



Edward G. Means

Vice President

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PIRNIÉ**

Areas of Qualification

Edward G. Means III is a Vice President with Malcolm Pirnie, Inc. in their Irvine office. Malcolm Pirnie recently merged with ARCADIS, Inc. Mr. Means has over 31 years of experience, including 18 years with the Metropolitan Water District of Southern California, culminating in 2-1/2 years as Chief Operating Officer and Acting General Manager. His roles there included stints as Water Quality Laboratory Manager, Director of Water Quality, Director of Resources, and Chief of Operations. He is deeply knowledgeable of water issues including recycling, conservation, conjunctive use, desalination and groundwater treatment. He is a skilled facilitator having managed over a dozen complex facilitations ranging including indirect potable reuse stakeholder discussions in San Diego, utility regionalization forums in Denver and energy water research plans for the California Energy Commission/Water Research Foundation). He has directed and participated in strategic and water resources planning activities for numerous water utilities and associations.

Education

Bachelor of Arts, Social Ecology (Honors),
University of California, Irvine, CA, 1977.

Master of Arts, Social Ecology, University of
Southern California, Los Angeles, CA, 1980.

Professional Management Program, University of
Southern California, Los Angeles, CA, 1987.

Professional Licenses and Affiliations

AWWA George Warren Fuller Award Recipient

Association of Metropolitan Water Agencies
(AMWA) President's Award Recipient

NWRA President's Award Recipient

Board Member, Urban Water Institute

Publications and Presentations

Since 1981, Mr. Means has published widely in various water industry journals and has presented numerous technical and management papers at conferences throughout the United States and abroad. He speaks regularly on water utility trends and management issues. He is the author of two books: "*Watercourse: Navigating Your Utility's Future*" and "*A Strategic Assessment of the Future of Water Utilities*" and contributed to "*Excellence in Action: Water Utility Management in the 21st Century*" and "*Climate Change and Water: An International Perspective on Mitigation and Adaptation*". A complete listing of the more than 100 citations is available upon request.

Example Projects

Mr. Means has managed include:

- Project Director - Rosarito Beach Seawater Desalination Feasibility Study (2009-10).
- Project Team Member - Coquina Coast (FL) Seawater Desal Feasibility Study (2009-10).
- Area Manager - Greater Los Angeles County Integrated Regional Water Management Plan - Mr. Means is heading one of 5 consultant teams examining opportunities to meld stormwater management, water supply development, habitat restoration, and recreational value creation in a bold vision for future LA County water management. Assessed governance structure (2006-2010)
- Project Team member - water resource and water quality strategies for the City of San Diego Strategic Business Plan development project (2003)
- Project Team member - Madison Wisconsin Metropolitan Sewerage District Master Plan. Led scenario planning exercise (2008)
- AWWA Water Utility Council Strategic Plan (2008). Facilitated the councils development of their strategic plan for legislative and regulatory activities in Washington, D.C.
- Project Director - West Basin Municipal Water District Integrated Resources Plan (2009).

- Conducted City of Calgary Water Department strategic plan scenario planning exercise (2005, 2010)
- Project Manager - Central Elmore Water and Sewer Authority Strategic Plan (2003)
- Water Environment Research Foundation Financing Plan Scenario Planning Exercise (2008)
- Team Member for San Diego County Water Authority Drought Management Plan (2007)
- Principal Investigator for WRF "Evaluating Effects of Climate Change on Water Utility Planning Criteria and Design Standards". The project is identifying the appropriate water utility adaptation responses for climate change (2009)
- Advisor - Denver Water Integrated Resources Plan (2009-10)
- Principal Investigator for WRF 2816, "Water Quality Management: How to Structure it in a Utility" (2005)
- Project Officer for Western Municipal Water District Drought Management Plan (2007)
- Principal Investigator for WRF's "Communicating the Value of Water" research study (2006-07)
- Principal Investigator for WRF Tailored Collaboration Project "Water Quality Implications of Large-Scale Application of Seawater Desalination"
- Principal Investigator for the WRF's "Strategic Assessment of the Future of Water Utilities" project assessing strategic trends affecting the U.S. water utility community (starting 2000-2006).
- Project Manager for Science and Technology Assessment/American Assembly tasks associated with re-visit of the City of San Diego's North City Water Reclamation Plant indirect reuse project (2005)
- Project Officer for Coachella Valley Brackish Water Desalination study (2006-07)
- Project Team Member - Beaufort Jasper Water Supply Authority Integrated Resources Plan. Led scenario planning exercise. Developed IRP model for project implementation (2008)
- Project Manager - West Basin Municipal Water District "Strategic Business Plan". (2007-08)
- Project Manager - Los Angeles Department of Water and Power On-Line Water Quality Monitoring (2006-07)
- Principal Investigator - WRF "Communicating the Value of Water" (2009).
- Project Team member - WRF "The Value of Water in a Changing Economy" (2003-04)
- Co-Principal Investigator for WERF "Communication Principles and Practices, Public Perception and Message Effectiveness Related to Health and Environmental Risks with a Focus on Trace Organic Compounds" (2008)
- Project Manager - Denver South Metro Water Agency Study of Regionalization Opportunities (2004)
- Project Manager for client assisting Poseidon Resources Group in the development of California Department of Health Services permits for oceanwater desalination
- Developed and conducted workshop to develop a water quality strategic plan for East Bay Municipal Utilities District
- Project Manager for City of Chandler Arizona Municipal Utilities Department strategic planning effort (2004)
- Project Manager under subcontract to Carollo Engineers for the Delta Water Quality and Treatment study under an WRF Tailored Collaboration with Contra Costa Water District (2004)
- Principal in Charge of the California Urban Water Agency MEC contract management agreement (2002-2005)
- Project Director - "Water Utility Climate Alliance "Decision Support Planning Methods: Incorporating Climate Change Uncertainties into Water Planning" (2009).
- Project Manager - Numerous water treatment plant regulatory assessments including projects for City of Redlands, Cucamonga County Water District, West San Bernardino County Water District, Fontana Water Company, Metropolitan Water District of Southern California, Santa Clara Valley Water District, San Francisco Public Utilities Commission and Covina Irrigating Company
- AWWA Water Utility Council Climate Change Strategy Development (2009). Facilitated WUC legislative committee development of a federal legislative strategy to position the drinking water utility industry on climate change issues.
- Municipal Water District of Orange County Board Strategy Support (2010).
- Co-Principal Investigator WateReuse "Evaluating Long and Short Term Planning under Climate Change Scenarios to Better Assess the Role of Water Reuse (2010).
- Principal-in-charge for an Upper San Gabriel Municipal Water District project examining increased use of recycled water from that facility (2003)
- Project Manager/Facilitator - WRF/California Energy Commission workshop to develop an Energy Research Needs Roadmap to support an anticipated joint research funding program (2003)
- Director or Resources - key member of team developing first Integrated Resources Plan for the Metropolitan Water District of Southern California (1994-97)
- Broward County Water Resources Master Plan. Led scenario planning exercise (2009)
- Ohio River Sanitary Commission - conducted scenario planning to develop the long term strategic direction of the Commission (2009)