About ECONorthwest

ECONorthwest is the Pacific Northwest's most comprehensive independently-owned economics consulting firm. Formed in 1974, it has a long history of employing sound analytical methods to successfully complete projects for private and public clients across the U.S. and the world. ECONorthwest has earned a national reputation for rigorous and often pioneering policy analysis, especially on public policies affecting the allocation and use of natural resources. Much of our work examines the relationships between regional economies and their natural-resource endowment. We evaluate the economic effects of public policies and private actions by tracing the full range of costs and benefits associated with environmental assets. In 2009, EPA’s Science Advisory Board endorsed ECONorthwest’s economic valuation approach as “one of the best examples of the kind of landscape-scale analysis of the value of ecosystems and services recommended by this report.”

Relevant Projects

San Francisco Bay-Delta Economic Analyses

For attorneys working with stakeholders in the San Francisco Bay-Delta (Bay-Delta), ECONorthwest described the economic issues relevant to the State Water Resources Control Board’s (Board) decisions regarding balancing the competing demands for Bay-Delta flows. We then applied the federal-recommended benefit-cost principles and guidelines to assess the Board’s decision to balance public-trust uses and other beneficial uses of Bay-Delta flows.

Critique of SED for San Joaquin River Flows

For attorneys representing regional stakeholders, ECONorthwest critiqued the Board’s Substitute Environmental Document on alternative management options for San Joaquin River flows and South Delta water quality. The critique addressed errors of commission and omission in the Board’s application of benefit cost principles, their development of alternatives, and their use and interpretation of economic multipliers.

Benefit-cost Analyses of Watershed Restoration and Water Supply Projects

ECONorthwest has assisted multiple organizations throughout the state of California in quantifying the benefits and costs of projects that enhance water supply, deliver safe drinking water, and protect water quality and the environment. ECONorthwest worked alongside biophysical experts and with project sponsors to identify the effects of proposed projects on ecological and socioeconomic conditions. ECONorthwest quantified the economic value of the effects, using primary benefit and cost data where available and drawing from peer-reviewed literature where primary data were not available. The analyses have helped the project sponsors successfully secure millions of dollars in funding made available through Propositions 50, 84, and 1E.

Impacts of Bay-Delta Conveyance Structures on Ratepayers

For Food and Water Watch and California Water Impact Network, ECONorthwest estimated the cost of building and operating proposed Bay-Delta conveyance structures on ratepayers in Los Angeles and Santa Barbara.

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Critique of EIS/EIR on Long-Term Water Transfers

For AquAlliance, ECONorthwest critiqued the U.S. Bureau of Reclamation’s and San Luis & Delta-Mendota Water Authority’s draft of the Long-Term Water Transfers Draft Environmental Impact Statement/Environmental Impact Report. We described the authors’ errors of commission and omission regarding analytical assumptions, choice of data, description of current conditions, excluding environmental externalities and economic subsidies from the analysis, and an incomplete description of cumulative effects.

Assessment of Buyout of Drainage Impaired Lands

For Food and Water Watch, California Water Impact Network, and Citizens Against Taxpayer Funding of the BDCP, ECONorthwest estimated the costs of purchasing and retiring drainage impaired lands in the San Luis Unit.

Economics of the Public Trust Doctrine

In the Mono Lake case, the Board faced a classic public-policy choice, a choice resembling the choice it faces with Bay-Delta flows: allocating a scarce and valuable natural resource—Mono Lake—among competing demands. The State should therefore look to its own history for guidance on balancing its public-trust obligation to protect Bay-Delta flows with the demands from other beneficial uses, and the role that economic information can play in the deliberations. Our analytical team includes Dr. John Loomis, whose analysis of the non-market values of public-trust resources was central to the Board’s Mono Lake decision.

Balancing the Public Trust Obligation

Our approach to economic analyses of public trust resources includes the following guidelines:

- Conduct economic analyses in the context of the biophysical requirements of the ecological uses of public-trust resources. Identify the ecological uses of public-trust resources at issue before considering the costs and benefits of allocation scenarios.
- Account for all relevant economic, legal, and other forces and trends. Account for supply of and demand for public trust resources now and in the future based on economically realistic assumptions.
- Consider likely mitigating circumstances. Use dynamic assumptions that reflect likely behaviors and actions under conditions of scarcity.
- Account fully for both values reflected in market prices and values that are not. Employ non-market techniques to estimate values that are not reflected in market prices. These techniques may include surveys of California’s population, using guidelines outlined by the federal government.

Estimated Effort and Budget

We estimate that identifying, describing, quantifying and valuing the relevant ecosystem services at issue in a public-trust analysis of Bay-Delta resource will take considerable effort. We expect such an effort would happen over multiple years and would likely involve collecting and analyzing primary data (e.g., population and stakeholder surveys). We also expect robust challenges to all aspects of our analysis through litigation. For these reasons, and based on our past litigation experiences, we estimate that conducting a multi-year analysis of Bay-Delta public-trust resources and related analyses, and providing testimony and other litigation efforts, would involve billings of close to $1 million.
The ECOnorthwest Team

ECOnorthwest has a staff of over 40, including Ph.D. economists and expert witnesses, project managers, and analysts. For more information, including resumes, visit our website at econw.com.

Dr. Ed Whitelaw

Dr. Ed Whitelaw is the Founder of ECOnorthwest. He specializes in the economics of cities and regions, labor and poverty, the environment and natural resources, and the economic consequences of policy decisions. As an expert witness, he has testified in matters before state and federal courts and the NAFTA tribunal. Since 1974, Ed has completed economic consulting projects for a wide range of clients including law firms; businesses; tribes; and local, state and federal governments. He has also testified before administrative, legislative, and congressional bodies on a variety of economic issues. He has held positions on state, regional, and national advisory boards, including the National Advisory Council for Environmental Policy and Technology and the Oregon Progress Board. Ed is a Professor Emeritus of Economics at the University of Oregon, where he has taught since 1967.

Dr. John Loomis

Dr. John Loomis, a Professor of Agricultural and Resource Economics at Colorado State University and an affiliate of ECOnorthwest, performs research in the economic valuation of non-marketed natural resources such as rivers, recreational fisheries, public lands, endangered species, water quality, and forest fire management. His research methods include the use of surveys, and involve techniques such as the travel cost, contingent valuation and hedonic property methods. He conducts research for state and federal agencies throughout the U.S., and with colleagues in Chile, China, Spain and Vietnam. While an Associate Professor at the University of California, Davis, Dr. Loomis quantified the economic value of public trust resources associated with California’s Mono Basin, which led to the State Board of Water Resources recognizing non-market values in its public-trust balancing decision.

Dr. Mark Buckley

Dr. Mark Buckley develops economic models and analytical methods for planning and behavior involving water resources and land management. He combines microeconomic and game-theoretic techniques with competence in the biophysical aspects of natural systems to understand individual and group incentives to account for decision-making in policy design. His work addresses benefits of water quality trading in the Lake Tahoe Basin; landscape-scale restoration in the Sacramento River Valley; and development of tools for communities to select appropriate water portfolios in coastal California. Buckley has published research in peer-reviewed journals and edited books, and served as an adjunct professor for environmental economics at Portland State University.

Ed MacMullan

Ed MacMullan joined ECOnorthwest in 1990. He specializes in assessing the economic effects of public policies that affect natural-resource management. He also has extensive experience in litigation support, working on cases involving natural resource damages, antitrust, intellectual property, and other topics. His natural resource and complex litigation support experience includes calculating damages to oiled municipalities from the Exxon Valdez oil spill; estimating damages at one of the largest Superfund sites in the U.S.; estimating damages from the largest pipeline spill in the U.S. and the largest spill of Canadian tar sands oil; and extensive work on water-resource issues in California.