



## Kimberly Quesnel

Ph.D. Student in Civil and Environmental Engineering, admitted Winter 2015

### Bio

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#### BIO

Kim Quesnel is a PhD candidate in the Civil and Environmental Engineering department where she is co-advised by Dr. Newsha Ajami and Dr. Richard Luthy through the NSF Engineering Research Center for Reinventing the Nation's Urban Water Infrastructure (ReNUWI) and Stanford's Water in the West program.

Kim's research investigates urban water demand as a key component of advancing future water supply planning. Her work focuses on uncovering the drivers of urban water demand using modern computational tools. As part of this work, she has looked at how media coverage and coupled public awareness of the recent historic California drought were related to changes in water use behavior. She is also using high resolution data from smart water meters to model demand at the customer level. Additionally, motivated by the water sector's chronic fiscal challenges, Kim is researching novel approaches to water financing and governance that can help to increase innovation in the water sector. Her research has been covered by the LA Times, Scientific American, High Country News, Water Deeply, and other news outlets.

Prior to coming to Stanford, Kim worked as a civil engineer in Denver, Colorado in the field of environmental remediation, responsible for both technical design work and project management. She has also worked on a wide range of water-related research projects including the laboratory investigation of tsunami wave breaking behaviors at the O.H. Hinsdale Wave Research Laboratory in Oregon, the assessment and design of water filtration in rural Thailand, and the study of glacier hydrology through field research in Alaska. Kim received a B.S. in Civil Engineering from California Polytechnic State University, San Luis Obispo and an M.S. in Civil and Environmental Engineering, Environmental Fluid Mechanics and Hydrology from Stanford University. She was awarded an Environmental Protection Agency (EPA) STAR fellowship for her research on urban water demand forecasting.

#### HONORS AND AWARDS

- Science to Achieve Results (STAR) Fellowship, Environmental Protection Agency (2016-present)

#### EDUCATION AND CERTIFICATIONS

- M.S., Stanford University, Civil and Environmental Engineering (2015)
- B.S., California Polytechnic State University, San Luis Obispo, Civil Engineering (2010)

#### STANFORD ADVISORS

- Richard Luthy, Doctoral Dissertation Advisor (AC)
- Bruce Cain, Doctoral Dissertation Reader (AC)

## Publications

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### PUBLICATIONS

- **A case-study based framework for assessing the multi-sector performance of green infrastructure.** *Journal of environmental management*  
Gordon, B. L., Quesnel, K. J., Abs, R., Ajami, N. K.  
2018; 223: 371–84
- **Advancing Water Innovation through Public Benefit Funds: Examining California’s Electricity Public Goods Charge** *Journal American Water Works Association*  
Quesnel, K. J., Ajami, N. K.  
2018; 110 (2)
- **A novel search algorithm for quantifying news media coverage as a measure of environmental issue salience** *Environmental Modelling & Software*  
Roby, N. A., Gonzales, P., Quesnel, K. J., Ajami, N. K.  
2018; 101: 249-255
- **Accelerating the Integration of Distributed Water Solutions: A Conceptual Financing Model from the Electricity Sector** *Environmental Management*  
Quesnel, K. J., Ajami, N. K., Wyss, N.  
2017; 60 (5): 867–881
- **Changes in water consumption linked to heavy news media coverage of extreme climatic events** *Science Advances*  
Quesnel, K. J., Ajami, N. K.  
2017; 3 (10): e1700784