



**NATIONAL SCIENCE FOUNDATION  
WATER & ENVIRONMENTAL TECHNOLOGY (WET) CENTER  
Temple University / University of Arizona / Arizona State University**

**Semi-annual Meeting  
Arizona State University, Tempe, AZ  
December 8 & 9, 2016**

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**Wednesday, December 7, 6:00 pm - 8:00 pm**

Informal Meet-and-Greet \_\_\_\_\_ (OPTIONAL)  
MOXY Phoenix Tempe (Marriott) – *THREE Bar*  
1333 S. Rural Road, Tempe, AZ 85281

**THURSDAY, DECEMBER 8**

***Arizona State University, Tempe Campus  
Memorial Union 2<sup>nd</sup> Floor, Alumni Lounge  
301 E. Orange Mall, Tempe, AZ 85281***

7:30 - 8:30 AM	<b>Breakfast</b>
8:30 - 8:40 AM	<b>Welcome, Opening Remarks and Introduction of Participants</b> <i>Morteza Abbaszadegan, Director, Arizona State University</i>
8:40 - 8:50 AM	<b>NSF I/UCRC Program</b> <i>National Science Foundation, I/UCRC Program</i>
8:50 - 9:00 AM	<b>State-of-the WET Center</b> <i>Rominder Suri, Director WET Center, TU</i>
9:00 - 9:10 AM	<b>State-of-the Center Report - Temple University</b> <i>Rominder Suri, Director WET Center, TU</i>
9:10 - 9:20 AM	<b>State-of-the Center Report - University of Arizona</b> <i>Ian Pepper, UA Site Director</i>
9:20 - 9:30 AM	<b>State-of-the Center Report - Arizona State University</b> <i>Morteza Abbaszadegan, ASU Site Director</i>
9:30 - 9:40 AM	<b>Overview of L.I.F.E. Forms: Proposals, Continuation &amp; Completed Projects</b> <i>David Tansik, WET Center NSF Evaluator</i>

9:40 - 10:20 AM

**Guest Speakers**

*Jim Holway, Board of Directors, Central Arizona Project*

*Tequila is for drinking and Water is for fighting over: Water & Sustainability in the Southwest US*

*Dan Quintanar, City of Tucson*

*Fear, Facts, Reality - Communicating the Safety of Drinking Water*

**Research Proposals**

10:20 - 10:30 AM

**[UA-P01-F2016] Anammox for Side Stream Treatment of Effluent**

*Ian Pepper, UA*

10:30 - 10:45 AM

**[UA-P02-F2016] Converting Reclaimed Water into Beer**

*Ian Pepper, UA*

10:45 - 10:55 AM

**Break**

10:55 - 11:05 AM

**[ASU-P01-F2016] Assessment of algal toxin production as a consequence of using novel algae control methods**

*Absar Alum, ASU*

11:05 - 11:15 AM

**[ASU-P02-F2016] Using 2-dimentionel physical model to study transport of *Legionella* in aquifers**

*Morteza Abbaszadegan, ASU*

11:15 - 11:25 AM

**[ASU- P03-F2016] Impact of anthropogenic contaminants on Arsenic mobilization in ground water**

*Peter Fox, Morteza Abbaszadegan and Absar Alum, ASU*

**Research Project Reports**

11:25 - 11:35 AM

**[ASU-01-F2016] AOP for Mitigation of waterborne pathogens and DBPs**

*Majid Nikougoftar Zarif, Morteza Abbaszadegan, ASU and Brooke Mayer, Marquette University*

**Projects Requesting Additional Funds**

11:35 - 11:50 AM

**[ASU-16-06] Treatment Capability of UV and Peracetic Acid: Implementation of Emerging Technologies**

*Samantha Cooper and Morteza Abbaszadegan, ASU*

11:50 - 12:00 noon

**Discussion and Completing L.I.F.E. Forms**

12:00 - 1:00 PM

**Lunch**

1:00 - 1:20 PM

**[ASU-02-F2016] Regional Water Quality - Overview**

*Peter Fox, Andrew Buell and Morteza Abbaszadegan, ASU*

**Occurrence of *Mycobacterium* and invasive species in sources water**

*Morteza Abbaszadegan, Andrew Buell and Peter Fox, ASU*

## Research Project Reports

- 1:20 - 1:30 PM      **[TU-11-10] Treatment Technologies for Industrial and Municipal Wastewater Reuse**  
*Rominder Suri, TU*
- 1:30 - 1:40 PM      **[TU-14-11] In vitro and in vivo Estrogenic Effects of Mixtures: Impact of EE2 in Environmentally Relevant Mixture of Endocrine-Disrupting Compounds**  
*Rominder Suri, TU*
- 1:40-1:55 PM      **[ASU-03-F2016] Evaluation of Technologies and Impact on Water Quality for the City of Yuma Downtown Water Line Replacement**  
*Samuel Ariaratnam, ASU*
- 1:55 - 2:10 PM      **[ASU-04-F2016] Evaluation of Aluminosilicate Material from Kirkland Mine as Water Filtration Medium**  
*Barzin Mobasher and Narayanan Neithalath, ASU*
- 2:10 - 2:20 PM      **[UA-06-F2016] Effects of Metam Sodium on Soil Bacterial Communities**  
*Ian Pepper, UA*
- 2:20 - 2:35 PM      **[UA-02-F2016] Smart Polymers and Reduced Consumptive Water Use of Turfgrasses**  
*Mark Bannister, EcosPure*
- 2:35 - 2:45 PM      **[UA-03-F2016] Organic (Supermix) Fertilizer Trial**  
*Huruy Zerzghi, UA*
- 2:45 - 3:05 PM      **Break**
- 3:05 - 3:20 PM      **[UA-01-F2016] Smartphone for Water Quality: Smartphone Detection from Paper Microfluidics for Monitoring Water Safety**  
*Kelly Reynolds, UA*
- 3:20 - 3:30 PM      **[ASU-05-F2016] A novel technology for controlling algae in water treatment basin**  
*Absar Alum, ASU*
- 3:30 - 3:40 PM      **[UA-05-F2016] Virus Pathogen Reduction During 21<sup>st</sup> Century Wastewater Treatment in Comparison with Conventional Aeration Basin and Trickling Filter Treatments WRF**  
*Ian Pepper, UA*
- 3:40 - 3:55 PM      **[UA-04-F2016] Evaluation of Coliphage Removal During Wastewater Treatment**  
*Alex Wassimi, UA*
- 3:55 - 4:10 PM      **[TU-16-04]  $\beta$ -Cyclodextrin – Ionic Liquid Polyurethanes Modified Magnetic Nanoparticles: A Multifunctional Sorbent for Efficient Removal of PFOA, PFOS and Cr(VI) from Water**  
*Rominder Suri, TU*

4:10 - 4:25 PM            **[TU-15-02] Application of Ozone in Dissolved Air Flotation (DAF) for Enhanced Removal of TOC and Suspended Solids**  
*Rominder Suri, TU*

4:25 - 5:20 PM            Completion of L.I.F.E. forms and IAB closed door discussions

5:20 PM                    Adjourn

**INDUSTRIAL BOARD MEMBERS**

6:30 PM                    Cocktails and Dinner  
*Location TBA*

**FRIDAY, DECEMBER 9, 2016**

**INDUSTRIAL ADVISORY BOARD MEETING**

***Arizona State University, Tempe Campus***

***Memorial Union, Yavapai Room (MU 223) 2<sup>nd</sup> Floor***

***301 E. Orange Mall, Tempe, AZ 85281***

8:30– 9:00 AM            Continental Breakfast

9:00–11:00 AM            Industrial Advisory Board Meeting

**Agenda**

1. Approval of Minutes – May 2016
2. State-of-the-WET Center —IAB comments and input
3. Research Progress Reports—IAB comments and input
4. New project ideas—IAB input
5. WET Center Spring 2017 Meeting—Schedule date/time

11:00 AM                    Adjourn