



## Appendix II-V1

Definitions - Environmental Justice and Disadvantaged Communities

The following Environmental Justice definitions are summarized in this Appendix:

- Analysis of Federal Environmental Justice Definitions Compared to New Jersey Environmental Justice Definitions.
- Analysis of Federal Disadvantaged Communities Definitions.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994), requires Federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse environmental or health effects of Federal actions on minority and low-income populations. The Council on Environmental Quality (CEQ) has oversight for Federal government compliance with Executive Order No. 12898.

Environmental Justice is defined by the Environmental Protection Agency (EPA) as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies” (EPA 2015):

- Fair Treatment: “no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental and commercial operations or programs and policies” (EPA 2015). In implementation, the EPA has expanded the concept of fair treatment to include the distribution of benefits across all populations in addition to the consideration of burdens.
- Meaningful Involvement: “(1) potentially affected populations have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public’s contribution can influence the regulatory Agency’s decision; (3) the concerns of all participants involved will be considered in the decision-making process; and (4) the rule-writers and decision-makers seek out and facilitate the involvement of those potentially affected” (EPA 2015).

CEQ guidance defines minorities to include “American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic.” Minority populations are identified “where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.” Low Income populations in an affected area “should be identified with the annual statistical poverty thresholds from the Bureau of the Census’ Current Population Reports, Series P-60 on Income and Poverty” (Council on Environmental Quality, 1997).

States may adopt Environmental Justice laws in addition to Federal requirements. New Jersey adopted NJ S232 in June 2020, which requires evaluation of environmental and public health stressors on overburdened communities from the New Jersey Department of Environmental Protection. Under this law, overburdened communities are defined as “any census block group, as determined in accordance with the most recent United States Census, in which: (1) at least 35 percent of the households qualify as low-income households; (2) at least 40 percent of the residents identify as minority or as members of a State recognized tribal community; or (3) at least 40 percent of the households have limited English proficiency.” Under the New

Jersey law, low income is defined as “a household that is at or below twice the poverty threshold as that threshold is determined annually by the United States Census Bureau.” Limited English proficiency is defined as a household that “does not have an adult that speaks English “very well” according to the United States Census Bureau” (New Jersey Senate, No. 232, 2020). Minority communities are identified using the same criteria as the national guidelines. A summary table of Environmental Justice indicators defined by the US EPA and the State of New Jersey are listed in Table 1.

**Table 1. Environmental Justice Community Identification Standards**

Geography/ Indicator	Indicator Definition	Threshold for Environmental Justice Community
<b>Federal</b>		
Low-income population	Poverty thresholds from the US Census Bureau’s current population reports (series p-60 on income and poverty)	Undefined. Assumed similar thresholds as minority populations
Minority population	American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; Hispanic	If minority population exceeds 50% of the total population or is meaningfully greater than the general population
<b>New Jersey</b>		
Low-income population	A household that is at or below twice the poverty threshold as that threshold is determined annually by the US Census Bureau.	At least 35% of households qualify as low-income
Minority population	American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; Hispanic	At least 40% of residents
Limited English proficiency	A household does not have an adult that speaks English “very well” according to the US Census Bureau	At least 40% of households have limited English proficiency

**Source:** Council of Environmental Quality. 1997. Environmental Justice Guidance Under the National Environmental Policy Act. Available at <https://ceq.doe.gov/docs/ceq-regulations-and-guidance/regs/ej/justice.pdf>; State Of New Jersey 219th Legislature. New Jersey Senate, No. 232 (2020).

### Analysis of Federal Disadvantaged Communities Definitions

Executive Order 14008, Tackling the Climate Crisis at Home and Abroad was announced on January 27, 2021 and expands upon the 1994 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (discussed in the previous section). This recent executive order establishes the Justice40 Initiative as an inter-agency framework to recommend how Federal investments into clean energy and workforce development might be made toward the goal that 40 percent

of the overall benefits flow to disadvantaged communities. Additionally, Executive Order 14008 specifies that the disadvantaged communities be highlighted through maps available on a Climate and Economic Justice Screening Tool. Since the release of Executive Order 14008, the beta site of the Climate and Economic Justice Screening Tool has been released as an early, in-progress version of the tool with limited datasets to be updated regularly. Under the March 2022 version of the tool, a census tract is identified as a disadvantaged community if it is at or above the thresholds in one or more of the following eight categories of criteria, defined by environmental/climate indicators and related socioeconomic indicators (See Table 2).

**Table 2. Draft Federal Disadvantaged Community Identification Standards**

Category/ Indicator	Threshold for Disadvantaged Community	Indicator Definitions
<b>Climate Change</b>		
Environmental or Climate Indicators	If at or above the 90th percentile for expected agriculture loss rate or expected building loss rate or expected population loss rate	<p><b>Agricultural Loss Rate:</b> Percent of agriculture value at risk from losses due to fourteen types of natural hazards that have some link to climate change: avalanche, coastal flooding, cold wave, drought, hail, heat wave, hurricane, ice storm, landslide, riverine flooding, strong wind, tornado, wildfire, and winter weather. Rate calculated by dividing the agriculture value at risk in a census tract by the total agricultural value in that census tract.</p> <p><b>Expected Building Loss Rate:</b> Percent of building value at risk from losses due to fourteen types of natural disasters that have some link to climate change: avalanche, coastal flooding, cold wave, drought, hail, heat wave, hurricane, ice storm, landslide, riverine flooding, strong wind, tornado, wildfire, and winter weather. Rate calculated by dividing the building value at risk in a census tract by the total building value in that census tract.</p> <p><b>Expected Population Loss Rate:</b> Rate relative to the population of fatalities and injuries due to fourteen types of natural hazards each year that have some link to</p>

Category/ Indicator	Threshold for Disadvantaged Community	Indicator Definitions
		<p>climate change: avalanche, coastal flooding, cold wave, drought, hail, heat wave, hurricane, ice storm, landslide, riverine flooding, strong wind, tornado, wildfire, and winter weather. Population loss is defined as the Spatial Hazard Events and Losses or National Centers for Environmental Information's (NCEI) reported number of fatalities and injuries caused by the hazard occurrence. To combine fatalities and injuries for the computation of population loss value, an injury is counted as one-tenth of a fatality. The NCEI Storm Events Database classifies injuries and fatalities as direct or indirect. Both direct and indirect injuries and fatalities are counted as population loss. This total number of injuries and fatalities is then divided by the population in the census tract to get a per-capita rate of population risk.</p>
Related Socioeconomic Indicators	And is above the 65 <sup>th</sup> percentile for low income and at or below 20% for higher ed enrolment rate	<p><b>Low Income:</b> Percent of a census tract's population in households where household income is at or below 200% of the Federal poverty level.</p> <p><b>Higher Ed Enrolment Rate:</b> Percent of people who are currently enrolled in college or graduate school.</p>
Environmental or Climate Indicators	If at or above the 90 <sup>th</sup> percentile for energy burden of PM2.5 in the air	<p><b>Energy Burden:</b> Average annual cost per household (\$) divided by average household income.</p> <p><b>PM2.5 in the air:</b> Fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller. The value in the fields is the weight of these particles in micrograms per cubic meter.</p>
<b>Clean Energy and Energy Efficiency</b>		
Related Socioeconomic Factors	And is above the 65 <sup>th</sup> percentile for low income and at or below 20% for higher ed enrolment rate	<p><b>Low Income:</b> Percent of a census tract's population in households where household income is at or below 200% of the Federal poverty level.</p>

Category/ Indicator	Threshold for Disadvantaged Community	Indicator Definitions
		<p><b>Higher Ed Enrolment Rate:</b> Percent of people who are currently enrolled in college or graduate school.</p>
<b>Clean Transit</b>		
Environmental or Climate Indicators	If at or above the 90 <sup>th</sup> percentile for diesel particulate matter exposure or traffic proximity and volume	<p><b>Diesel Particulate matter exposure:</b> Mixture of particles that is part of diesel exhaust in the air. The value in the fields is the weight of these particles in micrograms per cubic meter.</p> <p><b>Traffic Proximity and Volume:</b> Count of vehicles (average annual daily traffic) at major roads within 500 meters, divided by distance in meters.</p>
Related Socioeconomic Factors	And is above the 65 <sup>th</sup> percentile for low income and at or below 20% for higher ed enrolment rate	<p><b>Low Income:</b> Percent of a census tract's population in households where household income is at or below 200% of the Federal poverty level.</p> <p><b>Higher Ed Enrolment Rate:</b> Percent of people who are currently enrolled in college or graduate school.</p>
<b>Affordable and Sustainable Housing</b>		
Environmental or Climate Indicators	If at or above the 90 <sup>th</sup> percentile for lead paint and median home value is at or less than the 90 <sup>th</sup> percentile or at or above the 90 <sup>th</sup> percentile for the housing cost burden	<p><b>Housing Cost Burden:</b> Percent of households in a census tract that are both earning less than 80% of HUD Area Median Family Income by county and are spending more than 30% of their income on housing costs.</p> <p><b>Lead Paint:</b> Percent of housing units built pre-1960, used as an indicator of potential lead paint exposure in census tracts with median home values less than the 90<sup>th</sup> percentile.</p> <p><b>Median Home Value:</b> Median home value of owner-occupied housing units in the census tract.</p>
Related Socioeconomic Factors	And is above the 65 <sup>th</sup> percentile for low income and at or below 20% for higher ed enrolment rate	<p><b>Low Income:</b> Percent of a census tract's population in households where household income is at or below 200% of the Federal poverty level.</p> <p><b>Higher Ed Enrolment Rate:</b> Percent of people who are currently enrolled in college or graduate school.</p>

Category/ Indicator	Threshold for Disadvantaged Community	Indicator Definitions
<b>Reduction and Remediation of Legacy Pollution</b>		
Environmental or Climate Indicators	If at or above the 90 <sup>th</sup> percentile for proximity to hazardous waste facilities or proximity to National Priorities List (NPL) sites or proximity to Risk Management Plan (RMP) facilities	<p><b>Proximity to Hazardous Waste Facilities:</b> Count of hazardous waste facilities (treatment, Storage, and Disposal Facilities and Large Quantity Generators) within 5 kilometers (or nearest beyond 5 kilometers), each divided by distance in kilometers.</p> <p><b>Proximity to National Priorities List (NPL) Sites:</b> County of proposed or listed NPL – also known as Superfund – sites within 5 kilometers (or nearest one beyond 5 kilometers), each divided by distance in kilometers.</p> <p><b>Proximity to Risk Management Plan (RMP) Facilities:</b> County of RMP (potential chemical accident management plan) facilities within 5 kilometers (or nearest one beyond 5 kilometers), each divided by distance in kilometers.</p>
Related Socioeconomic Factors	And is above the 65 <sup>th</sup> percentile for low income and at or below 20% for higher ed enrolment rate	<p><b>Low Income:</b> Percent of a census tract’s population in households where household income is at or below 200% of the Federal poverty level.</p> <p><b>Higher Ed Enrolment Rate:</b> Percent of people who are currently enrolled in college or graduate school.</p>
<b>Critical Clean Water and Waste Infrastructure</b>		
Environmental or Climate Indicators	If at or above the 90 <sup>th</sup> percentile for wastewater discharge	<b>Wastewater Discharge:</b> Risk-Screening Environmental Indicators (RSEI) modelled toxic concentrations at stream segments within 500 meters, divided by distance in kilometers.
Related Socioeconomic Factors	And is above the 65 <sup>th</sup> percentile for low income and at or below 20% for higher ed enrolment rate	<b>Low Income:</b> Percent of a census tract’s population in households where household income is at or below 200% of the Federal poverty level.

Category/ Indicator	Threshold for Disadvantaged Community	Indicator Definitions
		<p><b>Higher Ed Enrolment Rate:</b> Percent of people who are currently enrolled in college or graduate school.</p>
<b>Health Burdens</b>		
Environmental or Climate Indicators	If at or above the 90 <sup>th</sup> percentile for asthma or diabetes or heart disease or low life expectancy	<p><b>Asthma:</b> Weighted percent of people who answer “yes” to both of the following questions: “Have you ever been told by a doctor, nurse, or other health professional that you have asthma?” and “Do you still have asthma?”</p> <p><b>Diabetes:</b> Weighted percent of people ages 18 years and older who report having ever been told by a doctor, nurse, or other health professionals that they have diabetes other than diabetes during pregnancy.</p> <p><b>Heart Disease:</b> Weighted percent of people ages 18 years and older who report ever having been told by a doctor, nurse, or other health professionals that they had angina or coronary heart disease.</p> <p><b>Low Life Expectancy:</b> Average number of years of life a person who has attained a given age can expect to live. (Note: Unlike most of the other datasets, high values of this data indicate low burdens. For percentile calculations of burden, the percentile is calculated in reverse order, so that the census tract with the highest life expectancy relative to area life expectancy (lowest burden on this measure) is at the 0<sup>th</sup> percentile, and the census tract with the lowest life expectancy relative to area life expectancy (highest burden on this measure) is at the 100<sup>th</sup> percentile. Census tracts with the highest number have the lowest life expectancy.</p>
Related Socioeconomic Factors	And is above the 65 <sup>th</sup> percentile for low income and at or below 20% for higher ed enrolment rate	<p><b>Low Income:</b> Percent of a census tract’s population in households where household income is at or below 200% of the Federal poverty level.</p> <p><b>Higher Ed Enrolment Rate:</b> Percent of people who are currently enrolled in college or graduate school.</p>



Category/ Indicator	Threshold for Disadvantaged Community	Indicator Definitions
<b>Training and Workforce Development</b>		
Environmental or Climate Indicators	If at or above the 90 <sup>th</sup> percentile for low median income as a percentage of area median income or linguistic isolation or unemployment or percent individuals in households at or below the 100% Federal poverty level	<p><b>Low Median Income:</b> Median income of the census tract calculated as a percent of the area’s median income. (Note: Unlike most of the other datasets, high values of this data indicate low burdens. For percentile calculations of burden, the percentile is calculated in reverse order, so that the census tract with the highest median income relative to area median income (lowest burden on this measure) is at the 0<sup>th</sup> percentile, and the census tract with the lowest median income relative to area median income (highest burden on this measure) is at the 100<sup>th</sup> percentile. Census tracts with the highest number have the lowest median income.</p> <p><b>Linguistic Isolation:</b> Percent of households where no one over the age 14 speaks English well.</p> <p><b>Unemployment:</b> Number of unemployed people as a percentage of the civilian labor force.</p> <p><b>Poverty:</b> Percent of a census tract’s population in households where the household income is at or below 100% of the Federal poverty level.</p>
Related Socioeconomic Factors	And is at or less than 90% for high school degree attainment rate for adults 25 years and older and at or below 20% for higher ed enrolment rate	<p><b>Higher Ed Enrolment Rate:</b> Percent of people who are currently enrolled in college or graduate school.</p> <p><b>High School Degree Attainment Rate:</b> Percent of people ages 25 years or older in a census tract whose education level is less than a high school diploma.</p>

**Source:** Council on Environmental Quality. 2022. Climate and Economic Justice Screening Tool. Available at: <https://screeningtool.geoplatform.gov/en/methodology#exp-agr-loss-rate> (last updated February 18, 2022).