Michael Schramm

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Research Experience

2019 - current	Texas A&M AgriLife Research and Extension Service
Research Specialist III	Texas Water Resources Institute
2016 - 2019	Texas A&M AgriLife Research and Extension Service
Research Associate	Texas Water Resources Institute
2014 - 2016	Oak Ridge National Lab
Research Associate	Environmental Sciences Division
2012 - 2013	University of Delaware
Graduate Research Assistant	Center for Energy and Environmental Policy

Education

2011 - 2013	University of Delaware
Master of Energy and Environmental Policy	Newark, DE
2010 - 2011	University of North Carolina - Wilmington
B.A. Environmental Studies	Wilmington, NC
1999 - 2004	University of North Carolina - Wilmington
B.S. Biology	Wilmington, NC

Research Area

I work at the intersection of environmental science and policy by facilitating water quality planning efforts with state agencies and local stakeholders. I provide expertise in water quality modeling and assessment through the use of GIS and open source programming tools. My primary interest revolves around water policy and the evaluation of implementation effectiveness. I'm especially interested in leveraging open data and open source analytic tools to develop toolkits and resources for evaluating the environmental outcomes of policy implementation.

Skills

Data analysis, Environmental Policy, GIS, Grant Writing, Policy Analysis, `Python`, `R`, Reproducible Research, Stakeholder Facilitation, Water Quality Modeling and Assessment, Watershed Planning

Peer Reviewed Articles

1. Schramm MP, Bevelhimer MS, Scherelis C (2017) Effects of hydrokinetic turbine sound on the behavior of four species of fish within an experimental mesocosm. *Fisheries Research*, 190:1–14. DOI:10.1016/j.fishres.2017.01.012

2. DeRolph CR, Schramm MP, Bevelhimer MS (2016) Predicting environmental mitigation requirements for hydropower projects through the integration of biophysical and socio-political geographies. *Science of The Total Environment*, 566-567:888–918. DOI:10.1016/j.scitotenv.2016.05.099

3. Schramm MP, Bevelhimer MS, DeRolph CR (2016) A synthesis of environmental and recreational mitigation requirements at hydropower projects in the United States. *Environmental Science & Policy*, 61:87–96. DOI:10.1016/j.envsci.2016.03.019

4. Pracheil BM, DeRolph CR, Schramm MP, Bevelhimer MS (2016) A fish-eye view of riverine hydropower systems: The current understanding of the biological response to turbine passage. *Reviews in Fish Biology and Fisheries*, 26(2):153–167. DOI:10.1007/s11160-015-9416-8

5. Cutting RH, Cahoon LB, Flood JF, Horton L, Schramm MP (2011) Spill the beans: GoodGuide, Walmart and EPA use information as efficient, market-based environmental regulation. *Tulane Environmental Law Journal*, 24(291):45.

Technical Reports

1. Schramm M, Jha A (2020) Technical Support Document for Four Total Maximum Daily Loads for Indicator Bacteria in Neches River Tidal. URL: https://www.tceq.texas.gov/assets/public/waterquality/tmdl/118nechestidal/118-nechestidal-bacteria-tsd-2020july.pdf

2. Schramm MP, Jha A (2020) Technical Support Document for Two Total Maximum Daily Loads for Indicator Bacteria in Sandy Creek and Wolf Creek.:63. URL: https://www.tceq.texas.gov/assets/public/waterquality/tmdl/118sandywolfcreeks/118-sandy-wolf-tsd-2020june.pdf

3. Schramm MP, Jha A (2020) Technical Support Document for One Total Maximum Daily Load for Indicator Bacteria in Hillebrandt Bayou.:65. URL: https://www.tceq.texas.gov/assets/public/waterquality/tmdl/118hillebrandt/118-hillebrandt-tsd-2020june.pdf

4. Schramm MP, deVilleneuve S, Jain S, Berthold A, Mohandass U (2019) Carancahua Bay Watershed Protection Plan. URL: https://twri.tamu.edu/publications/technical-reports/2019-technical-reports/tr-514/

5. Schramm MP, Berthold A, Entwistle C, Peddicord K (2018) Lavaca River Watershed Protection Plan. URL: https://twri.tamu.edu/media/1456/tr-507.pdf

6. Jain S, Ruff S, Schramm MP (2018) Technical Support Document for One Total Maximum Daily Load for Indicator Bacteria in Arenosa Creek. URL: https://www.tceq.texas.gov/assets/public/waterquality/tmdl/108arenosa/108-arenosa-tsd-final.pdf

7. Schramm MP, Broad T, Arsuffi T (2018) *Escherichia coli* and Dissolved Oxygen Trends in the Upper Llano River Watershed, Texas (2001-2016). URL: https://twri.tamu.edu/media/1458/tr-511.pdf

8. Schramm MP, Berthold A, Entwistle C (2017) Tres Palacios Creek Watershed Protection Plan. URL: https://twri.tamu.edu/media/1449/tr-500.pdf

9. Schramm MP (2017) Technical Support Document for Total Maximum Daily Loads for Indicator Bacteria in Aransas River Above Tidal and Poesta Creek. URL: https://www.tceq.texas.gov/assets/public/waterquality/tmdl/76copano/76-aransas-poesta-tsd.pdf

10. McManamay RA, Troia MJ, DeRolph CR, Bevelhimer MS, Schramm MP, Larson KB, Tagestad JD, Johnson GE, Jager HI (2015) Identifying Environmental Opportunities outside the Hy-

dropower Project Boundary: An Updated Methodology of the Basin Scale Opportunity Assessment. DOI:10.13140/rg.2.1.3000.0482

Presentations

1. Schramm MP, Jain S, Kathuria D (2020) Can statistical models provide improved performance over DAR methods for estimating flow-duration curves and daily streamflows in ungauged catchments?Can.

2. Schramm MP (2019) Automating Retrieval of Wastewater Discharge Monitoring Reports with R.

3. Schramm MP (2019) Automating Retrieval of Wastewater Discharge Monitoring Reports with R.

4. Schramm MP, Bevilhimer MS, DeRolph CR (2015) Analysis of Required Environmental Mitigation at Licensed Hydropower Project Across the US.

5. DeRolph CR, Bevilhimer MS, Schramm MP (2015) Development of an Environmental Mitigation Database and Statistical Models for Predicting Likely FERC License Mitigation Requirements at Hydropower Projects.

Published Software

1. Schramm MP (2019) "dartx": Drainage Area Ratio with Correction Factors. URL: https://github.com/mps9506/dartx

2. Schramm MP (2019) "wd4tx": R interface for Texas Water Development Board water data. URL: https://github.com/mps9506/wd4tx

3. Schramm MP (2018) "tbrf": Time-Based Rolling Functions. DOI:10.5281/zenodo.3727319

4. Schramm MP (2018) "echor": Access EPA 'ECHO' Data. DOI:10.5281/zenodo.3635017

Published Datasets

1. Schramm M (2020) Mps9506/schramm-ecoli-trends: Initial. DOI:10.5281/ZENODO.4317858

2. Schramm M (2020) Mps9506/schramm-gitter-gregory-2020-tmdl-data: Code and Data for Total Maximum Daily Loads and *Escherichia coli* trends in Texas freshwater streams. DOI:10.5281/ZENODO.4321729

3. Bevelhimer MS, Schramm MP, DeRolph CR (2015) US Maps of Non-Federal Hydropower Water Quality Requirements. URL: nhaap.ornl.gov/environmental-mitigation

4. Bevelhimer MS, Schramm MP, DeRolph CR (2015) US Maps of Non-Federal Hydropower Mitigation Data. URL: nhaap.ornl.gov/environmental-mitigation

5. Bevelhimer MS, Schramm MP, DeRolph CR (2015) Non-Federal Hydropower Mitigation Database. URL: nhaap.ornl.gov/environmental-mitigation

Grants and Projects

2018 - current *Section 319 Nonpoint Source Grant*: Lavaca River Watershed Protection Plan (WPP) - Coordination, Implementation and Routine Water Quality; Role: Grant Writer, PI: Allen Berthold. Amount: $150,000.

2018 - current *Section 319 Nonpoint Source Grant*: Tres Palacios On-Site Sewage Facilities Remediation; Role: Grant Writer, PI: Allen Berthold. Amount: $327,361.

2018 - current *Section 319 Nonpoint Source Grant*: Tres Palacios WPP implementation; Role: Grant Writer, PI: Allen Berthold. Amount: $355,800.

2019 - 2020 *Texas Commission On Environmental Quality TMDL Program*: Basins Approach to Address Bacterial Impairments in the Lower Neches Basin (FY20); Role: Project Manager, PI: Lucas Gregory. Amount: $135,790.

2019 - 2020 *Texas Commission On Environmental Quality TMDL Program*: Basins Approach to Address Bacterial Impairments in Basins 15, 16, 17 (FY20); Role: Project Manager, PI: Allen Berthold. Amount: $51,888.

2018 - 2019 *Texas Commission On Environmental Quality TMDL Program*: Basins Approach to Address Bacterial Impairments in Basins 15, 16, 17 (FY19); Role: Project Manager, PI: Allen Berthold. Amount: $97,399.

2018 - 2019 *Texas Commission On Environmental Quality TMDL Program*: Basins Approach to Address Bacterial Impairments in the Lower Neches Basin (FY19); Role: Project Manager, PI: Lucas Gregory. Amount: $139,343.

2017 - 2019 *Texas General Land Office Coastal Management Program*: Mission and Aransas Rivers TMDL I-Plan implementation; Role: Grant Writer, PI: Allen Berthold. Amount: $83,979.

2017 - 2019 *Texas General Land Office Coastal Management Program*: Coordinating Implementation of the Tres Palacios Watershed Protection Plan; Role: Grant Writer, PI: Allen Berthold. Amount: $95,816.

2017 - 2018 *Texas Commission On Environmental Quality TMDL Program*: Basins Approach to Address Bacterial Impairments in Basins 15, 16, 17 (FY18). Amount: $220,166.

2016 - 2017 *Texas Commission On Environmental Quality TMDL Program*: Basins Approach to Address Bacterial Impairments in Basins 15, 16, 17 (FY17); Role: Project Manager, PI: Allen Berthold. Amount: $292,699.

2015 - 2017 *Texas State Soil and Water Conservation Board*: Coordinating Implementation of the Upper Llano Watershed Protection Plan; Role: Project Manager, Co-PIs: Tom Arsuffi, Kevin Wagner. Amount: $347,493.

Awards and Honors

Center for Energy and Environmental Policy Leadership Award

North Carolina Department of Transportation Environmental Service Scholarship

Review committees

2018 - current: Texas Hill Country Headwaters Conservation Initiative Regional Conservation Partnership Program

2017 - current: TWRI Mills Scholarship Program

2017 - current: USGS Graduate Research Program

2019 - 2019: Texas A&M AgriLife, Texas A&M AgriLife Extension, and Texas A&M Engineering Station Water Seed Grant Initiative

Peer review

Water, Sustainability, R Journal