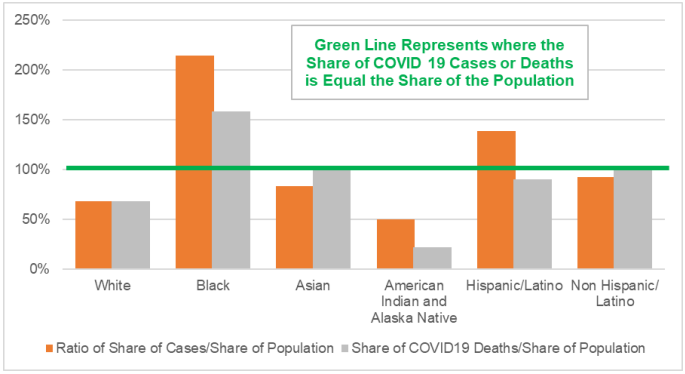
Environmental Justice, Social and Racial Equity

The Greene Economics research team has worked with demographics, socioeconomic analysis, and environmental justice for over 20 years – beginning soon after E.O. 12898 was signed by President Clinton in 1994. The key to conducting this work involves blending demographic data and forecasting with community interviews and geospatial analysis. Using these tools, we strive to communicate to general audiences, information about disproportionate opportunities and impacts across communities. Our forecasting skills are particularly valuable in capturing both changing demographics and changing climatic impacts. The events of recent years, including the pandemic, and the heightened awareness of differential racial impacts of policing, have raised awareness of the importance of these analyses. See our blog (www.greeneeconomics.com/blog) on the differential impacts of COVID-19 on different populations for a topical example.



One of the challenges to working on issues of social and racial equity is understanding how to integrate the analysis into other aspects of project development. Sometimes clients want and need to bring environmental justice or social and racial equity analyses into planning processes at the outset. For example, in King County, Washington, Greene Economics worked on a plan for hazardous waste management that used the Racial Equity Toolkit to analyze potential differential impacts on communities of color and low-income populations during the planning process. For another effort in King County, Greene Economics will be implementing the environmental and social justice analysis throughout the ex-ante analysis of a levee breach within five river basins in the county. In other cases, the analysis needs to occur after the fact, to determine if there is currently a disproportionate impact on communities of color and low income populations, and to mitigate those impacts. For example, the Greene Economics team analyzed the positive impacts of an oyster processing facility on job opportunities for minority populations in Marin County, California. Some examples of our experience in this area are listed below, with brief descriptions of these projects following the list.

- Utilized EPA EJScreen tool to review facility compliance with new Oregon DEQ regulations for air toxic emissions.
- Analyzed whether the critical habitat designation of the Beluga whale adversely impacts Alaska Native tribes, corporations, and villages.
- Reviewed the impact of new regulations on small businesses.
- Evaluated the impacts of a proposed utility scale wind farm on low-income and minority groups in Oregon.
- Prepared Socioeconomics and Environmental Justice section of NEPA EIS for an Indian Tribe.
- Reviewed positive and negative impacts of an oyster processing facility.
- Assessed the potential impact of a wind energy project on local jobs, income, property values, recreation, taxes, and equity in Arizona.
- Conducted studies to determine the environmental justice impacts of Northern Pike eradication.
- Evaluated the fiscal and employment implications to area residents of a new gas pipeline in Alaska.
- Analyzed the impact of economic development projects on the Skokomish Indian Tribe.
- Facilitated stakeholder meetings to gather community input on the future of a community college programs and buildings the Central District of Seattle, Washington.

Project Examples

Ethnographic Overview of Three National Forests and the Santa Rosa and San Jacinto Mountains National Monument in Southern California, U.S. Department of Agriculture Forest Service

Greene Economics team prepared reports for each of the forests and the monument, including descriptions of past inhabitants and their use of forest resources; current Native American descendants of these past inhabitants, including present legal status; contemporary uses of forests and places of importance; and issues and concerns. Dr. Greene conducted interviews with representatives from over 25 Indian tribes in California to collect information on the values placed on traditional forest cultural resources and detailed information on current uses of the forests. The reports are being used to update forestland management plans, as well as to protect culturally sensitive areas.

North Steens 230Kv Transmission Line and Wind Farm Environmental Impact Statement for Columbia Energy Partners – Harney County, Oregon

Greene Economics personnel led the environmental justice analysis and contributed to the socioeconomics analysis for an EIS on a proposed wind energy development that includes a utility-scale wind farm with 100 turbines and approximately 29 miles of double-circuit 230kV electric transmission line. The applicant, Columbia Energy Partners, sought a right-of-way for approximately 8 miles of the transmission line to be located on BLM-administered lands and an additional 1 mile of transmission line on the Malheur National Wildlife Refuge. The environmental justice analysis identified low-income and minority groups that might be differentially affected by the proposed project in Harney County, as well as major cities, Census Block Groups, and other areas in the vicinity of the project. Geographic Information Systems software and other methods were used in the analysis.

Environmental Impact Statement, DFG and USFS Lake Davis Pike Eradication Project

For the joint EIR/EIS, Greene Economics personnel conducted the environmental justice analysis of eradicating the northern pike (*Esox lucius*) from Lake Davis, California. An important recreational venue for trout fishing, boating, shoreline-based camping, and other day uses, as well as a domestic water supply, the objective of this project is to eradicate pike from Lake Davis and its tributaries, using the pesticide rotenone (liquid or powder formulations) to prevent the pikes' downstream spread and reduce the chances or relocation. Potential impacts included temporary losses of income and jobs. U.S. Census data were analyzed, using GIS software, to identify low-income and minority groups that might be differentially affected by the project. The study satisfied federal guidelines for social, economic, and environmental justice impact assessment.

Analysis for the Critical-Habitat Designation of Cook Inlet Beluga Whale – Alaska

Greene Economics personnel identified and analyzed the potential impacts to various land and water uses due to the proposed designation of critical habitat for the listed Cook Inlet Distinct Population Segment of beluga whale. The report included an environmental justice analysis conducted to determine whether the proposed designation will have a disproportionate adverse impact on the Alaska Native tribes, corporations, and villages, as well as on other minority and lower-income groups, Native corporations, and communities.

Traditional Ecological Knowledge Study, First Nation and Ministry of Transportation, Ontario, Canada

Greene Economics worked with a First Nation and the Ministry of Transportation of Ontario to provide estimates of damages to lands occupied by the highway traversing reserve lands. Estimates for foregone market losses such as timber stumpage fees, as well as non-market value estimates for subsistence and traditional and community values, are being developed.