

# Addressing Environmental Justice in NEPA Documents

## Frequently Asked Questions



## **Bureau of Land Management**

The mission of the Bureau of Land Management (BLM) is to sustain the health, diversity, and productivity of America's public lands for the use and enjoyment of present and future generations.

## **BLM Socioeconomics Program**

The BLM's Socioeconomics Program describes the human interests and values shaping public lands management. The program identifies the effects of proposed actions on communities and economies, and it supports community leaders, organizations, and BLM managers in promoting the economic and social sustainability of communities near the public lands. The Socioeconomics Program helps address local concerns while meeting national needs.

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For more information about the BLM's Socioeconomics Program, visit: <https://www.blm.gov/about/how-we-manage/socioeconomics>.





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# Introduction

This document provides guidance for considering environmental justice (EJ) in National Environmental Policy Act (NEPA) reviews and when making land management decisions. The guidance in this document applies to all environmental reviews under NEPA, including both for land use planning and for individual projects. The information is organized around Frequently Asked Questions (FAQs). This document contains direction for use by BLM employees and contractors involved in the NEPA process. It will also be of interest to staff who want a better understanding of EJ.

These FAQs were designed to increase the consistency of NEPA processes at the Bureau of Land Management (BLM). Planners and

environmental coordinators, BLM field office staff, and contractors will benefit from having available the step-by-step approach described. Decisionmakers will gain a clearer understanding of EJ considerations and how to incorporate those considerations into decision documents. BLM social scientists will have a common framework for reviewing EJ sections of NEPA and decision documents and providing advice on definitions, outreach, and impact assessment. The public—in particular, low-income and minority populations—will learn about opportunities for engagement and how disproportionate adverse effects are addressed in NEPA analyses, including by evaluating reasonable mitigation measures, and considered in decisions.







# The Basics

## 1. What does environmental justice mean?

Environmental justice (EJ) is the fair treatment and meaningful involvement of all potentially affected people—regardless of race, color, national origin, or income—when we in the federal government develop, implement, and enforce environmental laws, regulations, and policies.

- Fair treatment means that no group should bear a disproportionate share of the adverse consequences that could result from federal environmental programs or policies. Populations of particular concern are minority, low-income, and tribal communities.
- Meaningful involvement means that EJ populations have a voice when we in the federal government make decisions that could affect their well-being.



Need a roadmap? Open up [Executive Order \(EO\) 12898](#).

To begin with, this EO requires every federal agency to “make achieving Environmental Justice part of its mission.” That means:

“identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”<sup>1</sup>

So what exactly are we supposed to do? Look to the [Memorandum on Environmental Justice](#)<sup>2</sup>

### Analyze environmental effects:

“Each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by the National Environmental Policy Act of 1969....”

Note: EJ analysis does not take the place of the required ANILCA 810 subsistence analysis for BLM Alaska projects.

### Conduct public outreach:

“Each Federal agency shall provide opportunities for community input in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of meetings, crucial documents, and notices.”

### Mitigate environmental effects:

“Mitigation measures outlined or analyzed in an environmental assessment [EA], environmental impact statement [EIS], or record of decision [ROD], whenever feasible, should address significant and adverse environmental effects of proposed Federal actions on minority communities and low-income communities.”

## A FAILURE TO PROVIDE ENVIRONMENTAL JUSTICE

One 2014 study<sup>3</sup> found significant disparities in exposure to air pollution among specific socioeconomic groups in the United States. Researchers measured nitrogen dioxide concentrations, mainly those emitted from combustion in vehicles and power plants. Along with other traffic emissions, they have been linked to asthma, decreased lung function in children, low birth weights, and cardiovascular and respiratory mortality.

The authors found that average concentrations were 38% higher for nonwhites than for whites, 10% higher for people below versus above poverty level.

In accordance with Title VI of the Civil Rights Act of 1964, “each Federal agency shall ensure that all programs or activities receiving Federal financial assistance that affect human health or the environment do not directly, or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin.”<sup>4</sup>

EO 12898 responded to a historical pattern of low-income and minority populations suffering environmental and health burdens more than other groups.<sup>5</sup> Discriminatory siting of undesirable facilities, such as landfills and hazardous waste sites, near such populations is only one example of environmental *in*justice.

EJ is about more than addressing the harmful effects on humans from air pollution, toxic chemicals, groundwater pollution, or herbicides, however. EJ is also about ecological, economic, cultural, and social impacts—for instance, recreation opportunities of low-income and minority populations or communities, and their access to vital natural resources.

In addition, EO 13990 *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*<sup>6</sup> broadly reaffirms the importance of EJ and EO 14008 *Tackling the Climate Crisis at Home and Abroad*<sup>7</sup> updates advisory and reporting structures and requirements for how we do our EJ work. For more information on equitable access to federal programs see EO 13985 *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*<sup>8</sup>.

The environmental justice vision statement of the U.S. Department of the Interior (DOI) is:

“To provide outstanding management of the natural and cultural resources entrusted to us in a manner that is sustainable, equitable, accessible, and inclusive of all populations.”<sup>9</sup>

DOI’s published strategy on EJ embraces the goals described in the presidential memorandum, and it recognizes that to accomplish the objectives of EO 12898, agencies must ensure that responsible officials have a working knowledge of EJ requirements and how to implement them. DOI’s EJ strategy also anticipates agencies using grants, training, and other means to empower EJ communities to build and sustain environmentally, socially, and economically sound communities.<sup>10</sup>

## 2. What is the Bureau of Land Management’s current guidance on EJ?

The Bureau of Land Management (BLM) defines EJ as the fair treatment and meaningful involvement of all potentially affected people, as described above. EO 12898 requires that federal agencies pay particular attention to potential impacts of agency decisions on minority and low-income populations.

1. EJ must be considered in all proposed actions, including land use planning and individual projects

2. Field offices will conduct an environmental justice screening of their office's jurisdiction to identify and inventory minority populations, low-income populations, and Tribes in their area. The screening will be conducted, at a minimum, every two years by June 30 and be documented in a report. Available screening tools are documented in Attachment 1 and on the Socioeconomics SharePoint. The first screening will be conducted by Socioeconomics Program staff. For future years, the applicable BLM State office may choose to conduct screenings on behalf of their field offices. Note: This screening may not be sufficient for every action under NEPA due to the temporal or geographic scope.

3. The BLM will determine whether a proposed action or alternatives would adversely and disproportionately impact minority populations, low-income populations, and Tribes and consider cumulative effects, reasonably foreseeable actions taken by other parties within the timeframe of the direct and indirect effects. Analysis will first consider all potential social and economic effects, beneficial and adverse, on the general population to determine if impacts on these three populations are disproportionate.

4. The BLM will proactively provide opportunities for meaningful involvement of minority populations, low-income populations, and Tribes in BLM decision-making processes that affect their lives, livelihoods, and health. This commitment is in addition to the BLM's responsibilities to consult with federally recognized Tribes and Alaska Native Corporations, as outlined in Department and BLM policies. The BLM will provide translation services as needed in accordance with EO 13166 *Improving Access to Services for Persons With Limited English Proficiency*<sup>11</sup>.

5. The BLM will consider environmental justice when the Bureau develops, reviews, and assesses alternatives and potential mitigation measures in land use planning activities and all other NEPA processes, including, as appropriate,

consideration of environmental justice issues facing minority populations, low-income populations, and Tribes living near public lands, working with, and/or using public land resources.

### 3. How much EJ analysis is enough?

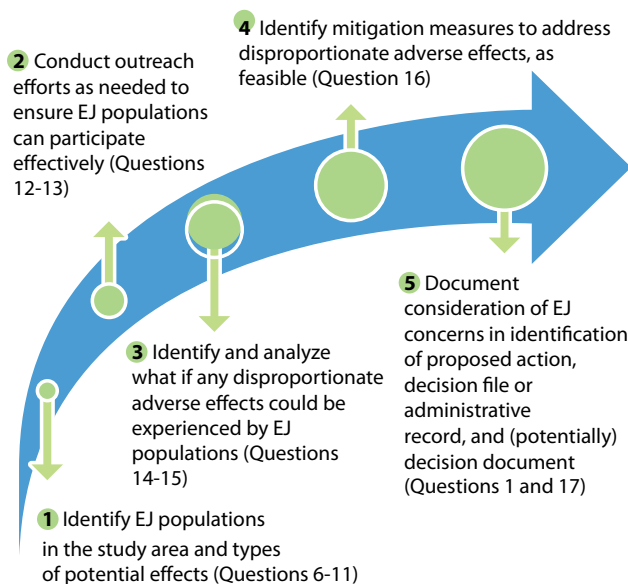
Any time you prepare a NEPA analysis, you need to consider environmental justice! The appropriate level of effort will likely be commensurate with the magnitude and complexity of environmental issues, public concerns, and project scope. Categorical Exclusions (CXs) and many EAs, such as those involving grazing renewals or modifications (or other routine projects where the impacts are negligible or do not extend to a broader population), may not require extended analysis or outreach. You must, however, document in the project file the presence or absence of minority and low-income populations in the project/planning area and assess whether such groups would be disproportionately and adversely affected by the proposed action or alternatives (including the no-action alternative). You can incorporate by reference the field office EJ screening report. Additional analysis may be necessary. By contrast, it is often not possible in complex EISs and RMPs to identify specific effects on populations because projects have not been located or described in detail. Programmatic EISs and RMPs may, instead, include a list of EJ considerations that should be conducted for individual projects implemented under the plan. (See Question 16 for an example.)



#### 4. What are the basic steps of an EJ analysis?

Although considering EJ is an independent requirement, it is also an integral part of the environmental analysis process. (See Figure 1.) The basic EJ steps track with the stages of the NEPA process.

Figure 1. Steps in the environmental justice process.



#### EJ ANALYSIS (ENVIRONMENTAL ASSESSMENT - OREGON MINERAL WITHDRAWAL)

The EA states:

“Josephine County [is] an environmental justice community due to its low-income status, given a poverty rate higher than that of the State as a whole.... Mining provides a very small contribution to the overall Josephine County economy, consisting of less than 1% of employment from 1988 to 2013. Nonetheless, because of the County’s status as a low-income community for the purposes of environmental justice, any economic effects could be an issue.... The Mineral Potential Report for the Crooks Creek Withdrawal (dated 11/25/2015) concluded that:

“The land proposed for withdrawal is determined to have resource potential for locatable minerals with no foreseeable development potential.... Therefore any effect the withdrawal might have on access to these minerals will be minimal should local market needs change (p. 1).”

Similarly, the Mineral Resources and Mining Section (3.1.2) of this EA concludes:

“Potential impacts to mineral resources and the mining community are minimal due to the fact that historical mining in the withdrawal area is virtually nonexistent.... There are no existing mining claims within the lands proposed for withdrawal, and the BLM’s management of O&C lands for timber production would not be affected.

Given that there would be a negligible effect on a very small component of the local economy, the proposed action would not have economic harm to the public, nor [are] there any disproportionate, negative effects on low-income populations.”

## NEPA EJ Analysis



### STEP 1. Identify EJ populations living in or near the project/planning area.

This step occurs early in the process. Early identification of EJ populations in the socioeconomic study area will allow the interdisciplinary team to engage those populations and discover EJ concerns throughout the NEPA process. Identify EJ populations in your scoping documents, and indicate what measures you will take to encourage members of these communities to participate in the process. (See Questions 6–11 for more about identifying EJ populations.)



### STEP 2. Start reaching out.

Make EJ populations aware of the project/plan<sup>a</sup>, and give them a chance to participate.

Outreach and public participation are most effective and beneficial when conducted early and at each step of the NEPA process, generally beginning with scoping and continuing through development of alternatives, assessment of environmental consequences, public comment periods, identification of a preferred alternative, and refinements leading to the proposed action and final NEPA document.

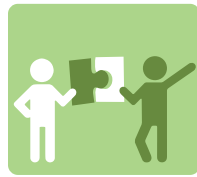
Efforts to notify and engage EJ populations must take into account the needs of these groups. They can be coordinated with planned public involvement, however, they may need to be separate. You should describe these efforts separately and with specificity (since traditional methods for involving the public may not reach EJ communities). (See Questions 12–13 for more about EJ outreach.)

<sup>a</sup> This document uses the term “project/plan” to refer to the proposed action being analyzed under NEPA, which could be an implementation-level decision or a planning decision.



### STEP 3. Determine if they could experience disproportionate, adverse impacts.

Assess the potential adverse effects of your project/plan on EJ populations for **each** alternative, including the no-action alternative. For CXs, adverse effects should be considered as potential extraordinary circumstances. Document your search for relevant data and the results of that search, including coordination with interdisciplinary team members. (See Questions 6–7 for more about collecting relevant data; see Questions 14–15 for more about performing these analyses. The featured example in Question 14 is based on the no-action alternative.)



### STEP 4. Consider how the BLM (or others) could mitigate adverse effects.

The potential for disproportionate adverse impacts on EJ populations does not mean that a project/plan cannot move forward. Three possible mitigation approaches are: avoidance, minimization, and compensation. Reasonable mitigation measures may include actions beyond the BLM’s jurisdiction. (Refer to the BLM Mitigation Handbook (H-1794-1 for more information; also see Question 16 for mitigating disproportionate adverse effects.)



### STEP 5. Write it all down.

Document your efforts to identify EJ populations, your search for relevant data, and your analysis of potential EJ impacts. Do this in the decision file or administrative record, as needed, and (potentially) in the decision document (i.e., the Record of Decision for an EIS, or the Decision Record for an EA). (See Question 17.)

## GOOD IDEA #1

### Start with the Basics

The socioeconomic data you gather during Step 1 (identification) and Step 2 (outreach) will feed the entire NEPA process. Feed it well! Use these two important steps to obtain information that is timely, relevant, and comprehensive.

## 5. EJ populations include which groups?

Minority, low-income, and tribal communities.

(Later we'll explain how you can identify the presence of these populations at the appropriate scale for your project/plan.)

### Minority:

This is a person who is American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, Black or African American, some other race (other than White), a combination of two or more races, or Hispanic. For more information on this term and how we use it, see Question 8.

Sound simple? Yes and no. The U.S. Census Bureau—the source used most often to identify minority populations—collects data based on separate definitions of race and ethnicity:

- **Race:** People identify their own race on census forms as: White; Black or African American; American Indian or Alaska Native; Asian; and Native Hawaiian or Other Pacific Islander. These are the minimum categories required by the Office of Management and Budget (OMB), which, as of the 1997, allows people to self-identify as more than one race.<sup>12</sup>

- **Ethnicity:** People identify their own ethnicity on census forms as: Hispanic or Latino; Not Hispanic or Latino. Hispanic or Latino refers to a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin. They may be of any race. Many people who describe their race as White also describe their ethnicity as Hispanic/Latino; these people would be considered members of a minority group for EJ purposes.

The U.S. Census Bureau combines these two definitions by providing data on the "white alone, non-Hispanic" population. Everyone else is considered as members of one or more minority groups. A minority population is identified in an EJ analysis when either the 50% threshold or the "meaningfully greater" threshold are met. (Question 8 discusses thresholds and explains how to perform the "meaningfully greater" analysis.)<sup>13</sup>

### Low-income population:

This is a set of individuals or group of people (e.g., who live in the same area or share the same experiences) at or below 200% of the poverty threshold. They meet the low-income threshold or low-income alternative criteria threshold (described in Question 9) and either live near the project/plan or they experience the same environmental exposure or negative effects from the project/plan (e.g., they live downstream of the project or they live in disparate places but consume contaminated fish from the same source).

### Tribal population:

For EJ purposes, the definition is broad: "a person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment."<sup>14</sup> Any American Indian or Alaska Native qualifies. Membership in a federally recognized tribe is not required.

## 6. What geographic scale should I use when describing EJ populations?

To conduct an EJ analysis you first need to locate potential EJ populations (Questions 8-9). Start by choosing an appropriate “geographic unit of analysis”, what we call a study area, and compare its demographics with the surrounding area (your benchmark or “reference area”). What is appropriate? It depends on the type of project/plan being proposed, and the likely range and scope of effects. See Question 14 for inspiration.

The steps listed below will help you identify an appropriate study area and reference area for your project/plan. An appropriate geographic scale will neither omit EJ populations nor include them unnecessarily. This choice must be reasoned and documented.



### Step 1. Determine the socioeconomic study area:

In other words, where do the people live who will be affected economically or otherwise? The area of some impacts, such as noise or dust, may be easy to determine. The socioeconomic study area will not always be the same as the project/planning area. People may be affected in counties that extend beyond a project/planning area boundary. For instance, mountain bikers who live in towns or cities outside the project/planning area may visit trails or areas within the project/planning area.

Use the information on project impacts gathered by the project team to think about the possible socioeconomic effects of your project/plan, and identify a meaningful geographic area for the people affected. Note: typically the study area is the same for low-income and minority analyses but some projects or impacts may impact these groups differently (See also Step 4).

Write a description of the socioeconomic study area and the rationale you used to identify it. Later, you'll use this study area for focusing your assessment of impacts.

### Step 2. Identify the scale(s)—or geographic unit(s) of analysis—you will use for gathering data about EJ populations:

Should you look by county, census block group, or incorporated place (city, town)? These are the most commonly used geographies. If the socioeconomic study area includes a fairly large number of counties, then county may be the appropriate unit of analysis. If the area includes only a few counties, then use of a smaller geographic scale may be justified (e.g., census block groups or individual towns, villages, and cities). If the socioeconomic study area is a single county, then it could be appropriate to go right to the individual communities, or even to neighborhoods. (See Appendix 1 for additional guidance.)

Consulting a map that shows the divisions and subdivisions within the socioeconomic study area is a good idea at this step. The BLM EJ Mapping tool and EPA's EJScreen will provide additional information. So is conferring with county commissioners, the Resource Advisory Council, or cooperating agencies. If you do not live in the local area, talk with BLM staff who do about EJ populations they are aware of. Many BLM employees have local knowledge and may provide insights that help you identify the appropriate scale.

## To Do

### Plan Ahead for EJ Information

EJ population identification must start early in the NEPA process to allow sufficient time. To facilitate this, every office will conduct biannual EJ screenings for areas managed by your state, district, or field office. See Good Idea #4 for ideas for how to prepare for your EJ screening. See also the Socioeconomics Program SharePoint for additional resources to help complete the screenings.

Think about the specificities of your area. For example, the State of Nevada has, at the time of publication, a minority population of 51.8%. This is largely due to demographics in the Las Vegas and Reno/Sparks metro areas and does not represent rural areas of the state. When working in rural Nevada, using the state as a reference area mask concentrations of minority residents. Instead, we recommend county data or the SEP report. (See Question 7 for data sources.)

You may need to use more than one scale to identify EJ populations. Take, for example, a county that has a large urban center or regional hub city, but that also contains smaller communities where EJ populations live. Considering everyone as a single group could mask effects on the smaller communities. In such circumstances it would be preferable to evaluate EJ populations at both the county scale and the community scale.

Write a description of the geographic scale(s) you select as your unit(s) of analysis, and explain your rationale.

**Step 3. Identify the larger reference area to be used for measuring minority and low-income status:**

Minority status depends on the percentage of minorities living in the reference area. If the geographic unit of analysis is by county, the reference area will usually be the state. If the units of analysis are individual communities, the reference area may be a county, a group of counties, or the state. Similarly, the reference area for identifying low-income populations could be the poverty level for a county, a group of counties, or the state.

**Step 4. Look for EJ populations that are not place-based:**

The use of categories such as county or census tract assumes that EJ populations are place-based. However, EJ populations may also use a common resource or location on BLM lands without living in the study area or geographically dispersed EJ populations may share in the effects of a potential action. For example:

- Members of a dispersed minority group may hunt, fish, or harvest wild plants at particular sites in a BLM district.
- Members of a tribe who live in many different communities may depend on cultural resources or places located on BLM-managed lands.
- Low-income individuals may be the predominant users of a particular recreation setting.
- Hispanic or low-income ranchers could constitute an EJ population.

If you know or suspect that an EJ population could be affected by the BLM's actions, or if members of a minority or low-income community contact the BLM to tell us so, look into it further. Use your own and others' local knowledge to identify groups of minority or low-income people who may not appear in the data or who don't live in the same place but could be affected by your project/plan.



## 7. What data sources should I use?

The collection of EJ-related tools and resources is ever growing. Please check the Socioeconomics Program SharePoint for the most updated list of recommended resources.

### For All Users - Identifying Populations:

**BLM EJ Mapping Tool:** The Socioeconomics Program has developed the BLM EJ Mapping tool as a resource for identifying EJ populations. The tool uses American Community Survey data at the Census Block Group level and populations are pre-screened for the thresholds discussed in Questions 8 and 9. The tool also includes features to facilitate outreach with EJ populations and an option to add information for future use.

**The Socioeconomic Profile Tool (SEP):** The SEP is a web-based public domain data tool that is updated annually. It contains the most commonly used socioeconomic data at the county level, including low-income and minority status, so it is a good source for data that can identify EJ populations. It is searchable for BLM Field Offices and National Conservation Lands, and provides downloadable reports. The tool uses published federal data from a variety of sources, including the Bureau of Economic Analysis and the U.S. Census Bureau (U.S. Department of Commerce), and the Bureau of Labor Statistics (U.S. Department of Labor).<sup>15</sup>

The SEP does not include other geographic areas, so it is not suitable for every EJ analysis. In addition, the reports may provide more information than you need. Some of that data may be relevant to the socioeconomic section of a NEPA document (e.g., wildland-urban interface areas or the percent of federal land types in a given county or state).

Questions 8 and 9 each have an example of how to use the SEP.

### For Advanced Users - Identifying Populations:

**The U.S. Census:** You can obtain data at multiple geographic scales directly from the Census Bureau's website.<sup>16</sup> This includes data from the 10-year census and the American Community Survey (ACS), which is collected over a 1–5 year period. Both sources of data can be accessed through a series of dropdown menus at a variety of scales. Tables for desired geographies (e.g., poverty level for all Oregon counties) can be downloaded as Excel files and mapping tools are available.<sup>17</sup> The interface is not entirely intuitive, the Census Bureau has a large library of training materials to help you.

## GOOD IDEA #2

### Choose ACS over the Census

Which data set is preferable for an EJ analysis—the American Community Survey or the 10-year census? The census has the advantage of counting everyone. Yet because the census is conducted only every 10 years, information becomes increasingly out of date. And the census no longer provides data about income on which to determine poverty status.

ACS can be used to measure both minority and poverty status and is therefore generally the preferred source over the census. It is a sample, and in 2020 the ACS faced data collection challenges due to the COVID-19 pandemic. ACS 5-year data using these results may have higher than usual margins of error; this should be taken into consideration in your analysis. Practically speaking, however, there may be little meaningful difference between the two sources' ability to identify minority populations.

Avoid mixing data from different sources, as doing so may produce inaccurate results. For example, do not use ACS's percent below poverty level in a county and then use as a reference area the census's percent below poverty level in the state.

**QuickFacts:** Another great data source from the Census Bureau is QuickFacts.<sup>18</sup> This search engine easily allows the user to select geographies and populate a table showing select statistics—including poverty and minority status—for states, counties, cities, and towns with a population of at least 5,000.

For poverty information, QuickFacts uses different data sources for different scales. Poverty rates at the county level are reported based on the annual Small Area Income and Poverty Estimates of income and poverty statistics for all counties, states, and school districts (used for administering federal programs and allocating federal funds to local governments). These model-based single-year estimates better reflect current conditions than do multiyear survey estimates.

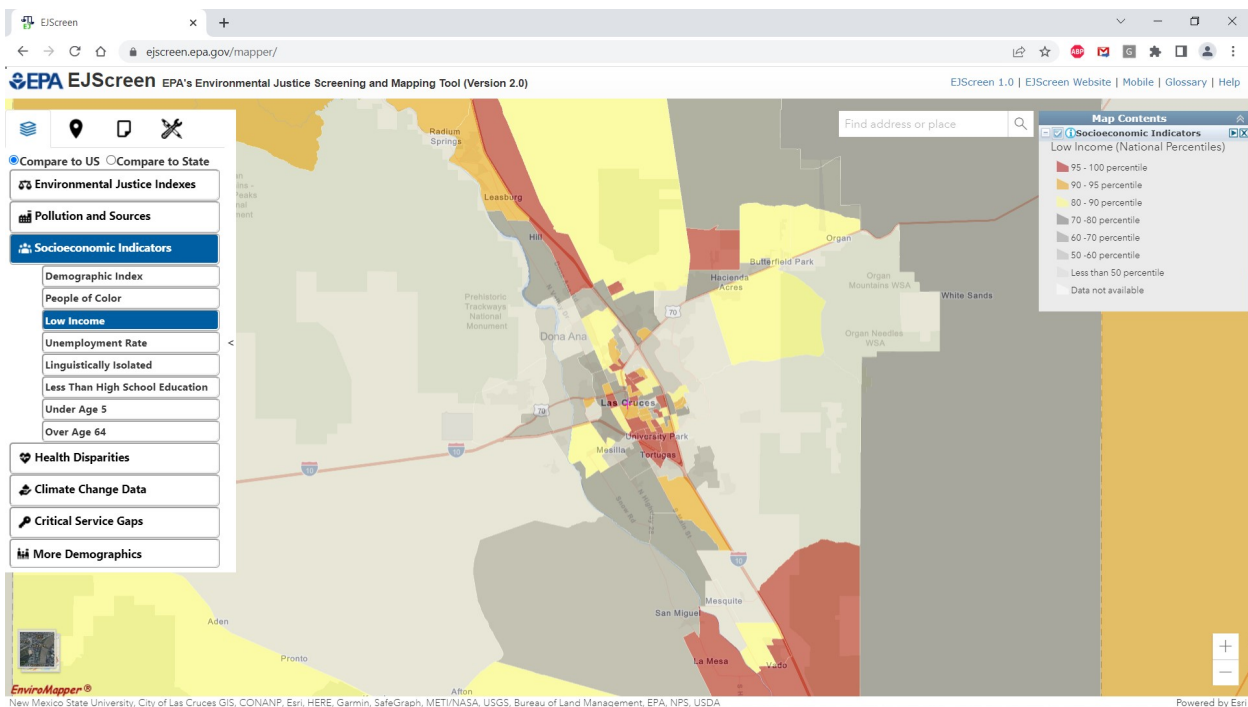
For counties and states, the following data are available: all people in poverty; children under age 18 in poverty; related children ages 5–17 in families in poverty; children

under age 5 in poverty (for states only); and median household income. For school districts, data available are: total population; children ages 5–17; and related children ages 5–17 in families in poverty.

### For All Users - The Affected Environment

**EJScreen and NEPAassist:** The EPA also has data and tools useful for identifying both populations and elements of the affected environment relevant to EJ analyses. One of the best is EJScreen.<sup>19</sup> EJScreen uses data collected through the ACS. It can produce maps, graphs, and tables detailing the presence and density of minority and low-income populations throughout the United States. The tool also includes and maps other measures relevant to EJ analyses, such as Superfund sites, toxic releases, air quality non-attainment areas, and ratings for the risk of cancer and other serious health effects from breathing air toxins. (See Figure 2 for a screenshot of EJScreen results.) EPA’s NEPAassist also has tools relevant to EJ.<sup>20</sup>

**Figure 2. Screenshot of mapped EJScreen search results**



**Social Vulnerability Index:** The Center for Disease Control and the Agency for Toxic Substances and Disease Registry (CDC/ATSDR) Social Vulnerability Index uses 15 variables from the Census to visualize the potential negative effects on communities caused by external stresses on human health.<sup>21</sup> Data is mapped and available for download at the county or census tract levels. This is an excellent tool for describing the affected environment for your EJ analyses.

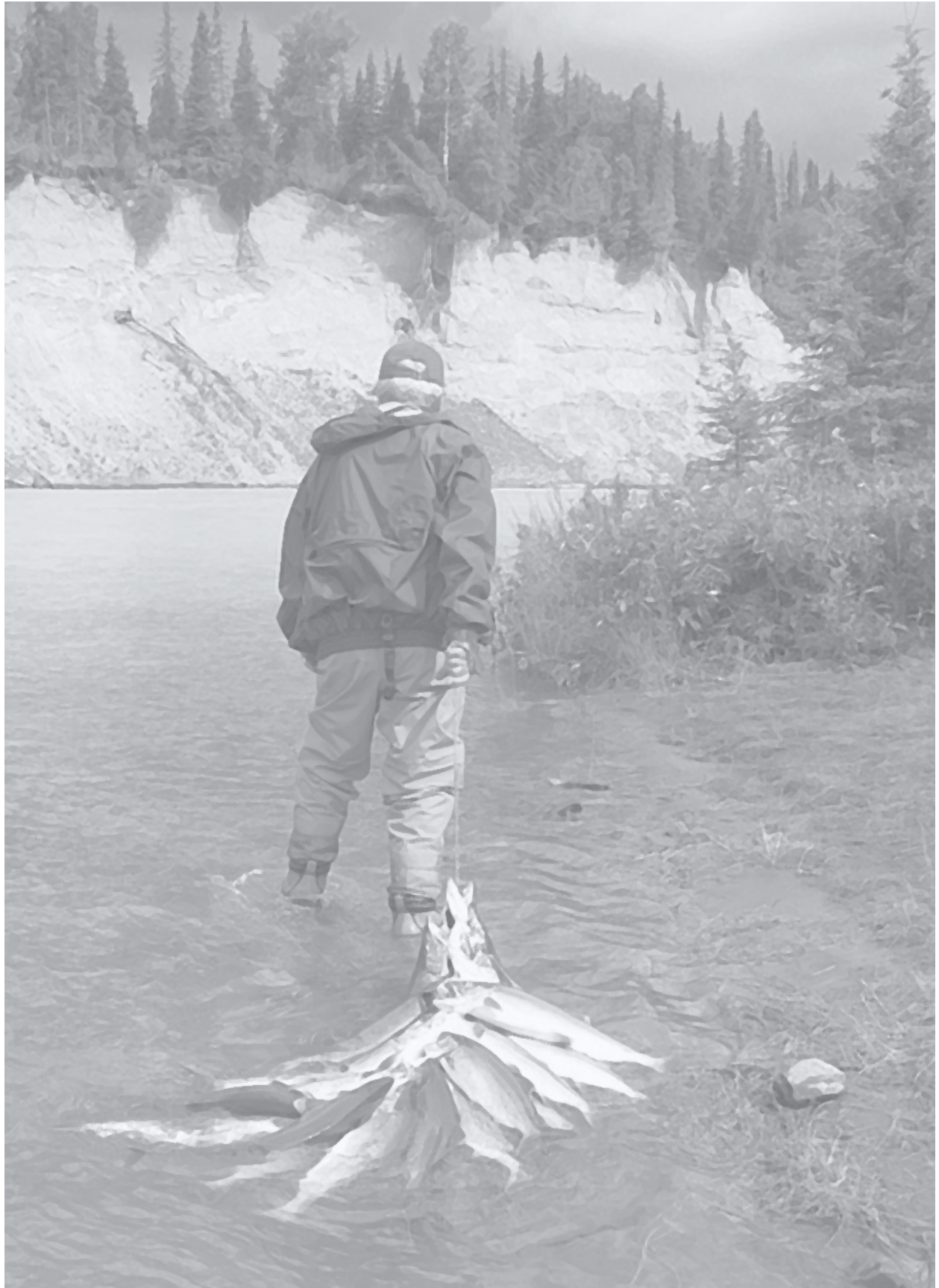
**Populations at Risk:** Headwaters Economics publishes many web-based tools, including Populations at Risk (PAR).<sup>22</sup> PAR uses ACS data to highlight social, health, or economic vulnerabilities due to race, age, gender, poverty status, or other factors. Topics covered in PAR include labor participation rates, housing affordability, language proficiency, individuals lacking health insurance, individuals in “deep poverty” (earning < 50% of the federal poverty threshold), and households receiving public assistance (see Figure 3 for an example).

While the SEP is the more useful tool for identifying EJ populations, PAR is the better tool for understanding how disproportionate adverse effects occur based on vulnerabilities of specific EJ populations.

**Local Data Sources:** Check with county governments, the state demographer, or other state or local officials to see what data are available and commonly used in your area. School districts are a good source for data on low-income populations, for example. They publish data on the percent of children who participate in the free or reduced-cost National School Lunch Program because there are income thresholds for participation, the scale is small, and the data are kept up to date. University extension agents or faculty who work with the surrounding area, county extension agents, and potentially affected community organizations and their members are additional source of information.

**Figure 3. PAR data on households receiving public assistance.**

	Oregon	Coos County, OR	Coos Bay City, OR	U.S.
<b>Total Households, 2014</b>	<b>1,522,988</b>	<b>25,847</b>	<b>6,608</b>	<b>116,211,092</b>
<b>Households receiving:</b>				
Supplemental Security Income (SSI)	67,960	1,761	399	6,160,788
Cash public assistance income	59,842	1,560	387	3,274,407
Food Stamp/SNAP	290,204	5,900	1,847	15,089,358
<b>Percent of Total, 2014</b>				
Supplemental Security Income (SSI)	4.5%	6.8%	6.0%	5.3%
Cash public assistance income	3.9%	6.0%	5.9%	2.8%
Food Stamp/SNAP	19.1%	22.8%	28.0%	13.0%



# Find EJ Populations

## 8. How do I identify minority populations in the study area?

Once you have identified the appropriate scale for your study area (see Question 6), you can use the data sources described in Question 7 to identify minority populations for your project/plan. Later, you'll use steps outlined in Question 8 to identify low-income populations and in Questions 14, 15, and 16, respectively, to assess **how** a proposed action may affect a minority or low-income population, whether that effect is **disproportionate**, and if so, what **mitigation** is feasible.

E.O. 12898 uses the terms “minority” and “low-income” to identify two sets of populations whose members have been regularly excluded

from important decision-making processes in ways that adversely impact their health and environment and have created a disproportionate distribution of environmental amenities and burdens. We use the term “minority” in that context, while recognizing that it is becoming increasingly inaccurate from a demographic perspective and hides significant differences between groups of people and their experiences.

There are three ways to identify minority populations for the purposes of EJ screening: **Threshold Analysis, Meaningfully Greater Analysis (MGA)**, and through **local data and information**.<sup>23</sup> Scoping and local information will be discussed in Question 10.



Figure 4. Minority Population from SEP Tool Report

San Juan County, UT		
Minorities (Identifying Environment Justice Populations)		
Race and Ethnicity, 2020*	San Juan County, UT	Utah
Total Minority Population	55.7%	22.1%

Data extracted from full report.

The **Threshold Analysis** is the most straightforward of the three approaches. (If you have multiple study areas, do them one at a time.) Everyone other than a non-Hispanic white person is considered a minority. The U.S. Census Bureau does not provide this information directly. It is calculated for you by the Socioeconomic Profile Tool and BLM EJ Mapping Tool. You can also calculate it yourself. To calculate it yourself, subtract the “White alone, non-Hispanic” percent from 100%. If the result is **50% or greater**, you have identified a minority population in your study area. Note the breakdown of which minorities are present in your study area, you will need to know this for your analysis (Questions 14 and 15). In this case you do not need to conduct the MGA. If you think you've missed something, look at local data or go to Question 9 and identifying low-income populations.

Let's look at an example. For San Juan County, Utah, the SEP Tool calculates the minority population for us, and it is over 50% (Figure 4). In this case, we have identified a potential EJ population and can move to Question 9 and identifying low-income populations. Note: the full SEP report includes the breakdown of minorities, see Figure 5 for an example.

The **Meaningfully Greater Analysis** approach gives practitioners a tool to incorporate smaller segments of the population that may have specific social concerns or vulnerabilities but do not appear in the threshold analysis. Without this analysis, concentrations of minorities less than 50% of the population would be missed. The BLM uses **110%** of the minority percentage of the geographic reference area as the threshold for meaningfully greater. This threshold can vary by agency, so it is important to do your own analysis following BLM guidance or justify why you are using a different threshold.

To conduct the MGA, you must have a study area and a reference area. You identified these under Question 6. Let's apply the meaningfully greater analysis to a specific scenario, where Twin Falls County, ID is the study area and the state of Idaho is the reference area (as depicted in Figure 5).

Twin Falls County has a minority population of 22.3%. This is far below the 50% required for the Threshold Analysis. The state of Idaho has a population of 18.6%. When we compare Twin Falls' percentage with 110% of the state 's percentage ( $18.6 \times 1.10 = 20.46$ ) we see that the percentage of minorities in the county is higher than 110% of the percentage in the state ( $22.3 > 20.46$ ).

**Figure 5. The meaningfully greater analysis using the SEP Tool for Twin Falls County, ID**

Race and Ethnicity, 2020*	Twin Falls County, ID	Idaho
<b>Percent of Total</b>		
White alone	88.6%	88.4%
Black or African American alone	0.8%	0.7%
American Indian alone	0.8%	1.3%
Asian alone	1.8%	1.4%
Native Hawaii & Other Pacific Is. alone	0.0%	0.2%
Some other race alone	3.4%	3.8%
Two or more races	4.6%	4.3%
Hispanic or Latino (of any race)	16.6%	12.7%
Not Hispanic or Latino	83.4%	87.3%
Not Hispanic & White alone	77.7%	81.4%
<b>Total Minority Population</b>	<b>22.3%</b>	<b>18.6%</b>

**High Reliability:** Data with coefficients of variation (CVs) < 12% are in black to indicate that the sampling error is relatively small.  
**Medium Reliability:** Data with CVs between 12 & 40% are in orange to indicate that the values should be interpreted with caution.  
**Low Reliability:** Data with CVs > 40% are displayed in red to indicate that the estimate is considered very unreliable.

Alternatively, we can look at the BLM EJ Mapping Tool for a visual representation with the block group as the study area and county as the reference area (Figure 6). The Mapping tool is more sensitive and may identify populations the SEP does not.

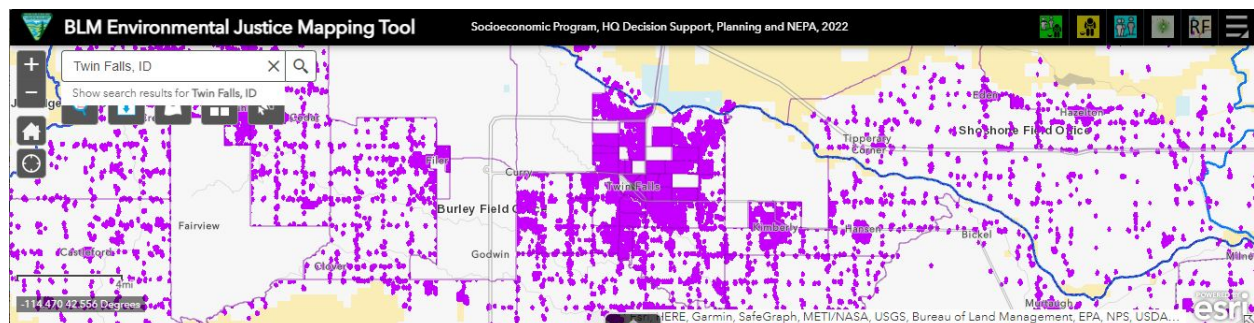
Both the SEP tool and the BLM EJ GIS tool provide additional detail on what specific racial and ethnic populations are present in an area. You may need this information for your analysis.

**Local sources** may be more accurate or current than the census or other national data sources. You may also have **local information** about populations who use the project area but may not live nearby.

One reason to conduct outreach (see Question 12) is to get first-hand insights to assist in the identification of minority and low-income populations and their potential vulnerabilities. A proposed project/plan may not affect populations or everyone in a population the same way and may require different mitigation measures. For additional considerations regarding Tribes, see Question 13.

You may need to define subgroups of EJ populations—groups that differ substantially or that have different pathways by which they could be affected (see Question 14). Ask yourself if we should make separate outreach efforts or impact analyses for tribal or other specific racial or ethnic populations (e.g., immigrant populations, refugee populations, non-English speaking populations).

**Figure 6. Mapping minority populations using the BLM EJ Mapping Tool for Twin Falls, ID**



## 9. How do I identify low-income populations in the study area?

The BLM defines low-income individuals as people whose income is less than or equal to **twice (200% of) the federal “poverty level.”** The U.S. Census Bureau publishes federal poverty level thresholds, which are updated yearly for inflation.<sup>24</sup> Note: in certain areas where the cost of living is very high, people may effectively be low-income even if they make more than twice the poverty level. You may use an alternate level for low-income if it is more appropriate for your area provided that it is higher than twice the poverty level and you document your rationale for doing so. Note that income is measured for multiple social groupings, including “people” and “families”. The SEP tool reports both. Make sure you use the people measure and compare it to the people measure! (Use of other groups, such as “families” or “children” may be acceptable if justified and explained in the record.)

Remember, per CEQ, a low-income “community”, or population, may be defined as:

“...either a group of individuals living in geographic proximity to one another, or a geographically dispersed/transient set of individuals (such as migrant workers or Native American), where either type of group experiences common conditions of environmental exposure or effect.”<sup>25</sup>

To find low-income populations, you will need a study area and a reference area—typically the same ones you chose for identifying minority populations, though you can use others if justified.

Because there is no universal definition for low-income, you will have to pay attention to what data sources you use. Recommendations:

- If you are identifying low-income populations at the block-group scale, use the BLM EJ GIS Tool

- If measuring low-income populations at the community or county scale, use the SEP tool. Beginning in 2023 the SEP Tool provides the 200% threshold for counties.

### GOOD IDEA #3

#### Additional Sources for Data on Low-Income Populations

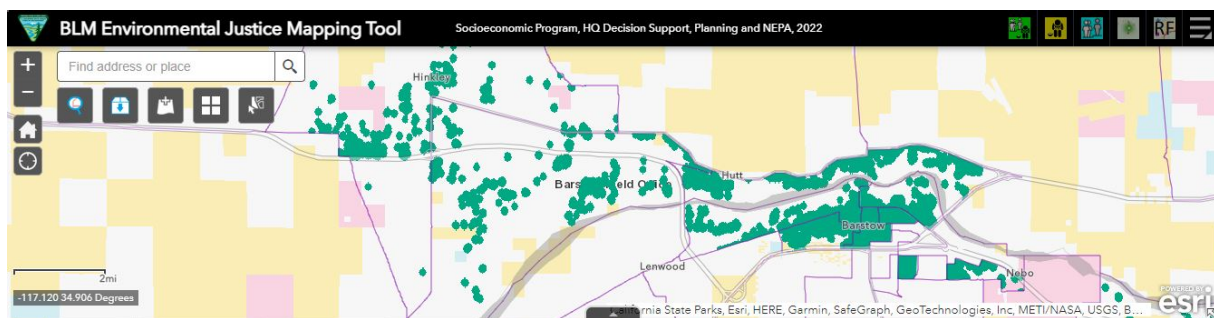
If you need to use a higher poverty threshold, use the ACS. It provides information for multiple thresholds, including 200%. This will require some calculation. For example, to identify people living at or under 200% the poverty line for block groups, subtract ACS table C17002\_008 # Ratio of income to poverty 2.00 and over from the total population. EPA’s EJ Screen uses the 200% threshold as its definition for low-income and allows you to compare with locations of environmental hazards. Note: percents are available in the data table under “explore reports”. Please see the EJ Screen website<sup>26</sup> for trainings and additional information. Local data can give you a more detailed picture of what is happening in a community. School districts are a good source, **consult them for the percentage of children who participate in the free or reduced-cost National School Lunch Program.** There are income thresholds for participation, the scale is small, and the data are kept up to date.

Once you have chosen your data set, there are three ways to identify low-income populations in the study area, the **50% Threshold Analysis**, the **Low-Income Threshold analysis**, and **local data and information**.<sup>27</sup>



The **50% Threshold Analysis** should sound familiar from identifying study areas with minority communities. Identify what percent of people in your study area are living at or below 200% of the poverty line. If that percent is equal to or greater than 50, you have identified a low-income population in your study area. You do not have to complete the low-income threshold analysis. The BLM EJ Mapping tool includes a 50% threshold layer, see Figure 7 for an example where block groups around Barstow, CA are the study area. You can also get this information from the SEP tool if you are using counties as the study area and the state as the reference area (Figure 8). If you identify a low-income population at this stage you do not need to conduct the low-income threshold analysis.

**Figure 7. Low-income populations in the BLM EJ Mapping Tool**



**Figure 8. Percentage of low-income population documented in the SEP tool**

## Poverty (Identifying Environment Justice Populations)

Poverty, 2020*	Cochise County, AZ	Arizona
People	119,114	7,012,999
Families	31,657	1,720,736
People Below Poverty	18,121	990,528
Families below poverty	3,451	173,920

### Percent of Total

People Below Poverty	15.2%	14.1%
Families below poverty	10.9%	10.1%

For the **Low-Income Threshold Analysis** any study area that has a low-income percentage of the population equal to or higher than the reference area is identified as having a low-income EJ community of concern. (Note: this is not the same as the Meaningfully Greater Analysis, see Question 8). To do this, you need a study area and a reference area, typically the same ones you chose for identifying minority populations. Look up the low-income population for the reference area as a percentage of individuals (e.g., 14% of the population lived at or below 200% of the poverty level over the past year). If that percent is 14%, and the study area has a poverty rate of 14% or higher, it would be identified as having a low-income EJ population. See Figure 8 for an example using the SEP tool. Note: until 2023 the SEP tool uses poverty instead of low-income.

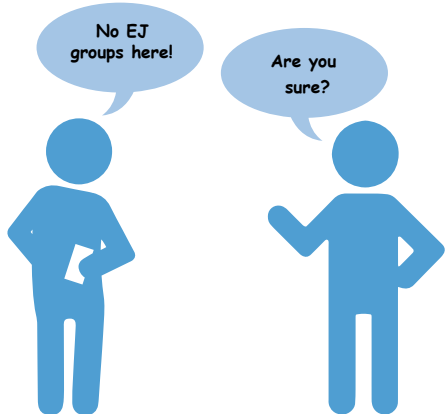
As you did with minority populations, use **local data and information** as needed. They are often more detailed, at a finer scale, and more recent. If you suspect a low-income population is present but does not appear in these data sources, see "Good Idea #3" for additional sources or consult your Socioeconomic Specialist. Scoping may also be a good source of information, particularly where populations may use the area but not reside nearby. Subsistence hunting or fishing and fuelwood gathering are good examples of uses where populations may travel long distances that you should watch for in your EJ analysis.

**10. I did not identify any minority, low-income, or tribal populations. What now?**

So you followed the steps outlined in Questions 8 and 9, and you did not identify any minority, low-income, or tribal populations (See Question 13 for more on Tribes). You are about to conclude that your initial screening did not identify EJ populations of concern. Before you do so, **test your results, review:**

- the **spatial scales** you selected. Would they have been likely to identify small concentrations of minority, low-income, or tribal populations (Question 6)? Did you apply the meaningfully greater standard, which is intended to help avoid “false negatives” (Question 8)?
- **tribal and other socioeconomic baseline information.** Are there groups outside the socioeconomic study area that may use the lands and resources in question?
- the **results of scoping and outreach** to underrepresented communities. Do these results point to EJ issues?

If after performing this additional review, you confirm the validity of the negative finding, then carefully **document the steps you took** to search for EJ populations (in the proposed action, decision file or administrative record, and more briefly in the text of the EA, EIS, plan, or, in an extraordinary circumstance, a CX).



**11. I identified minority, low-income, or tribal populations. What now?**

Document any identified EJ populations in your socioeconomic study area. It can be helpful to use maps to show spatial distribution, and tables to show the size and extent of the population(s). Include a brief narrative description. An Environmental Justice Screening and Analysis Worksheet is available on the Socioeconomics SharePoint and can be used to document your work.

Thinking back to Question 4, we must analyze the environmental effects of our actions on identified low-income, minority, and tribal populations and provide them the opportunity for meaningful involvement in the NEPA process.

See Question 12 for specific considerations that will help you ensure meaningful engagement by minority and low-income populations and Question 13 for specific considerations on Tribal Consultation. See Questions 14-16 on how to assess potential impacts and mitigation. To successfully fulfill these obligations, it is important to understand the complexity of your project and the demographic makeup and location of your EJ communities. Less complicated EAs may not require extensive efforts or may warrant only a table that adequately summarizes your findings. Complicated EAs and EISs will require more extensive outreach and communication. CXs require consideration of impacts but may not require outreach. Ask yourself: Do the communities include a mix of minorities, low-income, or tribal populations? If so, consider how this may affect outreach and impact assessment. Sometimes, the entire socioeconomic study area population (or most of it) will be an EJ population. For example, in rural Alaska, projects/plans could affect a number of Alaska Native communities. Similarly, some rural parts of the West contain many low-income communities. Evaluate your overall public involvement strategy in light of the population’s EJ status.

# Reach Out

## 12. What kinds of outreach are successful with EJ populations?

Effective public involvement is essential to the development of sound resource management decisions and is everyone's responsibility. BLM's *National Environmental Policy Act Handbook* provides this overview:

"A primary goal of public involvement is to ensure that all interested and affected parties are aware of your proposed action. Knowing your community well is the first step in determining the interested and affected parties and tribes. You may already have a core list of those interested in and potentially affected by the BLM's proposed actions; this may provide a good starting point. Work with your public affairs officer and other BLM staff, community leaders, and governmental agencies (Federal, State, and local) to help determine interested and affected parties and tribes."<sup>28</sup>



Students learn how fire scars are used to reconstruct fire history from Brian Anderson of the Beaverhead-Deerlodge National Forest. (right)

Public outreach is best accomplished through ongoing, regular contact with key groups and communities. In this way, the BLM builds familiarity and trust and simplifies future public engagement. Doing so is especially important with EJ populations, who may have little involvement with public land management.

What does public outreach look like? Speaking at schools, appearing at job fairs, attending local community meetings, and partnering on projects that benefit the community—for starters. The BLM routinely seeks such opportunities.

For example, BLM-Montana sponsored a field camp for tribal high school youth, examining how people have interacted with the land through cultural traditions as well as modern science. BLM-Utah and Latinos in Action created a Hispanic Youth Initiative to create opportunities for urban Latino youth to play, learn, serve, and work in Utah's outdoors. The BLM participates in many leadership forums as well. For example, the BLM participated in an intertribal workshop organized by the Crow Tribe, which brought together tribal officials from Montana and the Dakotas to explore tribal perspectives on management of public lands and resources.

Check out the "Success Stories" below to learn some ways in which the BLM has connected well with minority, low-income, and tribal communities. More examples are available in DOI's *Environmental Justice Annual Implementation Report*.<sup>29</sup>

## OUTREACH SUCCESS STORY – WASHINGTON

The 29,000-acre Douglas Creek recreation area has many visitors who enjoy recreating along the perennial creek. The BLM—through Team Naturaleza (TN), our liaison with nearby Latino communities—has been organizing visits and educating Latino visitors about the diversity of the shrub-steppe ecosystem. It has also engaged locals in addressing littering and graffiti issues and accomplishing backlogged maintenance projects. The BLM also funded a summer intern, who worked with TN, the U.S. Forest Service, and the U.S. Fish and Wildlife Service to coordinate and lead a variety of bilingual environmental education projects in the North Central Washington area. These included bird walks, assisting at a free fishing day event, and helping with a National Public Lands Day event.

When groups share a clear interest related to the BLM's land management responsibilities, outreach can be uncomplicated. A board of county commissioners or a group of local ranchers is easy to identify and contact. Discovering their concerns is usually straightforward.

Connecting with EJ populations or communities can prove more challenging. Here are some tips, which can improve your outreach success once you identify EJ populations using demographic and economic data (Questions 7, 8, and 9):

- Language can pose a barrier. Identify needs early in the process and budget accordingly, including: translating outreach materials and providing an interpreter at public meetings.
- Schedule public meetings at convenient times and locations. Community members may work non-traditional schedules that make it difficult to attend otherwise. Consider

technology limitations and use technology that is accessible, such as online with a call-in.

- Post notices (in the appropriate language) at facilities widely used by community members, such as churches, recreation centers, or bars. (Announcements made through mailing lists, English language newspapers, and BLM websites may not reach some EJ populations.)
- Get the word out through social networks and informal community leaders, particularly in the absence of formal organizations such as tribal councils. For example, churches and other places of worship are important gathering places for many communities. The leaders of those institutions may be willing to post signs or make announcements on behalf of the BLM or even to host public meetings.
- Target outreach to those in the community who may actually be impacted, recognizing that everyone may not be. See Question 14 for information on how to address impacts. For example, will the project/plan affect only those individuals who live in certain locations, or who participate in specific activities, or who share a common pathway of exposure? Consider “each segment of the minority population or low-income population that may potentially be affected (e.g., minority-owned small businesses, low-income transit riders, subsistence fishers).”<sup>30</sup>
- It is important to follow up. It can be difficult for people to engage with the BLM. Let participants know how the outreach contributed to the process: final decision, development of alternatives or mitigations. This is both a sign of respect and a way to build trust and maintain open communication. As with all stakeholders, a simple note, email or mailer doesn't suffice. In the case of EJ communities, find the best location(s) to provide this information.



BLM staff can help managers meet their responsibility for outreach by providing data, advice, and a network of community contacts to make outreach more effective.

## OUTREACH SUCCESS STORY – Colorado

Colorado's San Luis Valley Field Office used BLM's Collaborative Action and Dispute Resolution (CADR) program to hire a contractor to assist with interviewing stakeholders on how to better engage EJ communities and to expand BLM's network of contacts. The contractor identified 26 organizations by area of interest, such as those working to preserve Hispanic culture, educational programs that bring youth to BLM lands, re-establishing Tribal community connections, and growing tourism in this low-income area. They also provided a communication roadmap to help BLM build a trusted relationship with the local community.

**Subsistence Advisory Panel meeting.**

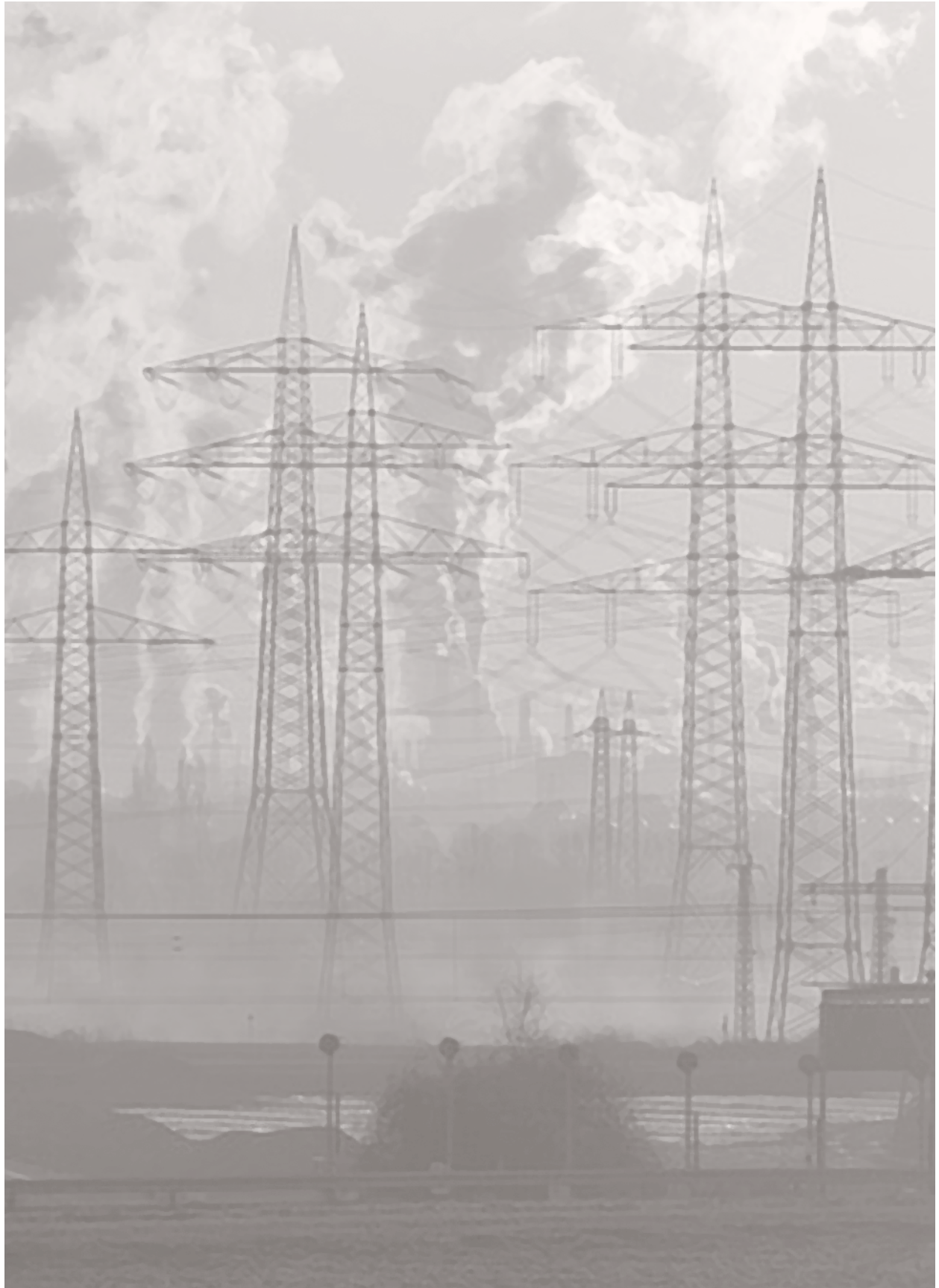


### **13. What is the role of government-to-government consultation?**

As discussed in Question 5, any American Indian or Alaska Native is considered part of a tribal/ minority population. Membership in a federally recognized tribe is not required.

In most cases, when you identify American Indian or Alaska Native communities in the socioeconomic study area, members will be part of a federally recognized tribe. Government-to-government consultation will be the primary way that you'll seek information from tribes. It can also be an important tool for understanding and resolving EJ issues, regardless of whether affected individuals live on or off a reservation. For more information about reaching out to potentially affected American Indians or Alaska Natives—whether or not they are part of a recognized tribe—consult DOI's tribal consultation policy<sup>31</sup> and the BLM's consultation manual.<sup>32</sup>

The steps outlined in this document do not constitute government-to-government consultation. Likewise, tribal consultation does not remove the requirement for EJ analysis under NEPA. The two efforts should be coordinated and complementary.



# Assess Potential Impacts and Mitigation

## 14. How do I identify the possible effects of my project/plan on EJ populations?

Generally, start by considering potential adverse effects of proposed management alternatives on all populations. This may need to occur after the IDT has completed most of its analysis because **you will need conclusions from the analysis of other issues from the resource subject matter experts to do this**. Then try to assess whether EJ populations are particularly vulnerable and, as a result, likely to suffer disproportionate adverse effects in terms of resources and their uses. (This is similar to the socioeconomic impact analysis that is basic to environmental evaluation under NEPA.<sup>33</sup>) Document your findings and conclusions. EJ populations may also be affected in ways that the general population is not.

Two concepts are important in identifying adverse social, economic, or environmental effects on a population: **vulnerability** and **impact pathway**.

**Vulnerability = Exposure + Sensitivity.**<sup>34</sup>

**Exposure** is used here broadly to mean the potential to be affected by environmental change, whether through physical, technological, or socioeconomic factors.

- Households close to a uranium mine with the potential for radioactive runoff may be exposed through physical proximity.
- Drinking water in rural communities that is drawn from surface lakes or rivers may be exposed to airborne toxins.

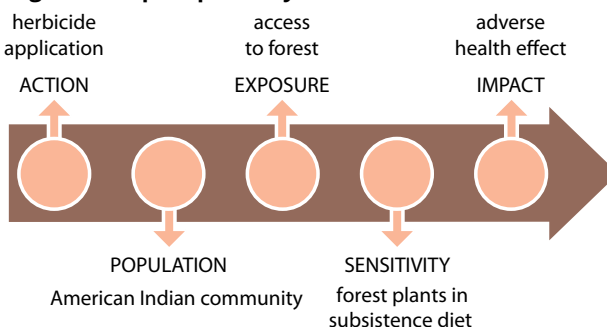
**Sensitivity** refers to any factor that may increase or decrease the magnitude of impact.

- Communities who regularly harvest plants for subsistence, in a forest treated with herbicides, may experience greater toxicity than other forest users.
- Certain populations, such as young children and the elderly, are more susceptible to contaminants and have more difficulty recovering from exposure. For example, exposing the developing bodies of children to lead creates serious health problems and irreversible developmental delays. Low-income populations are more sensitive to shocks because they lack the reserves to weather changes.

To be **vulnerable** to a change a population must be **sensitive** to it and **exposed** to it.

An **impact pathway** involves the chain of factors by which an environmental change could have (human) consequences. (See Figure 9.) Note: Any action can have multiple effects, experienced through multiple impact pathways (see featured example below on the Hoopa Valley Tribe).

**Figure 9. Impact pathway.**



The entire interdisciplinary team involved in analyzing the potential effects of various alternatives, along with cooperating agencies, should consider EJ impacts. Resource specialists may have special knowledge of EJ populations who use specific resources, such as fisheries. Use your public outreach and your contacts with EJ population members, advocates, and leaders to obtain a broader perspective on any impacts affecting EJ populations.

## HOW KLAMATH RIVER DAMS ADVERSELY AFFECT THE HOOPA VALLEY TRIBE

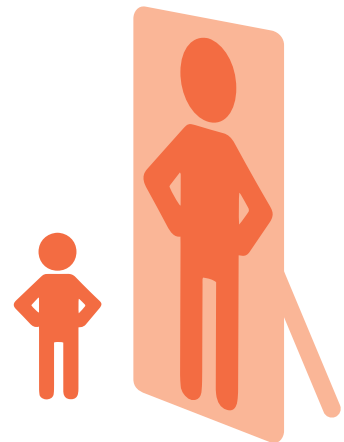
In 2012 the Bureau of Reclamation examined the socioeconomic consequences for the Hoopa Valley Tribe in the event that dams on the Klamath River were removed.<sup>35</sup> Important here is the analysis of the *no-action alternative*: keeping the dams in place and continuing to limit passage of anadromous fish (fish that migrate from the sea to spawn). The report demonstrates a web of impacts flowing from the no-action alternative, reflecting the intertwined effects on fish populations and Hoopa economy, society, health, and culture:

- Fishing should provide a key component of Hoopa food security, which the dams under the no-action alternative would continue to jeopardize.
- The regional barter system (which thrived before European contact) would continue to be adversely affected if salmon is insufficient for trade purposes.
- The Hoopa Valley Tribe has experienced an increase in obesity, diabetes, and heart disease rates, which coincides with the declining availability of traditional foods, particularly salmon. Higher disability and mortality rates may result.

## 15. How do I decide if the potential adverse effects of my project/plan could disproportionately affect EJ populations?

The BLM is committed to determining if its proposed actions will adversely and disproportionately impact minority, low-income, or tribal populations. In accordance with NEPA, analyze all potential health, social, and economic effects, positive and negative, on any distinct group (not just EJ populations). To do this, you should consider:

- **Aggregate effects:** These are the net effect of all proposed actions (e.g., proposed actions could affect multiple sources of wild food for an EJ population while also taking jobs away from the same group). Consider the whole suite of proposed actions and all varieties of potential impact.
- **Cumulative effects:** These are the effects of proposed actions, compounded by impact when added to other past, present, and reasonably foreseeable future actions from any source (e.g., if other agencies have already limited or plan to limit an EJ population's access to a valuable resource, the impact of BLM-proposed restrictions would be even more negative).<sup>36</sup> Listen to what EJ populations have to say about existing or likely problems.







Next, determine if any negative effects on EJ populations are disproportionate. Ask:

1) Would the effect be considered **significant** as defined by NEPA?<sup>37</sup>

The CEQ regulations explain, “In considering whether the effects of the proposed action are significant, agencies shall analyze the potentially affected environment and degree of the effects of the action. . . .” (40 CFR 1501.3(b)).

2) Would the effect be **disproportionately high and adverse**?

If the answer to **any** of the following CEQ criteria is “yes,” the answer to this question may also be “yes”:

“(a) Whether there is or will be an impact on the natural or physical environment **that significantly** (as employed by NEPA) **and adversely affects** a minority population, low-income population, or Indian tribe. Such effects may include ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian tribes when those impacts are interrelated to impacts on the natural or physical environment; and

“(b) Whether environmental effects are significant (as employed by NEPA) and are or may be having an adverse impact on minority populations, low-income populations, or Indian tribes that appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group; and

“(c) Whether the environmental effects occur or would occur in a minority population, low-income population, or Indian tribe **affected by cumulative or multiple adverse exposures** from environmental hazards.” (Emphasis added.<sup>38</sup>)

Determining whether the effect of an action on an EJ population would “appreciably exceed... those on the general population is a matter of judgment, taking all relevant information into account. This information and judgment must be documented and reasoned. Will they be exposed? Are they potentially more sensitive to those impacts due to income status, historic exclusion based on race or ethnicity, or inability to respond to the action? If so, then the action may yield disproportionate and adverse impacts to the EJ community. A statement noting that both EJ and non-EJ populations will experience impacts is not sufficient justification for why the effects of those impacts will not be disproportionate or adverse.

As always, document your work. Figure 10 is an example of how to document your analysis. Having the impact conclusions from all the issues considered in one table will also help you identify aggregate impacts. For an example of this table in a NEPA document, see the EA for the January 2021 Competitive Oil and Gas Lease Sale - Carlsbad Field Office.<sup>39</sup>

**Figure 10. Summary Comparison of Conclusions from Analysis of Other Issues to Environmental Justice**

Issues Analyzed	Summary of Potential Adverse Impacts	Are Potential Impacts Disproportionate to EJ Populations?
Include title and section number.	Summarize potential adverse impacts to EJ populations.	State the potential for disproportionate impacts to EJ populations. Include rationale.

## EXAMPLE: EFFECTS ANALYSIS

- Potentially Significant.
- Not Potentially Significant.

The Final EIS for the Gateway West Transmission Line determined that operation of the line could interfere with agricultural production, thereby reducing the demand for farm labor, which is disproportionately Hispanic: “Operation of the Proposed Route and Route Alternatives has the potential to negatively affect minority and low-income farm workers.” Yet while this adverse effect could occur in principle, in reality:

“operation-related impacts to agricultural operations are not expected to noticeably affect overall agricultural production and employment in the affected counties or have adverse human health or environmental effects on farm workers.”<sup>40</sup>

In other words, the degree of this effect is not sufficient to be considered significant. Other than documenting the analysis, staff need take no further action.

## EXAMPLE: EFFECTS ANALYSIS

- Potentially Significant.
- Not Potentially Significant.

The Final Vegetation Treatment Programmatic EIS concluded that tribal populations in the area could be disproportionately affected by herbicide application.

“The potential risks to Native Americans from exposure to herbicides used in BLM programs were evaluated separately from risks to other [publics].... Native Americans could be exposed to higher levels of herbicides as a result of subsistence and cultural activities such as plant gathering and consumption of fish caught in local streams. Therefore, risk levels determined for Native American receptors reflect unique exposure scenarios as well as typical scenarios for public receptors, but with higher levels of exposure than public receptors.”<sup>41</sup>

The document identified various measures, including consultation with tribal governments before application of herbicide treatments, to minimize the risk of adverse impacts to tribal populations.<sup>42</sup>



## 16. What are the approaches for mitigating disproportionate adverse impacts?

Consistent with EJ principles, the BLM considers opportunities for eliminating, reducing, or compensating for adverse effects of a proposed action on EJ populations. Note that neither Executive Order 12898 nor NEPA requires the complete avoidance of adverse effects.

“Under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect should heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population.”<sup>43</sup>

Check the BLM's current guidance on mitigation, gather your interdisciplinary team, and think creatively about ways to mitigate impact. Do this for **all** possible disproportionate adverse impact on an EJ population. Invite ideas from members of the affected EJ population, who may be aware of mitigation options you would not have considered.

**Avoidance** is the preferred approach to mitigation, followed by **minimization**, and then **compensation** for remaining unavoidable impacts.<sup>44</sup>

First, impacts should be avoided by altering project design, location, or declining to authorize the project; then minimized through project modifications and permit conditions; and, generally, only then compensated for remaining unavoidable impacts after all appropriate and practicable avoidance and minimization measures have been applied.<sup>45</sup>



### Avoidance.

For socioeconomic impacts, avoidance is most relevant at a project scale. For example,

the BLM's Northern Arizona Mineral Withdrawal Final EIS identified a range of adverse impacts, including potential health impacts on ten EJ communities in the study area, as a result of a projected increase in uranium mining activity.<sup>46</sup> Consequently, the BLM chose to avoid such impacts by withdrawing more than 1 million acres from further mining claims for 20 years.<sup>47</sup>



### Minimization.

Many socioeconomic impacts of energy and minerals development—e.g., burdens on housing, roads, and emergency services—can be reduced by requiring a slower pace of development or limiting development to certain seasons. Potential impacts, such as the risk of fugitive dust generated by solar energy facilities affecting nearby communities, can be addressed by requiring enhanced monitoring and the imposition of conditional stipulations for dust abatement.<sup>48</sup>



## Compensation.

Using compensation can provide an effective response to disproportionate adverse EJ impacts. After all appropriate and practicable avoidance and minimization measures have been applied, compensating for remaining impacts may be necessary. Compensation is not always monetary. It may take the form of replacing or substituting resources (e.g., through restoration at an alternative location, or enhancement). A last resort may be financial compensation, through a mitigation fund or other mechanism. Please refer to current agency guidance on compensatory mitigation options and procedures.

### Environmental Assessments:

Even if the BLM determines that a “Finding of No Significant Impact” (FONSI) or mitigated FONSI is appropriate, you should still explore reasonable mitigation measures for adverse impacts to EJ populations (and, when issuing a FONSI, describe how specific measures would mitigate impacts).<sup>49</sup>

### Additional mitigation and outreach:

It may not be feasible to identify specific impacts to EJ populations in some documents, including PEISs and RMPs, since the specific design, schedule, and siting of projects to be developed are typically unknown. Nonetheless, many generic mitigation measures can be identified at a programmatic stage.

Here are some examples of generic mitigation measures:

- Providing community health screenings for low-income and minority groups.

- Establishing vocational training programs for local low-income and minority workers to promote development of skills for the solar energy industry.
- Providing key information to local governments and directly to low-income and minority populations about the scale and timeline of expected solar energy projects and about the experience of other low-income and minority communities that have followed the same energy development path.
- Providing onsite temporary housing for construction workers and/or working with local chambers of commerce to coordinate short-term housing needs.
- Holding community workshops to discuss the potential social change and disruption from construction of utility-scale renewable energy projects.<sup>50</sup>

Depending on the circumstances and legal context, such mitigation measures may or may not be within the BLM’s authority to require as part of project/plan approval. Under NEPA, however, the BLM must identify all relevant, reasonable mitigation measures, even if some or all of them fall outside the BLM’s jurisdiction or that of cooperating agencies.<sup>51</sup>



## 17. Does the decision document need to address EJ?

You must document your process and your findings. See the BLM's *National Environmental Policy Act Handbook*<sup>52</sup> for exactly what to include in each kind of NEPA document.

For all projects, your EJ screening process and results will be included in the decision file, even if there were no EJ populations identified. This is where documenting your work on a worksheet can be helpful, see the Socioeconomics Program SharePoint. In cases where EJ populations are identified, you will also document your impact analysis for all findings on impact, including those of no impact or no disproportionate impact. Work with your project lead to begin compiling the decision file as early in the process as possible.

***EJ must be discussed in the decision document if EJ issues were a consideration in selecting the final alternative, or if the BLM has committed to specific actions for mitigating disproportionate adverse effects on an EJ population.***



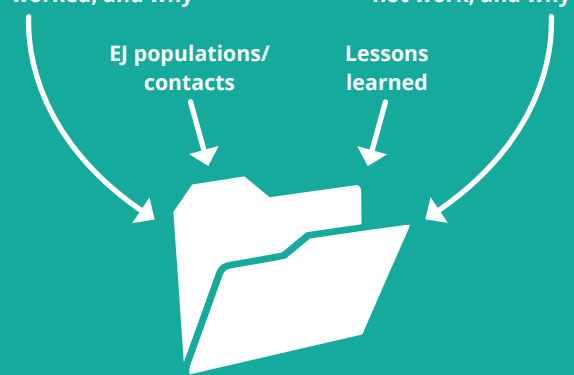
### GOOD IDEA #4

Keep an Office EJ File—For You and the Next Person!

Every BLM office should have an EJ file! Over time, the task of identifying EJ populations, designing outreach, and evaluating environmental consequences will get easier as you build on existing data and relationships. You'll also be able to share and gain knowledge when talking with other staff working on EJ issues. If you do multiple similar projects in the same area within a year you can likely use the same EJ screening for them all! Save time through efficient record keeping!

Public involvement strategies that worked, and why

Public involvement strategies that did not work, and why





# Epilogue: EJ as a Way of Doing Business

Establishing routine, ongoing communication with low-income, minority, and tribal communities (through your field office, district office, or state office) is the single most useful contribution you can make to meet the BLM's EJ objectives. Bear EJ principles in mind when your program develops new policies and procedures. Follow the BLM's coordination and consultation requirements with tribal and local governments to identify EJ issues and mitigation opportunities. Familiarize yourself with the Department's *Environmental Justice Strategic Plan*.<sup>53</sup> Stay in touch with EJ

developments through your BLM zoned Socioeconomic Specialist or other members of the BLM's Environmental Justice Working Group. Consider joining the Working Group yourself!

This document focuses on analysis for NEPA documents, but success in implementing EJ principles across the BLM requires a broader commitment—where we pay attention to EJ principles simply as the right way of doing business.







# Appendix 1: Geographic Units

**State.** A state often serves as a reference area for determining how to identify minority or low-income populations.<sup>54</sup> For example, we learned that one way to identify minority populations is to see whether the percent of the population in a given area is “meaningfully greater” than that of the surrounding population or broader area. Therefore, we need to pick a reference area, such as a state, for comparison purposes. For most BLM projects/plans, a state would be too big as a unit of analysis—all of the differences within the state would be averaged out.

**County.** This is a well-known unit of governance and a scale at which the U.S. Census Bureau reports data such as income and minority status. If a project/plan has statewide or greater implications and effects, then county may be a reasonable unit of analysis. For site-specific projects/plans whose influence will encompass a smaller area, such as several or fewer counties, then county might be too big as a unit of analysis because it would dilute all of the communities within the county. In Alaska, the comparable scale would often be a borough.

**Incorporated Place.** This is usually a city, town, or village, but can have other legal descriptions. An incorporated place is legally established to provide governmental functions for a concentration of people. Elko, Nevada, and Portland, Oregon, are incorporated places.

**Census Designated Place.** This is the statistical counterpart of an incorporated place. Census designated places are unincorporated areas, so delineated to provide data for settled concentrations of people that are often identifiable by name, such as a village or town. The boundaries of census designated places may change from one decennial census to another, creating a challenge for describing demographic trends.

**Zip Code Tabulation Area.** This represents the approximate area of a U.S. Postal Service 5-digit zip code service area. The U.S. Census Bureau creates them using whole blocks to present statistical data from censuses and surveys. They often make sense as neighborhoods in urban areas but can be quite large in rural areas.

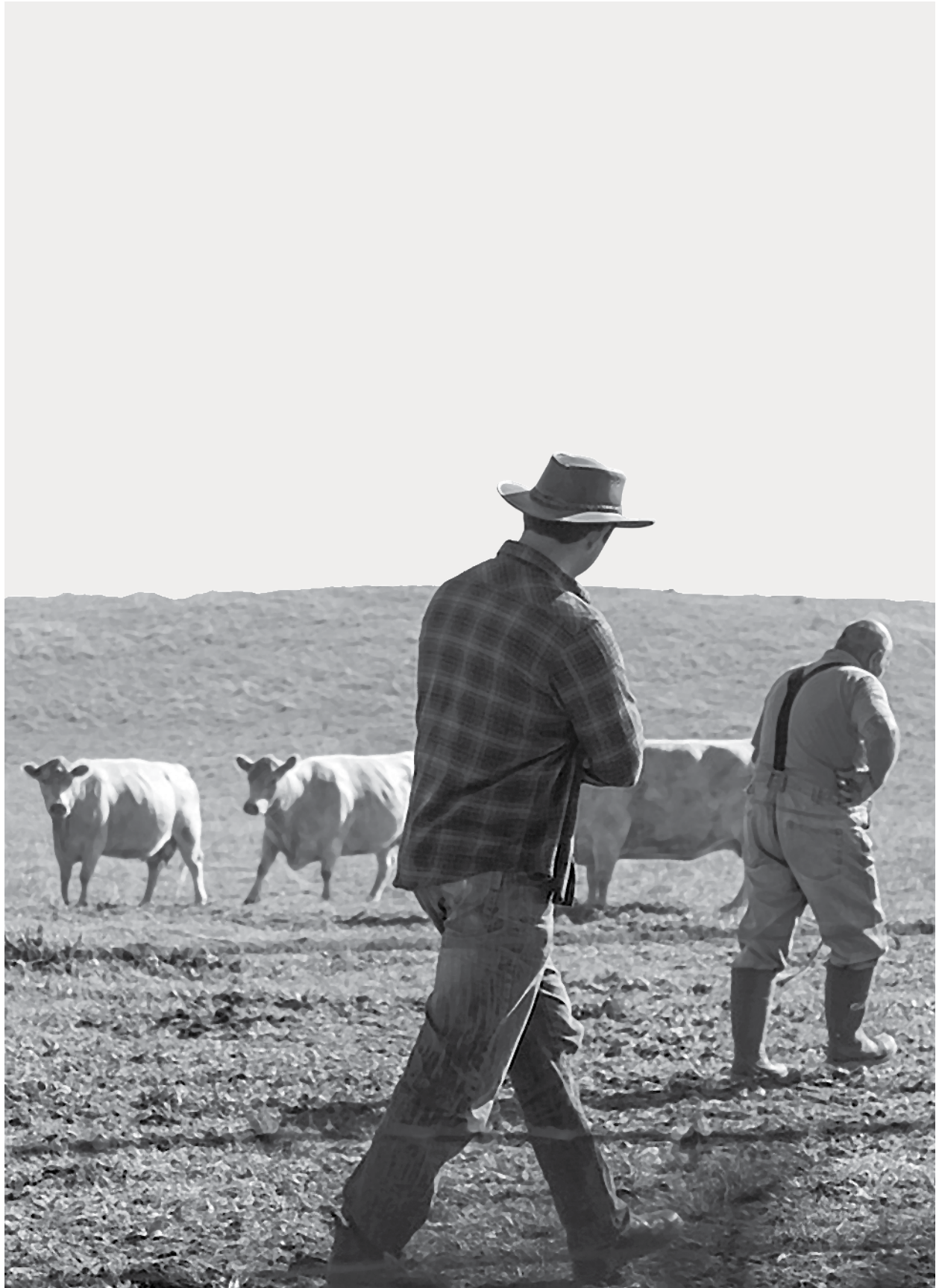
**Census Tract.** This is a small, relatively permanent statistical subdivision within a county, with boundaries generally following visible and identifiable features. A census tract usually has a population between 1,200 and 8,000 people, with an optimum size of 4,000. This means that in very rural, sparsely populated areas, census tracts can actually be quite large to capture enough people, while in more urban areas they will be quite small.

**Census Block Group.** This is a statistical division of a census tract, generally including between 600 and 3,000 people.

**Census Block.** This is a statistical area bounded by visible features, such as streets, roads, streams, and railroad tracks. Census blocks are small in urban areas but may be large in rural areas. For most purposes, the census block is the smallest unit within the geographic organization of U.S. Census Bureau data. Neighborhoods can be described by combining census blocks. Census blocks are aggregated into ***census block groups***, which in turn are aggregated into ***census tracts***.

The U.S. Census Bureau publishes data at other scales, but these are not as commonly used.







# Endnotes

- <sup>1</sup> William J. Clinton, Executive Order 12898, “Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations,” 59 *Federal Register* 7629 (February 16, 1994).
- <sup>2</sup> William J. Clinton, “Memorandum on Environmental Justice” (February 11, 1994). <https://www.gpo.gov/fdsys/pkg/WCPD-1994-02-14/pdf/WCPD-1994-02-14-Pg279.pdf>
- <sup>3</sup> Lara P. Clark, Dylan B. Millet, and Julian D. Marshall, “National Patterns in Environmental Injustice and Inequality: Outdoor NO<sub>2</sub> Air Pollution in the United States,” *PLoS ONE* 9(4) (2014): e94431. doi:10.1371/journal.pone.0094431.
- <sup>4</sup> Clinton, “Memorandum on Environmental Justice.”
- <sup>5</sup> Paul Mohai, David Pellow, and J. Timmons Roberts, “Environmental Justice,” *Annual Review of Environment and Resources* 34 (2009): 406–8.
- <sup>6</sup> Executive Order 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*. 86 *Federal Register* 7037 (January 20, 2021).
- <sup>7</sup> Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*. 86 *Federal Register* 7619 (January 27, 2021).
- <sup>8</sup> Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*. 86 *Federal Register* 7009 (January 20, 2021).
- <sup>9</sup> U.S. Department of the Interior (DOI), *Environmental Justice Strategic Plan* (Washington, DC: U.S. Department of the Interior, 2016), 1. [https://www.doi.gov/sites/doi.gov/files/uploads/doi\\_ej\\_strategic\\_plan\\_final\\_nov2016.pdf](https://www.doi.gov/sites/doi.gov/files/uploads/doi_ej_strategic_plan_final_nov2016.pdf)
- <sup>10</sup> DOI, *Environmental Justice Strategic Plan*.
- <sup>11</sup> Executive Order 13166, *Improving Access to Services for Persons With Limited English Proficiency*. 65 *Federal Register* 50121 (August 11, 2000).
- <sup>12</sup> Office of Management and Budget (OMB), *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity*, 62 *Federal Register* 58782 (October 30, 1997).
- <sup>13</sup> Council on Environmental Quality (CEQ), *Environmental Justice: Guidance under the National Environmental Policy Act* (Washington, DC: Council on Environmental Quality, 1997). [http://energy.gov/sites/prod/files/nepapub/nepa\\_documents/RedDont/G-CEQ-EJGuidance.pdf](http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-EJGuidance.pdf)
- <sup>14</sup> OMB, *Revisions to the Standards*, 58782.
- <sup>15</sup> The Socioeconomic Profile tool was developed by Headwaters Economics with support from the BLM. <https://headwaterseconomics.org/tools/blm-profiles/>
- <sup>16</sup> U.S. Census Bureau, <https://data.census.gov/>
- <sup>17</sup> For information on U.S. Census Bureau mapping tools, see: <https://www.census.gov/programs-surveys/geography/data/interactive-maps.html>

- <sup>18</sup> U.S. Census Bureau, QuickFacts: <http://www.census.gov/quickfacts/table/PST045215/00>
- <sup>19</sup> Environmental Protection Agency (EPA), *EJScreen*: <https://www.epa.gov/ejscreen>
- <sup>20</sup> EPA, NEPAassist: <https://www.epa.gov/nepa/nepassist>
- <sup>21</sup> CDC/ATSDR Social Vulnerability Index: <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>
- <sup>22</sup> *Headwaters Economics, Populations at Risk*: <https://headwaterseconomics.org/tools/populations-at-risk/>
- <sup>23</sup> This approach is based on the Federal Interagency Working Group on Environmental Justice (EJ IWG) & NEPA Committee, *Practices for EJ Methodologies in NEPA Reviews*, 2016. [https://www.epa.gov/sites/default/files/2016-08/documents/nepa\\_promising\\_practices\\_document\\_2016.pdf](https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf)
- <sup>24</sup> U.S. Census Bureau. *Poverty*. <https://www.census.gov/topics/income-poverty/poverty.html>
- <sup>25</sup> CEQ, *Environmental Justice*, 25.
- <sup>26</sup> Environmental Protection Agency (EPA), *EJScreen*: <https://www.epa.gov/ejscreen>
- <sup>27</sup> This approach is based on the Federal Interagency Working Group on Environmental Justice (EJ IWG) & NEPA Committee, *Practices for EJ Methodologies in NEPA Reviews*, 2016. [https://www.epa.gov/sites/default/files/2016-08/documents/nepa\\_promising\\_practices\\_document\\_2016.pdf](https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf)
- <sup>28</sup> BLM, *National Environmental Policy Act Handbook*, H-1790-1 (Washington, DC: Bureau of Land Management, 2008), § 6.9.1, p. 63. [https://www.blm.gov/sites/blm.gov/files/uploads/Media\\_Library\\_BLM\\_Policy\\_Handbook\\_h1790-1.pdf](https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_Handbook_h1790-1.pdf)
- <sup>29</sup> DOI, *Environmental Justice Annual Implementation Reports* are available here: <https://www.doi.gov/oepec/resources/environmental-justice/policy>
- <sup>30</sup> EJ IWG & NEPA Committee, *Promising Practices for EJ Methodologies in NEPA Reviews*.
- <sup>31</sup> DOI, *Department of the Interior Policy on Consultation with Indian Tribes*. <https://www.doi.gov/sites/doi.gov/files/migrated/cobell/upload/FINAL-Departmental-tribal-consultation-policy.pdf>. See also DOI's website on tribal consultation policy at <https://www.doi.gov/tribes/Tribal-Consultation-Policy>.
- <sup>32</sup> BLM, *Tribal Relations*, MS-1780 (Washington, DC: Bureau of Land Management, 2016). See: <https://www.blm.gov/sites/blm.gov/files/uploads/MS%201780.pdf>.
- <sup>33</sup> The BLM's *Land Use Planning Handbook*, contains general direction for socioeconomic impact assessment. See also: The Interorganizational Committee on Principles and Guidelines for Social Impact Assessment, "Principles and Guidelines for Social Impact Assessment in the USA," *Impact Assessment and Project Appraisal* 21 (3) (September 2003): 231–50.
- <sup>34</sup> This is adapted from the formulation of vulnerability common in climate change research, which considers vulnerability as reflecting the combined effect of exposure, sensitivity, and adaptive capacity. See Hans-Martin Füssel and Richard J.T. Klein, "Climate Change Vulnerability Assessments: An Evolution of Conceptual Thinking." *Climatic Change* 75 (3) (2006): 301–29. <https://doi.org/10.1007/s10584-006-0329-3>
- <sup>35</sup> Bureau of Reclamation, *Hoopa Valley Tribe Sociocultural/Socioeconomics Effects Analysis Technical Report*, section 2.1 (Affected Environment) (Denver, CO: Bureau of Reclamation, Technical Service Center, 2012).
- <sup>36</sup> BLM, *National Environmental Policy Act Handbook*, 36 H-1790-1 6.8.3
- <sup>37</sup> On "significance" under NEPA, see 40 CFR 1501.3(b) and the BLM's *National Environmental Policy Act Handbook*, § 7.3.

- <sup>38</sup> CEQ, *Environmental Justice*, 26–27, emphasis added. Criteria for assessing disproportionately high and adverse **health** effects are provided in the same section (page 26).
- <sup>39</sup> January 2021 Competitive Oil and Gas Lease Sale - Carlsbad Field Office. <https://eplanning.blm.gov/eplanning-ui/project/2000535/510>
- <sup>40</sup> BLM, *Gateway West Transmission Line Project, Final Environmental Impact Statement*, 3.5-10 (Cheyenne, WY, and Boise, ID: Bureau of Land Management, 2013). <https://www.blm.gov/sites/blm.gov/files/uploads/Gateway%20West%20FSEIS%20and%20LUPAs%20Protest%20Report%20%28January%2019%2C%202017%29.pdf>
- <sup>41</sup> BLM, *Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States, Programmatic Environmental Impact Statement* (Washington, DC: Bureau of Land Management, 2007), 4–149. <https://archive.org/details/finalprogrammatic00unit>
- <sup>42</sup> BLM, *Vegetation Treatment PEIS*, Appendix G, “Tribal and Agency Consultation.”
- <sup>43</sup> CEQ, *Environmental Justice*, 10.
- <sup>44</sup> The three categories of avoidance, minimization, and compensation follow BLM policy on mitigation (MS-1794 and H-1794-1), which, for practical purposes, condenses into three categories the five categories of mitigation described by the CEQ.
- <sup>45</sup> MS-1794, Chapter 3 and H-1794-1, Chapter 3
- <sup>46</sup> BLM, *Northern Arizona Proposed Withdrawal, Final Environmental Impact Statement* (Table 2.8-1: Summary of Potential Environmental Impacts by Alternative) (St. George, UT: Bureau of Land Management, October 2011), 2–47. <https://permanent.fdlp.gov/gpo26632/Complete.pdf>
- <sup>47</sup> BLM, *Northern Arizona Withdrawal, Record of Decision* (Washington, DC: Bureau of Land Management, 2012), 2. [https://az.water.usgs.gov/projects/Uranium/docs/DOI%20\(2012\)%20ROD%20Northern%20Arizona%20Withdrawal.pdf](https://az.water.usgs.gov/projects/Uranium/docs/DOI%20(2012)%20ROD%20Northern%20Arizona%20Withdrawal.pdf)
- <sup>48</sup> BLM, *Regional Mitigation Strategy for the Colorado Solar Energy Zones* (Washington, DC: Bureau of Land Management, January 2017), 64. [https://www.blm.gov/sites/blm.gov/files/uploads/FINAL%20CO%20SRMS\\_Jan%202017\\_508compliant-1.pdf](https://www.blm.gov/sites/blm.gov/files/uploads/FINAL%20CO%20SRMS_Jan%202017_508compliant-1.pdf)
- <sup>49</sup> EJ IWG & NEPA Committee, *Promising Practices for EJ Methodologies in NEPA Reviews*, 50.
- <sup>50</sup> BLM, *Desert Renewable Energy*, ch. IV-23: Socioeconomics and Environmental Justice, IV.23-21, 40, 41. <https://eplanning.blm.gov/eplanning-ui/project/66459/510>
- <sup>51</sup> CEQ, Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, §19b. <https://www.energy.gov/nepa/downloads/forty-most-asked-questions-concerning-ceqs-national-environmental-policy-act>
- <sup>52</sup> BLM, *National Environmental Policy Act Handbook*, 36 H-1790-1
- <sup>53</sup> DOI, *Environmental Justice Strategic Plan*.
- <sup>54</sup> Appendix 1 definitions are adapted from U.S. Census Bureau description of geographic terms at: <https://www.census.gov/geo/reference/terms.html>.

