



Water Policy and Economics



For more than 20 years, ICF International has provided regulatory support to clients through a complete range of services to design, evaluate, and implement environmental programs and projects across all environmental media—land, air, and water. Our available water policy and economic services include economic, financial, and regulatory analyses to support drinking water and other water resource programs.

Featured Solutions

Global Change Effects on Water Treatment

For the Global Change Research Program within the U.S. Environmental Protection Agency's (EPA) Office of Research and Development, ICF analyzed potential factors contributing to the vulnerability of public water supplies due to climate change. ICF analyzed 20 years of Maximum Contaminant Level (MCL) violation data from the Safe Drinking Water Information System database to characterize the relationship between MCL violations and temperature and precipitation in 11 states. Independent effects of seasonality and changes in state regulatory requirements were included in the analysis, which found clear impacts of temperature on the patterns of MCL violations in Southern states, and clear differences in susceptibility in systems using different treatment technologies.

Regulatory and Economic Analysis for Radon in Drinking Water

ICF supported EPA's Office of Ground Water and Drinking Water in analyzing the public health and economic outcomes of alternative approaches for controlling radon in drinking water. ICF developed a risk-benefit model that calculated risk reduction benefits of different regulatory options, using both "natural units" (cases of cancer) and monetary surrogates to estimate regulatory benefits. For the supporting economic analysis, ICF used detailed water system inventory data to support Monte Carlo national estimates of compliance costs and health benefits. The Regulatory Impact Analysis/ Economic Analysis, drafted by ICF, has withstood detailed peer review and extensive stakeholder comments.

Framework for the Ecological Valuation of Economic Benefits

For the EPA's Social Sciences Discussion Group, ICF assisted in developing a framework to improve the use of ecological information in economic assessments and valuations. The framework describes ecological assessment endpoints that can be used to infer changes for which economic valuation techniques exist. These techniques range from traditional approaches (such as travel cost analysis) to newer ones (such as conjoint analysis and random utility model applications). The framework report emphasizes communication and coordination between ecologists and economists during problem formulation.

ICF International offers a wide range of policy, economic, conservation, scientific, and engineering services related to water resources.

- Water Planning and Program Development
- Pollution Prevention
- Water Quality
- Wastewater Treatment
- Water Supply
- Field Sampling and Monitoring
- Remedial Investigations
- Remedial Design and Construction
- Risk Assessments
- Impact Assessments
- Water Conservation and Efficiency

Passion. Expertise. Results.

Municipal Water Pollution Prevention

ICF assisted the U.S. Environmental Protection Agency's (EPA) Office of Wastewater Enforcement and Compliance (OWEC) in an initiative to develop a national municipal water pollution prevention program designed to promote more effective management of the nation's publicly owned treatment works and wastewater pretreatment programs to reduce surface water pollution. Our staff helped develop the broad outlines of the program and, to introduce the program and solicit input regarding its objectives, supported a series of workshops across the country for EPA regional and state offices. ICF also prepared detailed summaries of the workshop results, outreach brochures, bibliographies, and case-study compendia; and assisted OWEC in developing the final framework and guidance for the new program.

Technical and Regulatory Support for the Development of Criteria for Water Media

ICF provides technical and regulatory support services to EPA's Office of Water to develop human health criteria, health advisories, maximum contaminant level goals, and pollutant limits. This support includes activities such as conducting hazard and risk assessments; performing statistical analyses; evaluating pollutants selected for review by EPA; assessing the potential impact of criteria on sensitive populations (e.g., children and the elderly); preparing criteria documents, health advisories, technical guidance and technical support documents for regulatory requirements, and the index of references for proposed and final regulations; summarizing comments on proposed regulations; and arranging and conducting workshops. ICF has prepared numerous toxicological support documents for EPA's Integrated Risk Information System (IRIS), as well as scientific documents to support regulatory determinations. These technical reports also address specific water contaminants (Health Effects Summary Documents) and provide information to the public (Health Advisories) involving both qualitative (e.g., literature review and synthesis) and quantitative (e.g., dose-response modeling) analysis.

Evaluation of Land and Water Quality

For the EPA Office of Policy, ICF provided support across a broad range of areas, including developing methods for: analyzing benefits and costs of EPA actions and nonregulatory strategies, analyzing economic efficiency and effectiveness, providing technical support (including risk assessment) for policy development (including "nonquantifiable" impacts and benefits in decision-making), and analyzing the science and economics of sustainability. Our staff developed a resource book to assist ecological resource managers in identifying and evaluating the ecological consequences of different watershed management options. The book focuses on ecological benefits not actively used by humans (e.g., habitat for animals or maintenance of biodiversity). Such benefits are often neglected in the process of conducting economic benefit assessments. ICF also investigated and characterized regional efforts to identify high-priority terrestrial and aquatic ecosystems.

National Marine Fisheries Service (NMFS) Fisheries Statistics and Economics Division

ICF helped the Fisheries Statistics and Economics Division develop options for implementing a national fisheries information and vessel registration system. Our staff facilitated meetings of the system's core design team, collected and analyzed system data from various state-based fishery management agencies, and assisted in the production of report documents for the NMFS Report to Congress on system implementation. As contemplated in the Magnuson-Stevens Fishery Conservation and Management Act, the Atlantic component of this national system will be comprised of the information system and user interface developed by ICF for the Atlantic Coastal Cooperative Statistics Program (ACCSP), a consortium of 22 federal, state, and regional agencies responsible for managing the nation's Atlantic coastal fisheries. For ACCSP, we developed a data warehouse that combines fishery data collected by each federal and state agency and permits access to the data through an easy-to-use, Web-based analytical interface, allowing fishery professionals from Maine to Florida to analyze the same fishery data using their Web browsers.

About ICF International

ICF International (www.icfi.com) partners with government and commercial clients to deliver consulting services and technology solutions in defense, energy, environment, homeland security, social programs, and transportation. Combining passion for our work with industry expertise and innovative analytics, we deliver compelling results throughout the entire program life cycle, from analysis and design through implementation and improvement. Since 1969, ICF International has been serving government at all levels, major corporations, and multilateral institutions. More than 1,600 employees serve these clients worldwide.

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