



Teresa Wirkkala

Economist

M.S. Agricultural & Natural Resource Economics, Oregon State University, 2006

B.A., Environmental Studies, Linfield College, 2004

Summary of Experience

Terry has experience in economic analysis of federal regulations, market research and analysis, water resource economics, non-market valuation of natural resources, regulatory impact analysis, socioeconomic impact analysis, large dataset analysis, and econometric modeling. She has participated in water resource studies in which she has identified the value of groundwater recharge and storage, the value of instream flows for recreation, and the value of water for agricultural and M&I use. Terry also has extensive experience in natural resource damage assessment; non-market valuation of natural resources; regulatory impact analysis; market analysis; socioeconomic impact analysis; survey creation, implementation and analysis; and econometric modeling. She has conducted recreation studies valuing the benefits and costs of recreation site quality and quantity changes, economic analyses of critical habitat designation, models of health care prices, socioeconomic analysis for NEPA, valuation of sustainable community design, and Indian water rights. Ms. Wirkkala has a strong background in theoretical and applied econometrics and experience with survey creation and implementation, econometric analysis, and the use of multiple modeling software programs including SAS and STATA. Her experience is highlighted below in the areas of socio economics and environmental justice analyses, water resource studies, and natural resource damage assessments (NRDA).

Socioeconomics & Environmental Justice

- Socioeconomic and demographic analysis of the South Columbia Basin Irrigation Project, *prepared for the South Columbia Basin Irrigation Project in Washington State*
- Socioeconomic assessment for the North Steens Transmission Line wind energy project, *prepared for the Columbia Energy Project in Harney County, Oregon*
- Socioeconomic analysis for Environmental Assessments for properties proposed for fee-to-trust by the Skokomish Indian Tribe, *prepared for the Skokomish Tribe, Washington State*
- Socioeconomic analysis for EIS of casino complex construction, *prepared for the Soboba Band of Luiseño Indians, California.*
- Socioeconomic analysis of Williams Gas Pipeline Replacement Project, *prepared for Transco Pipeline, Idaho*

Water Resources

- Benefit-Cost Analysis of Agriculture Production on the Jemez, Zia and Santa Ana Pueblo, *prepared for the US Department of Justice*



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- Benefit-Cost analysis and evaluation of water markets associated with banking surface water supplies in Arizona Water Bank (AWB) projects, *prepared for the Gila River Indian Community (GRIC)*
- Federal reserved claims for the Crow Indian Reservation, *prepared for BIA*
- Federal reserved claims for the Flathead Indian Reservation, *prepared for BIA*
- Technical studies to support future water right claims on Fort Apache, *prepared for the White Mountain Apache Tribe*
- Evaluation of the benefits associated with enhanced instream flow for indigenous fish species as part of a new reservoir concept, *prepared for a confidential client in Oregon.*
- Economic impacts of the Isabella Reservoir restriction imposed by the US Army Corps of Engineers, *prepared for Kern River Interests, California*
- California water project zone of benefit analysis on the economic impact to agricultural production and groundwater pumping levels, *prepared for Kern County Water Agency, California*
- Costs and benefits of the Salt Creek Tiger Beetle critical habitat designation, *prepared for the US Fish and Wildlife Service, Division of Economics*
- Costs and benefits of the Cook Inlet Beluga Whale critical habitat designation, *prepared for the National Marine Fisheries Service, Alaska*
- Water valuation in the Colorado River Basin, Utah, *prepared memo for the Department of Justice, Utah*
- Estimated the value of water rights in the Tule River Tulare County, California, using land differential, conservation, and comparable sales approaches, prepared report for the Department of the Interior Secretary's Office of Indian Water Rights

Natural Resource Damage Assessments (NRDA)

- Analysis of housing market trends, demographics and socioeconomic characteristics for NRDA case in New York, *prepared for a confidential client*
- Habitat Equivalency Analysis for a NRDA in the Portland Harbor, *prepared for a confidential client in Oregon*
- Human use surveys and data analysis in response to potential recreation damages in the Gulf of Mexico, associated with the Deepwater Horizon Incident, *prepared for confidential client*
- Visual impacts damages due to proposed transmission line in Dorchester County, *prepared for confidential client in Maryland*
- Human health risk assessment of recreators on Lake Roosevelt, *prepared for Teck Mining Corporation, Washington*



Highland Economics

- Human use impacts resulting from oil spill in the Calcasieu River Estuary, *prepared for Citgo Petroleum Corporation, Louisiana*

Feasibility Analysis

- Analyzed the feasibility of cannabis production including social feasibility, *prepared for the Yakama Indian Nation, Washington*
- Analyzed the feasibility of dairy enterprises, *Sonoma County Agricultural and Open Space District, California*
- Analyzed crop feasibility of agricultural commodities, *US Department of Justice: New Mexico Ex. Rel. State Engineer v. US*
- Analyzed recreational business opportunities, *NE Arizona Assistance Coal Communities*
- Analyzed standard socioeconomic implementation policies, *Bureau of Land Management*
- Analyzed CSA enterprise feasibility on an established farm, *Yakima Indian Nation, Washington*

Software Capabilities

- STATA - Terry has extensive experience utilizing STATA for data verification, data summary, data analysis, and regression analysis, including for large datasets of survey data.
- SAS – Terry has experience using SAS software for data analysis and regression analysis, including for large datasets of survey data.
- Microsoft Excel – Terry has extensive experience using Microsoft Excel for data analysis and generating presentation materials.
- Microsoft Access – Terry has experience using Microsoft Access to organize and analyze large sets of data.
- Microsoft PowerPoint – Terry is proficient with Microsoft PowerPoint for project presentation.
- Microsoft Word – Terry has extensive experience utilizing Microsoft Word for project reports.
- Terry has a working knowledge of Lindep, SPSS, EViews, and ArcGIS

Publications

- Wu, JunJie and Wirkkala, Teresa M. (2009) “Firms’ Motivations for Environmental Overcompliance,” *Review of Law & Economics: Vol. 5: Issue 1, Article 17.*
- Ervin, Wu, Khanna, Jones and Wirkkala (2013) “*Motivations and Barriers to Corporate Environmental Management,*” *Business Strategy and the Environment: Vol 22: Issue 6, pages 390-409.*