

EDUCATION

- Stanford University
BS in Civil Engineering, 1948
MS in Civil Engineering-Hydraulics, 1949
Degree of Engineer, Civil Engineering-Hydraulics, 1952

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AVAILABLE

PROFESSIONAL LICENSES and SOCIETIES

- Registered Civil Engineer in California and Nevada
- Registered Agricultural Engineer in California
- Fellow, American Society of Civil Engineers
- Member, Tau Beta Pi, Honorary Engineering Society
- Board of Directors, United States Committee on Irrigation and Drainage

EXPERIENCE

- 1992 - Present **MBK Engineers, Sacramento, CA**
Consulting Civil Engineer
Water supply, water rights, hydrology, irrigation, ground water and related issues.
- 1967 - 1991 **Murray, Burns & Kienlen (MBK Engineers), Sacramento, CA**
Principal
Practice predominantly in fields of hydrology, hydraulics, drainage, flood control, water supply, and economics of water resource development. Qualified as expert witness before Superior Courts of the State of California and United States District Court.
- 06/66 - 02/67 **Claims Appeal Board, California Department of Water Resources, Sacramento, CA**
Member
Reviewed, investigated, conducted hearings and made recommendation on construction contract claims for State Water Project.
- 1963 - 1966 **Leedshill-DeLeuw Engineers, Dacca, East Pakistan**
Chief Engineer
Consultants to East Pakistan Water and Power Development Authority on planning, design, construction, and operation and maintenance of Coastal Embankment Project and Brahmaputra Right Bank Flood Control Project.
- 1961 - 1963 **California Department of Water Resources, Sacramento, CA**
Assistant to Chief Engineer
Assisted Chief Engineer in planning, directing, and supervising technical and engineering activities of the California Department of Water Resources.

- 1952 - 1961** California Department of Water Resources, Sacramento, CA
Hydraulic and Water Resource Engineer (to Principal Engineer level)
Conducted planning, hydrologic and hydraulic studies throughout California in the fields of irrigation, drainage, flood control, water supply and watershed analysis. Also operation and maintenance of flood control projects and development of flood and water supply forecast procedures.
- 1949 - 1952** California Division of Water Resources, San Diego, CA
Hydraulic Engineer
Investigation of current water use and ultimate water requirements, Coachella, Palo Verde, and Imperial Valleys, California. (Excluding nine months graduate study, Stanford University).

PROFESSIONAL ACTIVITIES

- Member, United States Working Committee on Rehabilitation & Modernization of Water Projects for the International Committee on Irrigation & Drainage.
- Chairman, Surface Water Committee, Division of Irrigation and Drainage, American Society of Civil Engineers (1980-81).
- Member, Task Committee on Collection and Publication of Basic Water Resources, Data, Division of Irrigation and Drainage, ASCE.
- President, Sacramento Section American Society of Civil Engineers (1973); Officer and Board of Directors for 15 years; Secretary, Treasurer, Chairman of Professional Objectives, Professional Conduct, Finance, Program, Legislative Affairs, & Society Affairs Committees.
- Member, Dean's Policy Advisory Committee, University of California at Davis, College of Agriculture and Environmental Science (1980-82).
- Member, Industrial Advisory Board - School of Engineering and Computer Science, California State University, Sacramento.
- Instructor, Hydrology for Engineers, University of California Extension Service.
- Member, Association of California Water Agencies.
- Member, Western Snow Conference.
- Member, Nevada Water Resources Association.

REPRESENTATIVE SERVICES

1. Since 1975 - expert witness in Federal District Court on actions related to water rights, water supply, endangered species, and historical operations of Truckee-Carson Rivers system. Assisted in developing operations analyses of Truckee River System used as technical basis for negotiations which culminated in passage by Congress of Public Law 101-618, 101st Congress (Negotiated Settlement). This law provides allocation of waters on the Truckee and Carson Rivers between California and Nevada; water right settlements for Pyramid Lake Paiute Tribe and Fallon Paiute-Shoshone Tribes; a recovery plan for endangered and threatened fish in Pyramid Lake; additional water and protection for Stillwater Wildlife Management Area; protection of Orr Ditch water rights and a drought water supply for the Reno-Sparks Metropolitan Area. Currently representing Sierra Pacific Power Company on committees developing operating criteria to implement the Negotiated Settlement.
2. Developed historic Lake Tahoe water surface elevations assuming outlet at Lake Tahoe in its natural condition (Fogerty et. al. vs State of California et. al., County of Placer No. 48281).
3. Developed historic Clear Lake water surface elevations assuming outlet at Clear Lake in its natural condition (County of Lake et. al. vs M. Maroni Smith et. al., County of Lake No. 17806).
4. Developed historic natural flows for the American River for California State Lands Commission.
5. Developed historic natural flows for the San Joaquin River and defined water surface elevations for historic conditions from Friant Dam to US Highway 99 for California State Lands Commission.
6. Since 1955 - consultant and expert witness on levee failures and flooding on Sacramento, Feather, Yuba and San Joaquin Rivers. Studies involved analyzing historical events and developing impacts of historical floods absent development of levee systems or upstream reservoirs.
7. Conducted hydrologic and hydraulic studies and prepared a flood control master plan for Tulare County (1971).
8. Since 1972 - provide water supply forecasts to water users and districts for the Kings, Kaweah, Tule and Kern Rivers. Analyze runoff from these basins on current basis for the districts. Work coordinated through the Watermasters on each of the rivers.
9. San Joaquin River Flood Control Association. Worked with U. S. Corps of Engineers, California Department of Water Resources, and local districts to improve the reservoir operation criteria to develop most efficient operation for San Joaquin Valley.
10. Conducted hydrologic analyses and developed concept and plans for the Lower San Joaquin Flood Control Project. Project subsequently constructed by the State of California. Project consists of over 400 miles of levees on San Joaquin River and bypass channels from confluence of San Joaquin River with Merced River upstream to above the City of Mendota.

11. Represent Corcoran Irrigation District on development and management of designated floodway by State Reclamation Board on Kaweah River System.
12. Since 1967 - consultant to Tulare Lake Basin Water Districts. Coordinate flood operation of upstream reservoirs and downstream flood control projects on the San Joaquin River and Tulare Lake Basin streams during high runoff periods.
13. Review and advise Tuolumne River landowners downstream from New Don Pedro Dam on operation of New Don Pedro during 1983.
14. Murray, Burns and Kienlen Principals served as Water Consultants to San Joaquin County.
15. Responsible for investigation of Cross Delta Facilities concept for State Water Project in San Francisco Bay and Delta Investigation (Biamond Plan).
16. Consultant and expert witness on levee failures and flooding in Sacramento-San Joaquin Delta. Included Brannan-Andrus litigation resulting from levee failure on Andrus Island in 1972; Lower Jones Tract litigation from levee failure in 1980; and McDonald Island levee failure 1982.
17. Consultant to United States on hydraulic characteristics of the Yuba River. (State of California vs Yuba Goldfields)

ENGINEERING PAPERS, ARTICLES, AND PUBLICATIONS

- "Small Scale Topographic Effects on Precipitation Distribution, San Dimas Experimental Forest: Presented 1952 at Annual Meeting of the American Geophysical Union, Washington, D.C.", Published in Transactions AGU - 1953
- "Effects of Floods on Agriculture: Presented at ASCE Hydraulic Division Meeting", University of Wisconsin, 1956
- "Graphical Forecast Errors" (Co-Author). Published in Proceedings of Western Snow Conference, 1957
- "Hydrology and Flood Control Features of Oroville Dam" Presented at National Conference of American Society of Civil Engineers, Reno, Nevada, 1960; Published in ASCE Transactions 1961
- "Coordinated Flood Operations in California" Presented at ASCE Hydraulic Division Meeting, University of Illinois, 1961
- "Development of Deltaic Areas - East Pakistan" Prepared for Chief Engineering Advisor, Government of Pakistan. Published in Proceedings International Committee on Irrigation and Drainage, New Delhi, India, 1965
- "Coastal Embankment Project - East Pakistan" Published in ASCE Waterways and Harbors Division Journal 1967

- **"The Cooperator's Use of Basic Data and Forecast" Presented at Fifteenth Annual Meeting, California Cooperative Snow Survey Program, 1968**
- **"Flood Control Master Plan for the County of Tulare", 1971**
- **"Retention of Riparian Vegetation, Sacramento River, Tisdale Weir to Hamilton City", 1978**
- **"Sierra Pacific Power Company, 1985-2005 Water Resources Plan", 1985**
- **"Water Resource Plan - 1988-2008, Westpac Utilities, a Division of Sierra Pacific Power Company", 1989 (co-author).**
- **"Impacts of the Safe Drinking Water Act, Treatment Plant Requirements, and the Proposed Chalk Bluff Treatment Plant", Sierra Pacific Power Company, March 1991**
- **"Surface Water Treatment Rule Compliance Plan", Sierra Pacific Power Company, August 1991**
- **"UEPA Document for the Chalk Bluff Water Treatment Plant", Sierra Pacific Power Company, May 1991**
- **"UEPA Document - Raw Water Supply for the Chalk Bluff Treatment Plant", Sierra Pacific Power Company, December 1991**
- **Editor – "Proceedings from the USCID 14th Technical Conference on Irrigation, Drainage and Flood Control," Phoenix, Arizona, June 1998.**
- **"Verification - Based Planning for Modernizing Irrigation Systems" (J. Burns, G. Davids, A. Dimmitt, J. Keller, 2000 USCID International Conference, Fort Collins, Colorado, June 2000.**