

April 14, 2014

State Water Resources Control Board (SWRCB)

Agricultural Expert Panel Biographies



Dr. Charles Burt (Panel Chairman) – Irrigation Specialist/Ag Engineer

Dr. Burt is a Professor Emeritus of Irrigation, and Chairman and Founder of the Irrigation Training & Research Center (ITRC) at California Polytechnic State University, San Luis Obispo, California. Experiences include professional work in 25 countries, three tours in Vietnam as a combat demolition specialist, work as a farm laborer in the San Joaquin Valley as a youth, designer/sales/installation in a major irrigation dealership in Fresno, partner in a consulting agricultural engineering firm, and 36 years at Cal Poly where he previously taught core irrigation classes while also leading the

ITRC. Dr. Burt now focuses on applied technical assistance (with some research) through ITRC. He has written and has extensive field experience regarding on-farm irrigation system design, fertigation, water balances, irrigation efficiency, the energy-water nexus, canal automation, and irrigation project modernization.

Dr. Robert Hutmacher – Soil Scientist

Area of Expertise: Plant water status responses, nutrient uptake, growth responses to irrigation and nutrient management. Further expertise in cotton research and variety evaluations, interactions between production practices and pest management, alternative cropping systems including evaluations of double row planting and reduced tillage management, crop responses to and potential nitrogen losses under a range of nitrogen management practices in cotton.

Qualifications: 30+ years in the areas of agricultural research. Extensive research background on plant physiology, production practices, and nutrient uptake. UCCE State Cotton Specialist and Director of the West Side Research and Extension Center in Five Points, CA

Till Angermann – Hydrogeologist

Mr. Angermann is a Principal Hydrogeologist at Luhdorff & Scalmanini Consulting Engineers. His fifteen years of professional experience and expertise include (i) research methodology and conceptualization of hydrogeologic systems, (ii) groundwater hydraulic, hydrologic, hydrogeologic, hydrochemical, and statistical analysis and computations, (iii) assessment of surface water/groundwater interactions, infiltration and runoff processes, (iv) data quality objectives, sampling and testing protocols, (v) nitrogen cycling, irrigated agriculture and subsurface loading. Mr. Angermann served as lead technical expert to Western United Dairymen for the testing and implementation of a measurement-supported water balance method to determine seepage rates of working liquid dairy manure storage lagoons with quantified uncertainty, including preparation of a technical guidance manual. He was a key contributor to the conceptualization and implementation of the Representative Groundwater Monitoring Program (RMP) in response to the Dairy General Order and Technical Program Manager (TPM) to the Central Valley Dairy Representative Monitoring Program (CVDRMP) since

its inception in 2010. As TPM, Mr. Angermann is responsible for all aspects of monitoring well design and design of a network of over 430 monitoring wells, data collection efforts and data management, analyses and interpretation, special studies, coordinating and leading the external Multidisciplinary and Groundwater Technical Advisory Committees, interaction and coordination with dairy producers, services providers, and subcontractors, presentations/outreach to stakeholders, and adherence to budgets and schedules. He is the author of refereed journal articles and has reviewed manuscripts for the American Geophysical Union's Water Resources Research and the American Society of Civil Engineers' Journal of Hydrologic Engineering.



Bill Brush – *Certified Crop Advisor*

Mr. Brush has been a certified crop advisor since 1996, a pest control advisor since 1990, serves on the Almond Board of California, and the East San Joaquin Water Quality Coalition Board. Mr. Brush is an expert in soil fertility and water management, and has presented on soil fertility issues all over the world, including in the United States, South Africa, Australia, and in the Philippines. Mr. Brush currently consults on more than 100 different crops around the world, and, in California, provides consulting services on tree crops, field crops, vegetables, berries, and alfalfa. Mr. Brush also has experience with conventional as well as organic farming systems.

Daniel Munk – *UC Cooperative Extension*

Mr. Munk, M.S. has been a UC Cooperative Extension Farm Advisor for the past 23 years working in the area of irrigation, soils and cotton production. He spent his early career evaluating soil and management factors influencing water infiltration rates in San Joaquin Valley soils. He began investigating cropping systems research in the late 1990's and is currently involved in several conservation tillage projects focusing on short and long term water management elements in annual cropping systems. Mr. Munk has lead numerous deficit irrigation studies working to understand the impacts that reduced water supplies have on crop yield, crop quality and soil quality. More recently, his research and education program has been directed towards crop water use projects in almonds, processing tomatoes, and Pima cotton. He was appointed in 2012 to the Peer Review Committee for the USBR San Joaquin River Restoration Project Technical Feedback Group and serves on the steering committee for the UC/CDFA Nitrate Curriculum Development Program.



James duBois – *Grower, Central Coast Region*

Mr. duBois studied Environmental Resource Science at the University of California, Davis. He spent three years farming and supervising production research and development in the water scarce areas of Baja California. During this time, he facilitated technology exchange between growers in Spain and the US/Mexico to develop knowledge within Reiter Affiliated Companies (RAC) on Reverse Osmosis water treatment and soilless media production systems. In 2007, James relocated to Ventura County to work on various water projects throughout RAC's global enterprise. His work included collaboration with growers to increase irrigation efficiency, research on salinity management, development of recycled water sources, and co-development of soil moisture monitoring technology with external companies. His work has greatly influenced the amount of water usage and discharge in RAC's operations in coastal California (which span several thousand acres from Oxnard to Watsonville) and their global operations. Mr. duBois spearheaded a recent water technology and resource management

exchange and visit to Israel involving US and Mexico growers, Panoche Water District Management, and the Israeli government. Recently, James has collaborated with regional water districts and the ag community in the development of drought water management policy and recycled source development



Mark McKean – Grower, Central Valley Region

Mark McKean is a third-generation farmer from Riverdale, CA. Mark owns and operates a diversified production agricultural operation. Mark graduated from Cal Poly in 1979 with a B.S. degree and later completed a master's degree at Colorado State University, Fort Collins. McKean is the president of the Reed Ditch Company, president of the Crescent Canal Company, a director of the Murphy Slough Association, the chairman for Kings River Conservation District (KRCD) Board of Directors, a graduate of the California Ag

Leadership Class XX and the president of the West Hills Community College Board. McKean has taken a leadership role as the Chairman of the Kings Basin Water Quality Coalition, which is implementing the Irrigated Lands Regulatory Program. These leadership roles have included on farm presentations to State and Regional Water Resources Control Board members. Through these experiences, McKean has become knowledgeable in modern agricultural production techniques.



Dr. Lowell Zelinski – Agronomist

Lowell Zelinski, Ph.D. is a well-respected agricultural leader who has worked in the ag industry for over 30 years. He earned his doctorate degree in Soil Science and his bachelor's degree in Soil and Water Science from UC Davis. He also holds a master's degree in Agricultural Science from Cal Poly, San Luis Obispo. Dr. Zelinski began his career as a farm advisor for the University of California Cooperative Extension in Fresno County specializing in soil and water management and cotton production. Dr. Zelinski has now been a private agricultural consultant for over 20 years and currently owns

his own business, Precision Ag Consulting, which focuses on soils, irrigation, water quality compliance issues on the Central Coast and vineyard management. He has taught at four California State University campuses: San Luis Obispo, Pomona, Fresno and Bakersfield, and is well-known for his teaching and speaking abilities. He is currently teaching Grapevine Physiology at Cal Poly SLO. He is the creator of the Central Coast VINE Symposium, which has turned into the renowned WiVi Central Coast.

Details regarding the Expert Panel meeting schedule, background information, reports, relevant agency contacts, and other notices are maintained by ITRC on a public website at www.itrc.org/swrcb/.