

Extensive experience at the intersection of water supply, irrigated agriculture, conservation policy, and the environment.

Areas of Expertise

| • | Irrigated agriculture location and importance | • | Federal Water Policy |
|---|---|---|------------------------------------|
| ٠ | Agricultural water use | ۰ | Farm Bill Conservation Policy |
| ٠ | Irrigation water efficiency and conservation | | Water-based ecosystem services |
| ٠ | Knowledge of farm and irrigation practices | | Statistical data analysis |
| ٠ | Water project evaluation | ٠ | Federal water project requirements |

Objective

Talented economist/policy analyst seeking short to medium-term opportunities to apply my extensive knowledge and experience to current topics. With 32 years of experience at USDA, I have interest in accepting new professional challenges in water resources, irrigated agriculture, conservation policy, ecosystem services and Federal water project requirements and evaluation.

Professional Experience

2019-current

Senior Consulting Economist, Water Policy Economics, Gaithersburg, Maryland

Work with selected clients on water resource and conservation projects and analysis.

- Consultant to H3 Engineering providing economic analysis, environmental assessment review and strategic planning services for the *Coyote Wash Urban Enhanced Runoff Recharge Project* in Cochise County Arizona
- Consultant to a subcontractor for the Department of Energy evaluating the feasibility of reduced irrigation water withdrawals serving as a drought-year water source for thermo-electric power generation
- Leading the effort on water quantity and agricultural irrigation as a member of a consultant team charged with developing reports describing a range of conservation conditions for USDA

2008-2018

Senior Economist, Natural Resources Conservation Service, USDA, Beltsville, Maryland

My role at NRCS was to support leadership decisions on conservation with economic and data-driven analysis. My training and experience with water quantity issues ensured that I analyzed virtually every significant decision directly involving water quantity, where analysis was invoked during the decision process.

- While at NRCS I led the drive for a change in perspective about the benefits of irrigation assistance offered through Federal conservation programs. In FY2017, NRCS signed over 25,000 contracts covering about 1 million acres that obligated more than \$200 million to improve irrigation efficiency. Working closely with agency hydrologists and engineers, I was the lead presenter of information to demonstrate the differences between irrigation efficiency and irrigation water conservation. By more accurately framing this issue, changes occurred in the perceived benefits from irrigation improvements which, in turn, impacted policy decisions.
- I represented NRCS and USDA on several water and water policy interagency working groups involving other Federal Agencies, State, non-governmental and private organizations.



I supported analysis for a wide sweep of conservation programs and topics—including economic analysis of Farm Bill rules for implementation, Farm Bill program development and analysis, identification and use of ecosystem service functions in analysis, benefit/cost analysis, and analysis of the confined livestock sector. For most inquiries, statistical analysis using public, administrative, or confidential data was a part of the process that informed the evaluation and associated recommendations.

NRCS Areas of Analysis

- Explaining the relationship between water conservation and irrigation efficiency in a USDA policy context, including co-authoring a journal article in Sustainability on the topic and a presentation at a major conference
- Analyzing requests for waivers to Farm Bill program requirements concerning irrigation
- Represented USDA on the interagency work group charged with updating Federal water investment evaluation procedures impacting funding decisions for multiple Federal Agencies including USDA
- In my last year at NRCS, I reviewed, and drafted Agency comments and positions on a dozen significant Federal rules and policy actions, primarily in the OMB policy review process. This was a typical policy review workload.
- Building on experience from the <u>Regulatory Impact Analysis</u> (from the 2014 Farm Bill Analysis), I developed the baseline scenario (a continuation of current programs) for the Agricultural Land Easement Program for use in analysis of the 2018 Farm Bill
- Co-authored the report and was co-investigator on an <u>analysis of confined animal farms</u> using 7 Census of Agriculture datasets spanning 35 years—the report and data are widely used in water quality modeling
- Led a team of academic leaders—organized by an affiliate of the professional association for Agricultural Economists—to evaluate the feasibility of using an ecosystem services approach to <u>value improved water</u> <u>quality</u> from conservation programs

1986-2008

Research Economist. Economic Research Service, USDA, Washington DC

At ERS, I conducted relevant policy and informative research on national and regional water issues impacting agriculture and competing water uses. For a six-month period, I served in a research leadership position as an Acting Assistant Director. During my time at ERS, my high-level of research performance resulted in promotions from a GS-12 to a GS-15.

1982-1987

Research Associate, Agricultural Economics, University of Nebraska, Lincoln, Nebraska

At Nebraska, I analyzed groundwater policy from a state perspective seeking the optimal policy framework to limit groundwater withdrawals. I also evaluated the tradeoffs associated with increasing surface irrigation water diversions and water-based endangered species habitat.

Education

- 1987 *Ph.D. Agricultural Economics*, University of Nebraska-Lincoln Emphasis in Natural Resource Economics & Farm Management
- 1979 M.S. Agricultural Economics, New Mexico State University Emphasis in Farm Management and Agri Business
- 1977 B.S. Agricultural Economics, New Mexico State University