Jeffrey D. Rieker
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Experience

Bureau of Reclamation, Lahontan Basin Area Office; Carson City, NV
Special Studies Division Manager
October 2007 – present; GS-0810-12,13
Supervisor: Kenneth Parr, Terri Edwards

As manager of the Special Studies Division of the Lahontan Basin Area Office, I am responsible for oversight of a variety of programs related to water resources planning and management for the office. These include:

- Oversight of administration of the Operating Criteria and Procedures for the Newlands Project (OCAP)
- Oversight of the office's water measurement and gaging program, primarily in support of OCAP administration
- Oversight of hydrologic and hydraulic modeling and forecasting
- Program management of various activities related to the implementation of the Truckee River Operating Agreement (TROA)
- Oversight of the office's water rights activities
- Oversight of various hydrologic and hydraulic studies and activities related to the recovery effort for the 2008 breach of the Truckee Canal. This included providing expert testimony in preliminary injunction hearings before the U.S. District Court for the District of Nevada

I supervise seven staff members, including three hydraulic engineers, a civil engineer, a civil engineering technician, a water rights specialist, and a secretary. As part of the Division, I manage Reclamation's Fallon Field Office. I manage the Division's approximately $3 million budget, which is the largest segment of the office's overall budget.

Bureau of Reclamation, Lahontan Basin Area Office; Carson City, NV
Hydraulic Engineer
June 2006 – October 2007; GS-0810-9,11
Supervisor: Kenneth Parr

As a Hydraulic Engineer at the Lahontan Basin Area Office, I was the primary hydrologic forecaster for the office, and provided technical support to office management on operational issues. Accomplishments and duties included:

- Served as technical assistant to the Area Manager in various negotiations
- Filed declarations on technical aspects of the *Recoupment* lawsuit and judgement

- Completed hydrologic forecasts of inflow, demand, and diversion for compliance with the Operating Criteria and Procedures for the Newlands Project (OCAP). Composed decision letters for OCAP operations, and consulted with stakeholders during operational changes
- Completed calculations and decision letters for water accounting, evaporation, spill, and other regulatory variables and limits under OCAP
- Completed hydrologic and operations forecasting for basin-wide stakeholder forums, and served as lead coordinator and facilitator for the meetings
- Represented Reclamation at local watershed group meetings
- Developed a forecasting tool for OCAP compliance and flood control which facilitates the rapid compilation and analysis of streamflow and weather forecasts
- Developed, refined, and maintained RiverWare models and their associated data management mechanisms for current operating conditions, as well as features of the models that will be used in the implementation of TROA
- Assisted with set up of the centralized Hydrologic Database (HDB) and linkage of the models to the database
- Provided technical oversight of service agreements with the Desert Research Institute and the Reclamation's Technical Service Center
- Responded to requests from local government and public for streamflow and reservoir storage data and forecasts

Bureau of Reclamation, Technical Services Center (TSC); Denver, CO
Hydraulic Engineer – Student Career Experience Program (SCEP)
May 1999 – June 2006; GS-0899-4,5,7,9,11,12
Supervisor: Dave Matthews, Don Frevert

I gained more than six years of experience with Reclamation while enrolled in the Master's and Ph.D. programs at Colorado State University under the Student Career Experience Program, as described:

7/2004 – 6/2006; GS-0899-12

- Technical Service Center (TSC) technical team leader responsible for developing the Truckee RiverWare model for current conditions and to implement TROA. Responsibilities included creation and maintenance of the data transfer and storage mechanisms, as well as update and maintenance of RiverWare programming to properly represent current operating conditions. Assisted with annual budgeting for the project
- Worked with the City of Reno to link the city's water quality model to the RiverWare modeling system
- Calibrated sediment transport models for the Rio Grande using the GSTARS program
- Served as Registration Chairperson for the 2006 Federal Interagency Hydrologic Modeling Conference and organizing committee member for Reclamation's 2005 River Systems Management Conference
- Assigned and supervised the work of younger SCEP students at the TSC, including creation of a lake mass balance for a portion of the Truckee RiverWare model and automated updating for hydrologic model data

4/2003 - 7/2004; GS-0899-11

- Developed a data transfer mechanism for the Truckee RiverWare modeling system

- Served as an organizing committee member for Reclamation's 2003 River Systems Management Conference
- Constructed and utilized a RiverWare model of the Lower Colorado River System for a flood study of the Imperial Diversion Dam
- Served as co-principal investigator on a Reclamation Science and Technology (S&T) review of potential fisheries modeling on the Truckee River
- Served as an interagency liaison for Reclamation's Watershed and River Systems Management Program

7/2001 - 4/2003; GS-0899-9

- Completed a master's thesis on the analysis of endangered species habitat in the Lower Colorado River
- Technical team member on the LBAO-TSC RiverWare modeling project, completing a database of historic data for the Truckee River Basin
- Served as a principal investigator on two Reclamation S&T projects; one researching water quality issues on the Truckee River, and the other creating a method to display RiverWare models through the web
- Served as Registration Chairperson for the 2002 Federal Interagency Hydrologic Modeling Conference
- Developed a database of hydrologic model data for the Snake River using the SAMS stochastic modeling program

5/1999-7/2001; GS-0899-4,5,7

- Completed a database and interactive website for Reclamation's Hydrologic Modeling Inventory
- Developed a Geographic Information System (GIS) for modeling agricultural return flows on the San Juan River

Metropolitan St. Louis Sewer District, Engineering Division; St. Louis, MO
Engineering Aide
June, 1998 – August, 1998
Supervisor: Gary Moore

Working as a summer intern with the St. Louis Sewer District, my primary tasks were as follows:

- Designed sanitary sewer infrastructure
- Performed material quantity assessments for sanitary sewer construction

Bituminous Roadways of Colorado, Estimating Group; Denver, CO
Summer Intern
June – August; 1996, 1997
Supervisor: Kurt Todeschi

I served for two summers as an intern with the estimating group of Bituminous Roadways (now called Aggregate Industries Ltd.), with a primary focus on the following tasks:

- Performed material quantity assessments and measurements for construction bid estimation and billing
- Served as courier of construction bids and engineering drawings

Jeffrey D. Rieker

Education

Colorado State University
Ph.D. Candidate, Civil Engineering – Currently enrolled; GPA: 4.0
Proposed Dissertation Topic: Use of Reinforcement Learning in Reservoir Operations for the Improvement of River Water Quality
M.S., Civil Engineering – May, 2003; GPA: 3.8
Thesis Topic: GIS Support and Visualization of the Environmental Effects of River Operations on Backwaters in the Lower Colorado River

University of Missouri – Rolla
B.S., Civil Engineering – Dec., 1999; GPA: 3.82 (Summa Cum Laude)
Minor, Spanish

Professional Affiliations

American Society of Civil Engineers; News Correspondent for the Watershed Council

Professional Registration

Nevada
Professional Engineer # 018295

Publications and Presentations

Rieker, J., and J. Labadie, "GIS Visualization and Analysis of River Operations Impacts on Endangered Species Habitat," Journal of Water Resources Planning and Management, Volume 132, Issue 3, pp. 153-163 May/June (2006).

Singh, V., D. Frevert, J. Rieker, V. Leverson, S. Meyer, and S.P. Meyer, "The Hydrologic Modeling Inventory - A Cooperative Research Effort," Journal of Irrigation and Drainage Engineering, Volume 132, Issue 2, pp. 98-103 March/April (2006).

Rieker, J., "Decision Support for Water Quality Releases on the Truckee River," Proceedings of the Joint Eighth Federal Interagency Sedimentation Conference and Third Federal Interagency Hydrologic Modeling Conference, Reno, NV, April 2-6, (2006).

Rieker, J., S. Coors, M. Mann, and T. Scott, "Modeling in Support of Water Operations in the Truckee River Basin," Proceedings of Watershed Management, EWRI and ASCE, Williamsburg, VA, July (2005)

Rieker, J. and J. Labadie, "GIS Visualization and Analysis of Environmental Effects of Operations in the Lower Colorado River," Proceedings of the World Water and Environmental Resources Congress, EWRI and ASCE, Philadelphia, PA, June 22-26 (2003).

Rieker, J., “GIS Support and Visualization of the Environmental Effects of River Operations on Backwaters in the Lower Colorado River,” M.S. Thesis, Colorado State University, Ft. Collins, CO, April (2003).

King, D. and J. Rieker, "Alternative Methods to Determine Shortages and Naturalized Flows," Proceedings of the Second Federal Interagency Hydrologic Modeling Conference, Las Vegas, NV, July 28 - Aug 1 (2002).

Rieker, J.D., K. Fagot, S. Meyer, and D. King, "Data Sharing: A GIS Approach," Proceedings of the Second Federal Interagency Hydrologic Modeling Conference, Las Vegas, NV, July 28 - Aug 1 (2002).

Rieker, J., J. Labadie, and K. Fagot, “Visualizing the Impact of Control of the Lower Colorado River,” Proceedings of the 2002 ESRI International User Conference, San Diego, CA, July 7-12 (2002).

Salas, J.D., D. Frevert, J. Rieker, D. King, S. Meyer, L. Lane, and E. Zagona, "New Developments on the Sams Stochastic Hydrology Package," Proceedings of the World Water and Environmental Resources Congress, EWRI and ASCE, Orlando, FL, May (2001).

Singh, V.P., D.K. Frevert, M.A. Treviño, S.P. Meyer, and J.D. Rieker, “The Hydrologic Modeling Inventory: A Cooperative Research Effort,” Proceedings of Watershed Management 2000, EWRI and ASCE, Ft. Collins, CO, July (2000).

References

References are available upon request