

# Policy and Risk Analysis

The work of our multidisciplinary Policy and Risk Analysis group includes developing environmental and economic risk decision analyses and innovative strategic plans grounded in the natural and social sciences. We have more than two decades of experience in land use and facilities planning, preparing environmental impact analyses, and developing risk management and mitigation plans for installations and their vast landscapes and diverse environments.

Working across communities and landscapes, we have assisted numerous tribal, local, state, and federal agencies, and private sector partners in navigating a broad range of complex land use and controversial environmental issues. As part of this work, we have completed an array of supporting studies and prepared crucial elements of numerous state and federal Environmental Impact Statements (EISs) and Environmental Assessments (EAs).

## Selected Projects

**Los Alamos National Laboratory Wildland Fire Management Plan.** *U.S. Department of Energy.* To assure the protection of lives, facilities and the environment from future wildfires, Resource Dimensions led the team that developed LANL's Wildland Fire Management Plan using a risk-based approach. Project goals centered on identifying specific resource target locations to reduce high wildfire risk. Using GIS, the site was assessed for fuel hazards, risk of occurrence, essential infrastructure, other values at risk, and preparedness/ firefighting capability. The plan identifies approximately 3,800 key acres which require treatment in the near term to reduce risk to an acceptable level. The plan was subsequently approved by the Department of Energy, which then enabled use of prescribed fire as a cost effective forest management tool.

**Energy 'Foot-Printing': Impacts of Renewable Energy Investments.** *Scottish Economic Policy Network and the Scottish Executive Office.* Resource Dimensions completed a countrywide study in the United Kingdom to estimate the energy footprint and value of environmental and employment impacts from proposed expansion of renewable energy projects. Primary energy footprint issues examined included air quality, pollution reduction and mitigation strategies, landscape, wildlife, long-term local employment, and willingness-to-pay for improved air and environmental quality through different types of energy and renewable energy projects. Focus groups, surveys and choice experiments were used to assess current social behavior and attitudes and evaluate the program and policy measures most likely to succeed. Econometric and cost-benefit impact analyses were conducted to evaluate public preferences; policy recommendations were presented for further development and implementation.



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**Policy Analysis and Guidance on Probable Benefits & Costs and Least Burdensome Analysis - Chapter 173-565 WAC Rule-Making.** *Washington State Department of Ecology and Center for Environmental Law and Policy.* Resource Dimensions provided a range of analyses and evaluations relative to the development of net maximum-benefit rulemaking and the cost-benefit analysis process to be applied in relation to future water rights allocations from the Columbia River that would provide the greatest net benefit. Various analyses centered on evaluation of classic positions on the issue of optimality of net benefits: the Pareto-optimality and the Kaldor-criterion.

**Revised Critical Habitat for Contiguous United States Distinct Population Segment of the Canada Lynx: Sector Assessment of Regional Economic Impacts of Proposed Rule Associated with Snowmobiling and Winter Recreation in Unit - 4: North Cascades.** *Washington Snowmobile Association.* Resource Dimensions assessed the extent of likely post-designation economic impacts to the snowmobiling industry and other small businesses in rural Washington State due to critical habitat designation for the Canada lynx, based on the anticipated impacts to the level of snowmobiling activity. The North Cascades has become a haven for a diversity of winter recreational opportunities as backcountry skiing, snowmobiling, and snowshoeing for residents and visitors. The area's accommodations include a diversity of businesses that capitalize on their location in the foothills to attract visitors who take advantage of the varied year-round recreational activities. As a result the regional economy and quality of life are significantly impacted by resource-based recreation. The Team used an input-output model to estimate impacts to the regional economy at various discount rates.

**Assessing Public Values and Policy Options for Managing Wild Geese in Scotland.** *Scottish Executive Office, Biological Research Group, United Kingdom.* Resource Dimensions collaborated with researchers from several Scottish universities to comprehensively examine the range of social values and economic costs and benefits of managing four wild geese populations that overwinter in Scotland. Two case study areas where management conflicts have arisen between geese and agriculture - Islay and Loch of Strathbeg in northeast Scotland - were used to examine policy issues. The study centered on a socioeconomic and a cost-benefit analysis of government payment policies for crop damages caused by four locally endangered species of wild geese. The international team of resource and agricultural economists quantified in monetary terms the non-market benefits of wild goose conservation to the general public, local residents, and visitors, and estimate the costs of goose damage to agriculture. Traditional cost-benefit analyses, together with a multi-method approach including use of preference surveys, focus groups, and choice experiments, were used to ensure that findings were accurate in all regards and to remove methodological bias. Resource Dimensions developed the focus group methodology, facilitated a series of eight focus groups and conducted qualitative and quantitative data analyses relative to focus groups and contingent valuation methods employed in the study.

**Economic Impact of State, County and Municipal Land Use Regulations.** *Bucks County, Pennsylvania.* Resource Dimensions conducted an in-depth review and analysis of land use policies and zoning regulations to estimate the range of fiscal, budgetary, and socioeconomic impacts across 70-plus county townships, and presented testimony to state legislators, county commissioners and government agency officials. Also organized and facilitated series of public meetings, developed a long-term strategic plan for farmland protection program, and conducted landowner interviews, surveys, miscellaneous program negotiations. Included was a revision of program state/county guidelines and development of an integrated land conservation valuation model and coordinating map that won support of the State Agricultural Preservation Board.



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Natural Resources · Economic Analysis · Sustainability Planning · Land Use · Policy Analysis · Regulatory & Litigation Support