



PROFESSIONAL PROFILE



Ryan Stifter, MS

Principal, Economic & Complex Analytics

CONTACT INFORMATION

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EDUCATION

MS, Agricultural & Resource Economics, University of California at Davis, 2004
BS, Managerial Economics, University of California at Davis, 2003

EXPERIENCE SUMMARY

Nineteen years of experience applying microeconomics, econometrics, statistical modeling, market and non-market valuation methods, and financial analysis to complex litigation matters, insurance claims, environmental regulation, natural resource management, natural resource damage assessment (NRDA), and business decisions.

- Roux, Principal, 2020-Present; Technical Director, 2018-2020.
- ERM, Senior Consultant, 2015-2018.
- Cardno, Senior Consultant/Economist, 2014-2015; Senior Project Economist, 2010-2014.
- OnPoint Analytics, Staff Economist, 2005-2010.
- ENTRIX, Economist, 2005.
- Independent Consultant, 2004-2005.

Mr. Stifter's litigation support experience spans his entire career and comprises roles as consulting expert and testifying expert before state and federal court. His work has been applied in disputes involving property value diminution, natural resource damages, construction delay, commercial and agricultural property damage, business interruption, economic torts, product/design defect, antitrust, and discriminatory practices, among others.

Mr. Stifter supports the regulated community with quantifying economic-environment tradeoffs of changes in environmental quality and natural resource use and allocation. Ryan has regularly supported responsible parties and insurance carriers evaluate and assess natural resource damages, including the highest profile oil releases in recent history. His work also includes developing mathematical and statistical models supporting industry with contingent liability exposure management and regulatory compliance strategies.

TECHNICAL SPECIALTIES

Mr. Stifter's areas of technical competency derive from training in microeconomics, econometrics, mathematical programming, statistical modeling and inference, and accounting applied to agriculture, the environment and natural resources, and industrial organization, and their honing through numerous applied economic consulting studies.

- Econometric modeling and appraisal techniques in real estate damages analysis.
- Forensic economic modeling and analysis.
- Non-market valuation of environmental goods and natural resources.
- Natural resource damage assessment (NRDA).
- Interpreting and applying microeconomic and econometric research.
- Benefit-cost analysis of environmental rulemaking and natural resource policy.
- Decision modeling, including Monte Carlo simulation techniques.
- Forecasting contingent environmental and toxic tort liabilities.

REPRESENTATIVE PROJECTS

Real Estate Damages

- Evaluating class wide claims of diminution in property value arising from unanticipated concerns about soil contamination allegedly affecting a multi-phase master planned community.
- Providing regulatory hearing testimony about the appropriateness of economic and appraisal methods used to evaluate diminution in value from soil contamination at or proximate to nearly 100 residential properties.

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- Providing trial testimony on behalf of defendants about the economic factors contributing to observed declines in area residential and commercial property values following actions to eradicate aquatic invasive species in a nearby recreational fishery and water supply reservoir. The jury awarded no damages.
- Authoring an expert rebuttal report on damages from delays to a multi-phase residential housing development allegedly resulting from unanticipated pollution investigation.
- Providing expert opinions about the economic value arising from removing land use restrictions through environmental remediation actions.
- Authoring an expert report opining on the appropriate reasonable rental value of a property undergoing environmental investigation and redevelopment.
- Evaluating a property owner's economic losses from alleged pollution conditions at an industrial yard.
- Evaluating a property owner's economic losses from alleged pollution conditions at a commercial & industrial building.
- Determining appropriate compensation for loss of use and enjoyment allegedly arising from noise pollution, aesthetics, and traffic.

Natural Resource Damages

- Quantifying and valuing recreation service losses following a marine oil release across thousands of miles of public coastline, fishing areas, and marine waters.
- Evaluating Trustee conclusions for recreational fishing losses from historical closures and long-term mercury fish consumption health advisories at a freshwater lake.
- Quantifying and valuing shore-based recreation service losses at beaches, state parks, and campgrounds following an onshore coastal oil release.
- Developing a decision model informing the RP's NRDA and settlement strategy for an oil release affecting marine habitats, birds, fish, marine mammals, and shore-based recreation.
- Valuing recreation use gains from shoreline, fishing, boating, and wildlife viewing access enhancements; hazard removal, and fish habitat enhancements at

coastal sites, nearshore waters, and marine waters across five states culminating in a \$200 million early restoration benefit for the RP.

- Valuing recreation use gains from trail interconnections and extensions, jetty and pier enhancements, new fishing access, and an equestrian center forming the basis for an NRD settlement involving hazardous substance releases to a freshwater lake and creeks.
- Valuing ecological service losses and drinking water service losses at multiple sites owned by an industrial corporation involved in tax litigation.
- Evaluating real estate market analysis as the basis for quantifying willingness-to-pay for groundwater that meets state health exposure limits for per- and polyfluorinated alkyl substances (PFAS).
- Evaluating conjoint survey methods used as the basis for valuing fishing recreation service losses from fish consumption health advisories.
- Evaluating habitat equivalency analysis (HEA) as the basis for valuing compensatory damages for wetland service losses from PFAS releases.
- Evaluating the basis for and reasonableness of the NRD Trustees' settlement demand of an individual PRP at a Pacific Northwest mega sediment site.
- Evaluating another consultants' HEA inputs and assumptions as the basis for an insured PRP's prospective NRD liability at a sediment site.
- Reviewing the NRD Trustees' HEA and projecting a reasonable allocation to an individual PRP's operations at a PNW mega sediment site.
- Developing an approach for allocating across time a lump-sum NRD settlement for drinking water service losses from PFAS releases at multiple sites.
- Providing technical review of the Trustees' HEA purporting to quantify lost wetland services and the scale and cost of compensatory wetland restoration projects as NRD for PCB releases.
- Evaluating the federal government's multimillion-dollar settlement demand for habitat destruction and lost use of public forest lands within a wildfire burn area.
- Analyzing angler visitation and fish consumption survey data to assess the statistical reliability of EPA-determined risk parameters forming preliminary remediation goals at a Superfund Site.

- Contributing economic research and modeling to value an agricultural property's lost use of the groundwater in an aquifer affected by oil field produced water.

Business Interruption

- Determining the appropriate amounts for lost profits and extra expenses available to a medical center for mold pollution in its surgical sterilization room.
- Evaluating estimates for a full-service hotel's claimed lost profits caused by a so-called "super-spreader event" for SARS-CoV-2.
- Evaluating estimates for economic losses allegedly caused by SARS-CoV-2 at multiple properties owned by a midmarket hotel chain.
- Determining lost profits and extra expenses at a 230-room hotel that discovered mold pollution in rooms and amenities and producing analysis facilitating the carrier's \$0.5 million settlement of a \$1.6 million claim.
- Determining lost profits and extra expenses when a real estate brokerage office was destroyed in a catastrophic wildfire.
- Determining the reasonableness of amounts the insured chemical manufacturer claimed for chemical product losses, remediation costs, and customers' lost profits.

Intellectual Property Damages

- Authoring an expert report opining on an international agricultural biotechnology company's lost profits after losing exclusive rights for its novel plant seed.
- Leading analysis determining the number of vegetable harvesting machines a manufacturer could have sold but-for alleged theft of its product design specifications.
- Contributing quantitative and qualitative economic research into the factors leading to commercial success of a branded diabetes drug.
- Contributing econometric analysis of advertising impacts on the sales and commercial success of a branded proton pump inhibitor.

Breach of Contract Damages

- Applying econometric modeling to quantify market price erosion and an international tomato grower's lost profits after losing access to a domestic brand label.
- Conducting quantitative analysis determining if No. 14 sugar contract price movements triggered non-performance of a sugar beet supply contract and computing profits from forgone refined sugar sales.

Product/Design Defect Damages

- Providing opinions and testimony in rebuttal to the measure of damages resulting from an alleged failed water pollution remedy at a Superfund Site.
- Contributing survey research, market research, and microeconomic analysis to determine a food distributor's damages from defective desiccants.

Crop Loss Damages

- Testifying about the value of open-field and greenhouse vegetable crops destroyed during Hurricane Irma.
- Determining the orchard and vineyard value diminution from tree and vine losses at multiple properties and operations allegedly exposed to industrial herbicide Imazapyr® during railroad operator maintenance.
- Determining the value of a young walnut and almond orchards allegedly destroyed by chemical applications.
- Quantifying probabilistic yield outcomes at a large processing tomato operation alleging pesticide drift caused its crop losses.
- Determining yield diminution and price erosion for a pistachio crop accidentally sprayed directly with the glyphosate herbicide product Roundup®.

Environmental Regulation and Enforcement

- Authoring an Expert Rebuttal Report opining on an investment company's economic benefit from developing a walnut orchard on jurisdictional wetlands. The regulated party and the United States reached a settlement during expert discovery.
- Developing a model estimating nationwide annual cleanup costs at NPL sites if PFOA and PFOS are designated CERCLA hazardous substances.
- Developing a model estimating nationwide annual water system treatment costs for complying with alternative PFAS drinking water maximum contaminant limits.
- Researching and quantifying the economic impact on consumers and producers of a ban on commercially relevant PFAS in the automotive, semiconductor, and aerospace industries.

Water Resources Planning

- Contributing analysis quantifying the impact of uncertainty and documenting unmet concerns with contingent valuation and benefits transfer methods for the USEPA/USACE Regulatory Impact Assessment (RIA) of the Federal Clean Water Rule.

- Quantifying the economic impact of operational changes at a FERC reservoir affecting water levels, instream flows, irrigation water supply, and municipal water supply.
- Applying non-market valuation methods to monetize the environmental and social benefits of water quality and supply reliability improvements from recycling, reuse and other capital improvement projects proposed by 20 southern California water agencies applying for millions of dollars in Proposition 84 Grant Funds.
- Contributing analysis of replacement cost and market transactions to value a California cattle ranch's water rights allegedly impeded by an upstream landowner.
- Conducting survey research forming the expert's opinions regarding irrigation district and grower response to reduced Central Valley Project water deliveries required to meet new San Joaquin River instream flow requirements.

Air Quality & Climate Change

- Contributing rebuttal testimony about the extent of oil & gas wells idled and abandoned in response to compliance costs for meeting VOC emission capture standards in an EPA non-attainment area.
- Quantifying GHG emissions leakage risk associated with steel industry's compliance with Washington's proposed Clean Air Rule. Legal counsel relied on the analysis in the state legislative process.
- Quantifying uncertainty with the BLM's estimated costs and benefits of venting and flaring limits for midstream and upstream oil & gas sources. A trade association relied on the analysis in the Rulemaking process.
- Evaluating the extent to which a proposed bulk energy trade terminal would increase baseline global GHG emissions through coal exports.

Natural Resources Development & Land Use

- Analyzing the potential for the COVID-19 pandemic to affect the economic feasibility of proposed mixed-use, high-density multifamily real estate development in the suburban San Francisco Bay Area.
- Evaluating the socioeconomic impacts of an oil refinery facility expansion to produce new petroleum by-products for domestic and export markets.
- Developing an econometric model forecasting heating fuel oil prices for the Alaska Industrial Development and Export Authority's use managing heating fuel oil demand.

- Overseeing technical approaches to valuing social costs and benefits of alternative plantation configurations supporting shared benefits from tree production, livestock operation, and weed abatement.

Habitat & Species Conservation

- Valuing the Monterey County Water Resource Agency's proposed flood mitigation measures, which would affect aquatic habitat, in terms of economic output and wage losses avoided by mitigating cropland flooding.
- Contributing to an econometric study quantifying the net environmental benefit of the United States' closure of Hawaiian waters to longline swordfish fishing during 2001-2004. The findings were published in Marine Policy.
- Describing the potential direct and indirect economic consequences from impacts to rice production in California's northern Sacramento Valley from instream flow requirements designed to enhance California steelhead trout survival.
- Supporting research for quantifying real estate developers' costs to mitigate and avoid losses of species within "Critical Habitat" under the Endangered Species Act (ESA).

Contingent Liability Forecasting

- Quantifying liability for toxic tort claims and environmental response costs relating to a facility's alleged PFAS releases and disposal.
- Predicting the scope and per-site cost of oil and gas well pad soil and groundwater remediation at a major oil and gas lease.
- Assimilating data from thousands of retail gasoline stations and remediation and closure history to develop probability distributions for aggregate claims on the portfolio.
- Quantifying environmental response, NRD, bodily injury and other liabilities associated with legacy mine failure risk scenarios.
- Modeling probabilistic future net decommissioning cost outcomes for industrial scale photovoltaic (PV) solar power plants for use in establishing the financial assurance required by local governments.
- Developing data and probabilistic models monetizing risk exposure for cleanup and response costs, NRD, property damage, business interruption, and bodily injury from petroleum storage tank failures.

- Developing estimates for NRD liability risk exposure at a chemical manufacturing facility located near sensitive environmental receptors.

Financial Analysis

- Computing an electric power utility's weighted average cost of capital (WACC) as the annual interest rate for discounting future environmental response and site remediation costs.
- Determining annual inflation rates applicable to soil and groundwater remediation costs at chemical distribution sites and the discount rate applicable to future costs.
- Conducting a forensic accounting of a testing laboratory company's SEC disclosures to determine the balance of indemnity funds available for existing and future groundwater remediation obligations.
- Conducting a forensic accounting of municipal government financial statements and its appropriation of legal settlements obtained from alleged polluters to remedy groundwater pollution conditions.
- Conducting market research into sugar beet supply conditions and market demand for refined sugar by-products to advise a sugar refiner on the economic viability of expanding facility capacity.

Antitrust & Competition and Class Certification

- Contributing research and econometric analysis of a merged vertically integrated pork processing company's ability and incentive to suppress wages paid to contract hog producers along their supply chain. The merger was approved with de minimis divestiture of assets unrelated to the hog production segment.
- Leading analysis forming the expert's opinions regarding the scope of the relevant product and geographic markets for evaluating the degree to which an alleged collusion among processors could have suppressed dairy grower price premiums.
- Leading economic and statistical analyses of common impact, liability, and classwide damages from decades of alleged discrimination by the United States Department of Agriculture's (USDA) Farm Service Agency in the provision of credit to a nationwide class of Native American farmers and ranchers and advising the USDOJ and USDA through fact and expert discovery.
- Leading analysis forming the expert's opinions regarding the scope of the relevant product and geographic markets for evaluating the degree to which an alleged collusion among hospital systems to allocate the market

for registered nurse (RN) services could have suppressed RN wages.

- Leading economic research and quantitative analysis forming the expert's opinions regarding whether alleged predatory buying and capacity reductions inflated prices paid by a class of direct finished lumber purchasers, and the reliability and workability of a classwide damages model offered by the class's expert.

Personal Injury Damages

- Analyzing a valuation for the change in a transportation employee's future earning potential following injuries sustained on the job.
- Analyzing a valuation for a mesothelioma decedent's future earnings, Social Security Retirement Income (SSRI), and household services.
- Forecasting a professional athlete's future endorsement income at risk from allegedly false sexual abuse claims.

REPRESENTATIVE EXPERT RETENTIONS/APPEARANCES

Petition of the Attorney General Pursuant to G.L. c. 164, § 93, Requesting a Review of the Price of Gas Provided by New England Gas Company Related to Environmental Response Costs, Docket No. D.P.U. 11-54. Affidavit and Pre-filed Testimony (2022).

The Successor Agency to The Former Emeryville Redevelopment Agency and The City of Emeryville vs. Swagelok Company et al., United States District Court Northern District of California, Case No. 3:17-cv-00308-WHO. Expert Report (2022).

New Hampshire Ball Bearings, Inc. v. GeoSierra Environmental, Inc., and Hull & Associates, Inc., United States District Court for the District of New Hampshire, Case No. 1:20-cv-00258-PB. Expert Report (2021). Supplemental Expert Report (2022). Deposition (2023).

Arrow Electronics, Inc. v. Aetna Casualty & Surety Company n/k/a Travelers Casualty & Surety Company a/k/a St. Paul Travelers and Liberty Mutual Insurance Company, United States District Court, For the Central District of California, Case No. 2:17-CV-05247-JFW-JEM. Expert Report (2020).

The Board of Trustees of the Leland Stanford Junior University v. Agilent Technologies, Inc., and HP Inc., United States District Court Northern District of California, San Francisco Division, Case No. 3:18-CV-01199 VC. Expert Report (2020).

Paisley v. A.W. Chesterton Company et al., In the Third Circuit Court, Third Judicial Court, Madison County, Illinois, Case No. 19 L 508. Expert Report (2019).

AgriGenetics, Inc. v. Semillas Papalotla, S.A. de C.V., United States District Court for the Southern District of New York, Case No. 1:20-cv-429-LTS. Expert Report (2019).

Bloomfield Vineyards et al. v. BNSF Railway et al., Superior Court of California for the County of Contra Costa, Case No. MSC18-00058. Mediation (2019).

Certain Underwriters at Lloyds of London Subscribing to Policy No. B0799MC029630k v. Pero Family Farm Food Co., Ltd., United States District Court, Southern District of Florida, Case No. 9:18-cv-81680-RLR, Expert Report (2019), Deposition Testimony (2020).

Confidential matter involving evaluation of a Clean Water Act civil penalty for impacts to jurisdictional wetlands, United States District Court, Eastern District of California, Expert Report (2018).

Ira A. Adams, et al. v. State of California, acting by and through the Department of Fish & Game (Individuals Phase) Superior Court of California, County of Plumas, Case No. CV09-00065, Deposition and Trial Testimony (2018).

Ira A. Adams, et al. v. State of California, acting by and through the Department of Fish & Game (City of Portola Phase) Superior Court of California, County of Plumas, Case No. CV09-00065, 2015. Deposition and Trial Testimony (2015).

PROFESSIONAL AFFILIATIONS

Agricultural & Applied Economics Association, Member

Association of Environmental and Resource Economists, Member

National Association of Forensic Economists, Member

American Bar Association, Section on Energy and Environment (SEER), Member

PUBLICATIONS

Journal Articles

Rausser, Gordon, Hamilton, Steven, Kovach, Marty, Stifter, Ryan, (2009). "Unintended Consequences: The Spillover Effects of Common Property Regulations". *Marine Policy*, 33(1):24-39.

Other

Stifter, Ryan, (2020). "Assessing the Reliability of Damages Valuations." Paper presented at the DRI Toxic Torts and Environmental Law Seminar, Phoenix, Arizona, February 19-21, 2020.

Campbell, P.E., Lisa, MacNair, Doug and Stifter, Ryan, (2017) "Review of the Economic Impact Analyses for Colorado Air Pollution Control Division's Proposed VOC Non-Attainment Rule." October 4th. JIWG-REB EX-C.

Mitchell, Kristina, Sussman, Benjamin, Tomasi, Theodore, Stifter, Ryan, (2017). Chapter 11. "Social and Economic Environment," in Tesoro Anacortes Refinery Clean Products Upgrade Project Draft Environmental Impact Statement.

Stifter, Ryan, Weaver, Scott, Burwell, Ariane, Shelly Michael, Ph.D., (2016). "Steel Industry Emissions Leakage Risk from the proposed Washington Clean Air Rule dated May 31, 2016" Letter to Sam Wilson (Department of Ecology) from Matthew Lyons (Nucor Steel) Re: Nucor Steel Comments on the Proposed Clean Air Rule.

Stifter, Ryan, Elder, Lee, Pavich, Steve, Paul, Duane, (2013). Appendix F. "Economic Study," in Salinas River Stream Maintenance Program Revised Final Environmental Impact Report.

PRESENTATIONS

Stifter, Ryan (2021). "NRD and Other Potential PFAS Liabilities", Law Seminars International (LSI) PFAS Contamination and Regulation in California Conference, February 11-12, 2021.

Stifter, Ryan (2020). "Valuing Damages Using Applied Economics", Defense Research Institute (DRI) Toxic Tort and Environmental Law Conference, Phoenix, February 19-21, 2020.

Stifter, Ryan, (2019). "Minnesota v. 3M PFAS Settlement: Comments on the Evidence Provided on Injured Natural Resource Services and their Values", LSI PFAS Litigation Conference, San Diego, December 9-10, 2019.

Stifter, Ryan, (2019). "Valuing Environmental Damages in the Context of Global Climate Change: Economic and Financial Implications & Opportunities", LSI Natural Resource Damages Conference, Santa Fe, July 18-19, 2019.

Stifter, Ryan, Conley, Matthew, Vaughn, Kate (2019). "Natural Resource Damages in State-Led Claims", Perrin Environmental Risk & Litigation Conference, New York, June 18, 2019.

Poppler, Erin K., Stevenson, Lisa M., Stifter, Ryan P. (2019). "State of Emergency: How California Wildfires Burn the Whole Country", Environmental and Emerging Claim Managers Association (EECMA) Annual Conference, Orlando, May 1-3, 2019.

Stifter, Ryan (2018). "Climate Change Risks and Opportunities for California Agriculture", Association of Insurance and Reinsurance Run-off Companies/EEMA Climate Change Symposium, Philadelphia, September 6, 2018.