### MICHEL C. BOUFADEL, PhD

Professional Engineer (PE); Fellow, American Society of Civil Engineers (F.ASCE)

Diplomate, Water Resources Engineering (D. WRE); Board Certified Environmental Engineer (BCEE) Professional Hydrologist (P. Hydro.)

John A.Reif, Jr. Department of Civil and Environmental Engineering,

New Jersey Institute of Technology, 323 MLK Blvd, Newark, NJ 07102

### A. Professional Preparation

BS	Civil Engineering, Hydraulics, Jesuit University at Beirut, Lebanon	1988
MS	Environmental Engineering, University of Cincinnati, Cincinnati, Ohio	1992
PhD	Environmental Engineering, University of Cincinnati, Cincinnati, Ohio	1998

# B. Appointments

September 2012-present	Director, Center for Natural Resources Development and Protection,	
	NRDP, New Jersey Institute of Technology, Newark, NJ	
June 2006-June 2011	Chair, Dept. Civil and Environmental Engineering, Temple University	
July 2008-2012	Professor, Dept. Civil and Env. Engineering, Temple University	
July 2005-June 2008	Associate Professor, Dept. Civil Env. Engineering, Temple University.	
Sept. 1999-June 2005	Assistant Professor, Dept. of Civil and Env. Eng., Temple University	
August 1998-Sept. 1999	Res. Assist. Prof. Dept. Env. Engineering, Clemson University.	

## C. <u>Publications</u>

### FIVE RELATED PUBLICATIONS

- **Boufadel, M. C.,** X. Geng, and J. Short, Bioremediation of the Exxon Valdez oil in Prince William Sound Beaches, *Marine Pollution Bulletin*, September 2016.
- Zhao, L.(Postdoctoral Fellow), F. Shaffer, B. Robinson, T. King, C. D'Ambrose, Z. Pan, F. Gao, R. S. Miller, R. N. Conmy, and M. C. Boufadel, Underwater oil jet: Hydrodynamics and droplet size distribution, *Chemical Engineering Journal*, 299, 292-303, 2016.
- Zhao, L. (Postdoctoral Fellow), **M. C. Boufadel**, K. Lee, T. King, N. Loney, and X. Geng, Evolution of bubble size distribution from gas blowout in shallow water, *J. Geophysical Research, Oceans*, 121, 1573-1599, 2016.
- Zhao, L. (Postdoctoral fellow), **M. C. Boufadel**, E.E. Adams, S. A. Socolofsky, T. King, K. Lee, and T. Nedwed, Simulation of scenarios of oil droplet formation from the Deepwater Horizon blowout, *Marine Pollution Bulletin*, 101(1), 304-319, 2015.
- **Boufadel, M. C.**, A-A. Nasab, X. Geng, J. Galt, and J. Torlapati, Simulation of the landfall of the Deepwater Horizon oil on the shorelines of the Gulf of Mexico, *Environmental Science and Technology*, 48, 9496–9505, 2014.

### FIVE CLOSELY RELATED PUBLICATIONS

- Pan, Z., L. Zhao, **MC Boufadel**, T King, B Robinson, R Conmy, K Lee, Impact of mixing time and energy on the dispersion effectiveness and droplets size of oil, *Chemosphere* 166, 246-254, 2017.
- Li, H. (Postdoctoral Fellow), M. C. Boufadel, Long-term persistence of oil from the Exxon Valdez spill in two-layer beaches, *NATURE geosciences*, *3*,96-99, 2010.
- **Boufadel, M. C.**, Y. Sharifi, B. Van Aken, B. A. Wrenn, and K. Lee, Nutrient and oxygen concentrations within the sediments of an Alaskan beach polluted with the *Exxon Valdezoil* spill, *Environmental Science and Technology*, 44 (19), p 7418–7424, 2010.
- Torlapati, J. (Postdoctoral Researcher) and **M. C. Boufadel**, Evaluation of the biodegradation of Alaska North Slope oil in microcosms using the biodegradation model BIOB, *Frontiers in Microbiology*, (5) 212, 2014.
- Personna, Y.R. (Postdoctoral Researcher), T. King, **M. C. Boufadel**, S. Zhang, and Adam Kustka, Assessing weathered Endicott oil biodegradation in brackish water, *Marine Pollution Bulletin*, 86 (1-2),102-110, 2014.

# D. Synergistic Activities

**Member,** National Research Council of the *National Academies*. Committee on "Effects of diluted bitumen on the environment" 12/2014-12/2015

**Member,** Expert Panel of the *Royal Society of Canada* on "Behaviour of oil in aquatic systems" 01/2015-01/2016

**Member,** National Research Council of the *National Academies*. Committee on "Effective Daily Recovery Capacity" of oil from the ocean surface, 07/2013-11/2013

**Member**, National Research Council of the *National Academies*. Committee on "The Deep Well Horizon oil spill impacts on the Gulf Ecosystem Services", 01/2011-10/2013

**Member**, *EPA Expert Group* on the Enbridge oil spill in the Kalamazoo River, Marshall, Michigan, 2011-2014.

**Member**, Science Advisory Board for the EPA on *Hydrofracking*, 01/2011-10/2011.

Chair, Groundwater Quality Committee, American Society of Civil Engineers, 2013-2015.

**Editor** of Special Issue on Coastal Management in the *Journal of Environmental Engineering, American Society of Civil Engineers*, 2016.

**Editor** of Special Issue on Hydrofracturing in the *Journal of Environmental Engineering, American Society of Civil Engineers*, 2012-2013.

## **INVITED TALKS (Selected)**

Department of Fisheries and Ocean, Canada, June 2015.

MEDGO, 1<sup>st</sup> Mediterranean Conf. on Oil and Gas, March 2015 (organized by Rafic Hariri University). Coast Guard Regional Response Committee, Philadelphia, PA USA, June 2015.

Universite Pierre et Marie Curie, Paris 6, Paris, France, November 2014

China University of Geoscience at Beijing, Keynote Speaker in the 3rd Asia-Pacific Coastal Aquifer Management Meeting, 21-24 October 2013, Beijing, China.

#### E. Collaborators & Other Affiliations

Collaborators and Co-Editors: Eric Adams (MIT), Zach Aman (Western Australia), Joe Katz (Johns Hopkins), Kenneth Lee (CSIRO), Debbie French McKay (ASA), Fred Molz (Clemson University), Scott Socolofsky (TAMU), Rominder Suri (Temple University), Benoit Van Aken (Temple University)

Graduate and Postdoctoral Advisors: Makram Suidan, American University of Beirut (PhD Adviser), Fred Molz, Clemson University (Postdoc Adviser)

Thesis Advisor and Postgraduate-Scholar Sponsor: Phd advisor to Wei Zhang, Youness Shariffi, Xiaolong Geng (NJIT), Ali Abdollahi-Nasab, Christopher Dambrose. Postdoc Adviser to Rob Ryan (NJIT), Hailong Li (China University of Science), Youness Shariffi, Jagadish Torlapati (Rowan University), Yves Personna, Firas Saleh (Stevens Tech), Lin Zhao (NJIT), Xiaolong Geng (NJIT), Zhong Pan (NJIT), Roozbeh Golshan.

Total number of graduate students advised: 25

Total number of postdoctoral scholars sponsored: 11

#### F. Other

Expert for the US Department of Justice.

Expert for the American Petroleum Institute.

Expert for the Ecuadorian Government on oil spills.

Expert for the US EPA on the dilbit spill in the Kalamazoo River (MI) in 2010.

Fluent in English, Arabic, and French.