Water Security and Governance:
An Exploration of Emerging Issues in the Twenty-First Century

Final Report

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Statement of the Research Project:

Water pollution, whether from point sources (e.g., 2010 Deepwater Horizon oil spill in the Gulf of Mexico) or non-point sources (e.g., quotidian stormwater runoff), exhibits local, national, regional and global dimensions, and constitutes one of the most pervasive threats to global ecological health. For example, freshwater animal species face a projected mean extinction rate five times that of terrestrial animals (Ricciardi and Rasmussen, 1999). Inadequate access to safe and sanitary supplies of freshwater causes over three percent of all human deaths worldwide and is the leading cause of death for children under five years old (Centers for Disease Control, 2013). Although developing nations bear the brunt of insufficient access to clean water, problems of accessibility are less likely to impact the developed and post-industrial world unless they affect agricultural production (e.g., droughts that crippled Midwestern U.S. farmers in 2012) or recreation (e.g., the closure of unsustainable golf courses). Thus, water pollution and access to clean water are often conceptualized as problems with different socioeconomics and geopolitics; while pollution is conceptualized as a problem affecting the Global North, issues of access are conceptualized as primarily impacting the Global South. This distinction, though, is likely to blur as a result of ongoing processes of globalization and the unique challenges brought about by climate change, demanding that new conceptual approaches be taken that reflect emerging water issues and related concerns.

With that blurring of lines in mind, this project sought to explore four distinct emerging issues related to water:

First, this project sought to investigate and consider the major water-related issues facing the global community in the twenty-first century. As global climates continue to change, it is likely that Arctic seas will be opened for shipping routes and oil exploration (Pappas, 2012; Plumer, 2013), a situation that makes increased water pollution likely as spills, industrial shipping traffic, and harmful oil exploration practices reach the Arctic region. Climate change will also create new water shortages—and foster existing ones—in some areas, while rendering others water-rich (Morrison et al., 2009). In a related vein, heightened concerns over water quality will likely drive increased consumption of bottled water—a practice that carries with it its own set of environmental concerns and issues attendant to the energy costs of bottling and transporting water, and recycling and disposing of used bottles (see generally Gleick, 2010; Wilk, 2006). This project examined the shifting geographies—spatial, social, and political—brought about by climate change and the impact that a changing global climate is likely to have on issues of water access and pollution. Of particular interest here was and continues to be the question of the likelihood that and extent to which the conceptual lines between issues of pollution and issues of access will become increasingly blurry.

Second, this project sought to explore the potential for new criminogenic concerns related to water. For example, will existing issues of and concerns about pollution, access, governance and security create new sets of offenders and criminal actors, or will they simply entail the diversification of existing offender categories (e.g., corporate interests responsible for pollution and various harmful privatization initiatives)? Hall and Farrall (2013) have suggested that climate change will blur the distinction between victims and offenders, and this project seeks to explore the extent to which those same processes are likely to become more pronounced with respect to water-related issues. This project continued investigations into the criminogenic characteristics of water
pollution and privatization, with an eye toward furthering an understanding of the characteristics of victims and offenders and the roles they play (or will play) in water issues.

Third, this project sought to explore various responses to issues of water access and privatization. These included both macro- and micro-level responses—from the governmental (e.g., increased regulatory efforts to secure access to water and decrease or mitigate pollution) to the (e.g., do-it-yourself (DiY) water catchment and reuse systems). To this end—and building on findings from my funded SJRP grant for AY 2012-13, “Civic contradictions and criminalization in the management of everyday life”—this project sought to further research municipal and state ordinances regulating these DiY practices and systems, including noteworthy criminal cases that have arisen from DiY engagement with water, such as the successful prosecution of Gary Harrington, who was jailed and fined for collecting rainwater and snow runoff on his Oregon property (Hickman, 2012). The goal for this project was to study various responses through a socio-legal analysis of the issues presented, and to provide increased insight into DiY responses through the use of a theoretical and methodological framework provided by the merging of green and cultural criminologies (as outlined in Brisman and South, 2013, 2014), integrating visual documentation of various individual and subcultural responses. Natali has drawn attention to the potential for integrating temporal visualization into a green methodology, noting that “a qualitative exploration of the possible meanings attributed to” visual productions relating to environmental harm will “provide more opportunities for understanding the complexity” of environmental harm and crime (Natali, 2013:64-65). Following Natali’s suggestion, this project used photography to document various forms of response to water issues, including residential reuse and catchment systems (e.g., homemade “greywater” recycling systems, DiY rainwater cisterns). (Please see accompanying images #1-8.)

Finally, this project sought to conduct a preliminary investigation of levels of public consciousness of these issues in the United States. More specifically, this project sought to understand the extent to which these issues resonate with the public and, conversely, the extent to which their presence or absence in public consciousness work to shape the contours of the issues themselves. While there has been significant research into public perceptions and awareness of climate change (see generally, Brisman, 2012, 2013; Brisman and South, 2013; Knight and Greenberg, 2011; Leiserowitz et al., 2012; Moser and Dilling, 2007; White, 2008), little has been done to apply those same questions to water issues. Admittedly, water issues, unlike the threats posed by climate change (see, e.g., Anderegg, 2010; Giddens, 2011), seem to present a relatively tangible and immediate concern. To what extent is the immediacy and tangibility of water likely to drive and shape public concern (in ways that climate change does not)? At the same time, while water access is rarely seen as a problem or issue within the Global North, public perception of water access is skewed by the easy availability of potable water (bottled or tap). To what extent, then, is or will this false perception of abundance lead to the public’s conclusion that water issues present less of a problem than climate change? This project sought to begin to investigate these research questions thorough a review of the existing interdisciplinary literature on public awareness of environmental problems, in general, and the literature on climate change awareness and denial, more specifically, with an eye towards developing an understanding of “water consciousness.”
Work Products Stemming from Grant:

Although this grant has ended, research related to this grant (and to the issues described above) continues. At the time of this writing (September 2014), research related to this grant has resulted in the following publications:


In addition, this grant facilitated my mentoring of my (now former) graduate assistant, Mr. William McClanahan, who, under my supervision, presented or published the following papers:


Conclusion:

I am grateful for the financial assistance provided by this SJRP grant, for it has enabled me to pursue and complete a number of research endeavors, as well as contribute to my duties and responsibilities as a teacher and mentor to graduate students. I look forward to continuing the research that this grant has enabled me to conduct.
References


Morrison, Jason, Mari Morikawa, Michael Murphy, and Peter Schulte. 2009. *Water scarcity and climate change: Growing risks for businesses and Investors*. Boston, MA: Ceres, and Oakland,


