL JUSTICE .....	5
A.	Targeting Low-income and Minority Populations .....	5
B.	Advertising Needs .....	5
C.	Meeting Location Consideration .....	6
D.	Public Interest and Trust .....	6
E.	Meeting Accommodations .....	7
F.	Availability of Public Documents .....	7
IV.	ANALYSIS PROCESSES .....	9
A.	Scope of Analysis .....	9
B.	Definitions .....	9
C.	Sources and Quality of Data Needed .....	10
D.	Identifying Target Populations .....	11
V.	DISPROPORTIONATE EFFECTS TESTS .....	15
A.	“Disproportionately High and Adverse Human Health or Environmental Effects ” .....	15
B.	Equal Benefit .....	15
C.	Alternative Impacts and Assessment .....	15
VI.	INCORPORATING EJ INTO TRANSPORTATION PLANNING AND ENVIRONMENTAL PROCESSES .....	17
A.	MPOs .....	17
B.	MDOT .....	18
APPENDIX A	.....	19
Sample Calculations using the Location Quotient Index .....		19
APPENDIX B	.....	21
Alternative Impacts Assessment .....		21
APPENDIX C	.....	27
Questions and Answers on Environmental Justice and Title VI .....		27
APPENDIX D	.....	35
2009 Poverty Guidelines .....		35

[Page left blank intentionally]

# **I. INTRODUCTION**

## **A. Purpose**

In February of 1994 President Clinton signed Executive Order 12898. Its major goal is to ensure that no minority or low-income population suffers “disproportionately high and adverse human health or environmental effects” due to any “programs, policies, and activities” undertaken by a federal agency or any agency receiving federal funds. As the Michigan Department of Transportation (MDOT) does receive federal funding, the above-mentioned order applies to its programs, policies and activities. Environmental Justice (EJ), however, is not a new requirement. In fact, since no additional legislation accompanied the President’s order, its authority rests in Title VI of the Civil Rights Act of 1964, and MDOT has long considered these principles in its planning processes.

This document presents a series of steps that can lead to compliance with the intent of the Executive Order. It provides a framework for MDOT’s Planning Staff and their partners to raise awareness and understanding of environmental justice issues and the necessary steps that are needed to incorporate EJ into the project development process, this guidance is intended for MDOT, but maybe useful to local governments and Metropolitan Planning Organizations (MPOs). It addresses the issue of Environmental Justice as it relates to transportation planning and development. It includes methods for analyzing potential disproportionate effects as well as important information on successful Public Involvement.

## **B. MDOT’S Relationship to Environmental Justice**

The people within the state of Michigan depend upon some form of transportation each day. MDOT essentially provides these vital services to millions of people. There are, however, certain intrinsic disadvantages in the creation and maintenance of the vital infrastructure that comprises the transportation system. It is both in these services and in these disadvantages that the principle of environmental justice applies to MDOT. Whether it is a change in travel time, increased or decreased access to employment, air quality, noise, or even the purchase of right of way, MDOT has an obligation to ensure that any negative consequences of its activities are not borne disproportionately by any group mentioned in the executive order.

This obligation can be met in a variety of ways and on a variety of levels. MDOT’s first responsibility, when planning specific programs or projects, is to identify those populations that will be affected by a given program or project. If a disproportionate effect is anticipated, mitigation procedures must be followed. If mitigation options do not sufficiently eliminate the disproportionate effect, reasonable alternatives should be discussed and, if necessary, implemented. Disproportionate effects are those effects which are appreciably more severe for one group or predominantly borne by a single group.

MDOT is responsible for ensuring that its overall program as well as individual projects, do not disproportionately distribute benefits or negative effects to any population. An analysis at the statewide level should examine the total negative and positive outcomes of transportation projects to see whether there is a disproportionate effect. This process involves establishing a baseline (a geographic representation of the

location of those populations mentioned in the executive order) and then examine MDOT's program as a whole as it relates to these areas

Environmental Justice ensures that transportation services are provided equitably to every population in Michigan. Through careful planning and proactive involvement, MDOT provides the highest quality of integrated transportation services for economic benefit and improved quality of life and the highest quality of transportation services to all of Michigan's citizens, regardless of race or income.

## II. LEGAL HISTORY OF ENVIRONMENTAL JUSTICE

Under **Title VI of the 1964 Civil Rights Act** and related statutes, each Federal agency (including the Federal Highway Administration) is required to ensure that no person is excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving Federal financial assistance on the basis of race, color, national origin, age, sex, disability, or religion.

The **National Environmental Policy Act of 1969 (NEPA)** stressed the importance of providing for, "all Americans a safe, healthful, productive, and esthetically pleasing surroundings." It also required taking a "systematic, interdisciplinary approach" when considering environmental and community factors in decision-making.

This approach was further emphasized in the **Federal-aid Highway Act of 1970**. 23 United States Code 109(h) established a further basis for equitable treatment of communities being affected by transportation projects. It requires consideration of the anticipated effects of proposed transportation projects upon residences, businesses, farms, accessibility of public facilities, tax base, and other community resources.

On February 11, 1994, President Clinton, recognizing that the impacts of federal programs and activities may raise questions of fairness to affected groups, signed **Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**. The Executive Order requires that each Federal agency shall, to the greatest extent allowed by law, administer and implement its programs, policies, and activities that affect human health or the environment so as to identify and avoid "disproportionately high and adverse" effects on minority and low-income populations. The major difference between Title VI and the Executive Order is that the Order adds low-income populations as another group to be considered when designing programs or activities receiving Federal financial assistance.

The U. S. Department of Transportation published its draft **Order to Address Environmental Justice in Minority Populations and Low-Income Populations** in the Federal Register on June 29, 1995. The report was primarily a reaffirmation of the principles of 1964's Title VI. On April 15, 1997, USDOT published the final **Order to Address Environmental Justice in Minority Populations and Low-Income Populations (US DOT Order 5610.2)**. The order expounds upon the President's 1994 Executive Order, relating the principles directly to transportation.

An October 1, 1999, U.S. DOT letter further clarified that transportation agencies are to ensure that low income populations and minority populations receive a proportionate share of benefits from federally funded transportation investments.

[Page left blank intentionally]



### **III. PUBLIC INVOLVEMENT AND ENVIRONMENTAL JUSTICE**

One of the most critical elements for complying with EJ is the need to ensure opportunity for active participation from low income populations and minority populations in the transportation decision making processes. For many low-income and minority populations in Michigan there had been limited or no participation in transportation-related public involvement meetings. The key to involving these groups is the need for MDOT, local governments and the MPOs to assure them that they will have a genuine voice in determining the fate of transportation projects in their respective areas, and that their input is both welcomed and encouraged.

There are also proposed federal rules that expand target populations to include identifying and engaging the elderly and persons with a disability. It is recommended that these groups be considered relative to this guidance.

It is also important to keep in mind during the public involvement process, that there may be persons with Limited English Proficiency (LEP). Under Executive Order 13166, "Improving Access to Services by Persons with Limited English Proficiency", MDOT is responsible for ensuring that all persons including non-English speaking or individuals with limited English proficiency have equal access to its services and information. The Department must provide resources, such as bilingual interpreters and translated materials for meetings in order to ensure that the information and services are readily available in the languages clearly understood by persons with limited English proficiency.

#### **A. Targeting Low-income and Minority Populations**

The first step in addressing EJ, is to identify the target geographic locations and neighborhoods in which low-income populations and minority populations reside. The identified populations will need to be engaged and involved in the transportation decision-making process. Second, it is important to develop focused advertising, and take meetings to these neighborhoods rather than expect these populations to come to the MPO, local government or state.

After identifying the appropriate neighborhoods to target, it is extremely useful to identify neighborhood leaders or individuals who live and work in these neighborhoods, and who have knowledge of its residents and their respect. Ministers, priests, school and church leaders, local human service providers and business owners who are also residents of the targeted neighborhoods can be "tapped" to help in developing advertising, identifying locations for meetings and even helping to facilitate meetings.

#### **B. Advertising Needs**

Meeting advertising, project flyers, and other project materials need to be free of technical jargon and be written in the language and educational level that is appropriate for the general populations. Creative thinking is helpful in generating interesting slogans or ads that may be of interest to the target populations.

Notifications of meetings, hearings, and public outreach events need to be looked at from the viewpoints of these populations. Notices in local newspapers may meet the letter of the law, but often do not reach the intended audience. Distributing flyers or meeting notices through the appropriate neighborhood shops, churches, at social service agencies, county departments of human services, public health clinics, the bureau of employment services, community centers or organizations may be a better approach. Announcements on ethnic radio stations or neighborhood newsletters should also be considered.

Flyers or postcards are likely to get more attention than standard notices on letterhead. These can be sent to residences and posted in public places and popular meeting places to reach target audiences. Care should be exercised to see that too much text is avoided, and that the written content uses a tone familiar within the community. It may be helpful to have local community leaders review printed materials in advance to see if they feel the approach used will be effective. Also, notices in languages besides English are beneficial.

Word of mouth can be an effective way of generating interest in meetings, by tapping into the networks of respected community leaders and activists.

### **C. Meeting Location Consideration**

Meetings should be held in accessible, neighborhood-based ADA accessible locations. Meetings could possibly be combined with regularly-scheduled meetings of an organization in the community or neighborhood schools; or conducted at places where the target population frequently goes, such as churches, community centers, libraries, or adult education facilities.

Many low-income people are limited in their ability to attend meetings by a lack of transportation and by child care issues. Providing rides to meetings, or locations near public transportation routes and on-site child care can increase attendance.

### **D. Public Interest and Trust**

Sometimes the lack of interest and trust are major hurdles that must be overcome in meetings. Often the sentiment is that transportation officials don't really want to hear what the groups have to say. The implementation of the Transportation Service Centers placed MDOT employees much closer to all customers and is serving to bridge the gap. Transportation people are often perceived as outsiders who have made predetermined decisions. The feeling may be that MDOT and/or other transportation officials conduct meetings to describe a problem the state or a local agency has identified, rather than a problem the community has identified. It is difficult to generate enthusiasm for a project that solves a problem for which the local community feels no ownership.

In some cases, past highway construction and other transportation decisions have resulted in negative effects on low income and minority neighborhoods. Often, the time frames that transportation officials talk about are long term, and the target populations lose interest. These issues will be considered both during the development of the meeting advertising and during the development of the meeting content and format.

## **E. Meeting Accommodations**

It is unusual to find anyone from any population who truly likes to attend meetings. The advertising and location selected should set the tone for the meeting. Attendees should enter the meeting with the feeling that it is worth their time and effort to attend. They should feel they will be a part of a discussion or decision that will directly affect them. They should feel like their ideas will be listened to and valued.

When attendees arrive, it is important to provide a comfortable, inviting atmosphere. If feasible, MDOT or the MPO should use representatives at their meetings, who are culturally, racially, and ethnically compatible with the target populations. Culturally-specific media may also provide a positive assist.

Holding meetings at a variety of times of day and providing food or refreshments make attendance more inviting. Target populations may include senior citizens who may prefer to meet in the daytime, particularly those who have safety concerns about being out after dark. The provision of child care may also be considered.

Some of the attendees may have some apprehension about talking in a large group setting. This potential problem can be overcome by the use of small breakout sessions, facilitated by local community people. Another way to overcome this problem is the use of the open house meeting style where participants may speak one-to-one with the experts and they may visit in anytime during the scheduled period.

Finally, most people look favorably upon brief meetings. It is better to hold several shorter meetings than to turn people off with long sessions.

## **F. Availability of Public Documents**

Documents relative to the transportation plan or project being addressed should be placed in locations convenient and frequented by low income and minority target populations. Community centers, county court houses, recreation centers, libraries or churches are appropriate. Locations should include some that are open after 5:00 p.m. The summary documents should be written briefly in the language and to the educational level that is appropriate for the area population considering the populations that are to be reached by the environmental justice process.

[Page left blank intentionally]

## IV. ANALYSIS PROCESSES

The first step in EJ compliance is to identify the spatial locations of the low income and minority populations. The second step is to evaluate proposed selected projects against possible impact and thirdly, decide on the best strategy possible to maximize involvement. Who should be involved in the decision making process and who will be impacted by the expenditure of federal transportation funds.

### A. Scope of Analysis

An Environmental Justice analysis must include an appropriate geographical area for the project or program activities. All areas that could logically be considered part of the “project impact area” or program should be evaluated. On a project level basis, consideration for EJ analysis does not arise until a need statement has justified the probable implementation of a project. The footprint of this project then becomes the basis for identifying the population that would potentially be affected, and the associated negative effects that could arise. These data, as well as information garnered through the Public Involvement Process (PIP), are then analyzed to see if any disproportionate effect will exist as a result of the proposed action. If such an effect is identified, mitigation steps are incorporated into the implementation plan.

Additionally, the Transportation Improvement Plan (TIP) and the Statewide Transportation Improvement Plan (STIP) presently analyze MDOT and MPO projects to ensure that the benefits of Federal transportation dollars are not disproportionately distributed among the populations existent in the area. MPOs’ long range plans also examine proposed future projects in a similar fashion.

For MDOT, the State Long Range Plan (SLRP) is a broad policy document guiding the implementation of transportation projects in Michigan. There are no projects contained within it. Instead, the SLRP is a series of goals, objectives, and corresponding strategies that the state hopes to accomplish within the time frame of the plan. MDOT has an obligation to ensure that none of the goals or objectives contains an inherent potential for producing a disproportionate effect as implemented.

### B. Definitions

Low income and minority populations are defined by final USDOT Order 5610.2 on Environmental Justice, contained in the Federal Register on April 15, 1997.

**Low-Income** means a person whose median household income is at or below the Department of Health and Human Services poverty guidelines. [See Appendix C]

**Minority** means a person who is: (1) Black (a person having origins in any of the black racial groups of Africa); (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); (3) Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or (4) American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

**Low-Income Population** means any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient Persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity.

**Minority Population** means any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy or activity. It should be noted that the proposed new Federal Rules require expanding the analysis to the persons with a disability and the elderly.

<sup>1</sup>**Elderly** means a person aged 65 or older.

<sup>2</sup>**Persons with a disability** means anyone with a physical or mental impairment substantially limiting one or more major life activities; has a record of such impairment; or is regarded as having such an impairment [ (A) self-care, (B) receptive and expressive language, (C) learning, (D) mobility, (E) self-direction, (F) capacity for independent living, (G) economic self-sufficiency, (H) cognitive functioning, and (I) emotional adjustment.

### **C. Sources and Quality of Data Needed**

MDOT recommends using U.S. Census data to identify low-income and minority populations. The 2000 Census data is recommended as the best available source for demographic data for EJ analysis purposes. FHWA recommends the use of U.S. Census data to identify minority persons or populations, because the data has specific definitions of minority groups and can be useful to determine minority populations, especially in urban areas.

The U.S Census Bureau 2000 demographic statistics divides racial groupings other than “White” into five groupings:

1. Black or African American;
2. American Indian or Alaskan Native;
3. Asian;
4. Native Hawaiian; and
5. Other. This category is predominantly used as identification for people of Hispanic origin.

Understanding the U.S Census Bureau’s definition of racial groupings is imperative to interpreting the final EJ findings and the relative association in the racial groupings as identified in EO 12898. According to the U.S Census Bureau 2000, the following definition shows those indicated categories:

---

<sup>1</sup> Definition from the U.S. Department of Labor

<sup>2</sup> Based on the U.S. Census distribution of population tables

**Black or African American** refers to people having origins in any of the Black racial groups of Africa. It includes people who indicated their race or races as “Black, African American, Negro,” or wrote in entries such as African American, Afro American, Nigerian, or Haitian.

**American Indian or Alaskan Native** refers to people having origins in any of the original peoples of North and South America (including Central America), and who maintain tribal affiliation or community attachment. It includes people who indicated their race or races by marking this category or writing in their principal or enrolled tribe, such as Rosebud, Sioux, Chippewa, or Navajo.

**Asian** refers to people having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent. It includes people who indicated their race or races as “Asian Indian,” “Chinese,” “Filipino,” “Korean,” “Japanese,” “Vietnamese,” or “Other Asian,” or wrote in entries such as Burmese, Hmong, Pakistani or Thai.

**Native Hawaiian and Other Pacific Islander** refer to people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. It includes people who indicated their race or races as “Native Hawaiian”, “Guamanian or Chamorro”, “Samoan”, or “Other Pacific Islander”, or wrote in entries such as Tahitian, Mariana Islander, or Chuukese.

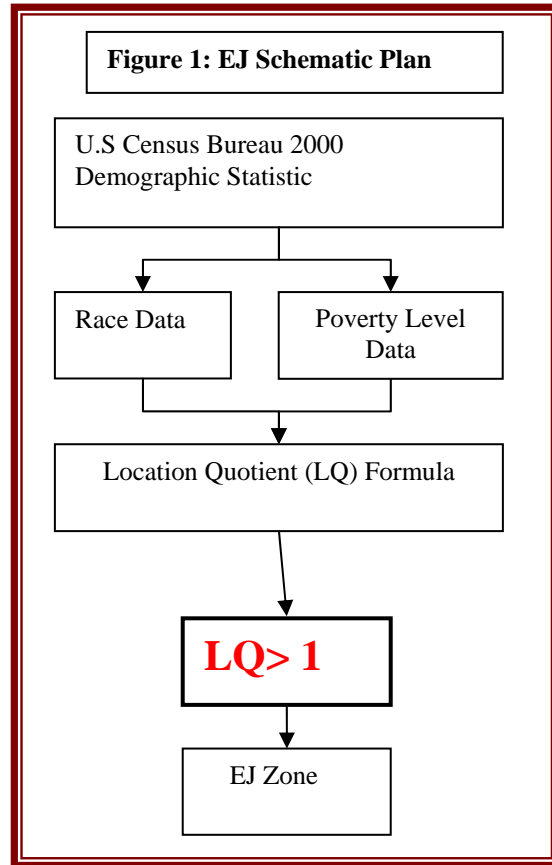
**Other** refers to people who do not identify with the other population groups. This category is predominantly used as identification for people of Hispanic origin. It should be noted that “Other race” in the U.S. Census Bureau 2000 demographic figures is synonymous to the Hispanic population. This term “Other race” and “Hispanic” is thus interchangeably used in this analysis to mean the same group of people.

One other statistic relevant to this analysis is the low-income population group, as specified in EO 12898. As determined in the U.S Census Bureau 2000 statistic, through the Department of Human Services poverty guidelines, the block group statistics for people considered low-income population is captured under the title – Poverty Status in 1999, “Individuals”. This represents the number of people determined to be living below poverty standards in such particular block group. This statistic encompasses people of all races.

#### **D. Identifying Target Populations**

In order to identify Target Populations, MDOT uses the Location quotient (LQ) method. The LQ is an economic based statistical technique used in calculating and comparing the share contribution of an areas local economy to another referenced economy. The LQ method can be defined as a statistical method that strives to show if a local economy has a greater share than expected of a given economy. Using the average of the local economy against the average of the local economy against the average of the larger economy the LQ method marks that extra contribution of such local economy as the additional contribution that such local economy is contributing. In this scenario, the LQ method is used to determine whether or not a particular block group has a greater share of its racial groupings than expected in the state. The minority

or low-income population groups having a greater than one (1) contribution will be recognized as an EJ zone in the state. Figure 1 outlines the schematic process that is used to identify minority or low-income population groups.



The statistical formula of LQ method used for determining EJ zones is as follows:

$$\text{EJ Zone} = \frac{\text{No. of Race in a Block Group}}{\text{Total Pop. in that Block Group}} / \frac{\text{Total No. of that Race in the State}}{\text{Total Pop. in the State}}$$

The method of interpreting the resulting calculated values are as follows:

**LQ < 1.0:** Such block groups are considered Non-EJ zones. This implies that such block groups having values less than one (1) have insufficient racial population in the state and as such will not be considered an EJ zone.

**LQ = 1.0:** Such block groups have populations that are just sufficient for their constituents

**LQ > 1.0:** Places with LQ greater than one (1) provides evidence that these groups have racial populations greater than their expected EJ populations. These block groups would represent the selection set considered being EJ zones.



Appendix A includes examples of calculations used to determine EJ zones as provided in the Michigan Department of Transportation, Statewide Environmental Justice Analysis, Process Development Manual.

The basis for Environmental Justice is disproportionate impact(s) to minority and low-income population groups. Even a very small minority or low-income population in a project (or study) area does not eliminate the possibility of a disproportionately high or adverse effect of a proposed action or project on these populations. It is especially important, in cases where a project impacts a very small number or area of low-income or minority populations, to thoroughly document in both the planning and NEPA processes that:

- Other reasonable alternatives were evaluated and were eliminated for reasons such as the alternatives impacted a far greater number of people or did greater harm to the environment, etc.
- The project's impact is unavoidable,
- The benefits of the project far out-weigh the overall impacts, and
- Identify mitigation measures being taken to reduce the harm to low-income or minority populations.

If it is concluded that no minority and/or low-income population groups are present in the project area, document how the conclusion was reached and indicate this in NEPA document. If it is determined that one or more of these population groups are present in the area, potential disproportionate tests will have to be administered.

[Page left blank intentionally]

## V. DISPROPORTIONATE EFFECTS TESTS

After the target population areas have been identified, the actual EJ analysis or “tests” for disproportionately high and adverse effects and equal benefit should be conducted.

### A. “Disproportionately High and Adverse Human Health or Environmental Effects”

The following definitions are contained in the final US DOT Order on Environmental Justice contained in the Federal Register on April 15, 1997.

**Adverse effects** means the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities.

**Disproportionately high and adverse effect on minority and low- income populations** means an adverse effect that: (1) is predominately borne by a minority population and/or a low-income population, or (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

### B. Equal Benefit

The October 1, 1999, US DOT letter clarifying EJ states that Executive Order 12898 also applies to the need to demonstrate equal benefit from transportation investments. MDOT's EJ tests and analysis is captured in every STIP year analysis where maps are generated to show project locations as identified in the Five Year Plan. Positive benefits are expressed in the number of transportation related projects implemented and the cost ratio benefit for EJ and non EJ areas of Michigan.

### C. Alternative Impacts and Assessment

Identifying objective methods to evaluate potential economic, social, and environmental impacts of transportation system changes on a target population is an imposing task. It is important to have a strategy in place that will improve the environment and public health and safety in the transportation of people and goods, and the development and maintenance of transportation systems and services. We need to make sure that transportation policies and investments mesh with environmental concerns. In addition the interests, issues, and contributions of

affected communities must be taken into consideration, and communities are given the opportunity to be involved in the decision-making process.

When evaluating adverse impact or proportionate benefits, two questions must be addressed:

- What types of impacts should be identified and evaluated, and
- How can the positive and negative impacts be “tested” quantitatively or subjectively?

Impacts contained in the Executive Order that are to be evaluated include the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to those effects identified in Section A, above.

Some of these impacts can be quantified in measurable units, such as residential displacements, business and farm displacements, change in travel times between origins and destinations, air quality changes and noise increases. Other impacts are not easy to quantify. These impacts, such as feelings of anxiety due to separation and isolation, destruction of aesthetic value, decreased land value projections, and adverse employment will have to be evaluated based on qualitative standards. They will require subjective analysis by staff and discussion during the public involvement process. Some impacts will require both types of evaluation.

A list of the impacts, and possible measures or questions that can be used in evaluating disproportionate impacts and equal benefits is provided in Appendix B, Alternative Impacts Assessment. It is not necessary to collect new data for every plan or project if the data in the models is current. This will allow for the comparison of changes based on Geographic Analysis Areas (such as block group).

What is important in conducting the above analysis is that the impacts have been discussed and evaluated, even at a subjective level; that something of a “balance sheet” is prepared; and that the issues are presented through the public involvement process to the target area population for their comment and suggestions for evaluation and mitigation.

## **VI. INCORPORATING EJ INTO TRANSPORTATION PLANNING AND ENVIRONMENTAL PROCESSES**

As stated, the EJ process is not intended as a new or separate process to be conducted by the State, local governments or MPOs. It is an analysis and process that should be incorporated into all current planning, environmental, Local Public Agency project (LPA), public transportation, and project development policies, procedures, and processes. All state and MPO written and formal policies and processes need to add a statement recognizing and acknowledging the need to address EJ as part of their policies and processes. Documentation of EJ compliance should be conducted at all levels.

### **A. MPOs**

MPOs should review the actions, analysis and processes which are used to develop their long range plan, Transportation Improvement Program (TIP), and individual transportation projects. MPOs who work with local transit agencies to develop Transit Development plans, should work with their transit agencies to help them incorporate EJ into their policies and processes. All processes should be adjusted to incorporate the principles presented in this guidance document. It is expected that each MPO will need to adapt this guidance for their particular region, the basic principles from this guidance should be followed. These include:

- identifying target populations,
- evaluating proposed project list against target populations,
- conducting tests for disproportionate impacts, and
- developing a public involvement process designed to fully engage low income and minority populations.

All actions and activities relative to EJ should be well documented. This may include, but is not limited to:

#### ***Long range transportation planning process:***

- As part of the planning analysis, conduct regional demographic analyses that identify locations of low income and minority populations. Expand this demographic analysis to identify concentrations of the elderly, persons with a disability, and populations without access to private automobiles.
- Expanding and adapting public involvement activities to reach out to and include these populations.
- During the alternatives evaluation process, include EJ into the analyses for each alternative being considered.
- When the final plans are drafted and projects and policies identified, conduct an EJ analysis of the impact of them individually (NEPA process) and as a whole.

#### ***Transportation Improvement Program (TIP):***

- Apply the demographic findings to the Traffic Analysis Zones (TAZ) in the MPO models.
- Use transportation models to analyze the impacts (such as changes in travel time) to target populations.

***Individual Transportation Projects:***

- Follow the principles in this guidance and incorporate them into the project development and environmental analysis processes for the project.

***Public Transportation Planning:***

- Work with the local transit agencies and the MDOT Bureau of Urban and Public Transportation to explain and incorporate the principles in this guidance to their planning processes and proposed routes.

***Local Public Agency Projects:***

- Work with the local government agency managing the project and the MDOT Local Assistance Section to explain and incorporate the principles in this guidance to their project development processes. Document all activities relative to EJ.

All actions, analysis, and public involvement activities relative to EJ should be well documented by the MPO for both the planning and environmental processes. Documentation is critical to the long term ability of the MPO to demonstrate compliance should any questions arise in the future. Documentation should also include the evaluation of all possible alternatives for a project, actions considered and taken to avoid, minimize, mitigate, or enhance the disproportionate impacts and enhance the potential benefits.

**B. MDOT**

MDOT compliance with and responsibility for EJ is broader than that of the MPOs. In addition, to incorporating EJ into its planning and project transportation development processes and conducting an EJ analysis of the STIP, MDOT coordinates the distribution of this guidance, inform, advise, and provide educational opportunities for the MPOs, local governments, and all MDOT staff about EJ. MDOT Planning works with the MPOs and other local government entities to facilitate the development and distribution of a statewide demographic analysis of target populations throughout the state.

MDOT has strived to formally incorporate EJ principles and the actions recommended in this guidance into its planning and project/transportation development processes. At a minimum a reference to EJ or a cross reference to this guidance maybe written into all state planning, project development, environmental, NEPA, transit planning, and LPA processes. MDOT staff responsible for these processes will need to incorporate EJ into their activities and document the processes. Processes needing to address and incorporate EJ include:

- Long Range Plan Development Process
- STIP Development Process
- Project Planning Process
- Project Development Process
- Transit Planning
- Local Public Agency Process

## Appendix A

### SAMPLE CALCULATIONS OF THE LOCATION QUOTIENT INDEX

The following calculations show the process used in arriving at the final calculation.

#### **BLACK**

$$\text{Block Group ratio} = \frac{\text{No. of Blacks in Block Group}}{\text{Total No. of Population in Block Group}} = \frac{4}{753} = 0.0053$$

$$\text{State ratio for Blacks} = \frac{\text{Total No. of Blacks in Michigan}}{\text{Total No. of Population in Michigan}} = \frac{1412742}{9883183} = 0.1429$$

$$\text{LQ (for this particular Block Group)} = \frac{0.0053}{0.1429} = 0.0370 \text{ (Is less than 1- Non EJ)} \quad 0.1429$$

#### **AMERICAN INDIAN & ALASKAN NATIVE**

$$\text{Block Group ratio} = \frac{\text{No. of American Indian in Block Group}}{\text{Total No. of Population in Block Group}} = \frac{9}{1042} = 0.0086$$

$$\text{State ratio for American Indian} = \frac{\text{Total No. of American Indian in Michigan}}{\text{Total No. of Population in Michigan}} = \frac{58479}{9883183} = 0.0059$$

$$\text{LQ (for this particular Block Group)} = \frac{0.0086}{0.0059} = 1.4576 \text{ (Is greater than 1- EJ zone)} \quad 0.0059$$

#### **ASIAN & HAWAIIAN** (these population groups were combined under EO 12898)

$$\text{Block Group ratio} = \frac{\text{No. of Asian + Hawaiian in Block Group}}{\text{Total No. of Population in Block Group}} = \frac{4+1}{1042} = 0.0048$$

$$\text{State ratio for Asians} = \frac{\text{Total No. of Asian \& Hawaiian in Michigan}}{\text{Total No. of Population in Michigan}} = \frac{179202}{9883183} = 0.0181$$

$$\text{LQ (for this particular Block Group)} = \frac{0.0048}{0.0181} = 0.265 = 0.2134 \text{ (Is less than 1- Non EJ zone)}$$

#### **HISPANIC**

$$\text{Block Group ratio} = \frac{\text{No. of Hispanic in Block Group}}{\text{Total No. of Population in Block Group}} = \frac{11}{954} = 0.0115$$

$$\text{State ratio for Blacks} = \frac{\text{Total No. of Hispanic in Michigan}}{\text{Total No. of Population in Michigan}} = \frac{129552}{9883183} = 0.0131$$

$$\text{LQ (for this particular Block Group)} = \frac{0.0115}{0.0131} = 0.087 \text{ (Is less than 1- Non EJ zone)} \quad 0.0131$$

## LOW-INCOME POPULATION

Low-income Block Group ratio=

$$\frac{\text{No. Below Poverty Level: Individual in Block Group}}{\text{Total No. of Poverty Stat Determined Individual in Block Group}} = \frac{78}{918} = 0.0849$$

Low-income State ratio =

$$\frac{\text{Total No. of Below Poverty Level: Individual in Block Group}}{\text{Total Population of Poverty Stat Determined Individual in Michigan}} = \frac{1021605}{9700622} = 0.1053$$

LQ (for this particular Block Group)=0.0849=0.80 (Is less than 1- Non EJ zone) 0.1053



## APPENDIX B

### Alternative Impacts Assessment

This appendix is provided to assist the project manager with a method to conduct an impact assessment for projects within their program areas or plans.

**Step One:** Determine if a minority or low-income population is present within the project area. (Follow the steps outlined in Figure 1 – EJ Process Schematic Plan). If the conclusion is that no minority and/or low-income population is present within the project area, document how the conclusion was reached and indicate this in the project NEPA document (Categorical Exclusion, Environmental Assessment, or Environmental Impact Statement). If the conclusion is that there are minority population groups and/or low-income population groups present, proceed to Step Two.

**Step Two:** Determine whether project impacts associated with the identified low-income and minority populations are disproportionately high and adverse. The questions are to be dealt with in this order:

**Question 1:** Is the anticipated adverse impact high? Any impact which exceeds a state or federal standard should be considered high. If an impact is determined to be "significant" per NEPA, it would also be considered high. In some areas there may be quantitative standards to draw upon, e.g., noise, air quality, water quality, contamination, etc. In other impact areas, the decision will be based on qualitative standards. A public involvement effort will often be necessary to address qualitative impacts thoroughly.

**Question 2:** Is the high and adverse impact anticipated to fall disproportionately on a low-income or minority population?

Both questions need to be answered to determine whether there maybe disproportionate impacts. The first question is whether the overall adverse impact is predominantly borne by the minority or low-income group? If the answer is "NO", then the impact may not be disproportionate in nature. The second question is whether the adverse effect is "appreciably more severe" than that experienced by non-minority or non-low-income persons." (See potential impacts and questions.) If it is determined that there are disproportionately high and adverse impacts to minority and low-income populations, proceed to Step Three.

*When an adverse effect will be experienced by a low income or minority population, the second question is will the effect experienced by either of these groups be "appreciably more severe" than that experienced by non-minority or non-low-income persons? If the project is similar in its design, comparative impacts, and the relevant number of similar existing system elements in non-minority and non-low-income areas, the project may not reach the disproportionately high and adverse standard. That is, if the proposed facility is similar to that used in many other locations throughout the state or region, and there are non-minority or non-low-income populations who have been affected in a similar manner in these locations, then the adverse impact resulting from the proposed action may not reach the high adverse and disproportionate*

**Step Three:** Propose measures that will avoid, minimize, and/or mitigate disproportionately high and adverse impacts, and provide offsetting benefits and opportunities to enhance communities, neighborhoods, and individuals affected by the proposed project.

**Step Four:** If after mitigation, enhancements, and off-setting benefits to the affected populations, there remains a high and disproportionate adverse impact to minority or low-income populations, then the following questions must be considered:

- Question 1: Are there further mitigation measures that could be employed to avoid or reduce the adverse effect to the minority or low-income population? If further mitigation measures exist, then those measures must be employed unless they are "not practicable."
- Question 2: Are there other additional alternatives to the proposed action that would avoid or reduce the impacts to the low income or minority population? If such an alternative exists, and it is "practicable", then that alternative must be selected. If further mitigation or alternatives that avoid the impact are judged to be not practicable, that conclusion must be documented, supported by evidence, and included in the NEPA document.
- Question 3: Considering the overall public interest, is there a substantial need for the project?
- Question 4: Will the alternatives that would still satisfy the need for the project and has less impact on protected populations (a) have other social, economic, or environmental impacts that are more severe than those of the proposed action, or (b) have increased costs of extraordinary magnitude.

**Step Five:** Include all findings, determinations, or demonstrations in the environmental document prepared for the project.

**Possible sources of information or other assistance to help determine if a low income or minority population is present in the project area.**

1. Examine census information, at the lowest level of aggregation available for the project area.
2. Contact Tribal Governments in the project area.
3. Identify organized groups who may reside in the project area. This may involve contacting places of worship, or initiating contact with various state councils.
4. Contact relevant city or county officials. This may include a city administrator, city or county planner.
5. Contact various state agencies.
6. Contact appropriate federal agencies. This may include Housing and Urban Development, Bureau of Indian Affairs, and others.
7. Contact the appropriate Metropolitan Planning Organization (MPO) or Regional Development Commission.
8. Talk directly to people who live in and near the project area.
9. Undertake direct observation –walk or drive through the project area (scoping process).
10. Other measures as appropriate.

The following variables help to scale the impacts in the table.

1. Current measure or value in region or state
2. Altered measure or value in region or state
3. Positive Impact / Benefit to region or state
4. Adverse impact to region or state
5. Current measure or value w/in Target Population or Area
6. Altered measure or value w/in Target Population or Area
7. Positive Impact /Benefit to Target Population or Area
8. Adverse Impact to Target Population or Area
9. Short term impact
10. Long term impact

The following table contains a list of potential impacts and questions that one might ask as part of any EJ evaluation.

	<b>IMPACT</b>	<b>Questions</b>
1	Pedestrian Accessibility	<p>How will the traffic speed within the target area change?</p> <p>How will traffic volumes change?</p> <p>Is there a change in traffic type or volume on local (target area) streets?</p> <p>Will there be a change in the relative safety in the target area for pedestrians, bicyclists, motorists?</p> <p>Will the safe and easy access to community or regional resources (shopping, bus stops, schools, etc) be changed?</p>
2	Air, Noise, and Water Pollution and Soil Contamination	<p>Will the traffic noise level change?</p> <p>Will the traffic induced air quality increase?</p> <p>Will local waters and soil contamination levels change?</p> <p>Will the overall air, water, and noise quality of the target area change?</p>
3	Destruction or Disruption of Man-made or Natural Resources	<p>Will the number of trees and other plants change?</p> <p>Will waterways such as streams and brooks change?</p> <p>Will the number or size of parks, parkland or outdoor recreational opportunities change?</p> <p>Will the changes provide overall improvement or harm to the natural and man-made resources?</p>
4	Destruction or Diminution of Aesthetic Values	<p>Will any public art or statutes be added, moved or removed?</p> <p>What percentage of project costs are being spent on enhancements?</p> <p>Will the amount of open space change?</p> <p>Is the improvement attractive?</p> <p>Will the view or vista change?</p>

5	Destruction or Disruption of Community Cohesion	<p>Will the man-made dividers, (such as an overpass, bridge, 4 lane or greater roadway or rail tracks) be constructed through a portion of an existing community and cause it to be segmented?</p> <p>Is the proposed project or plan perceived to significantly benefit one portion of existing neighborhoods and significantly harm another portion of the same neighborhoods?</p>
6	Destruction or Disruption of a Community's Economic Vitality	<p>Will the number of locally owned businesses in the target area change?</p> <p>Will the total number businesses in the target area change?</p> <p>Will the financial investment benefit the target area's population?</p> <p>Will property owners land value change?</p> <p>Will the number of jobs available in the target area change?</p>
7	Destruction or Disruption of the Availability of Public and Private Facilities and Services	<p>Will the time to travel to public and private facilities and services (such as schools, medical facilities, shopping, community centers, libraries, etc. change?</p> <p>Will there be a change in the number and type of impediments to access public and private facilities (such as more or wider roadways to cross, additional bus transfers, increased distance to them)?</p> <p>Will the number or location of public or private facilities be changed?</p>
8	Vibration	<p>Will vibration levels caused by increased traffic or transit improvements change?</p> <p>Will vibration levels caused by increased traffic or transit improvements change?</p>
9	Adverse Employment Effects	<p>Will time to travel to jobs throughout the regional area change?</p> <p>Will time to travel to jobs within the target area change?</p> <p>Will the number of jobs change (How many jobs within the target area vs. regional area or state will be lost / gained?)</p> <p>Will the type of jobs available within the target area change?</p> <p>Will the target area become a more attractive place for employers to locate their facilities?</p>

10	Displacement of Persons, Businesses, Farms, or Nonprofit Organizations	<p>How many target vs non-target population persons will be displaced?</p> <p>How many target vs non-target population businesses will be displaced?</p> <p>How many target vs non-target population farms will be displaced?</p> <p>How many target vs non-target population non-profit corporations will be displaced?</p> <p>Will an alternative project location or project approach (which meets the project or plan's purpose and need) displaced fewer target vs non-target population persons, businesses, farms or non-profit corporations?</p>
11	Increased Traffic Congestion	Will traffic congestion levels change?
12	Isolation	<p>Will access roadways into and out of the target area become dead ends or be cut-off?</p> <p>Will roadways, bridges and other traffic improvements be constructed to surround the target area and create the feeling of an isolated "island"?</p>
13	Exclusion or Separation of Minority or Low-income Individuals Within a Given Community or from the Broader Community	<p>Will the transportation changes result in increased travel time from the target area to community resources such as schools, churches, shopping, jobs, recreational facilities, etc.</p> <p>Will the transportation improvements increase the feeling of exclusion or alienation between the target populations and the broader region or state?</p>
14	The Denial Of, Reduction In, or Significant Delay in The Receipt Of, Benefits	<p>Will access to or use of the transportation improvement be denied to any low income or minority population or groups (for reasons such as cost to use, ability to access, etc.)?</p> <p>Will access to or use of the transportation improvement be denied or more difficult to access based on its location?</p> <p>Will the overall benefits and improvements being proposed by the plan or project be available to the same level and within the same basic time frame to the target population as it will to the broader community, region, or state?</p>

## APPENDIX C

### Questions and Answers on Environmental Justice and Title VI

The following Questions and Answers below were taken from the Federal Highway Administration website ([www.fhwa.dot.gov/environment/ejustice/facts/index.htm](http://www.fhwa.dot.gov/environment/ejustice/facts/index.htm))

#### 1. What are the fundamental concepts of Environmental Justice?

There are three fundamental Environmental Justice principles:

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

#### 2. Is Environmental Justice a new requirement?

No. The recipients of Federal-aid have been required to submit assurances of compliance with, and the U.S. DOT must ensure nondiscrimination under, Title VI of the Civil Rights Act of 1964 and many other laws, regulations, and policies. In 1997, the Department issued its U.S. DOT Order to Address Environmental Justice in Minority Populations and Low-Income Populations to summarize and expand upon the requirements of Executive Order 12898 on Environmental Justice.

#### 3. What is the legal basis for addressing the concerns of low-income populations?

The Department's planning regulations (23 C.F.R. 450) require metropolitan planning organizations (MPOs) and States to "seek out and consider the needs of those traditionally underserved by existing transportation systems, including, but not limited to, low-income and minority households." As required by NEPA and 23 U.S.C. 109(h), impacts on all communities including low-income communities must be routinely identified and addressed.

#### 4. What is Title VI of the Civil Rights Act of 1964?

Title VI declares it to be the policy of the United States that discrimination on the ground of race, color, or national origin shall not occur in connection with programs and activities receiving Federal financial assistance, and authorizes and directs the involved Federal departments and agencies to take action to carry out this policy. Title VI prohibits discrimination: whether --intentional or where the unintended effect is unduly burdensome.

**5. What is the relationship between the U.S. DOT Order on Environmental Justice and Title VI?**

The U.S. DOT Order clarifies and reinforces Title VI responsibilities as well as addresses effects on low-income populations. The goal of the U.S. DOT Order is to ensure that programs, policies, and other activities do not have a disproportionately high and adverse effect on minority or low-income populations. This goal is to be achieved, in part, by implementing both Title VI and NEPA during the development and implementation of transportation activities.

**6. What types of activities require Title VI and Environmental Justice considerations?**

Title VI and environmental justice apply to all U.S. DOT programs, policies, and activities, including, but not limited to: contracting, system planning, project development, implementation, operation, monitoring, and maintenance.

**7. How early can issues which give rise to Title VI/ Environmental Justice concerns be addressed?**

At the start of the planning process, planners must determine whether Environmental Justice issues exist and use data and other information to: (1) determine benefits to and potential negative impacts on minority populations and low-income populations from proposed investments or actions; (2) quantify expected effects (total, positive and negative) and disproportionately high and adverse effects on minority populations and low-income populations; and (3) determine the appropriate course of action, whether avoidance, minimization, or mitigation. If issues are not addressed at the planning stage, they may arise during project development, or later when they could be more difficult to mitigate and delay project decisions.

Environmental Justice is an important part of the planning process and must be considered in all phases of planning. This includes all public-involvement plans and activities, the development of Regional Transportation Plans [In Michigan they are commonly known as the Metropolitan Planning Organizations Transportation Long Range Plan], Transportation Improvement Programs (TIP's), Statewide Transportation Improvement Programs (STIP's), and work programs (such as the Unified Planning Work Programs (UWP's). A truly integrated and effective planning process actively considers and promotes environmental justice within projects and groups of projects, across the total plan, and in policy decisions.

**8. Must Title VI and Environmental Justice be considered ONLY on projects requiring an Environmental Impact Statement (EIS)?**

No. Title VI and Environmental Justice applies to all planning and project development programs, policies and activities. In project development, environmental justice should be considered in all decisions whether they are processed with an Environmental Impact Statements (EIS's), Environmental Assessments (EA's), Categorical Exclusions (CE's), or Records of Decision (ROD's). Potential impacts to the human environment should drive the processing option decision as much as potential impacts



to the natural environment. Impacts to both the natural and human environment are to be given comparable consideration throughout transportation decision making.

At the scoping stage in the NEPA process, which provides early identification of public and agency issues, there should be adequate consideration of Title VI and environmental justice. Minority and low-income populations should be identified as early as possible and their concerns should be examined and addressed, preferably in planning. Because the nondiscrimination requirements of Title VI extend to all programs and activities of State DOTs and their respective sub-recipients and contractors, the concepts of Environmental Justice apply to all State projects, including those which do not involve Federal-aid funds, whether Advance Construction, Design Build, or not.

Communities are constantly changing, so evaluation of human impacts must be given continuous attention throughout planning, project development, implementation, operation, and maintenance. Mitigation of any sort can cause negative as well as positive impacts. Be aware of who is being impacted and how.

**9. Do all impacts have to be evaluated for Title VI and Environmental Justice, or just health and environmental impacts?**

All reasonably foreseeable adverse social, economic, and environmental effects on minority populations and low-income populations must be identified and addressed. As defined in the Appendix of the USDOT Order, adverse effects include, but are not limited to:

- Bodily impairment, infirmity, illness, or death.
- Air, noise, and water pollution and soil contamination.
- Destruction or disruption of man-made or natural resources.
- Destruction or diminution of aesthetic values.
- Destruction or disruption of community cohesion or a community's economic vitality.
- Destruction or disruption of the availability of public and private facilities and services.
- Vibration.
- Adverse employment effects.
- Displacement of persons, businesses, farms, or nonprofit organizations.
- Increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community.
- The denial of, reduction in, or significant delay in the receipt of, benefits of DOT programs, policies, or activities.

**10. Who is considered to be a "Minority" for purposes of Title VI and Environmental Justice?**

The U.S. DOT Order (5610.2) on Environmental Justice defines "Minority" in the Definitions section of the Appendix, and provides clear definitions of the four (4) minority groups addressed by the Executive Order. These groups are:

1. Black (a person having origins in any of the black racial groups of Africa).
2. Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).
3. Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands).
4. American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition).

**11. What is considered "Low-Income" for purposes of Environmental Justice?**

The FHWA Order defines "low-income" as "a person whose household income is at or below the Department of Health and Human Services poverty guidelines." The Department of Health and Human Services (HHS) poverty guidelines are used as eligibility criteria for the Community Services Block Grant Program and a number of other Federal programs. However, a State or locality may adopt a higher threshold for low-income as long as the higher threshold is not selectively implemented and is inclusive of all persons at or below the HHS poverty guidelines. The most current HHS poverty guidelines can be found at HHS's website:

<http://aspe.hhs.gov/poverty/figures-fed-reg.shtml>

**12. Can the determinations and discussions of minority and low-income be combined?**

The two terms "minority" and "low-income" should not presumptively be combined. There are minority populations of all income levels; and low-income populations may be minority, non-minority, or a mix in a given area. As the definition of minority indicates, even minority populations can be of several categories. When such distinctions exist, appropriate assessment, discussion, and consideration should be provided using appropriate and accurate descriptors. Within documentation, an Environmental Justice discussion may appear either with discussion of other demographic information (other protected-group and general area information), assessment, and consideration, or as a separate discussion. As in any public document, specific information about any one individual or any very small group should not appear in the document to protect privacy; however, backup data should appear in the files. Descriptions in such documents should be statistical, group, or location-based.

**13. Should discussions about populations, such as the elderly, children, or the disabled be included when addressing Environmental Justice and Title VI?**

Yes. Within the framework provided by Executive Order 12898 on Environmental Justice, the U.S. DOT Order (5610.2) addresses only minority populations and low-income populations, and does not provide for separate consideration of elderly, children, disabled, and other populations. However, concentrations of the elderly, children, disabled, and other populations protected by Title VI and related

nondiscrimination statutes in a specific area or any low-income group ought to be discussed. If they are described as low-income or minority, the basis for this should be documented.

For community impact assessment, concentrations of the elderly, children, the disabled, or similar population groups (i.e., female head of household) could also experience adverse impacts as the result of an action. All impacts on sectors of the community, including minority and low-income populations as well as impacts on the community as a whole, should be routinely investigated, analyzed, mitigated, and considered during decision making, similar to investigations of impacts on minority populations and low-income populations. All NEPA processing documentation should address all impacts (to the human and natural environments), and describe any mitigating protections or benefits that would be provided by Federal or State law, or as part of the action. In particular, the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101 et seq.), prohibits discrimination on the basis of age in programs receiving Federal financial assistance while persons with a disability are protected by Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794 and 49 C.F.R. Part 27.7).

#### **14. How can minority populations be determined for a given area?**

U.S. Census data has specific definitions of minority groups and can be useful for determining minority populations. Census data is available at the census tract, census block, and block group level. Explanation of how these classifications are defined can be found in U.S. Census publications on social, economic, and housing characteristics, under "Area Classifications," and at <http://www.census.gov>. The U.S. Census data also includes economic census data and TIGER (Topologically Integrated Geographic Encoding and Referencing) files, which are a digital database that can be used with mapping or Geographic Information System (GIS) software to show geographic distribution of populations and other census data. The types of data sets and resources available from the U.S. Census Bureau are summarized on their website at <http://www.census.gov/geo/www/index.html>.

Other data can supplement U.S. Census data, if it has a sound basis and gives an accurate assessment of income levels. In some instances, population characteristics can be derived from information available from MPOs, councils of government, and city or county agencies. Other local sources of information include State and local tax and financing agencies, economic and job development agencies, social service agencies, local health organizations, school districts, local public agencies, and community action agencies. Whatever is used for income, the source and basis of the information and what it represents should be identified. It is recommended that each situation be evaluated in context.

However, State and local data sets may prove more useful for developing up-to-date profiles of minority populations. Analysts should be resourceful in seeking out supplemental sources of information. Some of this information, however, may vary widely in quality, level of specificity, and format. Therefore, it is important when collecting information that analysts recognize when the data was collected, the data sources used, and the reliability of the data. The FHWA's 1996 publication, *Community Impact Assessment: A Quick Reference for Transportation*, identifies potential sources

of information that can be used to develop community profiles. The guide is available by calling FHWA Headquarters at (202) 366-0106.

No matter the source, analysts should use the most up-to-date data available, understand the basic assumptions used in each compilation, and recognize the purposes for which data were originally collected.

**15. How large must the minority or low-income population be to consider Environmental Justice?**

Disproportionately high and adverse effects, not size, are the bases for Environmental Justice. A very small minority or low-income population in the project, study, or planning area does not eliminate the possibility of a disproportionately high and adverse effect on these populations. What is needed is to show the comparative effects on these populations in relation to either non-minority or higher income populations, as appropriate.

Some people wrongly suggest that if minority or low-income populations are small ("statistically insignificant"), this means there is no environmental justice consideration. While the minority or low-income population in an area may be small, this does not eliminate the possibility of a disproportionately high and adverse effect of a proposed action. Environmental Justice determinations are made based on effects, not population size. It is important to consider the comparative impact of an action among different population groups.

**16. Must there be a neighborhood or community of minority, or low-income groups in order for there to be a Title VI and Environmental Justice effect?**

No. The Executive Order 12898 on Environmental Justice and the DOT Order (5610.2) on Environmental Justice refer exclusively to "populations," while the White House distribution memo refers to both "communities" and "populations." The DOT Order defines each "population" as: (1) any readily identifiable group of minority persons or low-income persons who live in geographic proximity; or (2) geographically dispersed persons, such as migrant workers or Native Americans. Therefore, depending on the context and circumstances, a proposed action could cause a disproportionately high and adverse effect on a population even in cases where there are no clearly delineated neighborhoods or communities.

Neighborhood and community boundaries and impacts, however, should be considered in planning, programming, and project development activities, whether there are minority or low-income populations involved or not. Most importantly, the public should always be involved in defining "neighborhood" and "community" through the public-involvement process, since the identification or definition of neighborhood and community boundaries can be subjective.

**17. How should Environmental Justice be addressed in the planning process?**

Environmental Justice must be considered in all phases of planning. Although Environmental Justice concerns are frequently raised during project development, Title VI applies equally to the plans, programs, and activities of planning.

On October 7, 1999, FHWA and FTA issued a memorandum to their respective field administrative offices clarifying Title VI requirements in metropolitan and statewide planning. The memorandum . . . provides technical assistance for three key areas of planning: (1) provides questions and concerns to raise during annual self-certification of compliance with Title VI, metropolitan planning certification reviews in Transportation Management Areas (TMAs), and statewide planning findings; (2) provides questions and concerns to raise while reviewing public-involvement efforts regarding the engagement of minority populations and low-income populations; and (3) encourages and State Planning and Research to begin developing or enhancing technical capability for assessing impact distributions among populations.

**18. How should Environmental Justice be addressed in the NEPA process?**

Environmental Justice should be considered and addressed in all NEPA decision making and appropriately documented in Environmental Impact Statements, Environmental Assessments, Categorical Exclusions, or Records of Decision. The Executive Order and the accompanying Presidential Memorandum call for specific actions to be directed in NEPA-related activities. They include:

- Analyzing environmental effects, including human health, economic, and social effects on minority populations and low-income populations when such analysis is required by NEPA;
- Ensuring that mitigation measures outlined or analyzed in EA's, EIS's, and ROD's, whenever feasible, address disproportionately high and adverse environmental effects or proposed actions on minority populations and low-income populations;
- Providing opportunities for community input in the FHWA NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving accessibility to public meetings, official documents, and notices to affected communities; and
- In reviewing other agencies' proposed actions under Section 309 of the Clean Air Act, EPA must ensure that the agencies have fully analyzed environmental effects on minority communities and low-income communities, including human health, social, and economic effects.

**19. What role does Public Involvement play in the consideration of Environmental Justice?**

Public involvement is an integral part of transportation planning and project development decision making. The DOT Order (5610.2) on Environmental Justice directs the Department to provide minority populations and low-income populations greater access to information on, and opportunities for public participation in matters

that may impact human health and the environment. TEA-21 also emphasizes the meaningful involvement by all the public in transportation decision making.

Effective public involvement in the planning process and the project-development process can alert State and local agencies about environmental justice concerns so that they do not result in surprises during the project-development stage. Continuous interaction between community members and transportation professionals is critical to successfully identify and resolve potential Environmental Justice concerns.

State, regional, local, and tribal agencies should all have public-involvement procedures established that provide for consideration of Environmental Justice. These procedures should provide an inclusive, representative, and equal opportunity for two-way communication resulting in appropriate action that reflects this public involvement. Environmental Justice should be considered in all aspects of planning and project decision making, including the design of both the public-involvement plan and the proposed facility.

**20. What role does community impact assessment play in Environmental Justice?**

The DOT Order (5610.2) on Environmental Justice asks whether a proposed action or plan causes disproportionately high and adverse effects on minority populations and low-income populations, and whether these populations are denied benefits. A framework of analysis that can determine how a proposed action or plan could differentially impact different populations is required. Community impact assessment can provide this framework.

Like public involvement, community impact assessment is an integral part of planning and project development. Community impact assessment is a process to evaluate the effects of a transportation action on a community and its quality of life. Its information should be used to mold the plan and its projects, and provide documentation of the current and anticipated social and economic environment of a geographic area with and without the proposed action. The assessment process is comprised of the following steps: (1) define the project, study, and planning area; (2) develop a community profile; (3) analyze impacts; (4) identify solutions; (5) use public involvement; and (6) document findings. These steps are elaborated on in FHWA's Community Impact Assessment: A Quick Reference for Transportation, and its companion document, Community Impact Mitigation: Case Studies, published in 1998.

**21. What technical assistance or resources are available on Environmental Justice?**

FHWA's website at [www.fhwa.dot.gov/environment/ej2.htm](http://www.fhwa.dot.gov/environment/ej2.htm) provides a summary of the DOT Order and the FHWA Order, as well as a list of available technical assistance, resources, and contacts on Environmental Justice and Title VI. The "Overview of Transportation and Environmental Justice" brochure has been developed and provides a cogent summary of Environmental Justice, in a single, easy-to-read format. The brochure explains what Environmental Justice is and discusses how transportation partners including the public can support and integrate Environmental Justice and Title VI in transportation decision making. Upcoming products to be developed include case studies and effective practices and will appear on this site.

## APPENDIX D

2010 HHS Poverty Guidelines for the 48 Contiguous States and the District of Columbia \*

Size of family unit	Poverty guideline
1.....	\$10,830
2.....	14,570
3.....	18,310
4.....	22,050
5.....	25,790
6.....	29,530
7.....	33,270
8.....	37,010

For family units with more than 8 members, add \$3,740 for each additional member. (The same increment applies to smaller family sizes also, as can be seen in the figures above.)

Source: *Federal Register*, August 3, 2010.