

Integrative Economics, LLC

ENVIRONMENTAL AND ECOLOGICAL ECONOMICS

Statement of Qualifications

Integrative Economics, LLC provides economic research and analysis related to environmental, ecological, agricultural, and urban topics. We bring together a diverse set of capabilities in the natural and social sciences to help our clients answer questions, solve problems, and support their decision-making processes.

Our experience with contemporary natural resource management and its practical application allows us to provide services that are relevant and timely, based on best practices, and communicated clearly to stakeholders. Our capabilities include the following:

- Valuation of ecosystem services and environmental benefits
- Market design, including water quality trading and payments for ecosystem services
- Strategic planning and specialized research for private, public, and nonprofit organizations
- Evaluation of regulatory impacts and program alternatives
- Environmental finance assessments
- Data management and GIS analysis
- Benefit-cost and cost-effectiveness analysis, regional economic impact modeling, and fiscal impact analysis

Our clients work with us for our independent, unbiased analysis of complex environmental issues, and insights into governance issues related to natural resource management. Based in Portland, Oregon, we work in rangeland, farmland, forest, coastal, and urban settings throughout the Pacific Northwest and California.

Integrative Economics, LLC is a certified Oregon Emerging Small Business (ESB).

Kyle Birchard, Founder and Principal Analyst

Kyle Birchard founded Integrative Economics in 2013. With more than 17 years of experience in the environmental and natural resource fields, he works in a variety of areas, including benefit-cost analysis, feasibility studies, land use economics, environmental valuation, and resilience planning.

Over dozens of engagements since 2000, he has provided strategic planning support to businesses, public agencies, and NGOs, assisted with program development and outreach efforts, and conducted original research on environmental, agricultural, and socioeconomic issues.

Recent projects include benefit-cost studies of flood risk management and watershed restoration, environmental cleanup and drinking water system, and the impacts of drought on agricultural water supply in the arid western United States. He is also working on remote sensing technologies to support the economic valuation of ecosystem services over space and time.

He holds a bachelor's degree in Environmental Economics and Policy from the University of California, Berkeley.

Representative Projects

The Market for Carbon Storage Services. Nori, LLC.

In progress as of June 2018.

This project included an estimate of the marginal costs of carbon storage services in agricultural and forested landscapes in the United States, the development of an agent-based model simulation of an electronic market for carbon storage, and an analysis of the monetary policy implications of a complementary currency system used to finance carbon storage.

Economic Analysis of Flood Control 2.0 Strategies. San Francisco Estuary Partnership.

October 2014 to December 2016.

This project looked at benefits and costs of flood risk management in the San Francisco Bay Area, merging coastal science with ecological economics to evaluate multi-benefit stormwater projects.

This involved a meta-analysis of over 100 economic valuation studies to estimate the benefits of tidal habitat restoration. Additional work included an economic assessment manual and a software tool to enable similar economic planning studies in other regional watersheds.

Report on the Environmental and Economic Impacts of Pollution Cleanup. Pollution Liability Insurance Agency.

August 2015-January 2016.

Integrative Economics led an economic study on the state's role in cleaning up leaking petroleum storage tanks. The effort included a valuation of the benefits to drinking water systems, public health, and property values from pollution prevention. The team also helped PLIA develop a revolving loan program, modeled on the state's Clean Water and Drinking Water State Revolving Funds, to clean up additional underground tanks, which was enacted into law in 2016.

Economic/feasibility studies

- Environmental market-based funding mechanisms for clean water programs and transportation infrastructure for the San Francisco Bay Trail, 2013-2014.
- Economic, environmental, and water supply assessment of California agriculture, 2008-2014.
- Analysis of public and private investment in natural capital in Portland, Oregon, 2011-2013.

Resource management

- Market assessment and feasibility study of energy efficiency and renewable energy projects for manufacturing firms in Oregon, Washington, and Idaho, 2009-2014.
- Bioeconomic modeling of crop production and marketing, 2013
- Water and energy project finance opportunities for California agricultural firms, 2009-2011.

Planning and stakeholder engagement

- Strategic planning efforts for industry and government organizations. 2000 – present.
- Surveys, meeting facilitation, and implementation plan development. 2000 – present.

Specific methods and approaches used in projects include:

Project	Direct Valuation	Benefit Transfer	Cost Effectiveness Analysis	Benefit-Cost Analysis	Macroeconomic Impacts	Econometric Modeling	Regulatory Impact Analysis	Environmental Finance
Flood Control 2.0: Economic Analysis of Watershed Plans	X	X		X				
Environmental & economic impacts of pollution cleanup	X	X	X				X	
Environmental market-based funding mechanisms	X						X	X
California agriculture assessments	X					X	X	
Portland investment in natural capital	X				X			
Energy efficiency/renewables market			X					X
Bioeconomic modeling of agricultural crops	X					X	X	
Water/energy finance			X				X	X

Education

University of California, Berkeley

B.S., Environmental Economics and Policy / Minor in City and Regional Planning, December 2007

Work History

Senior Research Associate. D.W. Block Associates, LLC. Bainbridge Island, WA. 2008-2014

Research Assistant. University of California, Berkeley. College of Natural Resources. 2007-2008

Research Analyst. McKeany-Flavell Company, Inc. Oakland, California. 2000-2007