

Environmental Justice:

Assessing Social and Health Impacts on Vulnerable Populations

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Environmental Justice Analyses Seek to Provide an Equitable Distribution of Benefits and Burdens

- Advancing equity through social impact assessments
- Understanding vulnerable populations
- Recent federal directives addressing equity
- Environmental Justice assessment approaches
- Role of equitable engagement
- Key challenges and opportunities
- Assessment tools and resources

Advance Equity by Assessing Social and Health Impacts

- Vulnerable populations tend to be more severely impacted by changes to their environment due to social stressors and links to health disparities
- EJ assessments consider social, health, economic and other indicators to assess impacts
- Assessments conducted to determine if policy or project
 - Provide for equitable outcomes for all persons, and
 - Reduce or eliminate the potential for disproportionate impact



Multiple Conventions Used to Define Vulnerable Populations

Multiple and shifting conventions can cause confusion:

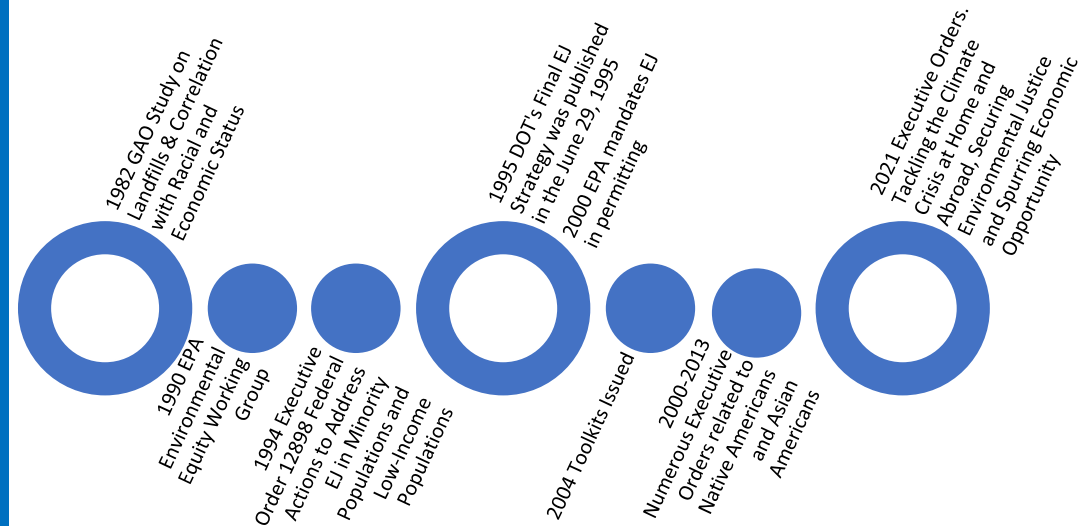
- Minority populations
- Racial minority/Ethnic minority
- Disadvantaged communities
- Low income
- Sensitive populations
- Underserved and marginalized
- Persons with disabilities
- People (or communities) of color
- Tribal organizations
- Indigenous peoples
- Native American
- Older populations
- Young populations
- Overburdened communities

Key Takeaways

- **Remember that the goal is to assess impacts on underserved and marginalized populations**
 - **Be as inclusive as possible in your assessment**
 - **Be thorough in your identification of groups in the impact area**
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- Populations that are included:
 - Racial and ethnic populations
 - Low-income populations
 - Tribal organizations and indigenous groups
 - Vulnerable populations considered in impact assessments
 - Older populations (typically >64)
 - Young populations (at times </=5; </=19)
 - Persons with disabilities

Recent Federal Directives Addressing Equity

- **Executive Order on Advancing Racial Equity and Support for Underserved Communities. January 2021.** Pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality.
- **Executive Order 14008. Tackling the Climate Crisis at Home and Abroad, January 2021. Securing Environmental Justice and Spurring Economic Opportunity**
 - Ensure that environmental and economic justice are key considerations by **investing and building a clean energy economy that creates well-paying union jobs, turning disadvantaged communities — historically marginalized and overburdened — into healthy, thriving communities**
 - **Justice 40 Initiative. Federal investments be made toward a goal that 40 percent of the overall benefits flow to disadvantaged communities.** The recommendations shall focus on investments in the areas of clean energy and energy efficiency; clean transit; affordable and sustainable housing; training and workforce development; the remediation and reduction of legacy pollution; and the development of critical clean water infrastructure.



Timeline of Environmental Justice Milestones

Before you Start: Identify/Develop Assessment Methods

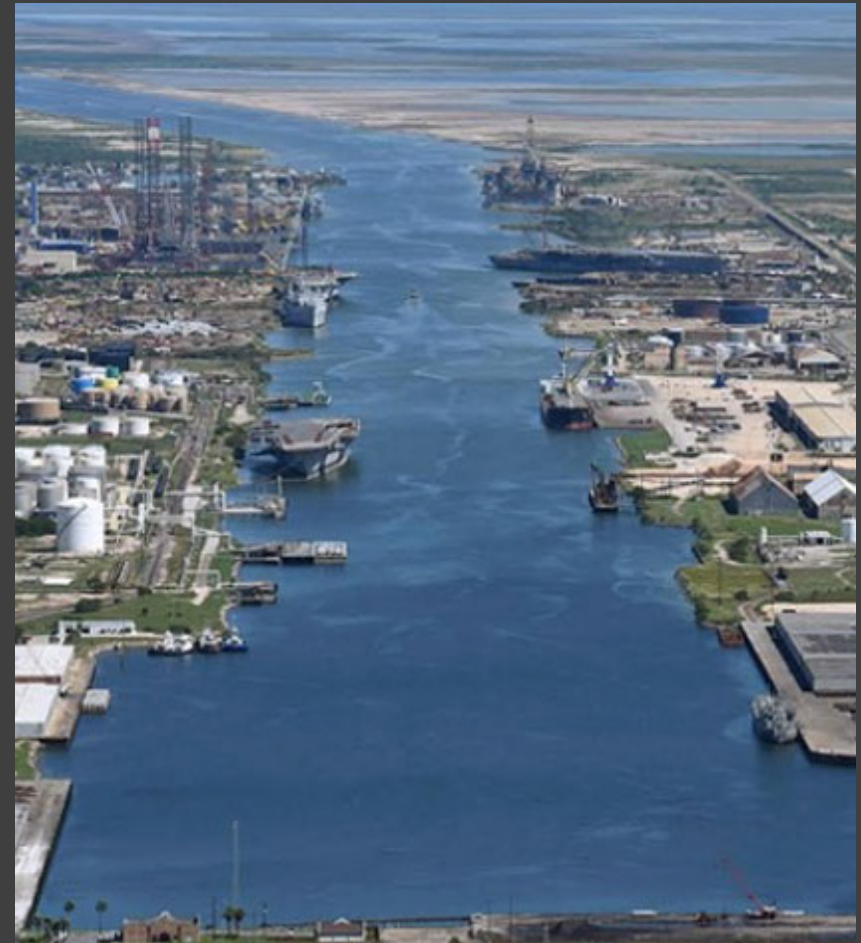
General guidance notes four steps:

1. Determine the existence of minority and low-income populations
2. Collect data and determine if anticipated impacts are high and adverse
3. Determine if the impacts fall disproportionately on minority and low-income populations
4. Develop alternatives or mitigation, as necessary

Must determine **how** to accomplish #2: Agency guidance varies; some more prescriptive than others

Key takeaway: Regardless of your approach, ensure that your method assesses probability and magnitude of impacts and **sensitivity (vulnerability)**

Use population vulnerability indicators to determine sensitivity to impacts



Identify Environmental Justice Populations in/near the Project Area

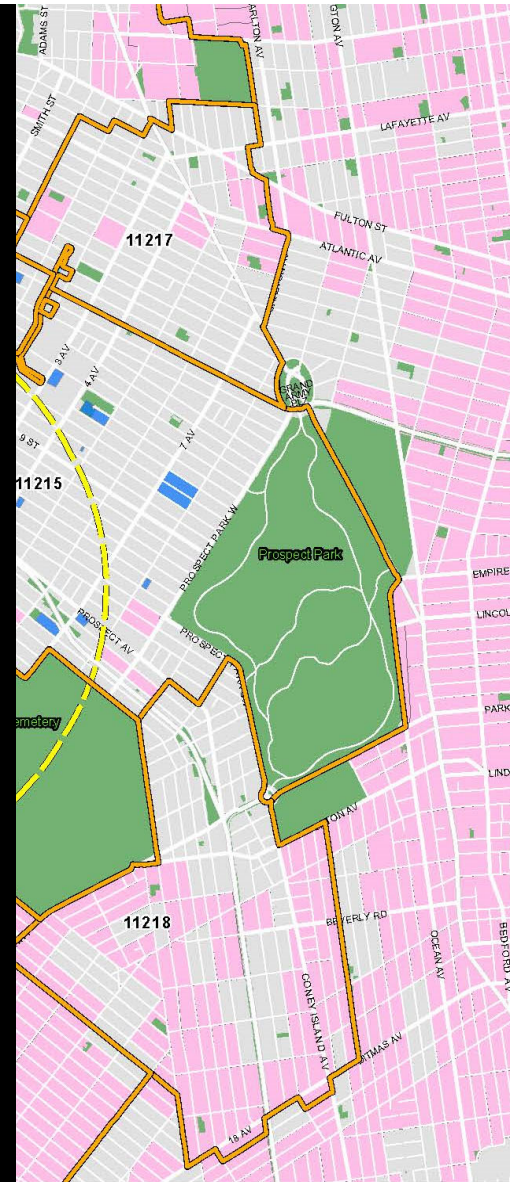
Identify project impact area

By Census tract

Determine if minimum thresholds are met

Conduct local research

Key takeaway: Overlay income and minority populations to understand vulnerability



Collect community data and measures of key indicators based on current research

Data for Population Vulnerability Indicators

- Research on proxy measure for vulnerability and elements being measured

Data Related to Exposure Burden

- Such as pollution burden, hazardous waste facilities, and generators, PM2.5 concentrations, diesel emissions

Demographic and other Community Information

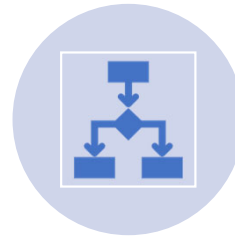
- Racial and ethnic composition, poverty, education attainment, linguistic isolation [limited English proficiency, employment, transportation access, health care access, housing, recreational areas and open spaces, independent living values
- Health outcome data – counts and rates of health-related events in a population, such as disease rate ratios, incidence rates (e.g., for asthma), low-birth weight

Key takeaway: Take the time necessary to collect the data

Assess Project Impact on Vulnerable Populations



Conduct analyses of project-related impacts and sensitivity (vulnerability) of the population



Determine type (direct/indirect and positive/negative) and level of significance of impact



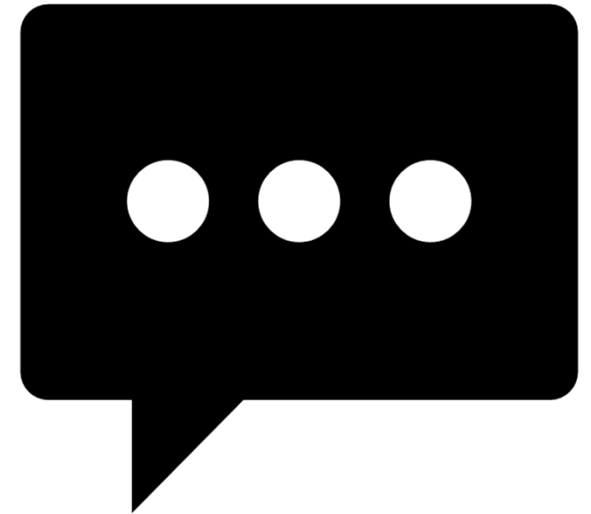
Determine whether EJ populations may be disproportionately impacted



Identify and formulate mitigation options

Remember to Conduct Equitable Engagement

- Must be threaded in the Environmental Justice analysis process
- Must provide equal access to information
- Must provide meaningful involvement including seeking to facilitate the involvement of those potentially affected and opportunities to participate in decision-making process



Key Challenges and Opportunities

- Vague guidance fails to provide basis for robust assessment
- Weak assessment methodology
 - Leads to inconclusive/subjective results
 - Fails to contribute to a common social good
 - Raises community, agency, and activity attention and concern
 - Contributes to image and reputation issues
- Use a framework based on
 - Current research/measures that provides social and other criteria to assess a population's level of vulnerability
 - Magnitude and probability of an impact
- Integrate climate change variables into analyses
- Help to advance the practice by focusing on equity, consulting closely with communities, and thinking creatively based on data



Online Tools and Resources

- US Census www.census.gov
- EPA EJ Screen <https://ejscreen.epa.gov/mapper/>
- CalEnviroScreen <https://oehha.ca.gov/calenviroscreen> (for cumulative effects)
- **Online Tools Support Environmental Justice Analyses**
- Web-based geographic information systems (GIS) mapping tools to define, delineate, and identify communities with environmental justice concerns.
- [Health Landscape EXIT](#) allows users to create simple displays of health data concerning neighborhoods communities, states or any other area of interest.
- [Health Professional Shortage Areas \(HPSA\) by State and County](#). The Health Resources and Services Administration defines areas with shortages of primary medical care, dental or mental health providers by geographic area, demographic (low income) population, or institutional (comprehensive health center, federally qualified health center or other public facility).