Barbara Wyse  
Principal and Senior Economist

M.S. Environmental and Natural Resource Economics, Oregon State University, 2004  
B.A. Environmental Sciences and Policy, *magna cum laude,* Duke University, 2000

Summary of Experience

Barbara Wyse is an environmental and natural resource economist with expertise in water resources, agriculture, recreation, valuation of ecosystem services, natural resource damage analysis, comprehensive land use analysis, and modeling of tradeoffs. Her particular interest is in developing integrated frameworks and cost benefit analyses to assist natural resource managers in making good decisions. Barbara’s work has also been used to support litigation related to water allocation/water rights and natural resource damage assessment, value water in different uses, comply with the National Environmental Policy Act (NEPA) and other regulatory requirements, obtain grant funding for public agencies, garner public support for projects through identification of project economic and social benefits, and enhance economic development. Barbara regularly works with agricultural irrigation districts, water districts, Native American tribes, attorneys, trade associations, and local, state, and federal agencies. For these diverse clients, Barbara has the ability to apply economic theory and techniques to identify solutions and innovative approaches to natural resource management challenges.

Prior to co-founding Highland Economics, Barbara was a senior consultant and senior economist at Cardno ENTRIX, where she led their western economics practice. In her ten years at Cardno ENTRIX, Barbara directed and participated in over 100 economic studies of natural resource use, protection, and policy. In these projects, she employed diverse methods of economic analysis including cost benefit analysis, optimization modeling, regional economic impact analysis, market analysis and economic feasibility, valuation of natural resources and environmental services, and socioeconomic impact analysis.

Representative Projects

Barbara’s experience throughout her career is highlighted below in the areas of water resources, integrated natural resources planning, agriculture, recreation, mining/oil/gas, natural resource damage assessment, and habitat/endangered species management.

Water Resources

* Economic contribution of water from Don Pedro Reservoir to support the relicensing of the Don Pedro Hydroelectric facility, *preparing (as a subconsultant) for the Modesto and Turlock Irrigation Districts, California*
* Economic benefits of forest restoration in terms of improved water supply and water quality, *prepared for Santa Ana Watershed Protection Authority, California*
* Valuing the benefits of ecosystem services provided by the Grey to Green stormwater management program, *prepared for the City of Portland, Oregon*
* Economic analysis of the numeric nutrient criteria for Florida’s lakes and flowing waters, *prepared for the Florida Water Quality Coalition, Florida*
* Single class of service rate study, *prepared for North Kern Water Storage Management District, California*
* Projections of water demand, water value, and recreation revenue potential at a new water storage facility in coastal Oregon, *prepared for the Confederated Tribes of the Siletz Indians, Oregon*
* Water management options for mitigating the impacts of settling the water rights of the Fort Belknap Indian Reservation, *prepared for the Department of Interior, Montana*
* Economic value of groundwater recharge in Kern County, *prepared for the Kern County Water Agency, California*
* Economic impacts of proposed changes to groundwater adjudication, *prepared for the Central Basin Small water Pumpers Group, California*
* Cost benefit analysis of agricultural and industrial uses of the White Mountain Apache Tribe water right, *prepared for the White Mountain Apache Tribe, Arizona*
* Economic benefits of the Pierce County Flood Hazard Mitigation Plan, *prepared for Pierce County, Washington*

Integrated Natural Resource Planning

* Economic benefits and alternative evaluation of the Natural Resource Management Plan, *prepared for* *Tennessee Valley Authority, Tennessee*
* Economic and environmental foundation studies regarding marine terminal development and conservation on West Hayden Island, *prepared for the City of Portland, Oregon*
* Landscape analysis for the Spring Mountains Recreation Area, *prepared for the US Forest Service, Nevada*
* Land use and business plan for financial sustainability at the Valles Caldera National Monument, *prepared for the Valles Caldera National Monument, New Mexico*
* Cost benefit guidance for an Integrated Resource Management Plan, *prepared for the Soboba Band of Luiseño Indians, California*
* Socioeconomic analysis of recreation, transportation, grazing, and natural gas development for the Upper Missouri River Breaks National Monument Resource Management Plan, *prepared for the Bureau of Land Management, Montana*
* Economic value of community and environmental benefits of stewardship development strategy, *prepared for confidential client, Florida*
* Ecological and economic value of ecosystem service impacts of development in the San Pedro Basin, *prepared for Business for Social Responsibility, Arizona*
* Economic value of conservation and development near the Gary International Airport, *prepared for the Northwest Indian Regional Development Authority, Indiana*

Agriculture

* Economic impact of reduced water surface water supplies to the Friant Division of the Central Valley Project, *prepared for the Friant Water Authority, California*
* Economic impacts to the California agricultural economy of reduced Delta water exports related to Delta smelt, *prepared for Western Growers Association, California*
* Economic value of maintaining irrigation water quality through the Grasslands Bypass Project, California, *prepared for the Bureau of Reclamation, California*
* Economic and market feasibility analysis of irrigated agriculture on the Hopi Indian Reservation, *prepared for the Hopi Indian Tribe, New Mexico*
* Economic and market feasibility analysis of irrigated agriculture on the Lummi Indian Reservation, *prepared for the Department of Interior, Washington*
* Economic and market feasibility analysis of irrigated agriculture on the Duck Valley Indian Reservation, *prepared for the Department of Interior, Nevada*
* Economic impacts of agriculture and recreation supported by the Columbia Basin Project, *prepared for the South/East/Quincy Irrigation Districts, Washington*
* Economic impacts of agriculture supported by water from the Greater Wenatchee Irrigation District, *prepared for the Greater Wenatchee Irrigation District, Washington*
* Economic benefits of programs to limit or eradicate sudden oak death disease in Oregon nurseries, *prepared for the Oregon Department of Agriculture, Oregon*
* Economic value of water for agriculture and saltwater intrusion mitigation, *prepared for United Water Conservation District, California*
* Economic value of flood control in the Monterey County floodplain, *prepared for Monterey County Water Authority, California*
* Water management options for mitigating the impacts of settling the water rights of the Fort Belknap Indian Reservation, *prepared for the Department of Interior, Montana*

Recreation

* Economic value of recreation and wildlife habitat enhancement in the Lower Pruit*, preparing for the Millennium Challenge Corporation, Moldova*
* Recreational Benefits of Restoring Instream Flows to Taneum Creek, *prepared for the US Bureau of Reclamation, Washington*
* Recreation benefits of a proposed water storage facility on the Fort Apache Indian Reservation*, prepared for the White Mountain Apache Tribe, Arizona*
* Reservoir recreation development plan and revenue analysis, *prepared for a confidential client, Oregon*
* Recreation opportunity and economic value analysis for West Hayden Island*, prepared for the City of Portland, Oregon*
* Focus groups to identify voter willingness to pay for park enhancements and facilities, *prepared for the Gig Harbor Parks and Recreation Department, Washington*
* A plan for revenue enhancement on the Valles Caldera National Monument, *prepared for the Valles Caldera National Monument, New Mexico*
* Revenue analysis of a recreation and wildlife habitat enhancement plan on the Fort Belknap Indian Reservation, *preparing for the Department of the Interior, Montana*

Mining, Oil, and Gas

* Demand projection and air quality benefits analysis of bringing natural gas to Fairbanks through the interior Energy Project (IEP), *prepared for the Alaska industrial Development and Export Authority, Alaska*
* Socioeconomic and environmental justice impacts of the Haile Gold Mine, *prepared for the Army Corps of Engineers, South Carolina*
* Socioeconomic, tribal trust asset, and environmental justice impacts of the permitting the Four Corners Power Plant and expanding the Navajo Mine, *prepared for the Office of Surface Mining, Arizona and New Mexico*
* Cost benefit and small business impact analysis of an oil transfer rule, *prepared for the Washington Department of Ecology, Washington*
* Socioeconomic and environmental justice impacts of dredging the Missouri River, *prepared for the Army Corps of Engineers, Missouri*
* Socioeconomic, environmental justice, and visual impacts of constructing and operating the Alaska Standalone Pipeline (ASAP), *prepared for the Army Corps of Engineers, Alaska*
* Socioeconomic, land use, and recreation impacts of expanding dock operations at the BP Cherry Point oil refinery, *prepared for the Army Corps of Engineers, Washington*
* Socioeconomic impacts of construction and operation of a proposed floating storage and regasification unit (Cabrillo Port) off the shore of Ventura County, California, *prepared for BHP Billiton, California.*
* Economic impacts of the Tarmac Mine construction and operation, *prepared for the Tarmac Mine, Florida*

Renewable Energy

* Economic analysis of forest-related industries, including a sawmill, forest support services business, and biomass energy generation, *prepared for the Klamath Tribes, Oregon*
* Economic impacts on jobs and income of forest biomass energy projects, *prepared for the Montana Department of Commerce and Northwestern Energy, Montana*
* Economic impacts on recreation, jobs, income, taxes, and property values of wind power development at Hatchet Ridge California, *prepared for RES Americas, California*
* Economic impacts on recreation, jobs, income, taxes, and property values of wind power development in Columbia County, *prepared for Southeast Washington Economic Development Authority, Washington*
* Economic impacts of investing in renewable energy, *at a ;previous employer, prepared for a confidential Midwestern utility*
* Economic impacts on recreation, jobs, income, taxes, and property values of the East and West Ridge Wine Projects, *prepared for Columbia Energy Partners, Oregon*
* Socioeconomic and environmental justice impacts of the Mohave County Wind Farm, *prepared for the Bureau of Land Management, Arizona*
* Economic impact analysis of the New York Biodiesel Mandate, *prepared for the National Biodiesel Board, New York*
* Economic impact of the Highlands bio-fuel generation and power plant, *prepared for Envirofuels, LLC, Florida*
* Economic impact of miscanthus biomass projects, *prepared for Aloterra Energy (as a subconsultant), Texas, Pennsylvania, Ohio*

Natural Resource Damage Assessment

* Deepwater Horizon Accident Natural Resource Damage Assessment, *prepared for BP Exploration and Production Inc, Gulf of Mexico*
* Litigation Support for International Natural Resource Damage Assessment, *prepared for Confidential client,, Latin America*
* Recreation impacts from an oil spill at Lake Charles, *prepared for Citgo Petroleum Corporation, Louisiana*
* Human Health Risk Assessment and Recreation Damages, *prepared for Teck Mining Corporation, Washington*

Habitat and Endangered Species

* Cost benefit analysis (Regulatory Impact Review) and small business analysis (Regulatory Flexibility Act analysis) of the critical habitat designation for the Arctic ringed ice seal, *prepared for the National Marine Fisheries Service, Alaska*
* Cost benefit analysis (Regulatory Impact Review) and small business analysis (Regulatory Flexibility Act analysis) of the critical habitat designation for the Beringia Distinct Population Segment of bearded ice seals, *prepared for the National Marine Fisheries Service, Alaska*
* Environmental assessment, cost benefit analysis (regulatory impact review), and small business impact analysis (Regulatory Flexibility Act analysis) of the False Killer Whale Take Reduction Plan, *prepared for National Marine Fisheries Service, Hawaii.*
* Cost benefit analysis (regulatory impact review) and small business analysis (RIR/IFRA) for the critical habitat designation for the Cook Inlet beluga whales, *prepared for the National Marine Fisheries Service, Alaska*
* Economic benefits of restoring the Upper Quinault Watershed, *prepared for the Quinault Indian Nation, Washington*
* Economic analysis of critical habitat designation of the Northern spotted owl, *prepared for the US Fish and Wildlife Service, Oregon, Washington, and California*
* Economic analysis of critical habitat designation of the spreading navarretia, *prepared for the US Fish and Wildlife Service, California*
* Economic analysis of critical habitat designation of the Kootenai River population of the white sturgeon, *prepared for the US Fish and Wildlife Service, Montana*
* Economic analysis of critical habitat designation of the Coachella Valley milk vetch, *prepared for the US Fish and Wildlife Service, California*
* Economic analysis of critical habitat designation of the San Jacinto Valley crownscale, *prepared for the US Fish and Wildlife Service, California*