



In Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy
J. Leah Jones

Will defend her prospectus

**Implications of Urban Water Crisis
on the Food-Energy-Water Nexus**

Abstract

The food-energy-water (FEW) nexus refers to the interactions, trade-offs, and relationships between the three resources and their governance sectors (Bazilian et al. 2011). Given significant interdependencies, decisions made in one sector invariably affect the other two; thus, integrated decision-making can reduce unintended consequences and lead towards greater sustainability (Lele et al. 2013) and policy coherence. Despite the proposed benefits of integrated decision-making (Leck et al. 2015; Rasul & Sharma 2016), many decisions in the FEW sectors continue to be made in “silos,” where decision-makers do not consult others across sectoral boundaries. Scholars have identified the barriers to integrate FEW nexus decision-making, such as differences in policies and procedures, power asymmetries, and limited communication channels (Howarth & Monasterolo 2016; Liu et al. 2018). There is, however, still minimal understanding of the reasons why these barriers exist (Weitz et al. 2017) and no theoretical framework for evaluating FEW nexus governance useful for developing recommendations. This dissertation will address these knowledge gaps by conducting a multiple case study of FEW nexus governance in Phoenix, AZ, USA and Cape Town, South Africa. Through this study, the doctoral student will examine extreme water challenges through a FEW nexus lens to understand how such crises impact related food and energy sectors; to understand why cities with water challenges struggle to implement FEW nexus approaches to governance; and to develop a framework for evaluation of collaborative governance of the FEW nexus.

Tuesday, December 3, 2019

3:00PM

Wrigley Hall, Room 308

Faculty, students, and the public are invited.

Supervisory Committee:

Dave White (chair)

Rimjhim Agarwal

Rob Melnick