JOHN W. LEEPER

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Professional Registration:

Registered Professional Engineer - California, No. 36765 - Arizona, No. 29220

Education:

Ph.D., 1989, Civil Engineering, Colorado State University, Dissertation Title: *The Impact of Water Control on Navajo Irrigation Systems*.

M.S., 1983, Civil Engineering, California State University, Los Angeles, Thesis Title: A Derivation of an Instantaneous Unit Hydrograph Using Kinematic Wave Equations.

B.S., 1981, Civil Engineering, University of California, Davis.

Experience:

Expert Witness

Testified as an expert witness before the DOI Office of Hearings and Appeals in the case of Thermal Energy Co. v. Bureau of Land Management et al., IBLA No. 2006-71, January 2011.

<u>Senior Project Manager</u>, AMEC Environmental & Infrastructure Incorporated, Socorro New Mexico, 2012 to Present.

Assist AMEC staff with a wide range of hydrologic studies and supervising technical staff in the Socorro office. Supervised the preparation of the *Preliminary Engineering Report for the Alamo Waste Water Improvement Project* May 2012. Assisted with the *Navajo Agricultural Products Industry Preliminary Engineering Report Domestic Water Service for Navajo Communities at NIIP*, June 2012

<u>Branch Manager</u>, Navajo Nation Department of Water Resources, Water Management Branch, Navajo Nation, Fort Defiance, Arizona, 1997 to 2011.

As the Branch Manager of the Navajo Nation Water Management Branch, the major responsibilities included: 1) supervising a staff of more than twenty full time water resources professionals; 2) managing an annual budget of more than \$2 million per year derived from more than six funding agencies; and 3) providing technical support for the Navajo Nation's water rights litigation and negotiation. These responsibilities also included the following projects:

Representing the Navajo Nation on the Navajo Gallup Water Supply Project Steering Committee and the Project Construction Coordination Committee. This assignment included formulating the Navajo Nation's policies regarding implementation of the project, technical review and analysis, and presenting project issues to Navajo Nation decision makers, state legislators and the public. During this period Reclamation completed the Record of Decision and Final Environmental Impact Statement for the Navajo Gallup Water Supply Project.

Assisting the Navajo Nation with a broad array of Colorado River Basin issues including, among others, assisting the Navajo Nation with formulating positions with respect to the Navajo Indian Irrigation Project, the Animas-La Plata Project, the San Juan River Recovery Implementation Program, drought response and mitigation, negotiations between the Navajo Nation and the States of Arizona, New Mexico and Utah, and regional water planning.

Participating as a reviewer or contributor to numerous environmental and appraisal level studies including, among others: the Black Mesa Environmental Impact Statement, the Draft Desert Rock Power Plant Environmental Impact Statement, the Page LeChee Water Supply Project Environmental Assessment, the Ganado Irrigation Project Environmental Assessment, the Red Lake Irrigation Project Environmental Assessment, the Many Farms Irrigation Project Environmental Assessment, the North Central Arizona Water Supply Appraisal Level Study, the Southwestern Navajo Water Supply Appraisal Level Study, and the Western Navajo Hopi Water Supply Study.

Supervised the preparation of the *Water Resources Development Strategy for the Navajo Nation*, July 2011.

Supervised the preparation of the *Draft Technical Memorandum*, *The Many Mules Black Mesa Water Supply Project*, November 2002.

Supervised preparation of the *Navajo Nation Drought Contingency Plan 2002*, June 2002.

Reviewed the Final Draft Technical Memorandum, Tojajiilee Water Supply Project, April 2002.

Supervised the preparation of the *Final Draft Technical Memorandum*, *The Navajo Gallup Water Supply Project*, March 2001.

Supervised the preparation of the Kerley Valley and Lower Kerley Valley Irrigation Project Water Management and Conservation Plan, March 2001.

Assisted with the *Draft Technical Memorandum*, *Three Canyon Water Supply Project*, March 1999.

Assisted with the *Draft Technical Memorandum, The Proposed Western Navajo Pipeline* and the North Central Arizona Water Supply Project, October 1998.

Supervised the preparation of the *Draft Technical Memorandum*, *An Appraisal Level Study of the Proposed Farmington to Shiprock Municipal Water Line*, March 1999.

Supervised the preparation of the *Technical Memorandum*, *Water Use Fee Policy*, June 1998.

Supervised the preparation of the Final Draft Technical Memorandum, An Appraisal Level Study of the Capacity and Water Demand of the Shiprock Irrigation Projects, February 1998.

<u>Civil Engineer</u>, Water Resources Management, Navajo Nation, Fort Defiance, Arizona, 1995 to 1997.

As a Civil Engineer in the Navajo Nation Water Management Branch, the major responsibilities included supervising the Branch's Engineering Section, reviewing water availability for Navajo Nation Water Code Water Use Permits, and preparing proposals for funding grants. These responsibilities also included the following projects:

Providing technical support for the Navajo Nation's water rights litigation and negotiation in the San Juan River, Rio San Jose and Zuni River Basins. This assignment included directing technical consultants in the preparation of the Navajo Nation's federally reserved water rights claims, preparing hydrographic survey materials, and developing regional water supply project alternatives.

Contributed to the *Draft Technical Memorandum*, *Ganado Lake Water Supply*, February 1998.

Contributed to the *Draft Technical Memorandum*, A Review of the Four Corner Regional Focus on the Economic Impact of the Critical Habitat Designation, December 1996.

<u>Supervising Senior Engineer</u>, Natural Resources Consulting Engineers, Fort Collins, Colorado, 1992 to 1995.

As a Supervising Senior Engineer at Natural Resources Consulting Engineers, the major responsibilities included the following projects:

Provided technical support to the federal negotiating team which is litigating and negotiating the federally reserved water rights in the Little Colorado River Basin within the State of Arizona. This assistance included technical studies on behalf of the Navajo, Hope, San Juan Southern Paiute, White Mountain Apache and Zuni Tribes.

Conducted natural flow analysis of the San Juan River and developed San Juan River depletion scenarios for the Navajo Nation.

Provided technical assistance to the Office of the Tribal Water Engineer of the Shoshone and Arapaho Tribes in Fort Washakie, Wyoming. This assistance included, among other activities, surface and groundwater permitting, dam safety monitoring of Washakie Dam, implementing cost-share programs and evaluation irrigation rehabilitation alternatives.

Supervised portions of the Assessment and Plan for the Rehabilitation of the Wind River Irrigation Project and presented the plan to water users at public meetings. This plan addresses management, finances, on-farm systems, equipment needs and the physical system.

Supervised portions of the *Wind River Basin Wide Study* which evaluated the available water supply, and it presented estimates of current and future water demands in the Wind River Basin.

Conducted preliminary technical evaluations for the Government of Eritrea of the Toker Dam Water Supply Project in the Province of Asmara and the Tekezzie-Setit Hydropower and Irrigation Project.

Senior Civil Engineer, Stetson Engineers, San Rafael, California, 1989 to 1992.

As a Senior Civil Engineer at Natural Resources Consulting Engineers, the major responsibilities include working on the following projects:

Inventoried historically and presently irrigated lands on the Navajo and Hopi Indian Reservations, and evaluated the water supply and demand of those lands.

Evaluated the local facilities that would be required for the delivery of California Water Project water to Improvement District Number 1, Santa Ynez Water Conservation District.

Developed a water resources management plan for the Santa Ynez Water Conservation District in Central California.

Analyzed benefits and costs of seepage reduction options available to the San Luis Drainage Unit in the Central Valley of California.

Estimated the impact of non-Indian water use on water development of the Pechanga, Morongo, Santa Rosa, Cuyapaipe and La Posta Indian Reservations in Southern California.

Inventoried and assessed the rehabilitation potential of historically and presently irrigated lands on the Flathead Indian Reservation, Montana. Evaluated the water supply and demand of those lands.

Quantified water resources and historical water requirements of irrigated land on Peoples Creek, Fort Belknap Indian Reservation, Montana.

Inventoried historically and presently irrigated lands on the Nez Perce Reservation in Idaho. Conducted a feasibility level engineering study of potentially irrigable lands on the Reservation.

Determined natural flow and minimum allowable in stream flows on the Deschutes River in Oregon in conjunction with the quantification of federal reserved water rights of the Warm Springs Indian Reservation.

Additional Experience:

New Mexico Governor's Blue Ribbon Water Task Force, McKinley County New Mexico, 2002 to 2010.

<u>Assistant Course Director/Graduate Teaching Assistant</u>, Colorado State University, Fort Collins, Colorado, 1985 to 1988.

Graduate Teaching Assistant, California State University, Los Angeles, California, 1983.

<u>Technical Trainer/Rural Suspension Bridge Volunteer</u>, U.S. Peace Corps, Nepal, 1978 to 1981.

Engineering Assistant, State Water Resources Control Board, Sacrament, California, 1978.