

CITY OF EL PASO, TEXAS
AGENDA ITEM DEPARTMENT HEAD'S SUMMARY FORM

DEPARTMENT: El Paso Water Utilities Public Service Board

AGENDA DATE: December 10, 2013

CONTACT PERSON/PHONE: Robert D. Andron, General Counsel, (915) 594-5607

DISTRICT(S) AFFECTED: All Districts

SUBJECT:

APPROVE a resolution / ordinance / lease to do what? OR AUTHORIZE the City Manager to do what? Be descriptive of what we want Council to approve. Include \$ amount if applicable.

Discussion and action regarding the appointment of one individual in the Environmental or Health category to the Public Service Board as recommended by the Public Service Board Selection Committee:

Environmental or Health:

1. Richard T. Schoephoerster, PhD, PE (eligible for appointment to a second term)
2. John Walton, PhD, PE
3. William John Wolff, MPA, MPH, MBA

BACKGROUND / DISCUSSION:

Discussion of the what, why, where, when, and how to enable Council to have reasonably complete description of the contemplated action. This should include attachment of bid tabulation, or ordinance or resolution if appropriate. What are the benefits to the City of this action? What are the citizen concerns?

Background:

The 81st Regular Session of the Texas Legislature passed H.B. 4004, signed into law by the Governor of Texas, May 23, 2009 which amended Texas Government Code Section 1502.070 to provide that the complete management and control of a municipal water and wastewater system may be vested in a Board of Trustees consisting of not more than seven members, one of whom must be the Mayor of El Paso.

City Ordinance Number 017167 passed and approved by the El Paso City Council on August 11, 2009, increased the composition of the El Paso Water Utilities Public Service Board from five (5) to seven (7) members.

December 31, 2013, a vacancy for the position of Environmental or Health will occur on the Board.

By Resolution dated August 11, 2009, the City Council of the City of El Paso established the El Paso Water Utilities Public Service Board Selection Committee, which met on Tuesday, November 19, 2013 and approved the nomination of the following candidates to fill the vacancy: Richard T. Schoephoerster (eligible for reappointment); John Walton; and, William John Wolff in that order of priority.

Department Head's Summary Form
Resolution appointing a member of the El Paso Water Utilities Public Service Board
Agenda- December 10, 2013
Page 2.

PRIOR COUNCIL ACTION:

Has the Council previously considered this item or a closely related one?

Yes. The City Council appointed by Resolution a member of the El Paso Water Utilities Public Service Board, November 30, 2010 to fill a vacancy in the Engineering category.

AMOUNT AND SOURCE OF FUNDING:

How will this item be funded? Has the item been budgeted? If so, identify funding source by account numbers and description of account. Does it require a budget transfer?

There are no funding implications for this action.

BOARD / COMMISSION ACTION:

Enter appropriate comments or N/A

The El Paso Water Utilities Public Service Board Selection Committee met Tuesday, November 19, 2013 and approved the nomination of the candidates as stated above. Copy of the certified scoring of the candidates is attached hereto and incorporated herein by this reference for purposes. Also attached are copies of the resumes of the three candidates. Additionally, a proposed Resolution of appointment is attached for review.

*****REQUIRED AUTHORIZATION*****

LEGAL: (if required) _____ **FINANCE:** (if required) _____

DEPARTMENT HEAD:

(Example: if RCA is initiated by Purchasing, client department should sign also)

Information copy to appropriate Deputy City Manager

APPROVED FOR AGENDA:

CITY MANAGER: _____ **DATE:** _____



TO: Joyce A. Wilson, City Manager
El Paso, Texas

FROM: Robert D. Andron, General Counsel *RDA*
El Paso Water Utilities Public Service Board

DATE: November 20, 2013

SUBJECT: Request to place Item on City Council Agenda-Resolution
Regular City Council Meeting-December 10, 2013

Discussion and action regarding the appointment of one individual in the Environmental or Health category to the Public Service Board as recommended by the Public Service Board Selection Committee:

Environmental or Health:

1. Richard T. Schoephoerster, PhD, PE (eligible for appointment second term)
2. John Walton, PhD, PE
3. William John Wolff, MPA, MPH, MBA

(All Districts) El Paso Water Utilities, Robert D. Andron, General Counsel (915) 594-5607

Background:

The 81st Regular Session of the Texas Legislature passed H.B. 4004, signed into law by the Governor of Texas, May 23, 2009 which amended Texas Government Code Section 1502.070 to provide that the complete management and control of a municipal water and wastewater system may be vested in a Board of Trustees consisting of not more than seven members, one of whom must be the Mayor of El Paso.

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By Resolution dated August 11, 2009, the City Council of the City of El Paso established the El Paso Water Utilities Public Service Board Selection Committee, which met on Tuesday, November 19, 2013 and approved the nomination of the following candidates to fill the vacancy: Richard T. Schoephoerster (eligible for reappointment); John Walton; and, William John Wolff in that order of priority.

ACTION REQUESTED

That the City Council pass and adopt a Resolution appointing one individual in the Environmental or Health category to the Public Service Board as recommended by the El Paso Water Utilities Public Service Board Selection Committee.

The El Paso Water Utilities Public Service Board Selection Committee met Tuesday, November 19, 2013 and approved the nomination of the candidates as stated above. Copy of the certified scoring of the candidates is attached hereto and incorporated herein by this reference for purposes. Also attached are copies of the resumes of the three candidates.

REQUEST TO PLACE ITEM ON THE CITY COUNCIL AGENDA

Attached is a copy of the proposed Resolution. Upon passage and adoption it is requested that the City Clerk provide this office an original of the fully executed document.

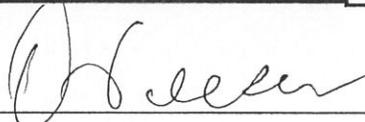
Please advise this office of the placement of this item on the City Council Agenda and my Secretary will contact the City Clerk and make arrangements to have document packets hand-delivered to the City Clerk's Office and email backup documents as noted to those listed below. If there are any questions, please call me at 594-5607 or email bandron@epwu.org. El Paso Water Utilities Staff will attend the City Council meeting. Thank you for your kind attention to this matter.

Attachments

Cc: The Honorable Mayor Oscar Leeser (email)
City Council Representatives (email)
Sylvia Firth, City Attorney (email)
Richarda Duffy-Momsen, City Clerk (hard copies & email)
John Balliew, P.E., President/CEO PSB (email)

PSB Selection Committee
Tuesday, November 19, 2013
Environmental or Health Position
SCORING OF CANDIDATES

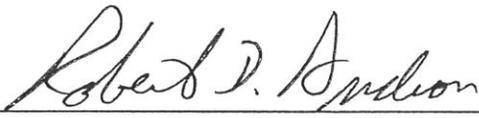
CANDIDATES	NUMBER OF VOTES:	RANK
DR. RICHARD SCHOEPHOERSTER	28	1
DR. JOHN WALTON	22	2
WILLIAM JOHN WOLFF	10	3



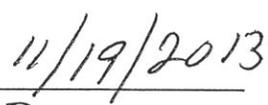
Committee Chairman



Date



General Counsel



Date

PSB AREAS OF EXPERTISE, EDUCATION AND EXPERIENCE

Environmental or Health:

Professional knowledge and experience in one or more of the following areas of expertise: safe drinking water; reclaimed water; toxic chemical exposure; liquid waste disposal, including wastewater treatment plants and disaster preparedness and its effect on health.

Knowledge in environmental factors such as biological, physical and chemical factors that affect the health of a community; and/or the environmental media (air, water and land) and various community exposure concerns. Knowledge of the principles and practices of modern medicine; knowledge of applicable federal, state and local law, regulations, rules and ordinances; knowledge of communicable, chronic, infectious and disease control and surveillance; knowledge of epidemiological methods and techniques and disaster response; knowledge of medical record keeping and reporting practices, community health resources availability, and community health investigations; epidemiology, biological science.

Work experience: a public or private healthcare practitioner, public healthcare administrator. Preferred: Licensed to practice medicine in Texas by the Texas Medical Board or Licensed to practice as a registered nurse in the State of Texas by the State Board of Nurse Examiners.

Bachelor's degree and a minimum of four years experience preferred in environmental, sanitary, chemical or civil engineering, environmental science, natural or physical science, health science, biological science, health education, public health, environmental health or related field; community involvement experience that accents demonstrated leadership; no conflicts of interest; abide by a specified code of ethics; and no current political office held. Experience could be public and/or private, such as a health worker, teacher, or practicing nurse/doctor, or engineer.

RESOLUTION

WHEREAS, the 81st Regular Session of the Texas Legislature passed H. B. 4004, signed into law by the Governor of Texas May 23, 2009 which amended Texas Government Code Section 1502.070 to provide that the management and control of a utility system may be vested in a board of trustees consisting of not more than seven members, one of whom must be the Mayor of El Paso;

WHEREAS, Ordinance No. 017167 passed and approved by the City Council on August 11, 2009, increased the composition of the El Paso Water Utilities Public Service Board from five (5) to seven (7) members;

WHEREAS, on December 31, 2013 a vacancy for the Environmental or Health category will occur on the Board;

WHEREAS, by City Council Resolution dated August 11, 2009, the City Council of the City of El Paso established the El Paso Water Utilities Public Service Board Selection Committee, which met on Tuesday, November 19, 2013 and approved the nomination of the following candidates to fill the vacancy: Richard T. Schoephoerster (eligible for reappointment); John Walton; and William John Wolff in that order of priority.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF EL PASO:

That the City of El Paso hereby appoints _____ to fill the vacancy in the Environmental or Health category. The term of the appointment shall commence on January 1, 2014 and shall be for four (4) years.

APPROVED THIS 10TH DAY OF DECEMBER 2013.

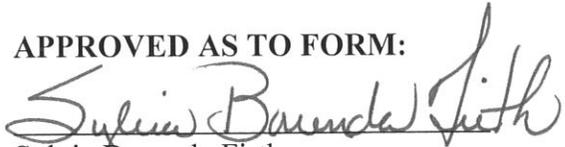
THE CITY OF EL PASO

Oscar Leeser, Mayor

ATTEST:

Richarda Duffy Momsen
City Clerk

APPROVED AS TO FORM:


Sylvia Borunda Firth
City Attorney

Paula Lisko-Apodaca

Paula Lisko-Apodaca | Executive Services Manager
El Paso Water Utilities
1154 Hawkins Boulevard | El Paso, TX 79925
(915) 594-5658 Telephone | (915) 594-5699 Fax

From: Walton, John [<mailto:walton@utep.edu>]
Sent: Monday, October 28, 2013 10:14 AM
To: Paula Apodaca
Subject: PSB Application John Walton

John Walton, PhD, PE
Professor, Dept. Civil Engineering
University of Texas at El Paso
500 West University Avenue
El Paso, TX 79968
Walton@utep.edu
<http://windowoutdoors.com>
915-747-8699



RICHARD T. SCHOEPHOERSTER

BIOGRAPHICAL SUMMARY

Since 2007 Dr. Schoephoerster has been the Dean of the College of Engineering at the University of Texas at El Paso, where he leads a College of over 80 faculty members in 24 different BS, MS, and PhD degree programs. In his first four years at the College, the student population has grown by 25% (from 2500 to over 3000 students, include over 500 graduate students), and the annual research expenditures for the College have doubled from approximately \$7.5 million to over \$15 million.

Dr. Schoephoerster received his B.S. in Biomedical Engineering in 1985, and his M.S. (1986) and Ph.D. (1989) in Mechanical Engineering, all from the University of Iowa. He joined Florida International University (FIU) in 1990, rising in the ranks from Research Associate to Assistant Professor (1992), Associate Professor (1996), and Full Professor (2001) over his seventeen years at the institution. He established and served as the initial Director of the Cardiovascular Engineering Center in 1997 and the Biomedical Engineering Institute in 1999. The Institute was converted to a Department status in August 2003 with Dr. Schoephoerster as the Founding Chair. In 2005 Dr. Schoephoerster was named the Wallace H. Coulter Eminent Scholars Chair in Biomedical Engineering.

Dr. Schoephoerster has been very active in developing educational programs. He led the efforts to establish the BS, MS, and PhD programs in biomedical engineering at FIU, all within a five year time span (1999-2004). He is currently leading efforts to develop doctoral programs in biomedical and manufacturing engineering at UTEP. Dr. Schoephoerster has also been very active in developing academia/industry partnership programs. In 2001 he led the establishment of the FIU Biomedical Engineering Partnership Program, a joint enterprise of FIU, healthcare providers, and biomedical companies. In 2010 he served as PI on a \$9M Texas Emerging Technology Fund program, in partnership with Lockheed Martin Aeronautics and the UT System, to establish the Structural and Printed Emerging-technologies Center (SPEC).

Dr. Schoephoerster maintains an active research program in the area of biofluid mechanics and cardiovascular devices, with a major focus on cardiac applications. He has over 100 journal

updated 01/12

RICHARD T. SCHOEPHOERSTER

Dean
College of Engineering
University of Texas at El Paso
El Paso, Texas 79968-0517
(915) 747-6444
schoephoerster@utep.edu

EDUCATION

The University of Iowa, Iowa City, Iowa

Ph.D. Mechanical Engineering, December 1989

Dissertation: "Flow Dynamics and Turbulence Measurements Past Prosthetic Heart Valves in a Model Left Ventricle: Experimental and Numerical Results"

M.S. Mechanical Engineering, December 1986.

Thesis: "Comparative Analysis of the Performance of Prosthetic Mitral Valves in a Model Left Ventricular Pulsatile System"

B.S. Biomedical Engineering, May 1985

LICENSURE

Licensed Professional Engineer, Texas (101788)

ACADEMIC LEADERSHIP TRAINING

Department Chairs Workshop, Institute for Academic Leadership, Florida State University,
October 12-15, 2003

Whitaker Academic Leadership Program, September 19-22, 2002

FIU Executive Development Program, July 30-August 10, 2001

APPOINTMENTS

At the University of Texas at El Paso, El Paso, Texas

Riter Professor, College of Engineering, December 2011 - present

Dean, College of Engineering, July 2007 - present

At Florida International University, Miami, Florida

Wallace H. Coulter Chair in Biomedical Engineering, May 2005 – June 2007

Professor and Founding Chair, Department of Biomedical Engineering, August 2003 – June 2007

Professor and Director, Biomedical Engineering Institute, August 2001 – August 2003

Professor, Department of Mechanical Engineering, August 2001 – August 2003

Associate Professor and Director, Biomedical Engineering Institute, January 1999 – July 2001

Director, Cardiovascular Engineering Center, January 1998 – March 2001

Associate Professor, Department of Mechanical Engineering, August 1996 – July 2001

Assistant Professor, Department of Mechanical Engineering, August 1992 - July 1996

Research Associate, Department of Mechanical Engineering, January 1990 - July 1992

HONORS

Fellow of the American Heart Association

Fellow of the American Institute of Medical and Biological Engineering

Excellence in Research Award, Florida International University

Teaching Incentive Program Award, Florida International University

Invited Participant (Young Investigator), 3rd USA-China-Japan Conference on Biomechanics

Bronze, Silver, and Gold Service Award, American Heart Association, Florida Affiliate

Teaching/Research Fellowship at University of Iowa Graduate College

Who's Who Among Students at American Universities and Colleges

Tau Beta Pi, Pi Tau Sigma

PROFESSIONAL ACTIVITIES

Member, Texas Emerging Technology Fund Advisory Committee (Governor Appointee), 2011-present

Member, Public Service Board, El Paso, Texas, 2010-present

Chair, Texas Society of Professional Engineers, Professional Engineers in Education Practice Division, 2009-2011

Member, Texas Board of Professional Engineers Education Advisory Committee, 2007-present

Conference Co-Organizer, Twenty Fourth Southern Biomedical Engineering Conference, The University of Texas at El Paso, El Paso, Texas, April 18-20, 2008

Exhibits Chair, 2006 Summer Bioengineering Conference, Amelia Island, June 21-25, 2006
Member, NIH Special Emphasis Panels, 2002-2007
Member, American Heart Association (National) Bioengineering and Biotechnology Study Group, 2005-2007
Member, Early Career Award Panel, Wallace H. Coulter Foundation, 2005-2007
Chair, American Heart Association (National) Research Peer Review Sub-Committee, 2005-2007
Chair, American Heart Association (National) Bioengineering and Biotechnology Study Group, 2003-2005
Member, American Heart Association (National) Research Committee, 2003-2007
Member, American Heart Association Ohio Valley/Southeast Consortium Peer Review Committee IB, 2001-2003
Member, State of Florida Biomedical Research Advisory Council, 2000-2006
Member, Biomedical Engineering CAREER Review Panel, National Science Foundation, 2000-2004
Member, Board of Directors, American Heart Association, Florida Affiliate, 2000-2001
Member, American Heart Association Affiliate Study Group C, 1995-1997.
Chair, Research Peer Review Committee A, American Heart Association, Florida Affiliate, 1993-1995
Research Committee, American Heart Association, Florida Affiliate
Member, 1993-2000; Vice-Chair, 1996-1998; Chair, 1998-2000
Member, Research Peer Review Committee, American Heart Association, Florida Affiliate, 1991-1995
Member, Miami Beacon Council Biomedical Exchange Human Resource Education Subcommittee, 1994-1997
Special Reviewer, NIH Special Study Section 8, June 1993, and NHLBI Surgery and Bioengineering Study Section, September 1995
Session Chairman, Eleventh ASCE Engineering Mechanics Conference, 1996
Session Chairman, Ninth ASCE Engineering Mechanics Conference, 1992
Reviewer
Journal of Biomechanics
Catheterization and Cardiovascular Diagnosis
Biotechnology Progress
Annals of Biomedical Engineering
Journal of Biomechanical Engineering

Member
American Society of Engineering Education
Biomedical Engineering Society

American Heart Association (Council of Basic Science)

ACADEMICS

PROGRAMS CREATED

Biomedical Engineering Ph.D. Program at FIU, implemented Fall 2004
Biomedical Engineering B.S. Program at FIU, implemented Fall 2002
Biomedical Engineering M.S. Program at FIU, implemented Fall 1999
Biomedical Engineering undergraduate minor at FIU, implemented Fall 1999

COURSES TAUGHT

Statics
Dynamics
Transport Phenomena
Transport Phenomena Laboratory
Design Project I

COURSES CREATED AND TAUGHT

Engineering Hemodynamics
Biomechanics of Cardiovascular Systems
Fluid Mechanics Applications in Physiological Systems (graduate)
Solid Mechanics Applications in Physiological Systems (graduate)
Advanced Biofluid Mechanics (graduate)
Design of Biomedical Systems and Devices
Biomaterials Science (graduate)
Engineering Analysis of Biological Systems
Biomedical Engineering Data Evaluation Principles

ADVISOR

Founding Chapter Advisor (Alpha Kappa) for Pi Tau Sigma, 1994-2000
Founding Chapter Advisor (Florida Theta) for Tau Beta Pi, 1992-2000

UNIVERSITY SERVICE

Member, College of Medicine Dean Search and Screen Committee, 2006
 Member, Provost's Medical School Steering Committee, 2004-present
 Chair, College of Engineering (ISE Chair) Search and Screen Committee, 2004-2005
 Co-Chair, University Cross Functional Action Planning Committee – Health Theme, 2002-2003
 Chair, Biomedical Engineering Search and Screen Committee, 2001-2002
 Chair, Biomedical Engineering Search and Screen Committee, 1999-2000
 Chair, Biomedical Engineering Search and Screen Committee, 1998-1999
 Chair, Mechanical Engineering Department ABET Committee, 1996
 Chair, College of Engineering and Design Faculty Council, 1996-97
 Member, University Faculty Senate, 1995-97
 Member, College of Engineering (M.E. Chair) Search and Screen Committee, 1995-1996
 Chair, Mechanical Engineering Department Search and Screen Committee, 1995-96
 Vice-chair, College of Engineering and Design Faculty Council, 1995-96
 Secretary, College of Engineering and Design Faculty Council, 1994-95
 Member, Mechanical Engineering Department Search and Screen Committee, 1994-95

EXTRAMURAL AND INTRAMURAL FUNDING

2010-2015	State of Texas Emerging Technology Fund Program (PI) \$3,000,000 “Integrated 3D Systems Technologies”
2010-2011	Department of Education FIPSE Program (Co-PI) \$299,994 “Developing Clinical Experiences for Graduate Hispanic Biomedical Engineers: A National Model for Education and Training in Low-Resource Settings”
2007	The University of Texas System STARS Award \$1,000,000
2006-2007	Heartware, Inc. \$104,543 “Hemocompatibility Testing of Polymers for the Driveline of the HeartWare Next Generation LVAD”
2005-2006	Heartware, Inc. \$40,073 “Thrombogenic Potential of the Heartware LVAD”
2004-2007	Innovia, LLC (Co-PI on SBIR Phase II from the NHLBI HL070401, sub-contract to FIU) \$132,070 “A novel trileaflet polymer heart valve”

- 2003 Innovia, LLC (Co-PI on SBIR Phase I from the NHLBI HL070401, sub-contract to FIU) \$32,994
"A novel trileaflet polymer heart valve"
- 2002-2005 National Science Foundation Partnerships for Innovation Program (Co-PI, Program Director) \$599,613
"The Biomedical Engineering Partnership Program at FIU: Fostering Technology Entrepreneurship, Commercialization, and Clinical Implementation"
- 2001-2003 American Heart Association, Florida Affiliate Grant-in-Aid 0151061B (PI) \$120,000
"In Vitro Performance Characterization of a Novel Trileaflet Synthetic Heart Valve"
- 2001 IDEXX Laboratories, Inc. (PI) \$17,126
"Fluid Transport Modeling of IDEXX Fluidic System"
- 2000-2007 Wallace H. Coulter Foundation (PD) \$5,000,000 gift + \$5,000,000 State match Endowment with approximate annual earnings - \$500,000
"The Biomedical Engineering Institute – A Proposal for Education and Research Excellence in South Florida"
- 2000-2004 National Institutes of Health (MBRS SCORE) (Co-PI) \$815,764
"Flow effects on platelet deposition in stented arteries"
- 2000-2001 3D Imaging Technologies, Inc. (PI) \$42,304
"Development of a Tool to Transform a 3-D Data Set into a Composite 2-D Image Viewable as a 3-D Image with Application to the Entertainment and Medical Industries"
- 2000-2001 SMLX Technologies, Inc. (PI) \$38,225
"SMLX Airbrator Project, Phase II: Design Optimization"
- 2000-2001 National Research Council (PI) \$16,000
"Mechanical and hydrodynamic characterization of a novel artificial trileaflet aortic heart valve fabricated from composite material"
- 2000 Bioheart, Inc. (PI) \$44,487
"Support for Design and Development of a Myocardial Implant and Its Delivery System"
- 2000-2001 IDEXX Laboratories, Inc. (PI) \$31,036
"Computational Fluid Dynamic Modeling of Laminar Flow in the IDEXX Flow Cell Funnel Assembly"
-
- 1999-2001 The Whitaker Foundation Special Opportunity Award (PI) \$999,378

- "A New Model in Biomedical Engineering for Innovations in the Delivery of Medicine"
- 1999-2000 SMLX Technologies, Inc. (PI) \$19,228
"Characterization and Design Evaluation of SMLX Simplex Airbrator"
- 1998-2000 FIU Quality Improvement Program (PI) \$250,000/year
"Biomedical Engineering at FIU"
- 1995-1997 American Heart Association, Florida Affiliate, Grant-in-Aid 9501342 (PI) \$79,812
"Fluid Dynamics and Platelet Deposition in a Model Arterial Stenosis"
- 1995 FIU Foundation (sole PI) \$10,679
"Mathematical Modeling of Blood Platelet Deposition in an Arterial Stenosis"
- 1993-1996 The Whitaker Foundation. (sole PI) \$178,080
"Development of a Three Dimensional Model of Left Ventricular Flow Dynamics for Function Evaluation in Man"
- 1991-1994 American Heart Association, Florida Affiliate Initial Investigatorship (sole PI) \$235,407
"Enhancement of Techniques for the Clinical Assessment of Natural and Prosthetic Heart Valve Performance"
- 1991-1994 NIH Academic Research Enhancement Award (sole PI) \$106,420
"Influence of Flow Dynamics on Thrombogenesis"

VISITING FACULTY HOST AND SUPERVISION

Vladimir Kasyanov, PhD, Riga Technical University and Medical University of Latvia
Megh Goyal, PhD, University of Puerto Rico
John Forrester, PhD, University of Tennessee, Knoxville

POST-DOCTORAL SUPERVISION

Nandini Duraiswamy, PhD, 2006 - 2007
Danny Bluestein, PhD, 1993-1995 – now Associate Professor, Stony Brook University

GRADUATE STUDENT SUPERVISION

As Major Professor: Doctoral

- Qiang Wang, Ph.D., Biomedical Engineering, December 2008.
Dissertation: "In Vivo Biocompatibility Evaluation of Composite Polymeric Materials for Use in a Novel Artificial Heart Valve"
- Siobhain Gallocher, Ph.D., Biomedical Engineering, December 2007.
Dissertation "Durability Assessment of Polymer Trileaflet Heart Valves"
- Nandini Duraiswamy, Ph.D., Biomedical Engineering, December 2005.
Dissertation: "Effect of Blood Flow Patterns On Localized Platelet Adhesion Under Physiologic Flow Conditions Using 2D And 3D Stent Models – An Experimental and Computational Approach"
- Flavio Souza-Campos, Ph.D., Mechanical Engineering, May 1997.
Dissertation: "On Contractility, Energetic Requirements of the Cardiovascular System, and the Formation of Arterial Sclerosis"

As Major Professor: Master's

- Thomas E. Claiborne, III, M.S. Biomedical Engineering, April 2008.
Thesis: "Development and Evaluation of a Catheter Deliverable Artificial Aortic Heart Valve Prosthesis and Delivery System"
- Christopher Haugh, M.S., Biomedical Engineering, December 2007.
Thesis: "The Influence Of Anastomosis Angle and Linear Taper an an Arteriovenous Graft For Hemodialysis"
- Qiang Wang, M.S., Biomedical Engineering, August 2005.
Thesis: "Feasibility Analysis of a Stent-Valve Combination Device: In Vivo Evaluation Of The Novel Polymer Valve And In Vitro Evaluation Of An Alternative Fixation Method"
- Fernando Jaramillo, M.S., Biomedical Engineering, August 2005.
Thesis: "The Development of a Catheter Based Heart Valve"
- Tejas Choksi, M.S., Biomedical Engineering, August 2004.
Thesis: "Modification of a Novel Polymer With Potential Use In Artificial Heart Valves: Effects on Hemocompatibility and Mechanical Properties"
- Siobhain Gallocher, M.S., Biomedical Engineering, April 2004.
Thesis: "A Novel Polymer Heart Valve: Quantification of Hydrodynamic Function, Platelet Deposition, and Platelet Activation State"

- Bok-kyu Lee, M.S., Biomedical Engineering, August 2003.
Thesis: "Reconstruction of Artificial Heart Valve Leaflet Motion Using Photogrammetry and Biquintic Finite Element Method"
- Andres Aguirre, M.S., Biomedical Engineering, August 2003.
Thesis: "Static And Dynamic Mechanical Testing Of A Polymer With Potential Use As Heart Valve Material"
- Yanran Liu, M.S., Biomedical Engineering, August 2002.
Thesis: "A Three-Dimensional Model of A Polymer Composite Trileaflet Aortic Valve Using Finite Element Analysis"
- Hoshang Engineer, M.S., Mechanical Engineering, December 1999.
Thesis: "Mathematical Modeling of Platelet Deposition in Arterial Stenosis with Major Emphasis on Fluid Flow Effects"
- Tong Ding, M.S., Mechanical Engineering, December 1997.
Thesis: "Development and Validation of a Realistic Three Dimensional Model of Left Ventricular Flow Dynamics"
- Michael Langlais, M.S., Mechanical Engineering, December 1996.
Thesis: "Fluid Dynamics and Platelet Deposition in a Model Arterial Stenosis"
- Lijun Niu, M.S., Mechanical Engineering, December 1995.
Thesis: "Flow Characteristics in Models of Arterial Stenosis and Aneurysm: Relationship to the Development of Mural Thrombus"
- Erick Gonzalez, M.S., Mechanical Engineering, December 1994.
Thesis: "Development of a Three Dimensional Model of Left Ventricular Flow Dynamics"
- Flavio Souza-Campos, M.S., Mechanical Engineering, December 1993.
Thesis: "Performance Assessment of Prosthetic Heart Valves using Orifice Area Formulae and the Energy Index Method"
- Cesar Silva, M.S., Mechanical Engineering, December 1991.
Thesis: "A Numerical Model of Systolic Flow Dynamics for Normal and Abnormal Left Ventricular Wall Motion"

As Committee Member: Doctoral

- Daniela Andrei, Ph.D., Chemistry, December 2006
- Kalyana Sundaram, Ph.D., Mechanical Engineering, May 2000
- Ivan Muguercia, Ph.D., Mechanical Engineering, December 1997
- Mansoor Kapadvanjwala, Ph.D., Biomedical Engineering, University of Miami, 1995

As Committee Member: Master's

Sara Nofallah, M.S., Biomedical Engineering, August 2007
Rosaura De Zayas, M.S., Biomedical Engineering, August 2006
Rohit Chawla, M.S., Biomedical Engineering, August 2006
Mahwish Ahmed, M.S., Biomedical Engineering, August 2006
Rozita Fallahinejad, M.S., Biomedical Engineering, May 2006
Melissa Hoo, M.S., Biomedical Engineering, December 2005
David Isaza, M.S. Biomedical Engineering, August 2005
Christine Pou, M.S., Biomedical Engineering, May 2005
Human Arjomandi, M.S., Biomedical Engineering, May 2005
Sachin Gusahani, M.S., Biomedical Engineering, December 2004
Sujit Tatke, M.S., Biomedical Engineering, December 2004
Sachin Gursahani, M.S., Biomedical Engineering, December 2004
Martha Vallejo, M.S., Biomedical Engineering, August 2004
Stephanie Barcelona, M.S., Biomedical Engineering, August 2004
Maria Caceres, M.S., Biomedical Engineering, August 2003
Michael Moreno, M.S., Biomedical Engineering, April 2003
Samuel Robaina, M.S., Biomedical Engineering, April 2002
Benjamin Boyter, M.S., Biomedical Engineering, December 2002
Arun Singal, M.S., Mechanical Engineering, May 2001
Erland Weydel, M.S., Mechanical Engineering, August 1999
Scott Scargle, M.S., Electrical Engineering, December 1998
Mohammad Zaki, M.S., Mechanical Engineering, December 1998
Jian Ling, M.S., Mechanical Engineering, 1996
Edmundo Largaespada, M.S., Mechanical Engineering, 1995
Richard Burton, M.S., Mechanical Engineering, 1995
Ivan Muguercia, M.S., Mechanical Engineering, 1994
Marc Zampino, M.S., Mechanical Engineering, 1992

UNDEGRADUATE RESEARCHER SUPERVISION

Rosa Ramirez

Jose Villar
Jose Cesar
Mariana Oliva
Natalia Mosquera
Siobhain Gallocher
Bhavani Jayachandran
Mateo Londono
Carlos Gutierrez
Henri Viscara
Natalie Sanchez
John Kelly

INTELLECTUAL PROPERTY

- Jaramillo, F., and Schoephoerster, R.T. "Collapsible Heart Valve with Polymer Leaflets"
International Application No. PCT/US2006/028296 International Filing Date: 21.07.2006
Publication No. WO/2007/013999 Publication Date: 01.02.2007
US Serial No. 11/993,948 Filing Date December 26, 2007
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1. Chandran, K.B., Fateini, R., and Schoepfoerster, R. (1986) "Dependence of tissue valve leaflet motion on the viscosity of blood analog fluid." Int. Biomedical Engr. Symp. and Expo., University of Utah, January 1986, p. 52.

Curriculum Vitae

John C. Walton, Ph.D., P.E.

University of Texas at El Paso

El Paso, Texas 79968-0516

Ph: (915) 747-8699

Email: walton@utep.edu

Home Page: <http://windowoutdoors.com>

Professional Experience

- (6/93 - *Professor, Dept. Civil Engineering, University of Texas at El Paso, El Paso, Texas. Teaching and research in environmental engineering, hydraulics, ground water, and materials degradation.*
- (8/03 - 8/05) *Interim Director, Center for Environmental Resource Management.*
- (12/03 - *Adjunct Professor in Environmental Sciences, University of Texas School of Public Health.*
- (9/02 - 8/05) *Program Director, Environmental Science and Engineering Program.*
- (1/92 - 5/93) *Senior Research Engineer, Southwest Research Institute, San Antonio, Texas. Analysis of engineered barriers performance in support of Nuclear Regulatory Commission evaluation of the proposed high level nuclear waste repository at Yucca Mountain. Developed a generalized reactive transport code for release rate and corrosion applications.*
- (9/87 - 1/92) *Scientific Specialist, EG&G Idaho, Idaho National Engineering Laboratory, Idaho Falls, Idaho. This position involved a combination of research and site support work. Projects included: migration of actinides through fractured rock in the unsaturated zone; regional scale contaminant migration in the Snake River Plain Aquifer; fluid flow and mass transport through concrete vaults and waste forms used to isolate nuclear waste; development of predictive models for concrete degradation; theoretical modeling of the electrochemistry inside localized corrosion cavities; release and migration of chlorinated solvents from a waste disposal site; cleanup of volatile organic compound spills by soil venting; modeling of *in situ* bioremediation; and leakage from flaws in geomembrane liners used in landfills and surface impoundments.*
- (1/91 - 12/91) *Affiliate Faculty, University of Idaho, Moscow, Idaho. Instruction of classes at the University Center located in Idaho Falls.*
- (4/84 - 9/87) *Senior Engineer, Rockwell ⇒ Westinghouse Hanford Operations (BWIP Project), Richland, Washington. Probabilistic risk assessment of natural hazards and operational accidents which could result in release of radioactive or hazardous materials to the environment. Performance assessment of nuclear waste disposal options.*
- (10/79 - 4/84) *Air Quality Specialist, Utah Bureau of Air Quality, Salt Lake City, Utah. Air dispersion modeling, ambient air monitoring, air pollution control*

engineering, regulation development, and data analysis. Development of probabilistic emissions limitations.

Education

- (1991) University of Idaho; Ph.D. Chemical Engineering. Thesis: Mathematical Models of Waste Isolation Performance.
- (1988) University of Washington; M.S. Chemical Engineering. Thesis: Mathematical Modeling Of Galvanic Corrosion Cells: Coupling of Corrosion and Geochemical Processes in Nuclear Waste Isolation.
- (1981) University of Virginia; M.S. Environmental Science. Thesis: Redox Equilibria in a Freshwater Lake.
- (1977) Western Illinois University; B.S. Biology. Minor Geology.

Public and University Service

EPWU, Stormwater Community Advisory Committee, Smart Home Committee
TRB, NAS HMCRRP06 Review Panel
City of El Paso Arroyos Committee
Frontera Land Alliance, Advisory Board
Chair, UTEP Graduate Council, 2007 – 2009
Chair, Faculty Welfare Committee, 2008 - 2011

Research Interests

Hydrology. Influence of topography and solar radiation on plant communities. Contamination and recovery of river ecosystems. Surface and ground water interactions as they influence water quality. Mathematical modeling of saturated and unsaturated flow. Flow around and through waste disposal facilities. Monitoring, chemical analysis, and modeling of lake chemistry.

Low Impact Development. How to change stormwater into a resource by capturing it locally and using it to grow lush landscape. We have focused on how to implement passive rainwater harvesting techniques to the Chihuahuan Desert climate.

Environmental Remediation. Analysis of leach rates from various wasteforms including cementitious, glass, and spent fuel. Co-precipitation of metals with calcite.

Desalination. Membrane treatment of brackish water. Management of concentrates produced from desalination. Membrane distillation using solar energy.

Waste Disposal Technology. Leakage through flaws in geomembrane liners. Design and performance assessment of concrete vaults for waste disposal. Coupling between corrosion processes and localized geochemistry. Waste package design for high level nuclear waste disposal. Coupled modeling of thermal, hydrologic and chemical processes near nuclear waste packages. Influence of carbonation and oxidation on leaching from cementitious wasteforms.

Materials Performance. Long term degradation of concrete. Theoretical modeling of the electrochemistry inside localized corrosion cavities. Estimation of long term corrosion rates of copper and steel.

Chairman for PhD Students

- 8/96 Rudy Antonio Machorro Sagastume, *Water Quality at Lago de Izabal, Guatemala: Geochemical Characterization and Assessment of Trophic Status*, Ph.D. Thesis in Geology (co-chair with Phillip Goodell).
- 5/01 Huanmin Lu, *Zero Discharge Desalination*, Ph.D. Dissertation.
- 5/01 Juan W. Santiago Clague Romero, *Experimental and Theoretical Investigation of the Mobilization, Immobilization and Sequestration of Subsurface Metals Through Manipulation of Carbonate Equilibria*, Ph.D. Dissertation (co-chair with N. Pingitore).
- 12/02 Francisco Martinez, *Influence of Solar Radiation Factors on Desert Flora Site Selection*, Ph.D. Dissertation.
- 5/03 Juan Gomez, *Mobilization and Immobilization of Heavy Metals in Contaminated Soils by CO₂ Partial Pressure Manipulation*, Ph.D. Dissertation.
- 5/03 René Hilton, *Removal of Heavy Metals from Soils with Fulvic Acid Fractions, EDTA, and Citrate Chelates*, Ph.D. Dissertation.
- 5/04 Jaime Romero, *Adsorption of Cr from Aqueous Solution onto Agave lechuguilla biomass*, Ph.D. Dissertation.
- 12/04 Robert Rice, *Risk Prediction and Design of Disposal Systems*, Ph.D. Dissertation.
- 12/04 Jose Humberto Garcia, *Determination of PM Compositions and Sources in the El Paso del Norte Region Using Time-Resolved Integrated Source and Receptor Models*, Ph.D. Dissertation.
- 5/06 Bill Hutchison, *Groundwater Management in El Paso, Texas*, Ph.D. Dissertation.
- 5/08 Gautam Agrawala, *Regional Groundwater Interpretation using Multivariate Statistical Methods*, Ph.D. Dissertation.
- 12/08 Arturo Woocay, *Multivariate Analysis of Groundwater Chemistry*, Ph.D. Dissertation
- 5/10 Lubna Hamdan, *Release Rate of Radionuclides*, Ph.D.
- 12/10 Tejaswini Anand, *Desalination*, M.S.
- 5/11 Derrick O'Hara, *Rio Grande Flow and Salinity*, M.S.
- 5/11 Rick Marmalejo, *Low Impact Hydraulic Design*, M.S.
- 7/11 Omar Al-Qudah, *Groundwater Recharge*, Ph.D.
- 12/11 Katrina Pekar Carpenter, *Nuclear Waste*, PhD (co-chair)
- 5/12 Ramiro Lujan, *Surface and Groundwater Interaction – Rio Grande*, PhD
- 12/12 Juan Carlos Adame, *Wastewater Effluent*, MS

Professional Activities and Consulting (last 10 years)

- 1993 -1999 Southwest Research Institute; Waste package performance assessment; modeling of coupled processes; container corrosion; waste package environment.

- 1995 Electric Power Research Institute; Yucca Mt. radioactive source term review.
- 1995-1996 Chem-Nuclear, Inc.; Degradation of concrete canisters and poly liners for North Carolina Low Level Radioactive Waste site.
- 1998 El Paso Water Utilities; External expert for review of hydrogeology examination.
- 1998 Idaho National Engineering and Environmental Laboratory; Expert panel on vadose zone processes and modeling.
- 1998 - 1999 Sandia National Laboratories; Yucca Mountain High Level Nuclear Waste Repository, near field geochemistry.
- 1996 - 2000 US Department of Justice; Expert witness on issues of contaminant transport. To date I have worked on three cases covering ground water contamination and air pollution.
- 2000 - Portage Environmental; Degradation assessment of high level waste steel tank and vaults at the INL.
- 2001 - Nye County, Nevada; Oversight of Yucca Mountain. Water chemistry monitoring.
- 2002 - 2005 Resolution Law Group, Expert witness, hydrogen sulfide exposure.
- 2006 - Expert witness on El Paso flooding.
- 2008 US Department of Energy; Expert Review Panel for Tank Farm F Performance Assessment.
- 2009 US Department of Energy; Expert Review Panel for Saltstone Performance Assessment.

Publications and Presentations

℞ = refereed publication

- 1) Woocay, Arturo and John C. Walton, Groundwater Chemistry Related to Geologic Faults, Poster Presentation: Devil's Hole Workshop, Furnace, Creek, Ca, May, 2012
- 2) ℞ Al-Qudah, O., A. Woocay, and J. Walton. 2011. Identification of probable groundwater paths in the Amargosa Desert Vicinity. *Applied Geochemistry*, vol. 26, issue 4, p 565-574. doi:10.1016/j.apgeochem.2011.01.014
- 3) ℞ Al-Qudah, O., J. Walton, A. Woocay, and J. Klenke. 2011. Groundwater Recharge on the Western Side of Yucca Mountain Using Surface-Runoff Chemistry. 2011 International High-Level Radioactive Waste Management Conference (IHLRWMC), Albuquerque, NM. April 10-14, 2011.
- 4) ℞ Al-Qudah, O. M, J.C. Walton, A. Woocay, and J. Klenke. 2011. Groundwater Recharge in the Southern Amargosa Desert Using Surface-Runoff Chemistry. 2011 Waste Management Symposium, Phoenix, AZ, February 27 – March 3, 2011.
- 5) ℞ Al-Qudah, O.M., I. Coronado, J. Walton, and E. Hamlyn. 2010. Lessons from the Proposed Radioactive Waste Disposal Site at Yucca Mountain, NV. 2010 Fifth International Conference on Environmental Science & Technology, 15-3 Environmental Policy and Management, paper no. 754. Houston, TX, July 12-16, 2010.
- 6) ℞ Al-Qudah, O. M, J.C. Walton, and A. Woocay. 2010. Tracking the Chemical Footprint of Surface-Runoff Infiltration on Groundwater Recharge in an Arid Region. 2010 Waste Management Symposium, Phoenix, AZ, March 7-11, 2010.
- 7) ℞ Hamdan, L.K., J. C. Walton, A. Woocay, and O. Al-Qudah. 2010. Oxidation/Reduction Status of Water Pooled in a Penetrated Nuclear Waste Container. 2010 Waste Management Symposium, Phoenix, AZ, March 7-11, 2010.

- 8) R Al-Qudah, O. M, J.C. Walton, A. Woocay, and J. Klenke. 2011. Groundwater Recharge in the Southern Amargosa Desert Using Surface-Runoff Chemistry. 2011 Waste Management Symposium, Phoenix, AZ, February 27 – March 3, 2011.
- 9) R Hamdan, Lubna K., John C. Walton, and Arturo Woocay, Safety implication for an unsaturated zone nuclear waste repository, Energy Policy, Volume 38, Issue 10, pp. 5733-5738, 2010.
- 10) Al-Qudah, O. M., J.C. Walton, and A. Woocay. 2010. Evolution of Groundwater Chemistry during Surface Runoff and Infiltration Processes. C-5 Talk presented at: 2010 New Mexico Water Research Symposium, Socorro, NM, August 03, 2010.
- 11) Al-Qudah, O.M., I. Coronado, J. Walton, and E. Hamlyn. 2010. Lessons from the Proposed Radioactive Waste Disposal Site at Yucca Mountain, NV. Talk presented at: 2010 Fifth International Conference on Environmental Science & Technology, Houston, TX, July 12-16, 2010.
- 12) Al-Qudah, O. M, J.C. Walton, and A. Woocay. 2010. Issues On Groundwater Recharge in the Amargosa Desert Region. Abstract No. 7295. Talk presented in 2010 Ground Water Summit and 2010 Ground Water Protection Council Spring Meeting, Denver, CO, April 11-15, 2010.
- 13) Al-Qudah, O. M, J.C. Walton, and A. Woocay. 2010. Tracking the Chemical Footprint of Surface-Runoff Infiltration on Groundwater Recharge in an Arid Region. Talk presented at: 2010 Waste Management Symposium, Phoenix, AZ, March 7-11, 2010.
- 14) Walton, J. C., Modeling Interfaces Involving Multiple Engineered Features, Presented at: Performance Assessment Community of Practice technical Exchange Meeting, Modeling the Performance of Engineered Systems for Closure and Near-Surface Disposal, Salt Lake City, Utah, July 13-14, 2009.
- 15) Walton, J.C, L. K. Hamdan, and A. Woocay, Conceptual Model for Radionuclide Release, Yucca Mt., Nevada, USA, Applied Geochemistry, Volume 25, Issue 5, pp. 741-746, 2010.
- 16) Al-Qudah, O.M., J.C. Walton and A. Woocay (2009). Precipitation and Surface-Runoff Sampling in the Arid Regions – New Lysimeter Techniques. *Eos Trans. AGU, 90(52)*, Fall Meet. Suppl., Abstract H11D-0836, 2009. Presented at: American Geophysical Union Fall Meeting, San Francisco, CA, December 14, 2009
- 17) Al-Qudah, O.M., J.C. Walton, and A. Woocay Chemical Fingerprint of Surface-Runoff on Groundwater Recharge in the Arid Regions. C-4 Talk presented at: 2009 New Mexico Water Research Symposium, Socorro, NM, August 14, 2009. <http://wrrri.nmsu.edu/publish/sympabs/presentations2009.pdf>
- 18) Hamdan, L.K., J.C. Walton and A. Woocay (2009). Unsaturated Zone Nuclear Waste Repository – A Safety Case Poster presented at: Devil's Hole Workshop, Furnace Creek, CA, May 6-7, 2009.
- 19) Al-qudah, O., J.C. Walton, and A. Woocay (2009). Surface Runoff Chemistry in the Amargosa Desert. Presented at: Devil's Hole Workshop, Furnace Creek, CA, May 6-7, 2009.
- 20) Al-Qudah, O.M., J.C. Walton and A. Woocay (2009). Processes Controlling Groundwater Recharge in the Amargosa Desert. Talk 394 presented at: 65th Southwestern Regional Meeting of the American Chemical Society (ASC), El Paso, TX, November 4-7, 2009. <http://acs.confex.com/acs/swrm09/webprogram/Paper77113.html>
- 21) Hamdan, L.K., J.C. Walton and A. Woocay (2009). Chemical and Physical Status of Water Pooled in a Failed Nuclear Waste Container. Talk 426 presented at: 65th Southwestern Regional Meeting of the American Chemical Society (ASC), El Paso, TX, November 4-7, 2009. <http://acs.confex.com/acs/swrm09/webprogram/Paper76634.html>
- 22) Woocay, A., and J.C. Walton (2009). Isotopic evidence of past focused infiltration at Fortymile Wash. *Geological Society of America Abstracts with Programs*, Vol. 41, No. 7, p. 30. Talk in Session No 3 Paper 15. Portland, OR, October 18-21, 2009. ISSN: 0016-7592
- 23) Al-Qudah, O.M., J.C. Walton, and A. Woocay Chemical evolution of groundwater in the Amargosa Desert. *Geological Society of America Abstracts with Programs*, Vol. 41, No. 7, p. 218. Talk in Session No 77 Paper 5. Portland, OR, October 18-21, 2009. ISSN: 0016-7592
- 24) Hamdan, L.K., J.C. Walton and A. Woocay (2009). A case study for the performance of a nuclear geological repository in the unsaturated zone. *Geological Society of America Abstracts with Programs*, Vol. 41, No. 7, p. 89. Poster in Session 27 Paper 15. Portland, OR, October 18-21, 2009. ISSN: 0016-7592

- 25) Hamdan, L.K., J.C. Walton and A. Woocay (2008). Conditions inside Water Pooled in a Failed Nuclear Waste Container and its Effect on Radionuclide Release. *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract H31E-0835, 2009. Presented at: American Geophysical Union Fall Meeting, San Francisco, CA, December 16, 2009
- 26) Woocay, A., and J.C. Walton. Evidencia Isotópica de Infiltración Concentrada Pretérita en Fortymile Wash. Presented at the 2nd Annual CIPITECH conference, held in Delicias, CHIH, MX., on September 24, 2009. ISBN 978-4276-4108-3.
- 27) Al-Qudah, O., J.C. Walton, and A. Woocay. (2009). Investigation and Classification of Groundwater Redox Conditions in the Vicinity of Yucca Mountain. *World Environmental and Waste Resources Congress 2009: Great Rivers*. Presented May 17-21, 2009, Kansas City, Missouri. Publisher: ASCE. ISBN13: 9780784410363
- 28) ☞ Hamdan, L., J.C. Walton, and A. Woocay. 2009. Effect of Physical Processes on Radionuclide Release from Partially Failed Containers. Talk presented at: *Waste Management Symposium 2009: Waste Management for the Nuclear Renaissance*, Mar 1-5, 2009. Session 57. Publisher: Curran Associates, Inc. (Oct 2009) Pages: 5,143 (8 Vols) ISBN13: 9781615672523
- 29) Al-Qudah O.M., A. Woocay and J.C. Walton. "Groundwater Oxidizing and Reducing Conditions Near Yucca Mountain." *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract H51B-0803, 2008. Presented at: American Geophysical Union Fall Meeting, San Francisco, CA, December 19, 2008.
- 30) Hamdan, L.K., J.C. Walton and A. Woocay. (2008). "Conceptual Model for Radionuclide Release from the Engineered Barrier Systems (EBS) at Yucca Mountain." *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract H53E-1130, 2008. Presented at: American Geophysical Union Fall Meeting, San Francisco, CA, December 19, 2008.
- 31) ☞ Hamdan, L. K. and J.C. Walton. "Limitations on Radionuclide Release from Partially Failed Containers" Paper #: 1124-Q08-07, Abstract# 512698. Talk presented at 2008 Materials Research Society (MRS) Fall Meeting, Boston, MA, December 4, 2008. DOI: 10.1557
- 32) ☞ Rice, R. W. and J. C. Walton, Factors Affecting Risk Predictions: Can Some Risk Metrics be More Accurately Predicted Than Others?, *Nuclear Technology*, Vol. 163, No. 1, p. 15-23, 2008.
- 33) ☞ Woocay A. and J. C. Walton, Multivariate Analyses of Water Chemistry: Surface and Ground Water Interactions, *Ground Water*, Vol. 46, No. 3, pp. 437-449, 2008
- 34) ☞ Romero-Gonzalez, J., J.C. Walton, J.R. Peralta-Videa, E. Rodriguez, J. Romero, J.L. Gardea-Torresdey, Modeling the adsorption of Cr(III) from aqueous solution onto *Agave lechuguilla* biomass: Study of the advective and dispersive transport, *Journal of Hazardous Materials*, Vol, 161, Issue 1, pp. 360-365, 2009.
- 35) ☞ Danko, G., Walton, J., and Bahrami, D., Increased Storage Capacity at Yucca Mountain Favors Thermal Management for A Cold Repository., *Nuclear Technology*, Vol. 163, No. 1, p. 47-61, 2008.
- 36) ☞ Woocay, A., and J.C. Walton. 2008. Infiltration history at Fortymile Wash. *International High-Level Radioactive Waste Management Conference (IHLRWMC)*, Las Vegas, Nevada. La Grange Park, Illinois: American Nuclear Society. September 7-11, 2008, p. 41-46. ISBN: 978-0-89448-062-1
- 37) ☞ Al-Qudah, O., A. Woocay, and J.C. Walton. 2008. Yucca Mountain Region Groundwater Geochemical Data Analyses. *International High-Level Radioactive Waste Management Conference (IHLRWMC)*, Las Vegas, Nevada. La Grange Park, Illinois: American Nuclear Society. September 7-11, 2008, p. 87-94. ISBN: 978-0-89448-062-1
- 38) ☞ Hamdan, L.K., J.C. Walton, and A. Woocay. 2008. Limitations and patters of radionuclide release from partially failed containers. *International High-Level Radioactive Waste Management Conference (IHLRWMC)*, Las Vegas, Nevada. La Grange Park, Illinois: American Nuclear Society. September 7-11, 2008, p. 348-351. ISBN: 978-0-89448-062-1
- 39) ☞ Rice, R.W., and J.C. Walton. 2008. Numerical Illustration: Effects of Uncertainty and Bias on Risk Predictions. *International High-Level Radioactive Waste Management Conference (IHLRWMC)*, Las Vegas, Nevada. La Grange Park, Illinois: American Nuclear Society. September 7-11, 2008, p. 588-592. ISBN: 978-0-89448-062-1

- 40) Pekar, K., J.C. Walton, and P. Goodell. 2008. Modeling of Transport Rates Through Unsaturated Soil at Peña Blanca. *International High-Level Radioactive Waste Management Conference (IHLRWMC)*, Las Vegas, Nevada, La Grange Park, Illinois: American Nuclear Society. September 7-11, 2008, p. 196-203. ISBN: 978-0-89448-062-1
- 41) Walton, J.C., Fate and Transport of Contaminants in the Environment, College Publishing, Glen Allen, Virginia, ISBN: 1-932780, 2008, (textbook)
- 42) Pekar, Katrins, Phillip Goodell, John Walton, Elizabeth Anthony, and MinhuaRen, Equation fitting U-Series Radionuclide Transport Through Soil at Pena Plana, Chihuahua, Mexico, American Geophysical Union 2007 Joint Meeting, May 22, 2007, Acapulco, Mexico (abstract and presentation).
- 43) Walton, J.C., L.K. Hamdan, and A. Woocay. 2008. "Controlling Features and Processes for Radionuclide Release from Yucca Mountain." Presented at: Devil's Hole Workshop, Furnace Creek, CA, May, 2008.
- 44) Al-Qudah, O., A. Woocay, and J.C. Walton. "Geochemical Characterization of Groundwater in Yucca Mountain Region." Presented at: Devil's Hole Workshop, Furnace Creek, CA, May, 2008.
- 45) Walton, John, August 2006 El Paso Flooding: Technical and Policy Factors, Universities Council on Water Resources, Boise Idaho, Plenary Speaker, July, 2007.
- 46) Woocay, A., and J.C. Walton, (2007). "Climate Change Effects on Groundwater Recharge East of Yucca Mountain." *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract H11F-0843, 2007. Presented at: American Geophysical Union Fall Meeting, San Francisco, CA, December 10, 2007.
- 47) Walton, John, A. Jaimes and A. Woocay, (2007). "Infiltration History and Spatial Variability Derived from Chloride Mass Balance." *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract H11C-0674, 2007. Presented at: American Geophysical Union Fall Meeting, San Francisco, CA, December 10, 2007.
- 48) Agrawala G.K., A. Woocay and J.C. Walton, (2007). "Statistical and Spatial Analysis of Borderland Ground Water Geochemistry." *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract H11C-0677, 2007. Presented at: American Geophysical Union Fall Meeting, San Francisco, CA, December 10, 2007.
- 49) Woocay, A. and J. Walton, Infiltration History and Spatial Variability Derived from Chloride Mass Balance and Groundwater Chemistry, Presented at: Devils Hole Workshop, Death Valley, May 2007.
- 50) ʘ Bahrami, D., G. Danko, and J. Walton, Water, Vapor, and Salt Dynamics in a Hot Repository, Materials Research Society , Scientific Basis for Nuclear Waste Management XXX, Editors: Darrell Dunn, Christophe Poinsot, and Bruce Begg, Materials Research Society, Pennsylvania, 2007.
- 51) ʘ Rice, Robert and John Walton, Design factors affecting the flow of water through below-ground concrete vaults, *J. Envir. Engr.*, Volume 132, Issue 10, pp. 1346-1354, October 2006.
- 52) Woocay, Arturo and Walton, John C., (2006), Groundwater Chemistry Analysis by Multivariate Statistical Methods, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract H41B-0405, 2006. Presented at: American Geophysical Union Fall Meeting, San Francisco, CA, December 14, 2006
- 53) ʘ José H. García, Wen-Whai Li, Nidia Cárdenas, Richard Arimoto, John Walton and David Trujillo, Determination of PM2.5 sources using time-resolved integrated source and receptor models, *Chemosphere*, Volume 65, Issue 11, December 2006, Pages 2018-2027.
- 54) Woocay, Arturo and Walton, John C., (2006), Evidence of Past Focused Infiltration at Fortymile Wash, *Geological Society of America Abstracts with Programs*, Vol. 38, No. 7, p. 335, 2006. Presented at: GSA Annual Meeting, Philadelphia, PA, October 24, 2006.
- 55) Walton, J, G. Danko, and D. Bahrami, Effect of cyclic, sporadic, or episodic processes on evolution of environments in a repository in Yucca Mountain, Invited Presentation at the Nuclear Waste Technical Review Board Corrosion Workshop, Las Vegas, NV, September, 2006.
- 56) Agrawala, Gautam K., Woocay, Arturo and Walton, John C.,(2006) Multivariate Statistical Analysis of the Hueco-Mesilla Basin Groundwater Aquifer System-Presented at 2006 Groundwater Summit in San Antonio, TX, 2006

- 57) Agrawala, Gautam K. and Walton, John C.,(2006),Multivariate Statistical Analysis of the Tularosa Basin, Presented at 2006 New Mexico Water Research Symposium, Socorro, NM,2006
- 58) Agrawala, Gautam K and Walton, John C.,(2006),Multivariate Statistical Analysis of the Hueco-Tularosa Basin, Presented at 2006 AGU Fall Meeting, San Francisco, CA,2006
- 59) R Hall, Drew and John Walton, Conceptual model for flow separation processes affecting waste package chemical environment, Yucca Mountain, Nevada, Applied Geochemistry, Volume 21, Issue 6, Pages 859-869, June 2006.
- 60) R Veranth, John M, Moss, Tyler A., Chow, Judith C., Labban, Raed, Nichols, William K., Walton, John C., Watson, John G, Yost, Garold S., Correlation of In Vitro Cytokine Responses With the Chemical Composition of Soil-Derived Particulate Matter, Environ Health Perspect. 2006 March; 114(3): 341-349.
- 61) R Woocay, Arturo and Walton, John C., Climate Change Effects on Yucca Mountain Region Groundwater Recharge, *IHLRWM 2006*, Las Vegas, NV, April 30-May 4, 2006, 191-198, 2006
- 62) Rice, Robert and John Walton, **Factors Affecting Risk Predictions: Proposed Rule And Other Risk Metrics**, *IHLRWM 2006*, Las Vegas, NV, April 30-May 4, 2006, 191-198.
- 63) Woocay, Arturo and Walton, John C., (2006), **Multivariate Statistical Methods Applied to Surface and Groundwater Interactions**, *Abstract Book of the 2006 Ground Water*, p. 94, 2006. Presented at: NGWA 2006 Ground Water Summit, San Antonio, TX, April 22-27, 2006."
- 64) Romero-Gonzalez, J, J.C. Walton, J. R. Peralta-Videa, E. Rodr'guez, S. L. Ramirez, J.L. Gardea-Torresdey, Study of the advective and dispersive transport of the binding of Cr(III) from aqueous solution onto Agave lechuguilla biomass, *Journal of Hazardous Materials*, in review.
- 65) Woocay, Arturo and Walton, John C., **Infiltration Dates Derived from Chloride Mass Balance**, Poster presented at: Devil's Hole Workshop, Furnace Creek, CA, April, 2006.
- 66) Walton, John and Arturo Woocay, Nye County Ground Water Chemistry Analysis Report for the Early Warning Drilling Program April 2004 - March 2005, NWRPO-2005-01, May 2005.
- 67) Goodell, Philip, Walton, John, and Rodriguez, Alfredo, Future Studies At Pena Blanca: Radionuclide Migration In The Vadose Zone Of An Alluvial Fan, *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 453, 2005.
- 68) Walton, John, Goodell, Philip, Beshears, Charles, French, Diana, and Kelts, Aaron, Radionuclide Dispersion Rates By Aeolian, Fluvial, and Porous Media Transport, *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 268, 2005.
- 69) Woocay, Arturo Walton, John C., and King, Michael, **Multivariate Statistical Methods Applied to Interpretation of Hydrological Data**, Presented at: 2005 New Mexico Water Research Symposium, Socorro, NM, August 16, 2005.
- 70) Woocay, Arturo and Walton, John C., **Focused Infiltration Effects on Amargosa Desert Regional Groundwater Chemistry**, Presented at: Devil's Hole Workshop, Furnace Creek, CA, May, 2005.
- 71) Woocay, Arturo and John Walton, (2005), **Statistical Analysis of Yucca Mountain Regional Groundwater Chemistry Evolution**, Presented at: Waste Management Symposium, Mar, 2005.
- 72) Agrawala, Gautam K. and Walton, John C., Source Analysis for VOC Data at The Camino Real Landfill, Sunland Park, NM, Presented at the Twentieth International Conference on Solid Waste Technology & Management, Philadelphia, PA, 2005.
- 73) Agrawala, Gautam K. and Walton, John C.,(2005),Multivariate Statistical Analysis of the Membres Basin Groundwater Aquifer System-Presented at 2005 New Mexico Water Research Symposium, Socorro, NM,2005

- 74) Romero-Gonzalez, J., Cano-Rodriguez, I., Walton, J.C., Peralta-Videa, J.R., Rodriguez, E., Gardea-Torresdey, J.L. Column studies of the adsorption and reduction of Cr(VI) from an aqueous solution by Agave lechuguilla biomass. *Revista Mexicana de Ingenieria Quimica* 4, 257-268, 2005
- 75) Rodriguez-Pineda, J. Alfredo, Goodell, Philip, Dobson, Patrick F., Walton, John, Oliver, Ronald D., De La Garza, Rodrigo, And Harder, Steve, Regional Hydrology of The Nopal I Site, Sierra De Pe-a Blanca, Chihuahua, Mexico, Geological Society of America Abstracts with Programs, Vol. 37, No. 7, p. 196, 2005.
- 76) Woocay, Arturo and Walton, John C., (2005), **Groundwater Evidence of Past Climate Change in The Amargosa Desert**, *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 468, 2005. Presented at: GSA Annual Meeting, Salt Lake City, UT, October 19, 2005.
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WILLIAM JOHN WOLFF


E-mail: wwolff@epcc.edu

SUMMARY

Work experience and graduate coursework in the following areas: Environmental Health, Public Health, Government, Budgets, Financial Management, Research Methods, Business Law, and Computer Information Systems.

QUALIFICATIONS

- Excellent organizational abilities, strong oral, written and interpersonal communication skills, strong presentation skills, self-motivated and reliable
- Fluent in Excel, Word, Word Perfect, PowerPoint, Internet Explorer; E-Views, SPSS, and SAS software
- Bilingual: (English/Spanish)

EDUCATION

Master of Public Administration (MPA): University of Texas at El Paso, El Paso, TX
Political Science/Public Administration/

Master of Public Health (MPH): Tulane University School of Public Health and Tropical Medicine, New Orleans, LA
Environmental Health

Master of Business Administration (MBA): New Mexico State University, Las Cruces, NM
Business Administration

Bachelors- Biology (BS): Our Lady of the Lake University, San Antonio, TX
Biology/Chemistry

PROFESSIONAL EXPERIENCE

Adjunct Professor/Government Lecturer El Paso Community College, El Paso, TX
(1/07 – present)

- Lecture on State and Local Government and American Government classes.
- Prepare coursework for online classes on State and Local Government and American Government using Blackboard.
- Prepare daily lecture format including presentations; Research topics by means of books, Journals, Internet, and newspapers.
- Peer review research publications

Senior Environmental Scientist

El Paso Electric Company, El Paso, TX (11/08 – 4/11)

- Oversaw administrative activities associated with operations such as financial reporting, accounting, budgeting, personnel management, purchasing, and record keeping.
- Conduct mandatory environmental training to field staff on environmental subjects such as: Asbestos, spill control, storm water, aviary, and poly carbonated hydrocarbon programs.
- Plan, budget, develop and administer projects that insure the Company's compliance with applicable federal, state and local regulations.
- Use ERP Oracle software for accounting, budgeting and tracking expenditures.
Ensure operating and capital budgets have available funds for ongoing projects. Ensure projects are on budget.
- Monitor capital expenditures related to pollution control for property tax exemption program under the Texas Commission on Environmental Quality.
- Monitor emissions data with Stack-Vision software program. Compile nitrogen oxide emission data for the planning and purchase of emissions credits for company power plants.
- Provide technical direction for particular assignments and projects Perform detailed studies, research, designs and develop assignments involving calculations and tests
- Conduct inspections on department compliance systems Provide peer review on technical accuracy and completeness of work in the department
- Prepare technical reports and project status reports to management Coordinate the activities of lower level scientists and technicians on special assignments/projects when necessary

**Environmental Quality Coordinator
/ Safety Coordinator**

El Paso City County Health and Environmental District/
City of El Paso, El Paso, Texas
(08/05 – 11/08)

- Oversaw administrative activities associated with operations such as financial reporting, accounting, budgeting, personnel management, purchasing, and record keeping
- Prepared annual operating and capital budgets for respective programs. Analyze and review program expenditures, which include approving purchases for public health programs.
- Managed the capital assets for the respective programs under supervision and formulated a capital budget for respective programs
- Developed and implemented specific policies and procedures for the department
- Directed and managed the operations of the public health programs to ensure compliance with all pertinent federal, state and local laws, ordinances, orders, rules, regulations, standards, policies and procedures.
- Supervised staff for assigned public health programs, which included hiring of employees, suspending and or termination of employees, plan/assign work to staff, organize and coordinate work flow, assign/ delegate work to staff, provide training and develop staff.
- Successfully applied , received, and managed a grant from Paso Del Norte Health Foundation in the amount of \$20,000 for health promotion activity dealing with flood recovery education.
- Served on community and district committees to coordinate

program activities for the department.

Adjunct Professor

University of Texas Health Science Department, El Paso, TX
(6/04 – 05/07)

- Taught Health Science 3306 “Environmental Health”, focus on environmental health hazards and disease control with respect to their implications on public health.
- Prepared daily Environmental lecture format including presentations.
- Researched topics by means of Environmental books, Environmental Journals, and applicable Federal, State, and local laws on the internet.
- Peer review research publications

Airport Operations Officer

El Paso International Airport: Administration and Operations
Department, El Paso, TX
(3/03-8/05)

- Under direction, oversaw and ensured the continuity of El Paso International Airport operations on assigned tour of duty, including the safe operation of air carrier aircraft on the airfield, public safety, airport security and ground transportation services.
- Provided direction and managed 100+ employees, which included planning/assigning work to staff, organized and coordinated workflow, assigned/ delegated work to staff, provided training and developed staff.
- Investigated, responded and resolved customer and tenant complaints and inquiries.
- Planned and coordinated airport property functions such as parking and ground transportation, communication, maintenance of facilities, environmental compliance, security and public safety workers during routine and/or emergency situations. This included conducting meetings for the Planning and implementation of airport projects.
- Served as a liaison to the public, businesses, community organizations and governmental agencies to provide information and collaboration.
- Coordinated management of facilities, properties and assets for the airport.
- Prepared reports on corrective actions on deficiencies encountered during routine inspection of facilities and property.
- Analyzed and prepared reports for the Airport director detailing airport operations to improve efficiencies. Maintained airport operations records.
- Conducted research and prepared reports for the department.
- Enforced personnel rules and regulations

**Airport Environmental Manager/
Safety Coordinator**

El Paso International Airport: Administration and Operations
Department, El Paso, TX
(8/00-8/03)

- Administered and maintained all department permits and records ensuring that all permits are up to date and in accordance with all applicable federal, state and local laws.
- Analyzed and prepared reports for the Airport director detailing contractor work progress and compliance with all applicable environmental laws.

- Analyzed and prepared reports for required regulatory agencies.
- Conducted research and prepared reports regarding rules and regulations.
- Developed and completed scope of work for various projects.
- Managed budget for respective programs and projects
- Investigated, responded and resolved customer and airport tenant complaints and inquiries.
- Managed various programs and projects.
- Developed, implemented, and enforced the Accident Prevention Plan; conducted safety committee meetings; performed safety analysis; reviewed procedures for the Airport. Coordinated the safety program for safe working practices at the airport; maintained Accident Prevention Plan and Safety policy, which includes safety training; ensured all components of the Accident Prevention Plan were properly implemented

Health Educator

El Paso City County Health and Environmental District/
City of El Paso, El Paso, Texas
(10/99 – 08/00)

- Organized and prepared materials on specific subjects of public health interest, including environmental health- lead information, child health, consumer health, communicable diseases, preventable diseases and nutrition
- Distributed printed materials to promote the community's interest in nutrition, public health, safety, and environmental health

MEMBERSHIPS

Board member

American Red Cross, El Paso, TX
(02/04 – 4/12)

- Participate in budget oversight duties, provide governance over local finances.
- Develop policies to ensure that the mission of the Red Cross is achieved.
- Asses that community needs are being met.

Board Member, District 4

El Paso Parks and Recreation Advisory Board and MEMBER –
Administration and Land Subcommittee, City of El Paso, TX
(10/99-10/03)

- Monitored community park programs and contracts through Administration Land Subcommittee
- Reviewed and revised City of El Paso Parks and Recreation \$14 million annual budget
- Monitored ten year \$75 million dollar bond improvement program
- Reviewed environmental assessment plans for all land acquisition
- Worked closely with Operations Manager and Environmental Planner to ensure environmental compliance with respect to land purchasing.

PRESENTATIONS

- Graduate of the Centers for Disease Control (CDC) Environmental Public Health Leadership Institute 2009
Poster Presentation: A Case Study: The Downgrading of the Environmental Public Health Workforce in El Paso, Texas.
- Developed and Presented "Environmental Health Professionals: Are You Ready to Respond to a Disaster?" at the Preparedness Summit hosted by National Association of City/County Health Officials in Washington D.C. February 22nd 2007.