ALEXANDER R. HORNER-DEVINE

1. BIOGRAPHICAL INFORMATION

SECTION 1.1 BASIC DATA

163 Wilcox Hall, Box 352700
Department of Civil and Environmental Engineering
University of Washington
Seattle, WA 98195-2700
Phone: (206) 685-3032
Fax: (206) 685-9185
Email: arhd@u.washington.edu
Date of appointment to present rank: October 25, 2004

SECTION 1.2 EDUCATIONAL HISTORY

PhD Stanford University — December 2003
Civil and Environmental Engineering
Program in Environmental Fluid Mechanics and Hydrology
Dissertation: The dynamics of buoyant, rotational river plumes.

MS Stanford University — June 1998
Civil and Environmental Engineering
Program in Environmental Fluid Mechanics and Hydrology

BSE Princeton University — June 1995
Mechanical and Aerospace Engineering

SECTION 1.3 EMPLOYMENT HISTORY

Assistant Professor: University of Washington — 2004-present
Department of Civil and Environmental Engineering

Postdoctoral Scholar: Stanford University — 2003-2004

Research Assistant: Stanford University — 1996-2003
Advisors: Prof. Stephen Monismith and Dr. Derek Fong
Dissertation: "The dynamics of buoyant, rotational river plumes."

Teaching Assistant: Stanford University — 1997-1999
Environmental Fluid Mech, Open Channel and Pipe Flows
Mechanics of Fluids

Field Engineer, *Delta Geoscience, Delta, BC, Canada* — 1996

Summer intern, Hydraulics Laboratory, Imperial College of Science, Technology and Medicine — 1994

2. PUBLICATIONS

SECTION 2.1 ARCHIVAL JOURNAL PUBLICATIONS: PUBLISHED AND IN PRESS

1) [+] Talke, S.A. and A.R. Horner-Devine, Mixing layer dynamics in periodically stratified flow over an estuarine sill. Accepted *J. Geophys. Res.*

2) Hickey, B. M., R. M. Kudela, J. D. Nash, K. W. Bruland, W. T. Peterson, P. MacCready, E. J. Lessard, D. A. Jay, N. S. Banas, A. M. Baptista, E. P. Dever, P. M. Kosro, L. K. Kilcher, A. R. Horner-Devine, E. D. Zaron, R. M. McCabe, J. O. Peterson, P. M. Orton, J. Pan, and M. C. Lohan. 2009, River Influences on Shelf Ecosystems: Introduction and Synthesis, In press *J. Geophys. Res.*, doi:10.1029/2009JC005452.

3) Plant, W.J., R. Branch, G. Chatham, C.C. Chickadel, K. Hayes, B. [+]Hayworth, A.R. Horner-Devine, D.A. Fong, O.B. Fringer, S. N. Giddings, and B. Wang, "Remotely sensed river surface features compared with modeling and in-situ measurements," In press *J. Geophys. Res.* doi:10.1029/2009JC005440

4) [+]Spahn, E.Y., A.R. Horner-Devine, J.D. Nash, D.A. Jay and L. Kilcher. Particle re-suspension in the Columbia River plume near-field. In press *J. Geophys. Res.* doi:10.1029/2008JC004986

5) Chickadel, C. C., A. R. Horner-Devine, S. A. Talke, A. T. Jessup, 2009. Vertical boil propagation from a submerged estuarine sill, *Geophys. Res. Lett*., 36, doi:10.1029/2009GL037278.

6) [+]Curtiss, G.M., P.D. Osborne and A.R. Horner-Devine, 2009. Seasonal patterns of coarse sediment transport on a mixed sand and gravel beach due to vessel wakes, wind waves, and tidal currents, *Mar. Geol.*, 259, 73-85, doi:10.1016/j.margeo.2008.12.009

7) Horner-Devine, A.R., 2009. The bulge circulation in the Columbia River plume, *Cont. Shelf Res.* 29, 234–251, doi:10.1016/j.csr.2007.12.012

8) Horner-Devine, A.R, D. A. Jay, P. M. Orton and E.Y. [+]Spahn, 2009. A conceptual model of the strongly tidal Columbia River plume, *J. Mar. Sys.*, 78, 460–475, doi:10.1016/j.jmarsys.2008.11.025

9) Morrison, R.R., R.H. Hotchkiss, M. Stone, D. [+]Thurman and A. R. Horner-Devine. 2009. Turbulence characteristics of flow in a spiral corrugated culvert fitted with baffles and implications for fish passage. *Ecol. Engineer.* 35: 381-392

10) Jay, D. A., J. Pan, P. M. Orton, and A.R. Horner-Devine, 2009. Asymmetry of tidal plume fronts in an eastern boundary current regime. *J. Mar. Sys.* , 78, 442–459.

11) Horner-Devine, A.R., D.A. Fong, and S.G. Monismith. 2008. Evidence for the inherent unsteadiness of a river plume: Satellite observations of the Niagara River discharge. *Limnol. Oceanogr*. 53: 2731-2737.

12) MacDonald, D. G., and A. R. Horner-Devine, 2008, Temporal and spatial variability of vertical salt flux in a highly stratified estuary, *J. Geophys. Res.*, 113, C09022, doi:10.1029/2007JC004620.

13) Horner-Devine, A.R., D.A. Fong, S.G. Monismith and T. Maxworthy, 2006, Laboratory experiments simulating a coastal river discharge, *J. Fluid Mech.*, 555, 203-232

14) Horner-Devine, A.R. 2006. Velocity, density, and transport measurements in rotating, stratified flows, *Exp. Fluids* 41 (4): 559-571

A + character denotes a student or postdoc.

SUBMITTED

J.V. Steinbuck, P. Roberts, C.D. Troy, A.R. Horner-Devine, F. Simonet, Uhlman, J.S. Jaffe, S.G. Monismith, and P.J.S. Franks, An Autonomous Open-Ocean Particle Imaging Profiler. Part II: In Situ Stereoscopic Particle Image Velocimetry. Submitted to *J. Atmos. Ocean. Tech.*

SECTION 2.2 CONFERENCE PROCEEDINGS AND OTHER NON-JOURNAL ARTICLES

Horner-Devine, A.R., Y. Yuan and M. Avener, 2009. Measuring volume and transport in laboratory-generated gravity currents, IAHR Congress, Vancouver, Canada

Horner-Devine, A.R., B.A. Hayworth and A. Venturato, 2007. Acoustic imaging of estuarine coherent structures downstream of a sill, ASCE Hydraulic Measurements & Experimental Methods Conference, Lake Placid, NY

Chickadel, C.C., A. R. Horner-Devine and A.T. Jessup, 2007 Thermal remote sensing of macroturbulent boil generation in a tidal estuary, ASCE Hydraulic Measurements & Experimental Methods Conference, Lake Placid, NY

Horner-Devine, A.R. and B.A. Hayworth, 2007 Generation of coherent structures due to tidal forcing in an estuary, IAHR International Symposium on Environmental Hydraulics, Tempe, AZ

Thurman, D.R., A.R.Horner-Devine, R.R.Morrison, R.H. Hotchkiss, 2007 Juvenile Salmon Passage in Sloped-Baffled Culverts, International Conference on Ecology and Transportation, Little Rock, Arkansas

Thurman, D.R., A.R.Horner-Devine, A.Compton, R.R.Morrison, R.H. Hotchkiss, 2006 Hydrodynamics of Juvenile Salmon Passage in Sloped-Baffle Culverts, World Environmental and Water Resources Congress, Omaha, NE

Morrison, R.R., D.R. Thurman, R.H. Hotchkiss, A.R. Horner-Devine 2006 Turbulence Characteristics of Flow in a Culvert with Sloped-weir Baffles, World Environmental and Water Resources Congress, Omaha, NE

Horner, A.R., D.A. Fong, J.R. Koseff, T. Maxworthy and S.G. Monismith, 2000. The control of coastal current transport. *Fifth International Symposium on Stratified Flows, IAHR*, (2) 865-870, Vancouver, B.C.

3. OTHER SCHOLARLY ACTIVITY

SECTION 3.1 INVITED LECTURES AND SEMINARS

Civil and Environmental Engineering, Stanford University, February 2009, "Nine orders of magnitude and a lot more plankton: testing laboratory results on the continental shelf"

Civil and Environmental Engineering, Texas A & M University, April 2008, "The onset of surface boils in the Snohomish River estuary"

Annual Review of Research, The Water Center, University of Washington, February 2008. Plume soup: How a dash of river water affects Washington's coastal ecosystem

The Water Center, University of Washington, October 2007, "Retention and transport in coastal river plumes: how a plume-generated eddy may affect coastal productivity"

Applied Ocean Physics and Engineering, Woods Hole Oceanographic Institution, May 2007, "Retention and transport in coastal river plumes: how a plume-generated eddy may affect coastal productivity"

School of Oceanography, University of Washington, April 2007, "The role of turbulence and stratification in determining the source of sediment to the Columbia River plume"

Civil, Environmental and Architectural Engineering, University of Colorado, March 2007, "Retention and transport in coastal river plumes: how a plume-generated eddy may affect coastal productivity"

Department. of Physical and Environmental Sciences, University of Toronto, March 2007, "Retention and transport in coastal river plumes: how a plume-generated eddy may affect coastal productivity"

Department of Applied Mathematics, University of Washington, WA, Feb 2007, "Retention and transport in coastal river plumes: how a plume-generated eddy may affect coastal productivity"

Department of Civil and Environmental Engineering, University of Washington, WA, Jan 2007, "Boil, boil, toil and trouble: Characterization of coherent structures in the Snohomish River estuary using subsurface acoustic imaging."

Department of Civil and Environmental Engineering, University of Washington, WA, February 2006, "Take two: Why the Columbia River plume comes back around"

Hydrology Group, Pacific Northwest National Laboratory, Richland, WA, May 2005, "Plumes, Blooms, and Flumes: Modeling Large-Scale Coastal River Inflows in the Fluid Mechanics Lab"

Department of Civil Engineering, University of California at Berkeley, CA, April 2005, "Plumes, Blooms, and Flumes: Modeling Large-Scale Coastal River Inflows in the Fluid Mechanics Lab"

Department of Civil and Environmental Engineering, University of Washington, WA, January 2005, "Plumes, Blooms, and Flumes: Modeling Large-Scale Coastal River Inflows in the Fluid Mechanics Lab"

Department of Civil Engineering, Queen's University, ON, Canada. October 2002, "Alongshore transport in a buoyant river plume: can the near-field affect the far-field?"

Department of Civil Engineering, University of British Columbia, BC, Canada. December 2001, "The alongshore transport of buoyant water in a river plume: implications and mechanisms of an unsteady bulge."

SECTION 3.2 PRESENTATIONS GIVEN AT CONFERENCES

Horner-Devine, A.R., E.Y. Spahn, J.D. Nash, D.A. Jay and L. Kilcher. 2008. Sediment removal and entrainment in the Columbia River plume. Physics of Estuaries and Coastal Seas. Liverpool, UK

Petersen, T.D., R.M. Kudela, A.R. Horner-Devine, R.M. Kudela, K.W. Bruland, R. M. McCabe, J.O. Peterson, M. C. Lohan, N. S. Banas, E.J. Lessard, B.M. Hickey 2008. Influence of a recirculating river plume bulge on biogeochemical processes along the Oregon/Washington shelf. American Geophysical Union, Ocean Sciences Meeting, Orlando, FL, Abstract: EOS, Transactions, 89

Chickadel, C. C., A.R. Horner-Devine and A.T. Jessup, 2008. Thermal remote sensing of boils generated at a submerged estuarine sill. American Geophysical Union, Ocean Sciences Meeting, Orlando, FL, Abstract: EOS, Transactions, 89

*Horner-Devine, A.R., S.A. Talke and C. C. Chickadel, 2008. COHSTREX: The structure of estuary boils observed with a digital echosounder. American Geophysical Union, Ocean Sciences Meeting, Orlando, FL, Abstract: EOS, Transactions, 89

*Spahn, E.Y., A.R. Horner-Devine, Jay, D.A., J. Nash and L.F. Kilcher, 2008. Particle resuspension due to the interaction of tides and the Columbia River plume. American Geophysical Union, Ocean Sciences Meeting, Orlando, FL, Abstract: EOS, Transactions, 89

*Horner-Devine, A.R., 2007. The half-meter plume: a comparison of recent laboratory results and river plume observations. *Physics of Estuaries and Coastal Seas*, Astoria, OR

*Horner-Devine, A.R., Jay, D.A. and P.M. Orton, 2006. Plume Within a Plume: A Conceptual Model of the Strongly Tidal Columbia River Plume. *American Geophysical Union, Ocean Sciences Meeting*, Honolulu, HI, Abstract: EOS, Transactions, **87**(36):

+Spahn, E.Y., A.R. Horner-Devine, Jay, D.A., J. Nash and L.F. Kilcher, 2006. Particle Variability in the Columbia River Plume. *American Geophysical Union, Ocean Sciences Meeting*, Honolulu, HI, Abstract: EOS, Transactions, **87**(36):

A.T. Jessup , K.R Phadnis, A.R. Horner-Devine, B.A. Hayworth and W.J. Plant. 2006. Infrared Imagery of Flow over a Sill in a Tidally-Influenced River. *American Geophysical Union, Ocean Sciences Meeting*, Honolulu, HI, Abstract: EOS, Transactions, **87**(36):

+B.A. Hayworth, A.R. Horner-Devine, S.N. Giddings, D.A. Fong, K.R Phadnis and A.T. Jessup, 2006. Generation of Coherent Structures due to a Rocky Sill in the Snohomish River Estuary. *American Geophysical Union, Ocean Sciences Meeting*, Honolulu, HI, Abstract: EOS, Transactions, **87**(36):

D.A. Jay, J. Pan, A.R. Horner-Devine and P.M. Orton, 2006. Frontal Processes in the Columbia River Plume Area. *American Geophysical Union, Ocean Sciences Meeting*, Honolulu, HI, Abstract: EOS, Transactions, **87**(36):

Steinbuck, J.V., C.D. Troy, A.R. Horner-Devine, *etal* 2006. Turbulence Measurements From a Free-Falling Profiler. *American Geophysical Union, Ocean Sciences Meeting*, Honolulu, HI, Abstract: EOS, Transactions, **87**(36):

*Horner-Devine, A.R., D.A. Jay and T.A. Chisholm, 2004. Frontal circulation and particle distribution in the Columbia River plume during the 2004 RISE cruise, *American Geophysical Union, Annual Fall Meeting*, San Fransisco, CA, Abstract: EOS, Transactions

*Horner-Devine, A.R., D.A. Fong, S.G. Monismith and T. Maxworthy, 2004. Bulge dynamics and alongshore transport in a river plume. *American Geophysical Union, Ocean Sciences Meeting*, Portland OR, Abstract: EOS, Transactions, **84**(52): OS21K-03.

*Horner-Devine, A.R., D.A. Fong, 2004. Modeling alongshore transport as a function of river inflow angle. *American Geophysical Union, Ocean Sciences Meeting*, Portland OR, Abstract: EOS, Transactions, **84**(52): OS31B-14.

*Horner-Devine, A.R., S.G. Monismith, D.A. Fong, 2002. High resolution measurement of density and velocity in a laboratory scale river plume. *American Geophysical Union,*

Annual General Meeting, San Francisco CA, Abstract: EOS, Transactions, **83**(47): OS52C-0241.

*Horner, A.R., D.A. Fong, and S.G. Monismith, 2001. The river plume bulge: Does it grow and why? *Gordon Conference on Coastal Circulation*, New London, NH.

*Horner, A.R., S.G. Monismith, D.A. Fong, and T. Maxworthy, 2000. Laboratory investigation of buoyant river plumes. *American Geophysical Union, Ocean Sciences Meeting*, San Antonio, TX, Abstract: EOS, Transactions, **80**(49): OS31K-10.

MacDonald, D.G., A.R. Horner, and W.R. Geyer, 2000. Vertical salt flux in a salt wedge estuary. *American Geophysical Union, Annual General Meeting*, San Francisco CA, Abstract: EOS, Transactions, **81**(48):OS11A-04.

A * or + character denotes a presentation by Horner-Devine or his student, respectively.

SECTION 3.3 PROFESSIONAL SOCIETY MEMBERSHIPS

International Association of Hydraulic Researchers (2005-present)
American Geophysical Union (1998-present)
American Society of Civil Engineers

SECTION 3.4 OTHER

REFEREE FOR JOURNALS

Measurement Science and Technology, Journal of Geophysical Research, Environmental Fluid Mechanics, Journal of Hydraulic Research, Experiments in Fluids, Continental Shelf Research, Climate Dynamics, Estuaries and Coasts, Journal of Marine Research, Ocean Modeling

PROPOSAL REFEREE

National Science Foundation (Hydrology, Marine Geology and Geophysics, Physical Oceanography, MRI), National Oceanic and Atmospheric Administration, Louisiana Board of Regents Support Fund, Oregon Transportation Research and Education Consortium, UW Royalty Research Fund, Woods Hole SeaGrant

4. GRADUATE STUDENTS

SECTION 4.1 CHAIRED DOCTORAL COMMITTEES

Yeping Yuan	PhD CEE	Expected June 2011

SECTION 4.2 CHAIRED MASTERS COMMITTEES

Bronwyn Hayworth	MSE CEE	June 2007
Emily Spahn	MS CEE	July 2007
David Thurman	MSCE CEE	June 2007
Gregory Curtiss	MSE CEE	June 2008
Yeping Yuan	MSE CEE	June 2008
Margaret Avener	MSCE CEE	August 2009
Daniel Nowacki	MSE CEE	Expected June 2010

Adam Price	MSE CEE	Expected June 2011
Abbas Hooshmand	MSE CEE	Expected June 2011

SECTION 4.3 OTHER SIGNIFICANT STUDENT SUPERVISION

Wayne Martin	PhD Oceanography (GSR)	2008
Tina Drexler	PhD Oceanography (GSR)	2008
Ryan McCabe	PhD Oceanography	2007
John Crokett	PhD Oceanography (GSR)	2006
Amoreena MacFadyen	PhD Oceanography (GSR)	2007
Stephanie Kampf	PhD CEE	2006
Ed Zapel	PhD SAFS (GSR)	Expected 2009
Chris Brummer	PhD Earth and Space Science	2006
Preston Martin	PhD Oceanography	Expected 2009
Maria Stephandottir	MS CEE	2006

5. RESEARCH ACTIVITIES

SECTION 5.1 SPONSORED RESEARCH

Agency	Project title	Amount	Involvement	Status	Start/Finish
Office of Naval Research	*Remote sensing and modeling of coherent structures in river and estuarine flows*	$5.0M	CO-PI 8%	Funded	5/2005 -4/2010
Royalty Research Fund	*Sediment dispersal in a high volume plume during a low flow year*	$25K	PI	Funded	3/2006 -2/2007
Washington Department of Transportation	*Effect of intermediate-scale flow structures on upstream passage of juvenile salmon in culverts.*	$158K	PI	Funded	7/2005 -6/2007
Office of Naval Research	*Acoustic system for subsurface imaging of coherent structures. Supplement to larger ONR project.*	$15K	PI	Funded	6/2006 -6/2007
National Science Foundation	*Particle removal and re-suspension in the near-field of the Columbia River Plume.*	$300K	PI	Funded	4/2007 -3/2010
Pacific International Engineering	*Anthropogenic and natural transport mechanisms on a cobbled beach: The effect of Fast Ferries on beach erosion*	$100K	PI	Funded	6/2006 -6/2008
National Science Foundation	*Laboratory study: Sediment transport in wave-supported gravity currents*	$365K	PI	Funded	10/2008 -9/2011
National Science Foundation	*Collaborative Research: Creation of a coastal current -- The transition of an energetic river discharge from*	$327K	Co-PI	Funded	4/2009 -3/2012

	buoyant jet to geostrophic plume

SECTION 5.2 UN-SPONSORED RESEARCH

Project title	Justification	Start/Finish
Satellite remote sensing of the Niagara River Plume	I am working with a CEE undergraduate student to examine the behavior of the Niagara River plume under different forcing scenarios using archived satellite data	1/2006 -12/2007
Dynamics and sediment transport in the Merrimack River plume, MA	I am working colleagues from U. Mass and Texas A&M U. to understand how river plumes are parameterized in coastal models. This work Includes an incoming graduate student.	5/2007 -present
Time-resolving Planar Laser Induced Fluorescence	I have a postdoctoral researcher developing a new method for determining the distribution of residence time in laboratory fluid flows	8/2007 -2008
The interaction of two river plumes	I have a graduate student doing rotating table experiments to determine the modification of one river plume as a result of a second, upstream plume	9/2007 -present
Infrared remote sensing of an internal hydraulic jump	I am working with a CEE undergrad to interpret remote sensing and in situ data from our experiment on the Snohomish River estuary	1/2008 - 2009
Distribution of age in a river plume	I am working with two CEE undergrads to use a new technique that we have been developing in my lab to measure age distributions in laboratory flows. One student has been awarded a Mary Gates Research Fellowship for this work and I have applied for NSF REU funding for both of them to continue their work over the summer.	1/2009 -present

6. DOCUMENTATION OF TEACHING EFFECTIVENESS

SECTION 6.1 LIST OF ALL UNDERGRADUATE AND GRADUATE COURSES TAUGHT

Course number	Course title	Year and quarter	Credit hours	Student Enrollment	Evaluations given
CEE 342	*Fluid Mechanics*	Winter 2005	4	69	Yes
CEE 474	*Sediment Transport*	Fall 2005	3	18	Yes
CEE 342	*Fluid Mechanics*	Winter 2006	4	44	Yes
CEE 570	*Hydrodynamics*	Spring 2006	4	9	Yes
CEE 474	*Sediment Transport*	Winter 2007	3	18	Yes

CEE 342	*Fluid Mechanics*	Fall 2007	4	61	Yes
CEE 474	*Sediment Transport*	Winter 2008	3	20	Yes
CEE599	*Topics in Environmental Fluid Mechanics*	Winter 2008	2	4	Yes
CEE 342	*Fluid Mechanics*	Fall 2008	4	64	Yes
CEE 474	*Sediment Transport*	Winter 2009	3	24	Yes

SECTION 6.2 SUMMARY OF STUDENT TEACHING EVALUATIONS

Course number	Year and quarter	Students responding	Adjusted median rating of course as a whole	Adjusted median rating of instructor's contribution to the course	Adjusted median rating of instructor's effectiveness	Adjusted median rating of combined items 1-4
CEE 342	Winter 2005	54/69	4.4	5.0	4.4	4.6
CEE 474	Fall 2005	16/18	4.0	4.5	4.6	4.4
CEE 342	Winter 2006	36/43	4.2	4.6	4.4	4.4
CEE 570	Spring 2006	9/9	4.0	4.1	4.1	4.1
CEE 474	Winter 2007	15/18	4.4	4.9	4.9	4.8
CEE 342	Fall 2007	54/61	4.1	4.4	4.0	4.2
CEE 474	Winter 2008	15/20	3.3	3.5	3.7	3.5
CEE 599	Winter 2008	4/4	3.7	4.0	4.5	4.3
CEE 342	Fall 2008	48/64	4.1	4.4	4.1	4.2
CEE 474	Winter 2009	21/24	4.0	4.2	4.2	4.1

SECTION 6.3 SUPERVISION OF UNDERGRADUATE INDEPENDENT STUDY

Alex Compton – Fish passage in culverts (summer intern)
Owen Sullivan – Satellite remote sensing of the Niagara River Plume.
Phillip Guan – Fish passage in culverts (summer intern)
Kevin Shaffer – Infrared remote sensing of an internal hydraulic jump
Shaun Bevan & Melyssa Nagamine - Distribution of age in a river plume

SECTION 6.4 LIST OF OTHER TEACHING EXPERIENCE

Participated in Faculty Fellows program (Sept. 2004)

Participated in Catalyst focus group on technology in the classroom (May 2005)
Granted $60K (together with Alberto Aliseda, ME) from the College of Engineering to develop a new set of labs in the undergraduate fluids classes based on a Particle Image Velocimetry system.
Developed new laboratory component based on PIV system for CEE342

SECTION 6.5 CIDR EVALUATION

I requested a "Small group instructional diagnosis" during my CEE 342 class in order to determine how I could improve the class. The results were very positive and identified a few areas that needed work. In particular, I was asked to emphasize relevant practical applications in parallel with theory derivation so that the class did not become too abstract. Despite this and a few other requests, the student response indicated that they appreciated my enthusiasm and knowledge of the material.

7. SERVICE

SECTION 7.1 DEPARTMENTAL SERVICE

Served on the Hydrology faculty search committee
Served on the Transportation faculty search committee
Mentored undergraduate and graduate students for COE open house (2005-2008)
Helped prepare and present program vision statement for CEE external review
Department representative UWE Tsunami Certificate Advisory Board
Admissions coordinator, HWR program 2007, 2008, 2009
Served on Hydrology faculty search committee

SECTION 7.2 COLLEGE SERVICE

None

SECTION 7.3 UNIVERSITY SERVICE

College of the Environment Working group on proposed college structure

SECTION 7.4 PROFESSIONAL SOCIETY AND OTHER SERVICE

CONFERENCE SESSION ORGANIZER, CHAIR OR MODERATOR

Session co-chair and organizer, "Structure and function of river plumes in coastal margins," *American Geophysical Union, Ocean Sciences Meeting*, Feb. 2008, Orlando, FL (with T. Petersen)
Session co-chair and organizer, "River and estuary dynamics," *IAHR International Symposium on Environmental Hydraulics*, Dec. 2007, Tempe, AZ (with B. Hickey)
Session co-chair and organizer, "Structure and function of river plumes in coastal margins," *American Geophysical Union, Ocean Sciences Meeting*, Mar. 2008, Orlando, FL (with T.Petersen)
Session co-chair and organizer, "River Plume – Ocean Interactions," *American Geophysical Union, Ocean Sciences Meeting*, Feb. 2006, Honolulu, HI (with M. Lohan)
Session chair, "Drops and emulsions," *American Physical Society, Division of Fluid Dynamics Meeting, Nov. 2004, Seattle, WA*
Session co-chair and co-organizer, "Dynamics of River Plume Systems," *American Geophysical Union, Ocean Sciences Meeting*, Feb. 2004, Portland OR (with D. Fong)

SECTION 7.4 NATIONAL OR GOVERNMENTAL SERVICE

ASCE Technical Committee on Hydraulic Measurements and Experimentation