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Chapter 16
ENVIRONMENTAL JUSTICE

16.1 ENVIRONMENTAL JUSTICE OVERVIEW

Environmental Justice (EJ) is grounded in the practice of making sure that both benefits and burdens of transportation investments are shared as equitably as possible among all affected communities. Effective and equitable transportation decision-making depends on understanding and properly addressing the unique needs and different socio-economic groups. Key legislation for promoting equitable treatment of all people was catalyzed with the Civil Rights Act of 1964-Title VI, which prohibits discriminatory practices in programs receiving Federal funds. The National Environmental Policy Act (NEPA) of 1969 requires Federal agencies to analyze the effects of proposed actions that significantly impact the quality of the human and natural environment. See Basic Environmental Justice Process, Figure 16-A.

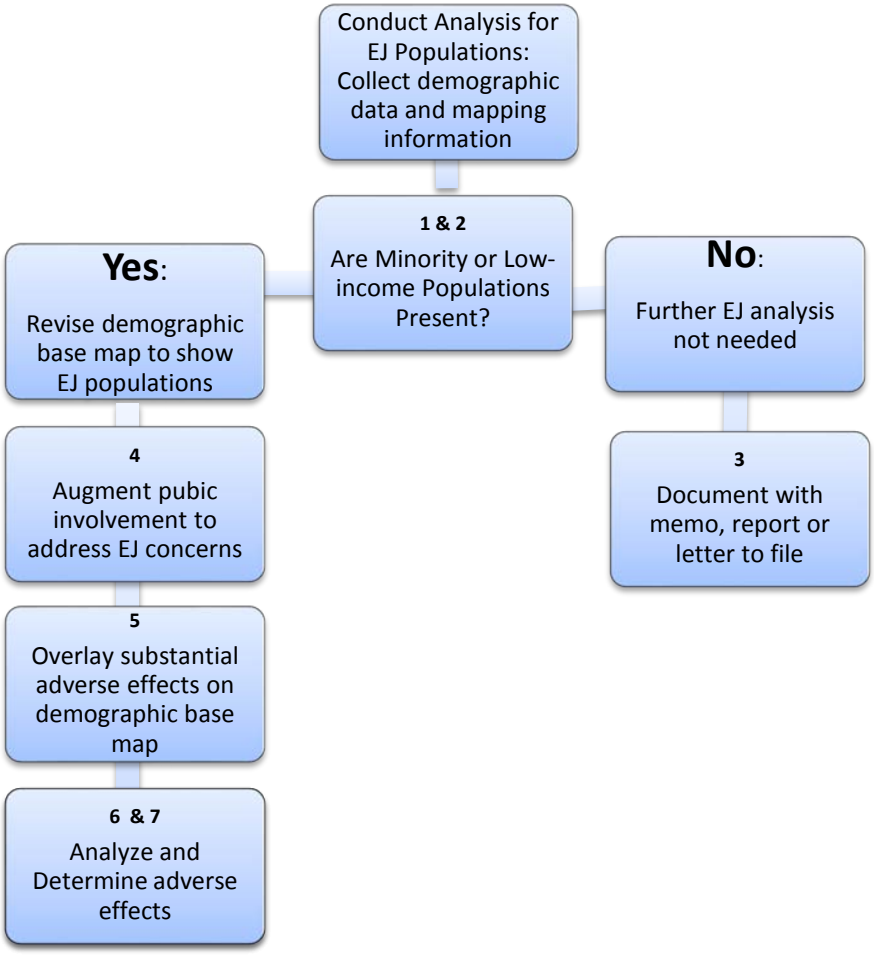

Figure 16-A – BASIC ENVIRONMENTAL JUSTICE PROCESS

Executive Order 12898, Federal Actions to Address EJ in Minority and Low-Income Populations, was signed by President Bill Clinton on February 11, 1994, and directs Federal agencies to take appropriate and necessary steps to identify and address disproportionately high adverse effects of Federal projects on the health or environment of minority and low-income populations to the extent practicable and permitted by law.

The general principals required under Executive Order 12898 are as follows:

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

Disproportionately high and adverse impacts on minority populations and/or low-income populations have been defined as an adverse effect that:

- Is predominately borne by a minority population and/or low-income population; or 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 low-income population.

16.2 IMPLEMENTATION

The mission of EJ is to identify and address disproportionately high and adverse human health and environmental effects on minority populations and low-income populations. Early in the project development process a preliminary assessment of the demographic composition of the study area should be conducted.

Information from the preliminary demographic analysis should be incorporated into the project's public involvement plan or process. NDOT should seek early and continuous involvement of low-income populations, minority populations, or Indian tribes. Any determination of the presence of an EJ population, as well as the basis for the determination, should be more substantively addressed in the appropriate NEPA documents.

ACTIVITY NO. 1:	DETERMINE IF A LOW-INCOME POPULATION EXISTS

1. A low-income person is defined as one whose median household income is at or below the Department of Health and Human Services poverty guideline. Low-income populations in an affected area can be identified using household income data provided by the Bureau of the Census, American Community Survey 5-Year Estimates reports (such as DP03 - Selected Economic Characteristics). Include Census Track, Block Group data for the study area.

2. Obtain current year of the Health and Human Services (HHS) Poverty Level Table. Use the four-person family to establish median household income and poverty thresholds.
3. The low-income or population is meaningfully greater if the percentage of low-income households in the study area is higher than the City or County average. Note that no set threshold has been established for determining what constitutes a "meaningfully greater" percentage when making this comparison, but some EJ analysts (e.g., the Florida Department of Transportation) have used a threshold of 10 percent higher than the city or county average to determine whether a low-income population resides within the study area.
4. If a low-income population exists, proceed with Activity 5.

Regulation and Guidance:

FHWA EJ Order 6640.23A 2012
FHWA Guidance on Environmental Justice & NEPA 2011
FHWA EJ Frequently Asked Questions
FHWA EJ Reference Guide 2015
HHS Poverty Guidelines
US Census American Fact Finder http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml
Executive Order 12898 http://www.archives.gov/federal-register/executive-orders/pdf/12898.pdf

ACTIVITY NO. 2	DETERMINE IF A MINORITY POPULATION EXISTS

1. For purposes of EJ assessment, the following are considered minority populations:

   - **Black:** a person having origins in any of the black racial groups of Africa;
   - **Hispanic or Latino:** a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
   - **Asian American:** a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent;
   - **American Indian or Alaskan Native:** a person having origins in any of the original people of North American, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
   - **Native Hawaiian and Other Pacific Islander:** people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

2. Using Bureau of the Census, American Community Survey 5-Year Estimates data, minority populations should be identified where either:

   - The minority population of the affected area exceeds 50 percent or;
   - The minority population percentage of the affected area is meaningfully greater than the appropriate unit (city or county) of geographic analysis (Council on Environmental Quality, *Environmental Justice Guidance under the National Environmental Policy Act,* December 10, 1997, p. 25). It has become generally accepted in environmental

planning practice for federal projects that "meaningfully greater" is 10 percent or greater than the jurisdiction against which the social and economic data is compared.
- A minority population also exists if there is more than one minority group present and the minority percentage is calculated by aggregating all minority persons and meets one of the above thresholds.

3. If a minority population exists, proceed with Activity 5.

Regulation and Guidance:

FHWA EJ Order 6640.23A 2012
FHWA Guidance on Environmental Justice & NEPA 2011
FHWA EJ Frequently Asked Questions
FHWA EJ Reference Guide 2015
EJScreen EPA Environmental Justice Screening and Mapping Tool

ACTIVITY NO. 3:	DOCUMENT TO FILE IF NO EJ POPULATION EXISTS

If no EJ populations can be identified, prepare documentation to file with supporting materials that indicate no defined EJ populations will be impacted by the project.

Proceed to Step 4 if EJ populations exist and will be impacted by the project.

Regulations and Guidance:

FHWA EJ Order 6640.23A 2012
Environmental Justice Policy Guidance for Federal Transit Administration Recipients
http://www.fta.dot.gov/documents/FTA_EJ_Circular_7.14-12_FINAL.pdf

ACTIVITY NO. 4:	AUGMENT PUBLIC INVOLVEMENT

Outreach to the public is already a critical component of NDOT's project development processes; environmental justice simply requires assurances that there is meaningful involvement of minority and low-income populations in public outreach activities. Efforts to engage these populations early (including prior to the environmental documentation phase) can benefit from the greater degree of flexibility available to agencies with respect to decisions on project mode, location and enhancements. Their participation can provide valuable input and assist in validating information obtained from secondary sources such as U.S. Census Bureau data. They can play an integral role in identifying issues and concerns of their communities, cataloging community resources and past actions affecting their quality of life, suggesting project alternatives, and negotiating avoidance, minimization, mitigation, and enhancements.

Recognizing that a primary goal of environmental justice is to engage those groups who have traditionally been underrepresented in the project development process, the project team should proactively reach out to the minority or low-income populations/communities during the alternatives development and environmental inventory stages. It does not matter whether the study area is predominantly minority or low-income, or if there is only a small EJ community. Outreach is still required to get them involved in the project development process. This outreach effort begins early in the project (i.e., in the same time frame as focus group formation) and continues throughout the process. To be effective, the public involvement strategy should be tailored to use adaptive or innovative approaches that overcome linguistic, institutional, cultural, economic, historical, or other potential barriers to effective participation in the decision-making process.

1. Public Involvement and Outreach:

    - Depending on project complexity and size the goal is to "provide opportunities to engage and inform";
    - Identify location of EJ populations;
    - Identify leaders and trusted members of the community to assist with understanding community needs, platforms for communication and outreach tools;
    - Develop a public involvement plan and analyze tools and techniques that are most helpful in reaching populations with linguistic, institutional, cultural, economic, historical, or other potential barriers to communication;
    - Bring meetings, briefing and project/program information to the community;
    - Provide opportunities for feedback and comment;
    - Report back findings and how input was utilized; and
    - Document comments to file.

2. Continue public outreach throughout process.

3. To reach the EJ populations, consider the following strategies, which may be useful in identifying, contacting, and engaging the public in the project development process:

    - For the following agencies, organizations and/or stores, consider posting fliers and notices on bulletin boards; including information in church bulletins, homeowner association newsletters, etc.; offering to make project presentations; etc.:
        - homeowner/community associations
        - community action agencies
        - religious organizations (churches, etc.)
        - civil rights organizations
        - minority business associations
        - Chambers of Commerce (e.g., African-American, Hispanic, Asian)
        - business and trade organizations (e.g., Washington Board of Trade)
        - environmental and environmental justice organizations
        - rural/agricultural organizations
        - ethnic stores/shops
        - universities, colleges, vocational and other local schools

  - senior citizen groups (e.g., senior centers, county Office of Aging)
  - community/recreational centers
  - grocery stores (newsletters in bags)
  - Laundromats
  - Tribal Centers
- Publish ads and notices in newspapers, radio and other media, particularly media targeted to minority and low-income populations –create notices that attract attention and are in layman's terms.
- In addition to ads and notices, actively pursue having articles about the project published in local newspapers.
- Publish ads not just in the legal section of the newspapers, but also in more 'popular' sections.
- Include minority or low-income people on project focus groups.
- Depending on the make-up of the particular project area, consider translating documents, notices and hearings for non-English or limited English-speaking populations.

Regulation and Guidance:

FHWA – *EJ: What You Should Know*
23 CFR 771.111 "Early Coordination, Public Involvement and Project Development."
NDOT Public Involvement Plan

ACTIVITY NO. 5:	OVERLAY SUBSTANTIAL ADVERSE EFFECTS

1. If an EJ population is documented within the project area, revise demographic base map to show EJ community and community features.

2. Collect effect findings for physical intrusion:
   - Noise
   - Air
   - Section 4(f)
   - Hazardous Waste
   - Public Services
   - Utilities
   - Transportation
   - Residential and business displacements

3. Collect effect findings for community impacts:
   - Cultural Resources
   - Visual (from community)
   - Community cohesion
   - Access effects

When any member of a protected group is likely to be impacted, the environmental document should contain demographic information broken down by minority and low-income groups.

Regulation and Guidance:

FHWA – *EJ: What You Should Know*

ACTIVITY NO. 6:	ANALYZE ADVERSE EFFECTS

To determine whether a proposed action is likely to have a disproportionately high and adverse human health or environmental effect on EJ populations, NDOT should identify a geographic scale suitable to the project area and assess effects within that area. It should be noted that impacts to EJ populations may be different from impacts on the general population due to a community's distinct cultural practices.

There are no instruction booklets or references on what constitutes "disproportionate high and adverse effects" but several references provide sample of leading questions:

- Are the adverse effects predominately borne by EJ populations?
- Are the adverse effects more severe in magnitude than impacts to non-EJ populations?
- Is the project or program impacting a resource that is important to EJ populations?

Additional and more specific questions to consider for EJ Analysis:

1. Impact: Bodily Impairment, Infirmity Illness or Death

   Quantitative:
   How will the traffic speed (or speed limit) within the target area change?
   How will the traffic volumes change?
   Is there a change in the volume or pattern of thru-traffic on local (target area) streets?
   Subjective:
   Will there be a change in the relative safety in the target area for pedestrians, bicyclists and motorists?
   Will the safe and easy access to community or regional resources (shopping, bus stops, schools, etc.) be changed?

2. Impact: Air, Noise, and Water Pollution and Soil Contamination

   Quantitative (and/or qualitative):
   Will traffic noise levels change?
   Will traffic induce air pollution change?
   Will local water and soil contamination levels change?
   Subjective:
   Will overall air, water, and noise quality of the target area change?

3. Impact: Destruction or Disruption of Man-made or Natural Resources

Quantitative:
Will the number of trees and other plants change?
Will waterways such as streams and brooks change?
Will the number or size of parks, parkland, or outdoor recreational opportunities change?
Will historic/cultural properties be impacted?
Subjective:
Will the changes provide overall improvements or harm to the natural and man-made resources?

4. Impact: Destruction or Diminution of Aesthetic Values

Quantitative:
Will any public art or statues be added, moved or removed?
What percent of project costs is being spent on enhancements?
Will the amount of open space change?
Subjective:
Is the improvement attractive?
Will the view or vista change?

5. Impact: Destruction or Disruption of Community Cohesion

Quantitative:
Will man-made dividers, (such as an overpass, bridge, 4(f) land or wider highway or rail tracks) be constructed through a portion of an existing community and cause it to be segmented?
Will elimination of current access roads isolate one part of the community from another?
Subjective:
Is the proposed project or plan perceived to significantly benefit one portion of the existing neighborhood and significantly harm another portion of the same neighborhood?

6. Impact: Destruction or Disruption of a Community's Economic Vitality

Quantitative:
Will the number of locally owned businesses in the target area change?
Will the total number of businesses in the target area change?
Subjective:
Will the financial investment benefit the target area's population?
Will property owners land value change (reduction/increase)?
Will the number of jobs available in the target area change?

7. Impact: Destruction or Disruption of the Availability of Public & Private Facilities and Services

Quantitative:
Will the time to travel to public and private facilities and services (such as schools, medical facilities, shopping, community centers, libraries, etc.) change?
Will there be a change in response time for emergency vehicles?
Will there be a change in the number and type of impediments to access public and private facilities (such as wider roadway crossing, additional bus transfers, increased walking distance to bus stops, etc.)?
Will the number/location of public or private facilities be changed?
Subjective:
Will changes to the perceived distance to or difficulty of getting to public and private facilities from the target area result in target population "giving up" interest in using them?

8. Impact: Vibration

Quantitative:
Will vibration levels caused by increased traffic or transit improvements change?
Subjective:
Will vibration levels caused by increased traffic reduce quality of life or enjoyment of property?

9. Impact: Adverse Employment Effects

Quantitative:
Will time to travel to jobs throughout the county change?
Will time to travel to jobs within the target area change?
Will the number of jobs change (How many jobs within the target area vs. county area or state will be lost/gained?)
Subjective:
Will the type of jobs available within the target area change?
Will the target area become a more or less attractive place for employers to locate their facilities?

10. Impact: Displacement of Persons, Businesses, Farms, or Non-profit Organizations

Quantitative:
How many target vs. non-target population persons will be displaced?
How many target vs. non-target population businesses will be displaced?
How does this impact traveling distance for target employees vs. non-target employees?
How many target vs. non-target farms/orchards will be displaced?
How does this impact target vs. non-target employees?
How many target vs. non-target population non-profit corporations will be displaced?
Subjective:
Will an alternate project location or project approach (which meets the project or plan's purpose and need) displace fewer target vs. non-target populations persons, businesses, farms, or non-profit corporations?

11. Impact: Increased Traffic Congestion

Quantitative:
Will traffic congestion levels change?
Subjective:
Will traffic circulation and community traffic patterns adversely affect the community, in the view of its residents?

12. Impact: Isolation

Quantitative:
Will access roadways into and out of the target area become dead ends or be cut-off?
Subjective:
Will roadways, bridges and other traffic improvements be constructed to surround the target area and create the feeling of an isolated "island"?

13. Impact: Exclusion or Separation of Minority or Low-Income Individuals within a Given Community or From the Broader Community

Quantitative:
Will the transportation changes result in increased travel time for the target vs. non-target population (to and from jobs, schools, churches, shopping, medical facilities, recreational facilities, etc.)?
Subjective:
Will the transportation improvements increase the feeling of exclusion or alienation between the target populations and the rest of the region?

14. Impact: The Denial of, Reduction in, or Significant Delay in the Receipt of Benefits

Quantitative:
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 (i.e., Hot Lanes, tolls roads), ability to access, etc.?
Will access to or use of the transportation improvement be denied or more difficult to access based on its location?

Subjective:
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?

Although important, the identification of disproportionately high and adverse effect on EJ populations does not preclude a project from moving forward.

Regulation and Guidance:

FHWA Guidance on Environmental Justice & NEPA 2011
FHWA EJ Frequently Asked Questions
FHWA – *EJ: What You Should Know*

ACTIVITY NO. 7: DETERMINE DISPROPORTIONATELY HIGH AND ADVERSE IMPACTS

As per FHWA Order 6640.23A, a disproportionately high and adverse effect on a minority or low-income population means the adverse effect is predominantly borne by such population or is appreciably more severe or greater in magnitude on the minority or low-income population than the adverse effect suffered by the non-minority or non-low-income population.

Under NEPA, consideration must be given to mitigation for all adverse effects regardless of the type of population affected. Discuss what measures are being considered for alternatives to avoid or mitigate the adverse effects. Follow the protocol of avoidance first, then minimization, and finally measures to offset or rectify the adverse effects.

Alternative Analysis:

1. NDOT should encourage the members of the communities that may suffer a disproportionately high and adverse effect from a proposed action to help develop and comment on possible alternatives to the proposed action as early as possible in the process.
2. Where an EIS is prepared, CEQ regulations require NDOT to identify an environmentally preferable alternative in the ROD.
3. When disproportionately high and adverse effect on an EJ population from a proposed action of alternatives, the distribution as well as the magnitude of the disproportionate impacts should be factors in determining the environmentally preferable alternative.
4. NDOT should consider the views it has received from the affected communities, and the magnitude of environmental impacts associated with alternatives that have a less disproportionate and adverse effect on EJ populations.

Mitigation Measures:

1. Mitigation measures should include steps to avoid, mitigate, minimize, rectify, reduce, or eliminate the impact associated with a proposed action.
2. Throughout the process NDOT should elicit views of the affected EJ populations on measures to mitigate impacts and carefully consider community views in developing and implementing mitigation strategies.
3. Mitigation measures identified in an EIS or developed as part of a FONSI should reflect the needs and preferences of affected EJ populations to the extent practicable.
4. In circumstances where EIS or EA are not prepared NDOT should ensure that the goals for public participation are satisfied to fullest extent possible.

A "disproportionately high and adverse" determination may be made if, after mitigation and benefits have been considered:

- The severity of the adverse impact is appreciably greater for protected populations than for non-protected populations.
- More adverse environmental impacts occur in areas with protected populations (regardless of severity) than in areas without protected populations.
- The project benefits do not affect protected populations to the same degree as other populations.
- The project is controversial and public comment shows that protected populations; do not feel that the project benefits them, or that the proposed mitigation is adequate.

When disproportionately high and adverse impacts to EJ populations have been identified, NDOT should state clearly in the EA or EIS whether, in light of all the facts and circumstances, a disproportionately high and adverse effect to EJ populations is likely to result from the proposed actions and any alternatives. The statement should be supported by sufficient information for the public to understand the rationale for the conclusions.

If there is a disproportionately high and adverse effect on an EJ population, after taking benefits and mitigation into account, the NEPA document must evaluate whether there is a further practicable mitigation measure or practicable alternative that would avoid or reduce the disproportionately high and adverse effect(s). FHWA will approve the proposed action only if it determines no such practicable measures exist, and the FHWA determination should be stated in the document. The NEPA document needs to describe how the impacted populations and communities were involved in the decision-making process. The document needs to also identify what practicable mitigation commitments have been made.

In addition, if the affected population is a minority population protected under Title VI, FHWA will not approve the proposed action unless FHWA determines:

1. There is a substantial need for the project, based on the overall public interest; and
2. Alternatives that would have less adverse effects on protected populations have either:
   a) Adverse social, economic, environmental, or human health impacts that are more severe; or
   b) Would involve increased costs of an extraordinary magnitude.

Where appropriate, the NEPA document must include both of these evaluations and contain the FHWA determination on the explicit issues required within these evaluations.

Regulation and Guidance:

FHWA EJ Order 6640.23A
FHWA Guidance on Environmental Justice & NEPA
FHWA – Environmental Justice Website