

Lana Semenova

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Professional Profile

Ms. Semenova has over 15 years of professional experience in applied natural resource and environmental economics. Her areas of expertise include assessing economic damages resulting from natural and human-caused incidents, developing restoration alternatives to compensate for losses to natural resources, and conducting economic impact analyses for environmental regulations.

In the natural resource damage assessment (NRDA) and restoration services arena, Ms. Semenova has worked on cases involving oil spills, chemical releases, and wildland fires. Ms. Semenova works closely with clients and counsel on developing innovative and cost-effective restoration options, scaling restoration options based on quantifiable injury, and negotiating restoration alternatives with state and federal Trustees. She has specialized expertise on how to scale restoration alternatives for terrestrial and aquatic resources, including wetlands, plankton, fishes, corals, and benthic macroinvertebrates. She relies upon habitat equivalency analyses (HEA) to scale restoration-based damage estimates that are used in settlement negotiations with Trustees. Ms. Semenova develops project-specific conceptual designs for restoration alternatives that offset injury to natural resources. She has extensive experience with estimating monetary values associated with implementation of those projects and resulting economic damages. Ms. Semenova has extensive skills in a variety of assessment methodologies for valuation of natural resources that allow her to conduct assessments of economic liability for damages to natural resources. Those areas include estimating monetary losses from beach and fisheries closures; affected recreational activities such as swimming, hiking, birdwatching; lead, mercury, other chemical contamination; and oil spills. Ms. Semenova recently provided economic support and evaluation of damage claims for human use losses that included losses to recreational anglers due to chemical contamination of rivers and other waterbodies. Those economic losses were associated with fish consumption and recreational use advisories. Her knowledge of various economic techniques from market valuation to benefits transfer to Contingent Valuation (CV) gives her a good understanding of methods frequently used in environmental litigation. Semenova's experience in non-market valuation methods, in particular, gives her unique insights into how these approaches could be used in the courtroom. Ms. Semenova has performed economic analyses assessing the impacts of environmental regulations for over 12 years. She has extensive experience conducting benefits assessment, cost-benefit analysis, regulatory analysis, non-market valuation, and statistical analysis. On behalf of a trade association, Ms. Semenova recently developed comments for the FDA proposed rule for safety and efficacy of consumer antiseptics. She provided an evaluation of the Regulatory Impact Analysis for over-the-counter consumer antiseptic hand and body washes containing certain active ingredients such as triclosan and triclocarban. For EPA, Ms. Semenova worked on various regulatory programs, including economics of toxic chemicals under Toxic Substances Control Act (TSCA): mercury and perfluorinated chemicals (PFCs) in certain products, lead in paints, formaldehyde in composite wood products; water quality and water use issues, including estimating economic benefits of water discharge regulations (316b under CWA); recreational activities; oil spill prevention under the Spill Prevention, Control, and Countermeasures (SPCC) rule; agriculture and pesticide use; and energy and climate change issues.

Academic Credentials & Professional Honors

M.S., Resource Economics, University of Rhode Island, 1997

Prior Experience

Lead Economist / Associate, Abt Associates Inc., 2002-2012

Graduate Research and Teaching Assistant, Department of Environmental and Natural Resource Economics, University of Rhode Island, 2000-2002

Publications

Semenova S, Deardorff T. Catastrophic California wildfires: Scaling environmental damages. Proceedings, World Environmental & Water Resources Congress, Austin, TX, May 17-21, 2015.

Deardorff T, Semenova S. Environmental damages associated with wildland fires. Exponent Environmental Perspectives Newsletter 2014; Volume 1, pp. 1-7.

Semenova S, Menzie C, Deardorff T. A retrospective approach to valuation of natural resources in wildland fire litigation. Environmental Claims Journal 2013; 25(4):291-310.

Creason J, Stone S, Fisher M, Semenova S. The environmental impacts of trade liberalization: A quantitative analysis using TEAM. Agricultural and Resource Economics Review 2005 April; 34(1):90-103.

Presentations

Semenova S, Menzie C, Deardorff T. Valuation of natural resources in wildfire litigation. Presented at the 8th Annual Wildland Fire Litigation Conference, Monterey, CA, April 25-27, 2014.

Semenova S. Non-use valuation in NRDA: major uncertainties and past experience. Presented at the 3rd Annual Conference on NRD, Washington, DC, February 6-7, 2014.

Semenova S, Menzie C, Deardorff T. A retrospective approach to valuation of natural resources in wildland fire litigation. Poster Presentation, SETAC North America, 34th Annual Meeting, Nashville, TN, November 18-21, 2013.

Creason J, Fisher M, Semenova S, Stone S. A comparison of the environmental impacts of trade versus domestic distortions in the United States. 7th Annual Conference on Global Economic Analysis: Trade, Poverty and the Environment, Washington, DC, 2004.

Opaluch J, Semenova S. Using agent models to assess policies for aquifer protection. Presentation, American Agricultural Economics Association (AAEA) Annual Meeting, Long Beach, CA, 2002.

Project Experience

Natural Resource Damage Assessments Dunkard Creek Fish Kill (Dunkard Creek, PA). Consulting economist evaluating recreational damage claims. Performed a rebuttal assessment of the estimated angler losses as a result of alleged contamination in Dunkard Creek. Evaluated assumptions underlying the estimation approach, key parameters and calculations, and provided an alternative estimates for the resulting angler trips lost and associated monetary damages. Developed a rebuttal assessment of Trustees' valuation of lost aquatic life. Pennsylvania Fish and Boat Commission v. Consol Energy, Inc. Calcasieu Estuary Bayou d'Inde (Bayou d'Inde, LA). Consulting economist evaluating recreational damage claims and reviewing restoration alternatives and associates costs. Performed a review of

NOAA's assessment of recreational losses in Bayou d'Inde resulting from PCB, HCB, HCBD fishing, recreational use, and information advisories for PPG Industries Inc. Identified potential issues associated with the approach and suggested alternative estimation methods. Prepared materials for the meeting with Trustees. Assessed proposed allocation of damages associated with recreational losses among responsible parties and developed an alternative estimate. Utilities (several matters in CA). In response to recent non-conventional applications of NRD assessments to wildland fires by USFS and others, Ms. Semenova conducted an assessment of economic damages associated with forest lands damaged by wildfires in California. She developed a scaling approach based on a relationship between the magnitude of intangible environmental damages and the pre-fire non-market resource values provided by the forest. The approach helps a responsible party determine a reasonable amount of the damage claim on the scale of financial liability.

Regulatory Impact Analyses TSCA Section 6 Regulation of Certain Mercury-Containing Products. Project manager for economic support for TSCA Section 6 regulation reducing risks from mercury, including Economic Analysis of proposed regulation for EPA's Office of Pollution Prevention and Toxics (OPPT). Managed development of the economic analysis for reducing exposure to mercury including monetizing costs and benefits of a ban and regulatory alternatives. Developed a method for estimating benefits from reduced exposure to mercury that consist of avoided adverse health effects from exposure to methylmercury and benefits derived from cost savings from avoided cleanup activities as a result of product brakeage containing elemental mercury. Oil Spill Prevention, Control, and Countermeasures (SPCC) Regulation. Project manager for economic and technical support for SPCC proposed and final regulations for EPA's Office of Emergency Management (OEM). Lead regulatory impact analyses for several revisions to the oil pollution prevention regulation (2005 Proposed rule, 2006 Final rule, 2007 Proposed rule, 2008 Final rule, 2009 Final rule). Responsible for estimating costs and benefits associated with the rule. Provided a wide range of analytical support to the client, including data analysis, results presentation and interpretation, preparation of briefings and other materials. Regulation of Cooling Water Intake Structures under CWA 316(b). Economist for proposed and final amendments to the 316(b) rule. Performed benefits analyses resulting from improved recreational opportunities from reduced entrainment and impingement of larvae and fish for the North Atlantic, Northern and Southern California, Great Lakes, Gulf of Mexico and South Atlantic regions. Used travel cost models in a random utility framework for the estimation of benefits.