

NAME

Theodore G. Cleveland

CITIZENSHIP

United States of America

RESEARCH INTERESTS

Hydrologic, Hydraulic, and Contaminant Transport Modeling
Water Resource Systems Optimization

EDUCATION

Ph.D. Civil Engineering, University of California, Los Angeles, 1989.

M.S. Civil Engineering, University of California, Los Angeles., 1987.

B.S. Environmental Resources Engineering, Humboldt State University, Arcata CA, 1986.

WORK EXPERIENCE

Associate Professor, 2008-present; Department of Civil and Environmental Engineering, Texas Tech University. I am responsible for: developing and teaching courses to undergraduate and graduate students in hydrologic and hydraulic analysis and design, and for maintaining, growing an externally-funded research program.

Associate Professor, 1990-2008; Department of Civil and Environmental Engineering, University of Houston. I was responsible for developing and teaching courses to undergraduate and graduate students covering environmental engineering, computing, engineering mechanics, and groundwater and surface water hydrology. I developed and executed an externally-funded research program, executing work exceeding \$1.7M over the course of 18 years. I advised hundreds of undergraduate

students. I supported the research and thesis preparation of over two dozen master's students and 4 Ph.D. students.

Hydrogeologist, 1989-1990; CH2M-HILL, Emeryville, California. I provided technical support for different remediation strategies to comply with the North Hollywood NPL record of decision. I performed limited field work in support of permitting activities on a large landfill in Pittsburg, CA.

Research/Teaching Assistant, 1986-1989; University of California, Los Angeles, CA. I conducted research related to contaminant transport modeling and automated sampling network design. I was instructor of record for CE15 (Introduction to Computing for Civil Engineers)

Outpost Cook, 1986; Nantahala Outdoor Center, Hot Springs, North Carolina. I was responsible for menu planning, food purchase, and food preparation for roughly 3-dozen raft guides and staff at the Hot Springs outpost.

Woodworker/Millwright, 1984-1985; Mad River Woodworks, Arcata, California. I fabricated assorted victorian gingerbread architectural items for use in psuedo-historical housing developments. I also fabricated several historically accurate fixtures for use in selected State of California Parks. I maintained production machines (saws, planers, drills, routers). I designed, built, and troubleshooted production setups and jigs. I designed, constructed, operated, and maintained specialty machines for large-volume production of wood fixtures.

Drill Sergeant, 1982-1983; U.S. Army Reserve, Redding, California.

Clinical Medical Specialist, 1980-1982; U.S. Army Reserve (Independent Ready Reserve). I served at the surgery clinic at Letterman Army Medical Center (San Francisco, CA).

Clinical Medical Specialist, 1977-1980; U.S. Army, Fort Polk, Louisiana. A clinical medical specialist is essentially a medic with additional training equivalent to a Licensed Practical Nurse. I served at Martin Army Hospital (Ft. Benning, GA) during training and later with a field portable hospital.

TEACHING EXPERIENCE

CE 3305	Fluid Mechanics	Texas Tech University
CE 3354	Engineering Hydrology	Texas Tech University
CE 3372	Water Systems Engineering	Texas Tech University
CE 4101	Applications of Engineering Fundamentals	Texas Tech University
CE 4311	Problem Based Learning — Steel	Texas Tech University
CE 4312	Problem Based Learning — Concrete	Texas Tech University
CE 4333	Engineering Urban Habitats – Costa Rica Model	Texas Tech University
CE 5333	Adv. Topics — Couplas (F2008)	Texas Tech University
CE 5333	Adv. Topics — Markov Models (S2009)	Texas Tech University
CE 5333	Uncertainty and Similarity Analysis (SU2009)	Texas Tech University
CE 5333	Data Analysis for Engineers (SU2010)	Texas Tech University
CE 5333	HEC-HMS and EPA-SWMM Modeling (SU2012)	Texas Tech University
CE 5361	Surface Water Hydrology	Texas Tech University
CE 5362	Surface Water Modeling	Texas Tech University
CIVE 7397	Statistical methods in Water Resources	University of Houston
CIVE 7332	Groundwater Contaminant Transport	University of Houston
CIVE 6361	Groundwater Hydrology (Televised in 1994)	University of Houston
CIVE 4311	Engineering Design and Professional Practice	University of Houston
CIVE 3331	Environmental Engineering	University of Houston
CIVE 3434	Fluid Mechanics and Hydraulic Engineering	University of Houston
CIVE 3334	Hydraulic Engineering	University of Houston
CIVE 2330	Engineering Mechanics – Statics	University of Houston
ENGI 1331	Computers in Engineering	University of Houston
CIVE 1331	Computing for Engineers	University of Houston
CE 15	Introduction to Computing for Civil Engineers	University of California

Teaching Grants

Curriculum Development Grant “Enhance Effectiveness of Engineering Courses Presented by Instructional Television, \$1,000, 7/94-8/94. University of Houston, Off-Campus Institutes.

1992 Association of Groundwater Scientists and Engineers, Faculty Development Grant to attend the National Groundwater Association Short Course ‘Introduction to Geochemistry’

Summary of Teaching Evaluations

Texas Tech University

At Texas Tech University the two principal criteria of importance are an effectiveness rating of the instructor, and an knowledge rating of the topic. Unrated or missing values are coded as "–".

Table 1. Teaching Evaluation Summary — Texas Tech University

Semester	Course	Title	Instr. Rating	Subject Rating	Responses
F 2008	CE 5361	Surface Water Hydrology	4.00	4.43	7
F 2008	CE 5333	Adv. Topics – Copulas	–	–	2
S 2009	CE 5362	Surface Water Modeling	4.75	5.00	4
S 2009	CE 5333	Adv. Topics – Markov Models	–	–	2
SU 2009	CE 5333	Similarity, Dimensional Analysis, Uncertainty	–	–	5
F 2009	CE 3372	Water Systems Design	3.13	4.26	30
F 2009	CE 4101	App. of Eng. Fundamentals	3.89	3.89	36
S 2010	CE 3372	Water Systems Design	3.16	4.05	57
S 2010	CE 4101	App. of Eng. Fundamentals	4.04	4.19	57
S 2010	CE 4312	Problem Based Learning — Concrete Structures	4.17	4.17	6
SU 2010	CE 5333	Statistical Methods in Water Resources	–	–	7
F 2010	CE 3372	Water Systems Design	3.93	4.35	40
F 2010	CE 4101	App. of Eng. Fundamentals	4.04	4.12	35
F 2010	CE 4312	Problem Based Learning — Steel Structures	–	–	–
S 2011	CE 3372	Water Systems Design	3.87	4.40	72
S 2011	CE 4101	App. of Eng. Fundamentals	3.97	4.10	30
S 2011	CE 4312	Problem Based Learning — Concrete Structures	4.90	4.90	12
S 2011	CE 5362	Surface Water Modeling	4.25	4.38	8

Table 1. Teaching Evaluation Summary — Texas Tech University (continued)

Semester	Course	Title	Instr. Rating	Subject Rating	Responses
F 2011	CE 3372	Water Systems Design	3.57	4.20	45
F 2011	CE 4101	App. of Eng. Fundamentals	4.26	4.56	35
F 2011	CE 4311	Problem Based Learning — Steel Structures.	—	—	—
S 2012	CE 3372	Water Systems Design	3.74	4.31	54
S 2012	CE 5362	Surface Water Modeling	4.75	5.00	4
F 2012	CE 3372	Water Systems Design	3.77	4.41	44
F 2012	CE 4311	Problem Based Learning — Steel Structures	4.63	4.75	8
S 2013	CE 3372-1	Water Systems Design	3.21	4.00	49
S 2013	CE 3372-2	Water Systems Design	3.60	4.20	5
S 2013	CE 4312	Problem Based Learning — Concrete Structures	4.79	4.83	18
S 2013	CE 4101-1	App. of Eng. Fundamentals	3.82	3.79	39
S 2013	CE 4101-2	App. of Eng. Fundamentals	4.27	4.27	15
F 2013	CE 3372	Water Systems Design	3.46	4.21	35
F 2013	CE 4311	Problem Based Learning — Steel Structures	4.67	4.83	12
S 2014	CE 3305	Fluid Mechanics	4.62	4.84	45
S 2014	CE 3372	Water Systems Design	4.00	4.47	34
S 2014	CE 5362	Surface Water Modeling	4.71	4.71	7
SU 2014	CE 3305	Fluid Mechanics (GER- MANY)	5.00	5.00	1
F 2014	CE 3354-1	Engineering Hydrology	3.97	3.51	49
F 2014	CE 3354-2	Engineering Hydrology	4.57	4.29	26
F 2014	CE 3372	Water Systems Design	4.50	4.33	18
S 2015	CE 3372	Water Systems Design	3.23	3.41	49
S 2015	CE 5361	Surface Water Hydrology	4.50	4.50	6
SU 2015	CE 3305	Fluid Mechanics (GER- MANY)	4.67	4.44	20
F 2015	CE 3372	Water Systems Design	4.11	4.17	36
F 2015	CE 3354	Engineering Hydrology	4.29	4.18	34

Table 1. Teaching Evaluation Summary — Texas Tech University (continued)

Semester	Course	Title	Instr. Rating	Subject Rating	Responses
S 2016	CE 3372	Water Systems Design	4.52	4.52	29
S 2016	CE 3354	Engineering Hydrology	4.14	3.83	31
SUII 2016	CE 3305	Fluid Mechanics (GER-MANY)	4.71	4.43	20
F 2016	CE 3372-1	Water Systems Design			49
F 2016	CE 3372-2	Water Systems Design			43
IS 2017	CE 4333	Engineering Urban Habitats (COSTA RICA)			20
S 2017	CE 3372-1	Water Systems Design			49
S 2017	CE 3372-2	Water Systems Design			49
SUII 2017	CE 3305	Fluid Mechanics (JAPAN)			8
SUII 2017	CE 4333	Practical Computational Hydraulics (JAPAN)			7
F 2017	CE 3372-1	Water Systems Design			49
F 2017	CE 3372-2	Water Systems Design			49
IS 2017	CE 4333	Pollution Prevention Practices (PPP) in Cuba (CUBA)			16

University of Houston

At the University of Houston the principal performance criteria of importance in faculty evaluation was the response to the evaluation form question 'Based on what I have seen in this class, the instructor is an effective Engineering educator' (0-4 scale, 4 is best). Missing values are coded as "-" ratios for these are estimated.

Table 2. Teaching Evaluation Summary — University of Houston

Semester (1)	Course (2)	Title (3)	Section Avg. (4)	Level Avg. (5)	Ratio (4/5)
Fall 1990	CIVE 6361	GroundwaterHydrology	2.72	3.30	0.82
Spring 1991	CIVE 3334	Hydraulic Engineering	2.25	3.08	0.73
Fall 1991	CIVE 6361	GroundwaterHydrology	3.18	3.26	0.97
Spring 1992	CIVE 3334	Hydraulic Engineering	3.69	3.01	1.22
Spring 1992	CIVE 7397	Contaminant Transport	3.43	3.27	1.04
Sum. 1992	CIVE 6361	GroundwaterHydrology	3.04	3.30	0.92
Fall 1992	CIVE 6361	GroundwaterHydrology	2.81	3.20	0.87
Spring 1993	CIVE 2330	Mechanics-I (Statics)	3.42	3.11	1.09
Spring 1993	CIVE 7397	Contaminant Transport	3.31	3.51	0.94
Fall 1993	ENGI 1331	Computers in Engineering	1.62	2.64	0.61
Fall 1993	CIVE 6361	GroundwaterHydrology	3.00	3.09	0.97
Spring 1994	CIVE 7332	Contaminant Transport	3.16	3.40	0.92
Fall 1994	ENGI 1331	Computers in Engineering	3.06	2.89	1.06
Fall 1994	CIVE 6361	GroundwaterHydrology	3.19	3.03	1.05
Spring 1995	CIVE 7332	Contaminant Transport	4.00	3.48	1.15
Fall 1995	CIVE 1331	Computing for Engineers	3.26	3.18	1.02
Fall 1995	CIVE 6361	GroundwaterHydrology	3.20	3.33	0.96
Spring 1996	CIVE 7332	Contaminant Transport	4.00	3.32	1.20
Fall 1996	CIVE 3434	Fluid Mechanics and Hydraulics	3.51	3.20	1.09
Fall 1996	CIVE 6361	GroundwaterHydrology	3.67	3.29	1.11
Spring 1997	CIVE 7332	Contaminant Transport	3.09	3.51	0.88
Fall 1997	CIVE 3434	Fluid Mechanics and Hydraulics	3.04	2.89	1.05
Fall 1997	CIVE 6361	GroundwaterHydrology	3.20	3.15	1.01

Table 2. Teaching Evaluation Summary – Continued.

Semester (1)	Course (2)	Title (3)	Section Avg. (4)	Level Avg. (5)	Ratio (4/5)
Spring 1998	CIVE 7332	Contaminant Transport	4.00	3.62	1.10
Fall 1998	CIVE 6361	GroundwaterHydrology	3.25	3.29	0.98
Fall 1998	CIVE 2330	Mechanics-I (Statics)	3.43	3.18	1.07
Spring 1999	CIVE 7332	Contaminant Transport	3.47	3.49	0.99
Fall 1999	CIVE 6361	GroundwaterHydrology	3.60	3.25	1.10
Fall 1999	CIVE 2330	Mechanics-I (Statics)	3.48	3.13	1.11
Spring 2000	CIVE1331	Computing for Engineers	3.55	3.26	1.08
Spring 2000	CIVE 1331	Computing for Engineers	3.38	3.26	1.03
Fall 2000	CIVE 3331	Environmental Engineering	3.44	3.15	1.09
Spring 2001	CIVE 3331	Environmental Engineering	3.32	3.07	1.08
Spring 2001	CIVE 7332	Contaminant Transport	3.56	3.60	0.98
Fall 2001	CIVE 3331	Environmental Engineering	3.56	2.87	1.24
Fall 2001	CIVE 6361	GroundwaterHydrology	3.58	3.31	1.08
Spring 2002	CIVE 3331	Environmental Engineering	3.60	2.97	1.21
Spring 2002	CIVE 7332	Contaminant Transport	3.33	3.50	0.95
Spring 2002	CIVE 6111	Seminar, Env. Eng.	3.54	3.39	1.04
Fall 2002	CIVE 6361	GroundwaterHydrology	3.17	3.20	0.99
Fall 2002	CIVE 3331	Environmental Engineering	3.42	3.06	1.12
Spring 2003	CIVE 3331	Environmental Engineering	–	–	1.0
Fall 2003	CIVE 6361	Engineering Hydrology	3.24	3.37	0.96
Fall 2003	CIVE 1331	Computing for Engineers	2.78	3.33	0.83
Spring 2004	CIVE 3331	Environmental Engineering	3.36	3.17	1.13
Fall 2004	CIVE 6361	Engineering Hydrology	3.24	3.34	0.97
Fall 2004	CIVE 6111	Seminar, Env. Eng.	3.43	3.34	1.02
Spring 2005	CIVE 3331	Environmental Engineering	3.58	3.21	1.11
Fall 2005	CIVE 1331	Computing for Engineers	3.00	3.24	0.92
Fall 2005	CIVE 3434	Fluid Mechanics and Hydraulics	3.46	3.10	1.12
Spring 2006	CIVE 6361	Engineering Hydrology	3.25	3.46	0.94
Fall 2006	CIVE 7397	Advanced Hydrology	3.34	3.30	1.01
Spring 2007	CIVE 4311	CE Design and Prof. Practice	3.62	3.37	1.07
Spring 2007	CIVE 6361	Engineering Hydrology	3.69	3.36	1.09
Spring 2007	CIVE 6111	Seminar, Env. Eng.	–	–	1.0
Fall 2007	CIVE 1331	Computing for Engineers	4.57	4.22	1.08
Fall 2007	CIVE 4311	CE Design and Prof. Practice	4.39	3.98	1.10
Spring 2008	CIVE 6361	Engineering Hydrology	–	–	–

SUPERVISION OF RESEARCH

Ph.D. Students — Texas Tech University

C. M. Neale (in progress)

Dissertation Title:

B. Kronkowski (in progress)

Dissertation Title: Extreme Value Daily Statistics in Texas; Implications for Insurance Ratings

G. R. Herrmann graduated 12-2013

Dissertation Title: Conceptual, Algorithmic, and Statistical Exploration of Relations Between Runoff Generation, Stream Geomorphology, and Watershed Topography in West Texas

W. J. Barnes graduated 5-2013

Dissertation Title: Experimental Study of Sediment Transport and Culvert Capacity

W. H. Asquith graduated 5-2011 Dissertation Title: Univariate Distributional Analysis with L-moment Statistics using **R**

M.S. Students - Thesis — Texas Tech University

V. Salehi 05-2018 (in progress) Thesis title: EBDUSA; Web-based toolbox to generate design intensities for arbitrary durations at USA county centroids.

C. M. Neale 08-2016 Thesis title: Evaluating Use of Sub-Grade Drains with Permeable Friction Course for Stormwater Drainage: Physical Model Studies.

C. C. Tay 12-2015 Thesis title: Developing Precipitation Intensity-Duration-Frequency (IDF) Models Using Nonlinear Minimization In **R**.

R. L. Pedreso de Lima – 7-2013 Thesis title: Development of a Method Using Infrared Thermography for Shallow Flow Visualization and Quantitative Estimation of Velocity.¹

¹co-advisor with Dr. Rita Fernandes de Carvalho. Degree awarded by Universidade de Coimbra (PORTUGAL). Laboratory studies conducted at Texas Tech University as part of student's international experience. Texas Tech has an agreement with Universidade de Coimbra to share credit hours.

H. N. Murphy graduated – 12-2011 Thesis title: Evaluation of Turbidity in Highway Construction Runoff in Texas.²

J. V. Dixon graduated – 12-2011 Thesis title: A Relation Between Select Hydraulic Properties and Sediment Transport Volume Through Experimental Culvert Configurations and Techniques for Measuring Sediment Transport Volumes.

L. R. DaCosta graduated 8-2011 Thesis title: Modeling Inlet Hydraulic Performance using the Storm Water Management Model.

E. Nordstrom graduated 12-2009³
Thesis title: Distributed Modeling Using HEC-HMS: A Continuum of Water Droplets.

M. Wingfield, graduated 12-2008⁴
Thesis title: Evaluating the Effect that Watershed Subdivision and Watershed Parameter Selection have on Modeling Results

M.S. Students - Project Reports — Texas Tech University

J. Rainwater, graduated 5-2013 Report title : Simulation of Flows at the USGS Gage Station in Hereford, Texas

T. Kaatz, graduated 12-2012 Report title: USGS Flow Gage Station Near Hereford, Texas

Ph.D. Students — University of Houston

D. Culp. graduated 12-2010⁵
Dissertation Title: Evaluation of the Effectiveness of Storm Water Ponds Designed for Storm Water Quality in the Upper Texas Gulf Coast Region.

Xin, He, graduated 12-2007
Dissertation Title: Unit Hydrograph Estimation Using Digital Drainage Model For Applicable Texas Watersheds.

²co-advisor with Dr. A. N. Morse

³Student was in-progress and advised by Dr. D. B. Thompson prior to my arrival at Texas Tech.

⁴Student was in-progress and advised by Dr. D. B. Thompson prior to my arrival at Texas Tech.

⁵Served as adjunct professor and committee chairman. Adjunct appointment terminated, 31 DEC 2010

H. Liu, graduated 6-1999

Dissertation title: Bare Soil Erosion Dependence on Soil and Rainfall Properties

L. Chuang, graduated 8-1998

Dissertation title: A Guidance System for Choosing Analytical Contaminant Transport Models

M.S. Students - Thesis — University of Houston

Shiva Sunder, graduated 12-2008

Thesis title: Evaluation of Basin Development Factor for Estimating Urban Watershed Response.

Thuy Luong, graduated 5-2008

Thesis title: Subdivision of Watersheds for Modeling.

Abhijeet Bobde, graduated 12-2007

Thesis title: Hydraulic Performance Evaluation of Grate Inlets.

Samuel Orozco graduated 8-2006

Thesis title: Evaluation of the effectiveness of short circuiting criterion for dry detention basins design using ideal flow modeling.

Xin He graduated 8-2004

Thesis title: Comparison of Gamma, Rayleigh, Weibull and NRCS Models with Observed Runoff Data for Central Texas Small Watersheds.

Ioana Lazarescu graduated 8-2003

Thesis title: Correlation of geometric properties of small watersheds in Central Texas with observed Instantaneous Unit Hydrographs.

K. Joggalandala graduated 5-2003

Thesis title: Determination of Instantaneous Unit Hydrographs for Central Texas.

P. Joshi graduated 8-2002

Thesis title: Internet-based lake water quality and fish habitat projection model.

E. Miller graduated 5-2002

Thesis title: Effects of Electrode Contamination in a Regenerative Fuel Cell System

Beatrice Garcia Alcibar, 4-2002

Thesis Title: “Analisis Hidrologico de la Cuena Colectora Keegans Bayou, Houston, TX.” (Hydrologic Analysis of the Keegan’s Bayou Watershed in Houston Texas), Tesis Profesional, Escuela de Ingenieria, Universidad La Salle, Mexico.
DF. MEXICO⁶

H. Zhu, graduated 12-1998

Thesis title: Water Quality Model of Country Club Bayou

S. Varghese, graduated 8-1998

Thesis title: Evaluation of Kenaf as a Sorbent for Oil Spill Cleanup

E. Lee, graduated 12-1998

Thesis title: Kenaf as a Polyelectrolyte Substitute in Sludge Dewatering

K. Theodoridis, graduated 8-1998

Thesis title: Evaluation of Impact from Storm Water Discharges Associated with Road Construction Activities on Receiving Streams

B. K. Varghese., graduated 8-1997

Thesis title: Agricultural Fibers as Body-Feed, Precoat, and Deep Bed Filter Media.

H. Liu, graduated 8-1997 (Chem Engr - Joint supervision with Dr. F.M. Tiller)

Thesis title: Analysis of Fibrous Beds for Oil-Water Separation

Q, Gang, graduated 6-1997

Thesis title: A Synthetic Rainfall Generation Model for Application to Highway Construction Storm Water Pollution Planning.

J. P. Muscara, graduated 6-1997

Thesis title: Field Evaluation of Selected Highway Construction Temporary Sediment Controls for Storm Water Pollution Prevention Plans

P.G. Anderson, graduated 8-1997

Thesis title: Hydraulic Parameter Estimation in an Axis-Symmetric Layered Aquifer System using a Simulation-Optimization Model.

D. Yuan, graduated 12-1995

Thesis title: Accurate Approximations for One-, Two-, and Three- Dimensional Groundwater Mass Transport From an Exponentially Decaying Contaminant Source.

⁶I provided laboratory space, guidance, and support for her year in Houston; I served as one of three reviewers for her Thesis, the other two were from La Salle. The University of Houston did not have a formal agreement with La Salle.

S. Garg, graduated 6-1994.

Thesis title: Evaluation of Fullerene Waste as a Carbonaceous Adsorbent

L. Chuang, graduated 12-1993

Thesis title: Optimal Aquifer Management for Controlling Land Subsidence

M.S. Students - Project Reports — University of Houston

C. Swallow, graduated 05-2004

Project Report: A Rainfall-Runoff Database of 106 Paired Locations in Harris County, Texas.

G. Young, graduated 12-2003

Project Report: Examination of low impact development design strategies applied to a fictitious land development in Harris Co., Texas

S. E. King, graduated 12-1997

Project Report: Solids transport from a highway construction site.

J. Vanderwater, graduated 12-1996

Project Report : Dynamic modeling of the Preliminary Treatment Works at the 69th Street Wastewater Facility, Houston, Texas.

M. Linn, graduated 12-1995

Project Report : Incorporation of Texas Risk Reduction Rules into a Spreadsheet Based Decision Support Model.

K. B. Goodwin, graduated 12-1994

Project Report: Determination of Rainfall Induced Infiltration into the Newport Sanitary Sewer System.

B.S. Students - Project Reports — University of Houston

William Botkins(2007)

Project: SWWM Models of Hypothetical Watersheds in Harris County to generate regional guidance for small watershed development impacts.

Vanessa Aririguzo and Larissa DaCosta(2007)

Project: Scale model experiments to evaluate low water crossing vulnerability in areas of high-bed mobility.

Robert Pinder(2006)

Project: Harris County and City of Houston Stormwater Detention Basin ranking and sorting database.

Matthew Smith (2004)

Project: NASDC computer for Hydrologic Data Processing: Construction, Operations, and Maintenance Manual.

Monica Stiggins (2004)

Project : A Permit-by-Rule record keeping system: University of Houston Campus Units: Implementation Report.

Otis Dickinson and Kim Nguyen (2003)

Project: A Permit-by-Rule record keeping system: University of Houston Campus Units.

PUBLICATIONS

Referred Journal Publications⁷

1. *De Lima, R. P. **, Cleveland, T. G., De Carvalho, R.P., 2014. “Infrared thermography as a heat tracer method for velocity estimation in shallow flows ” *Die Bodenkultur, Journal for Land Management, Food, and Environment*, Vol 65, No. 3-4, pp. 71-77. ISSN 006-5471 (IF = 0.016)
2. Murphy, H. L. *, Morse, A. N., *Cleveland, T.G.* 2014 “Turbidity in Highway Construction Site Runoff - Preparing for Numerical Effluent Limits” *American Society of Civil Engineers, Journal of Environmental Engineering*, Vol. 140, No. 4, 04014007 (IF = 1.399)
3. Dhakal, N. *, *Fang, X.*, Cleveland, T.G., Thompson, D.B. 2014 “Modified Rational Unit Hydrograph Method and Applications ” *Institute of Civil Engineers, Journal of Water Management*, <http://www.icevirtuallibrary.com/content/article/10.1680/wama.13.00032>,pp 1-13. (IF = 0.695)

⁷Corresponding author shown in *Italics*; student authors shown with *, Impact factor shown in (parenthesis)

4. Manoj KC.*, Fang, X., Yi, Y-J., Ming-Han Li, M-H., Thompson, D. B., Cleveland, T.G. 2013 “Improved Time of Concentration Estimation on Overland Flow Surfaces Including Low-Sloped Planes.”, American Society of Civil Engineers, Journal of Hydrologic Engineering, 10.1061/(ASCE)HE.1943-5584.0000830 (Apr. 12, 2013).
(IF = 1.379)
5. Dhakal, N.*, Fang, X., Asquith, W.H., Cleveland, T.G., Thompson, D.B. 2013 “Rate-Based Estimation of the Runoff Coefficients for Selected Watersheds in Texas” American Society of Civil Engineers, Journal of Hydrologic Engineering, Vol. 18, No. 12. pp 1571-1580.
(IF = 1.379)
6. Asquith, W.H., Herrmann, G. R.*, Cleveland, T.G. 2013 “Generalized Additive Regression Models of Discharge and Mean Velocity generally associated with Direct-Runoff Conditions in Texas: The Utility of the U.S. Geological Survey Discharge Measurement Database” American Society of Civil Engineers, Journal of Hydrologic Engineering, Vol. 18, No. 10, pp 1331-1348
(IF = 1.379)
7. Dhakal, N.*, Fang, X., Asquith, W.H., Cleveland, T.G., Thompson, D.B. 2012 “Return Period Adjustments for Runoff Coefficients Based on Analysis in Undeveloped Texas Watersheds”, American Society of Civil Engineers, Journal of Irrigation and Drainage Engineering Vol.139, No 6, pp 476-482.
(IF = 1.126)
8. Dhakal, N.*, Fang, X., Cleveland, T.G., Thompson, D.B.; Asquith, W.H., Marzen, L.J.* 2012 “Estimation of Volumetric Runoff Coefficients for Texas Watersheds Using Land-Use and Rainfall-Runoff Data” American Society of Civil Engineers, Journal of Irrigation and Drainage Engineering, Vol. 138, No 1, pp 43-54.
(IF = 1.126)
9. Herrmann, G.R.*, and Cleveland, T.G. 2010 “Moving Substrate in an Ephemeral Stream: Case Study in Bridge Survival” In *Transportation Research Record: Journal of the Transportation Research Board* No. 2201, Vol. 2, pp 3-9.
(IF = 0.471)
10. Fang, X., Thompson, D.B., Cleveland, T.G., Pradhan, P.*, and Malla, R*. 2008 “Time of Concentration Estimated Using Watershed Parameters Determined by Automated and Manual Methods.” American Society of Civil Engineers,

Journal of Irrigation and Drainage Engineering, Vol. 134, No. 2, pp 202-211.
(IF = 1.126)

11. *Cleveland, T.G.*, Thompson, D.B., Fang, X., and He, X*. 2008 * “Synthesis of Unit Hydrographs from a Digital Elevation Model” American Society of Civil Engineers, Journal of Irrigation and Drainage Engineering, Vol. 134, No. 2, pp 212-221.
(IF = 1.126)
12. *Heitmuller, F.T.**, Asquith, W. H., Cleveland, T.G., Fang, X. , and Thompson, D.B. 2007. “Estimation of main channel length from basin length for selected small watersheds in Texas using 10- and 30-meter digital elevation models.” Southwestern Geographer, Vol 10. , pp 23 - 35.
(IF = Not Indexed)
13. *Fang, X.*, Thompson, D.B., Cleveland, T.G., and Pradhan, P*. 2007 “Variations of Time of Concentration Estimates Using the NRCS Velocity Method” American Society of Civil Engineers, Journal of Irrigation and Drainage Engineering, Vol. 133, No. 4, pp 314-322.
(IF = 1.126)
14. *Cleveland, T.G.*, and A. Fashokun*, 2006. “Construction-Associated Solids Loads with a Temporary Sediment Control BMP.” American Society of Civil Engineers, Journal of Construction Engineering and Management, Vol. 132, No. 10, pp 1122-1125.
(IF = 0.876)
15. *Cleveland, T.G.*, X. He*, W.H. Asquith, X. Fang, and D.B. Thompson, 2006. “Instantaneous Unit Hydrograph Selection for Rainfall-Runoff Modeling of Small Watersheds in North and South Central Texas.” American Society of Civil Engineers, Journal of Irrigation and Drainage Engineering, Vol. 132, No. 5, pp 479-485.
(IF = 1.126)
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“Raising the Bar” Initiative.” Presented in a panel discussion at ASCE World Environmental and Water Resources Congress, ASCE-EWRI, Cincinnati, OH. May, 2013.

10. Rowney, A.C., Cleveland, T.G., and Gerth, J. G., 2012. “Information Technology as a Driver of Water Resources Professional Practice” Presented at ASCE World Environmental and Water Resources Congress, ASCE-EWRI, Albuquerque, NM. May 20-24, 2012.
11. Cleveland, T.G., Morse, A.N., and Murphy, H., 2011. “Background Turbidity Levels for the State of Texas” Presented at Texas Section ASCE Fall Conference, Amarillo. 30 September 30, 2011.
12. Cleveland, T.G., and Morse, A.N. 2011. “Problem-Based Learning Courses: To Teach the Softer Outcomes of ABET Criterion 3.” Presented at Texas Section ASCE Fall Conference, Amarillo, TX. September 30, 2011.
13. Bravo, R. and T.G. Cleveland, 2009. “Determination of Storage Coefficients and Vertical Hydraulic Conductivities using Data from Extensometers.” Presented at American Institute of Hydrology, 2009 Annual Water Symposium, August 30-September 2, 2009.
14. Herrmann, G. R., and T.G. Cleveland, 2009. “Generation of simulated monthly rainfall accumulations and associated monthly evaporation depths for use in the management of small reservoirs and water harvesting for Central Texas.” Presented at American Institute of Hydrology, 2009 Annual Water Symposium, August 30-September 2, 2009.
15. Herrmann, G. R., and T.G. Cleveland, 2009. “Interaction of loss components, rational coefficients, and arid climate: a thought experiment.” Presented at American Institute of Hydrology, 2009 Annual Water Symposium, August 30-September 2, 2009.
16. Cleveland, T.G., Thompson, T. Luong, S. 2009. ”Watershed Subdivision for Modeling.” Presented at ASCE World Environmental and Water Resources Congress, ASCE-EWRI, May 17-21, Kansas City, MO. ISBN 0-7844-09XX-X pp. 661
17. Cleveland, T.G., Thompson, D.B., Sunder, S. 2009. ”Use of Basin Development Factor to Evaluate Urban Watershed Response.” Presented at World Environmental and Water Resources Congress, ASCE-EWRI, May 17-21, Kansas City, MO. 0-7844-09XX-X pp. 161

18. Cleveland, T.G., Botkins, W., and Thompson, D.B., 2008, "Small Watershed Models : Hydrologic or Hydraulic?" Presented at ASCE World Environmental and Water Resources Congress, May 12-16, 2008, Honolulu, HI., ISBN 0-7844-0976-3.
19. Cleveland, T.G. and Thompson, D.B., 2008. "Rainfall Intensity in Design." Presented at ASCE World Environmental and Water Resources Congress, May 12-16, 2008, Honolulu, HI., ISBN 0-7844-0976-3.
20. Cleveland, T.G. , He, X., and Thompson, D.B., 2008. "Simple Rainfall Loss Models for Rainfall-Runoff Modeling." Proceedings of ASCE World Environmental and Water Resources Congress, May 12-16, 2008, Honolulu, HI., ISBN 0-7844-0976-3.
21. Cleveland, T.G. and Thompson, D.B., 2008. "Rainfall Intensity in Design." Transportation Research Board 87-th Annual Conference, Washington, D.C., January 14, 2008 (*Invited*)
22. Cleveland, T.G., Thompson, D.B., Fang,X., He, X. 2007. "Synthesis of Unit Hydrographs from a Digital Elevation Model. Urban Runoff Modeling: Intelligent Modeling to Improve Stormwater Management, ECI Specialty Conference, July 22-27, Humboldt State University, Arcata, California.
23. Cleveland, T.G., Thompson, D.B., Fang, X., and He, X. 2007. "Synthesis of Unit Hydrographs from Digital Elevation Models." Presented at ECI Stormwater Modeling Engineering Specialty Conference, Arcata, CA.
24. Cleveland, T.G., and Asquith, W.H. 2007. "Unit Hydrograph Estimation for Texas Watersheds" HEC-HMS Users Conference - Current Trends & Applications. AAWRE, ASCE, Texas Floodplain Managers Association and the University of Texas at Austin, April 5, 2007 (*Invited*)⁸
25. Cleveland, T.G., and Asquith, W.H. 2007. "Unit Hydrograph Estimation for Texas Watersheds" HEC-HMS Users Conference - Current Trends & Applications. AAWRE, ASCE, Texas Floodplain Managers Association and Rice University February 27, 2007 (*Invited*)
26. Asquith, W.H., Roussel, M., Cleveland, T.G., Thompson, D.B., and Fang, X. "Statistical Characteristics of Storm Interevent Time, Depth and Duration for Eastern New Mexico, Oklahoma, and Texas" HEC-HMS Users Conference -

⁸This presentation is identical to February 27 abstract and conference materials and is intentionally repeated in this list.

Current Trends & Applications. AAWRE, ASCE, Texas Floodplain Managers Association and Rice University February 27, 2007 (*Invited*)

27. He, X., Cleveland, T.G. Thompson, D.B., and Fang, X. 2006. "Synthesis of Unit Hydrographs from Digital Elevation Models", American Geophysical Union, Fall Meeting, San Francisco, CA.
28. Cleveland, T.G. 2004. Storm Water Solids Control in Highway Construction Activities. American Society of Civil Engineers, World Water & Environmental Resources Congress, Salt Lake City, UT.
29. Cleveland, T.G., and K. Jonalagadda, 2002 Determination of Instantaneous Unit Hydrographs for Central Texas. CIGMAT Annual Conference, March 2002
30. Thompson, D., Asquith, W, Cleveland, T.G., and X. Fang. 2002. Regional Characteristics of Storm Hyetographs and Unit Hydrographs TxDOT RMC3 Fall Research Meeting, November 2002
31. Cleveland, T.G. 2000. 'Storm Water Pollution Prevention Plan Solids Control in Highway Construction: Three Field Investigations and a Laboratory Study.' Presented at the Fall Meeting of the Texas Section of the American Society of Civil Engineers, El Paso, Texas. October 6, 2000.
32. Cleveland, T.G., Davis, J.L., Walsh, P., Glanton, T. 'Intervention Strategies to Improve Water Quality on Country Club Bayou.' Presented at the Spring Meeting of the Texas Section of the American Society of Civil Engineers, Austin, Texas. April 7, 2000.
33. T.G. Cleveland, and B.K. Varghese. "Kenaf as a Body-Feed Filter Aid," American Filtration and Separation Society, 11th Annual National Technical Conference, St. Louis, Missouri, May 1998.
34. Cleveland, T.G., and T. Glanton, 'Hydraulic Modeling of a Sewer Flow Split Structure to Evaluate Proposed Changes" Texas Section, American Society of Civil Engineers, Annual Spring Meeting, April 1997.
35. Tiller, F.M., Cleveland, T.G., and J.B. Lee, "Theory of Filtration of Highly Compactable Biosolids," International Association on Water Quality, 18th Biennial International Conference, Singapore, June 1996.
36. Cleveland, T.G., Lee, J.B., Hayare, G., and F.M. Tiller, 1995. 'Pressure and Rate of Filtration", Water Environment Association of Texas, Annual Meeting,

Fort Worth, TX.

37. Cleveland, T.G., Anderson, P.G., Nishikawa, T. ,and R.T. Hanson. 1994. "Interpretation of Flowmeter and Drawdown Data using a Simulation-Optimization Model," American Geophysical Union, Fall Meeting, San Francisco, CA.
38. Cleveland, T.G., Rogers, J.R., Chuang, L., Reddy, B., and K. S. Jeng, 1994. "Energy Efficient Supply Allocation for a Multiple Source Water Distribution Network, " American Society of Civil Engineers, Water Resources Planning and Management Division, National Conference, Denver, CO.
39. Jeng, K.S., Rogers, J.R., and T.G. Cleveland, 1994. "Water Distribution and Ground and Surface Water Supplies," American Society of Civil Engineers, Annual Convention, Atlanta, GA.
40. Bravo, R., Rogers, J.R., and T.G. Cleveland, 1993. "Houston Regional Groundwater Modeling and Subsidence," American Society of Civil Engineers, Annual Convention, Dallas, TX.
41. Cleveland, T.G., Rogers, J.R., and K.S. Sheu, 1993. "Energy Management of Houston's Surface and Ground Water System", American Society of Civil Engineers, National Conference on Water Resources Planning and Management, Seattle, WA.
42. Cleveland, T.G., Nishikawa, T. , and R.T. Hanson, 1993. "Inversion of Flowmeter Data in Layered Aquifers using Gradient Optimization", American Geophysical Union, Fall Meeting, San Francisco, CA.
43. Wang, K.H., and Cleveland, T.G. 1992. "Numerical Modeling of the Flow Field at the Confluence of Buffalo Bayou and White Oak Bayou in Houston, Texas" invited speakers, Watershed and Drainage Technical Committee, Houston Branch, American Society of Civil Engineers.
44. Wang, K.H., Cleveland, T.G. , and S. Fitzgerald, 1991. "Numerical Modeling of the Flow Field at the Confluence of Buffalo Bayou and White Oak Bayou in Houston, Texas" Spring Meeting American Society of Civil Engineers, Texas Section, South Padre Island, TX.
45. Cleveland, T.G., 1990. "Sampling Design for Transport Parameters; an Identifiability Approach.", American Geophysical Union, Fall Meeting, San Francisco, CA.
46. Cleveland, T.G. and W. W-G Yeh, 1989. "Optimal Experimental Design for

Transport Parameter Identification ”, American Geophysical Union, Fall Meeting, San Francisco, CA.

47. Cleveland, T.G. and W. W-G Yeh, 1988. ”Experimental Design for Transport Parameter Identification.” American Geophysical Union, Fall Meeting, San Francisco, CA.

Seminar Presentations

1. Cleveland, T.G. 2017 “Overview of CECE Department Teaching, Research, and Service.”, University of Tokyo, July, 2017.
2. Cleveland, T.G. 2007 “Design Guidance for Low Water Crossings in Areas of High Bed Mobility.” Invited Seminar, Texas Tech University, September, 2007.
3. Cleveland, T.G. 2005. ” Watershed Physical Characteristics and Unit Hydrograph Parameters for Rainfall-Runoff Modeling in Central Texas.” Invited Seminar. Louisiana State University. March 2005.

RESEARCH

Total External Funding (1991-2014):\$3,191,392⁹

External Funding while at Texas Tech University (2008-present) \$1,520,823 ¹⁰

External Funding while at University of Houston (1991-2008): \$1,670,569 ¹¹

Texas Tech University (September 2008 - present).

A Sustainable Center for Crowd-Sourced Water Infrastructure Modeling. U.S. Environmental Protection Agency \$274,039 (09/01/2016-08/31/2021) Co-PI Consortium ^{12 13 14}

Task 41 Hydrologic and Hydraulic Evaluation of Stormwater Drainage at Marsha Sharp Freeway and University Avenue. Texas Department of Transportation \$30,114 (07/01/15-03/31/16) Rule of Thumb for Modeling a Change in flowrate through

⁹Total value all grants and contracts

¹⁰As reported on TTU-ORS Summary of Awards 8/31/08 – 8/31/16.

¹¹Compiled from UH-RFS reports FY04-FY08, Prior to FY04 values are estimated

¹²PI = principal/lead investigator

¹³Co-PI = duties divided among other faculty; Cleveland values are shown

¹⁴Consortium = Consortium research with other institutions; Cleveland values are shown

Detention or Additional Pavement on the Receiving Stream. Texas Department of Transportation. \$57,152 (1/15/15-12/31/15) PI

Evaluating Use of Sub-Grade Drains with PFC for Stormwater Drainage. Texas Department of Transportation. \$184,405 (1/15/15-12/31/16) Co-PI Consortium

New Rainfall Coefficients. Texas Department of Transportation. \$87,645 (8/22/14-8/31/15) PI

TxDOT Training Division. Curriculum delivery DES-601, DES-602, and DES-606. \$62,678 (9/10/12-8/31/15). PI

Irion and Sterling County Groundwater Conservation District(s). Irion and Sterling County Groundwater Evaluation. \$ 6000 (4/1/13-5/31/13) Co-PI

TxDOT Training Division. Revision of DES-601 Basic Hydrology and Hydraulics, and revision of DES-602, Urban Storm Drain Design. \$36,698 (6/19/12 - 8/31/12) PI

U.S. EPA/City of Lubbock. City of Lubbock Canyon Lakes Water Reuse Project. \$11,540 (4/9/09-8/31/13) Co-PI

TxDOT Training Division. DES-606 Watershed Modeling using HEC-HMS \$12,772 (8/8/11 - 8/31/12) PI

Hydraulic Performance of Staggered Barrel Culverts for Stream Crossings. Texas Department of Transportation. \$250,000 (9/1/11-8/31/12)

Empirical Flow Parameters — A Tool for Hydraulic Model Validity Assessment. Texas Department of Transportation. \$135,381 (9/1/11-8/31/12) PI Consortium

Preparing for EPA Effluent Limitation Guidelines. Texas Department of Transportation. \$62,859 (9/1/2010-8/31/2011) Co-PI Consortium

TxDOT Strategic Research Program. Texas Department of Transportation. 1/2010 - 8/2011 \$51,900 (9/1/10-8/31/11) Co-PI Consortium

Determination of an Effective Lower Bound of Watershed Slope for Traditional Hydrologic Methods. Texas Department of Transportation. \$181,960 (9/1/10-8/31/11) PI Consortium

Use of Rational and Modified Rational Method for TxDOT Hydraulic Design. Texas Department of Transportation. \$85,000 (11/3/08-8/31/09) PI Consortium.

Hydraulic Evaluation of Type-H Inlet Texas Department of Transportation. 9/2008-8/2009 \$55,328 (9/1/08-8/31/09) Co-PI.

University of Houston (September 1991 - August 2008).

Use of the Rational Method for TXDOT Hydraulic Design. Texas Department of Transportation. \$62,100 (9/1/07 – 8/31/08) PI

Hydraulic Performance Evaluation of Horizontal Inlet Type H. Texas Department of Transportation. \$23,770 (9/1/07 – 8/31/08) PI

Hydraulic Performance Evaluation of Horizontal Inlet Type H. Texas Department of Transportation. \$23,770 (9/1/06 – 8/31/07) PI

TxDOT Technical Assistance Panels in Support of the TXDOT Research Program. Texas Department of Transportation. \$1500 (9/1/06 – 8/31/07) PI

Guidance for Design in Areas of Extreme Bed-Load Mobility. Texas Department of Transportation. \$30,500 (9/1/06 – 8/31/07) PI

Regional Characteristics of Unit Hydrographs. Texas Department of Transportation. \$25,000 (9/1/06 – 8/31/07) PI

Subdivision of Watersheds for Modeling Texas Department of Transportation. \$36,535 (9/1/06 – 8/31/07) PI

Urban Stormwater Management Study Block B, Phase II; Evaluation of Change from Undeveloped to Urban Conditions. Harris County Flood Control District \$78,000 (6/1/07–5/30/08) PI

Implementation of Storm Event Statistical Data for Project Planning Purposes. Texas Department of Transportation. \$2,000 (9/1/05 – 8/31/06) PI

TxDOT Technical Assistance Panels in Support of the TXDOT Research Program. Texas Department of Transportation. \$1500 (9/1/05 – 8/31/06) PI

Regional Characteristics of Unit Hydrographs. Texas Department of Transportation. \$25,004 (9/1/05 – 8/31/06) PI

Guidance for Design in Areas of Extreme Bed-Load Mobility. Texas Department of Transportation. \$47,484 (9/1/05 – 8/31/06) PI

Harris County Best Management Practices Characterization Carter-Burgess Inc. \$21,000 (9/1/05-11/30/06) PI

Urban Stormwater Management Study Harris County Flood Control District \$22,661 (12/21/05 to 12/31/06) PI

Implementation of Storm Event Statistical Data for Project Planning Purposes. Texas Department of Transportation. \$8,000 (3/30/05 – 8/31/05) PI

TxDOT Technical Assistance Panels in Support of the TxDOT Research Program. Texas Department of Transportation. \$282 (9/1/04 – 8/31/05) PI

Regional Characteristics of Unit Hydrographs. Texas Department of Transportation. ≈ \$113,286 (Value is estimate, predates FRS report system) (9/1/00-8/31/04) Consortium

Regional Characteristics of Storm Hyetographs Texas Department of Transportation ≈ \$115,472 (Value is estimate, predates FRS report system) (9/1/00 - 8/31/04) Consortium

Demonstration of Wireless Database System for Water Quality Management of Houston's Bayous. Department of Health and Human Services, City of Houston; U.S. EPA Empact Funds \$20,000 (Value is estimate, predates FRS report system) (1/1/03-8/31/03) PI

Internet and component-based modeling system for lake water quality and fish habitat projections Texas Higher Education Coordinating Board – ATP \$45,600 (Value is estimate, predates FRS report system) (1/1/00 - 8/31/02) Consortium

Investigation of Intervention Strategies to Improve Water Quality on Country Club Bayou. Montgomery Watson Americas, Inc. \$56,479 (Value is estimate, predates FRS report system) (1/1998-12/1999) PI

Investigation of Intervention Strategies to Improve Water Quality on Country Club Bayou. Environmental Institute of Houston \$12,600 (Value is estimate, predates FRS report system) (1/1998-12/1999) PI

Computer Model to Investigate Operation Rules for a Wastewater Flow Splitter. Wastewater Engineering, City of Houston \$43,038 (Value is estimate, predates FRS report system) (10/1996-12/1998) PI

Agricultural Based Filter-Aids to Produce Burnable Cakes for Hazardous and Non-Hazardous Solids Separation Texas Higher Education Coordinating Board – ATP \$137,085 (Value is estimate, predates FRS report system) (1/1996-8/1998) PI

Evaluation of the Impacts, Performance, and Costs of Storm Water Pollution Prevention Plans as Applied to Highway Construction Activities Texas Department of

Transportation \$350,738 (Value is estimate, predates FRS report system) (9/1995-8/1998) Co-PI (1 of 2) (Cleveland share ≈\$175,369)

Intelligent Renewal of Urban Wastewater Systems National Science Foundation \$911,195 (Value is estimate, predates FRS report system) (9/1995-8/1999) Co-PI (1 of 8)(Cleveland share ≈\$113,899).

Acquisition of Equipment for Upgrading the Analytical Support for the Environmental Engineering Program at the University of Houston. National Science Foundation . \$900,000 (Value is estimate, predates FRS report system) (11/1995-10/1997) Co-PI (1 of 6)(Cleveland share ≈\$150,000).

A Software Guidance System for Choosing Analytical Subsurface Fate and Transport Models Including a Library of Computer Solutions for the Analytical Models. Gulf Coast Hazardous Substance Research Center. \$177,000 (Value is estimate, predates FRS report system) (9/1997-1/1998) Co-PI (1 of 3)(Cleveland share ≈\$59,000).

Verification of a Hydrocarbon Leaching Model. American Petroleum Institute \$110,000 (Value is estimate, predates FRS report system) (5/94-12/95) Co-PI (1 of 2)(Cleveland share ≈\$55,000).

Physical Modeling to Determine Head Loss at Selected Surcharged Sewer Manholes. Greater Houston Wastewater Program/City of Houston. \$79,028 (Value is estimate, predates FRS report system) (2/94-8/95) Co-PI (1 of 2)(Cleveland share ≈\$39,514).

Research into Production Cost Reduction by Energy Management of Houston's Surface and Ground Water Systems. City of Houston. \$180,000 (Value is estimate, predates FRS report system) (1/1993-8/1995) Co-PI (1 of 2)(Cleveland share ≈\$90,000)

Systematic Inspection and Severity Ranking of a Municipal Sanitary Sewage Collection System. Harris County Municipal Utility District(s) #19,#20 and #73. \$12,600 (Value is estimate, predates FRS report system) (5/1992-6/1993) PI

Demonstration of Acoustically Enhanced Soil Washing System for In-situ Treatment of Low Permeability Soils. Gulf Coast Hazardous Substance Research Center. \$45,000 (Value is estimate, predates FRS report system) (5/1992-8/1994) PI

Field Demonstration and Quantification of a Hypothesized Facilitated Interfacial Transport Mechanism at Clay-Sand Interfaces in Natural Porous Media. Houston Coastal Center. \$3,400 (Value is estimate, predates FRS report system) (9/1991-6/1992) PI

A Three Dimensional Hydrodynamic Model of the Confluence of Buffalo Bayou and White Oak Bayou in Houston, Texas. Harris County Flood Control District. \$61,200 (Value is estimate, predates FRS report system) (10/1990-2/1992) Co-PI (1 of 2)(Cleveland share \$30,600)

Teaching and Research Awards

2016 Whitacre College of Engineering, George T. and Gladys Abell-Hanger Award for Outstanding Graduate or Undergraduate Teaching.

2011 Best of Session Paper, Texas Section, American Society of Civil Engineers, for the paper 'Background Turbidity Levels for the State of Texas.' (Co-recipient with Dr. A. N. Morse, and H. N. Murphy)

2004 John B. Hawley Award for Technical Paper of Outstanding Merit, Texas Section, American Society of Civil Engineers for the paper 'Instantaneous Unit Hydrographs for Central Texas.' (Co-recipient with Drs. D.B. Thompson and X. Fang)

2004 Outstanding Technical Paper of Session, Texas Section, American Society of Civil Engineers, for the paper 'Instantaneous Unit Hydrographs for Central Texas.'

1996 Cullen College of Engineering, Junior Faculty Research Excellence Award (sponsored by the Halliburton Foundation, Inc.)

1995 Texas Section Civil Engineering Paper Award, for the paper 'Head Loss at Manholes in Surcharged Sewers' (Co-recipient with Dr. K.H. Wang and Dr. Charles Towsley)

1991 John B. Hawley Award for Technical Paper of Outstanding Merit, Texas Section, American Society of Civil Engineers for the paper 'Numerical Modeling of the Flow Field at the Confluence of Buffalo Bayou and White Oak Bayou in Houston, Texas.' (Co-recipient with Dr. K.H. Wang and Mr. Steve Fitzgerald)

1991 Outstanding Technical Paper of Session, Texas Section, American Society of Civil Engineers, for the paper 'Numerical Modeling of the Flow Field at the Confluence of Buffalo Bayou and White Oak Bayou in Houston, Texas.' (Co-recipient with Dr. K.H. Wang and Mr. Steve Fitzgerald)

1991 Best of Session Paper by a Younger Member, Texas Section, American Society of Civil Engineers, for the paper 'Numerical Modeling of the Flow Field at the

Confluence of Buffalo Bayou and White Oak Bayou in Houston, Texas.'

PROFESSIONAL ORGANIZATIONS AND SERVICE

Professional Organizations

American Society of Civil Engineers

Professional Service

Committee and Editorial Activity

Elected to Fellow, Environmental and Water Resources Institute, American Society of Civil Engineers, May 2013.

Control group member, ASCE-EWRI Urban Water Resources Research Council, 2012-present.

Service Awards

Professional Service to Students Award, Texas Section, American Society of Civil Engineers, 2000.

Paper Review

Water Resources Research, American Geophysical Union.

Irrigation and Drainage, American Society of Civil Engineers.

Hydraulic Engineering, American Society of Civil Engineers.

Environmental Engineering, American Society of Civil Engineers.

Water Resources Bulletin, American Water Resources Association.

Ground Water, National Ground Water Association.

Other Activities

Special Awards Judge, Houston Engineering and Science Fair. 1991-2006.

Advisory Trustee, Galveston Bay Foundation, 1992-2008

Mentor, Regan High School, 1992 "Superquest" project. Regan was one of ten high schools nation wide to win in the "Superquest" program - a program funded by the National Science Foundation, the U.S. Department of Education, Digital Equipment Corporation, and IBM.

CONSULTING ACTIVITIES

Cleveland, 2013. Validation of a seepage model on a sloped plane using MODFLOW.

Cleveland, 2005. Expert opinion regarding flooding of automotive dealership during Tropical Storm Allison.

Cleveland, 1999. Expert opinion comparing likelihood of methane generation from a sanitary sewer system versus propane leakage as source of explosion in San Juan Puerto Rico.

DEPARTMENT, COLLEGE, UNIVERSITY SERVICE

Department Service, Texas Tech University 2008 – present

Faculty Advisor, Texas Tech Chapter, Chi-Epsilon ($\chi\epsilon$) Civil Engineering Honor Society 2008-2015.

Faculty Co-advisor (support role to lead advisor), Texas Tech Chapter, American Society of Civil Engineers (ASCE), 2008-2015.

College Service, Texas Tech University 2008 – present

Academic Programs Committee, 2010-present.

Department Service, University of Houston 1990-2008

Program Director, Environmental Engineering Program, 1996-2004.

Director, University of Houston Public Works Institute, 1998-1999.

Faculty Advisor, Ardis White Chapter, American Society of Civil Engineers, 1991-1994; 2006-2008.

LICENSES AND SPECIAL SKILLS

Licensed Professional Engineer, State of Texas No. 86653.
FCC Private Mobile Radio Service License
NAUI Open Water SCUBA Certification.

WEBSITES

Many of the papers referenced above and additional information about me is located at the following URL:

<http://www.rtfmps.com/resumes/>

I also maintain a LinkedIn profile at the following URL:

<http://www.linkedin.com/pub/ted-cleveland/3/b7b/233>