

UNIVERSITY OF WISCONSIN-MADISON

DEPARTMENT OF PLANNING &
LANDSCAPE ARCHITECTURE

SPRING 2018 LECTURE SERIES

FRIDAYS, 12 – 1:15 PM
208 OLD MUSIC HALL

More information on the DPLA Lecture Series can be found at:
dpla.wisc.edu/researchandoutreach/lectures,
including a paper for this presentation



JANUARY 26

BRADLEY VOWELS, DOCTORAL STUDENT, DPLA

Using GIS and Advanced Source Tracking to Determine Groundwater Risks Associated with Unsewered Exurban Development

Advances in wastewater treatment systems have played a major role in transforming rural landscapes in the United States by reducing the influence of environmental constraints on exurban development patterns. This presentation examines major policy changes for the state of Wisconsin and characterizes rural development patterns in one county over the past six decades. GIS is used to analyze the distribution of treatment systems and to identify locations with heightened risk of groundwater contamination. Findings explain how treatment the spatial pattern of system density, age, and type may influence groundwater quality under various hydrogeological settings.