

**Bethany B. Cutts**  
Curriculum vitae  
Last updated: 10/10/2023

Department of Parks, Recreation and Tourism Management  
2820 Faucette Dr.  
Raleigh NC 27695  
Tel. +1.919.515.5749  
Email [bbcutoffs@ncsu.edu](mailto:bbcutoffs@ncsu.edu)

**EDUCATION**

- 2010-2011 Postdoctoral Associate, University of California, Davis, Department of Environmental Science and Policy, CA  
2010 Ph.D. Biology & Society, Arizona State University, School of Life Sciences, Tempe AZ. Major Professor: Ann Kinzig; Thesis title: “Public Knowledge of Water Resources as a Product of Multiple Information Providers”  
2002 B.A. Environmental Biology, Colgate University, Department of Biology, Hamilton NY

**PROFESSIONAL EXPERIENCE**

- 2019-present Associate Professor, NC State University, Dept. of Parks, Recreation and Tourism Management, NC  
2016-2019 Assistant Professor, NC State University, Dept. of Parks, Recreation and Tourism Management, NC  
2011-2016 Assistant Professor, University of Illinois at Urbana-Champaign, Dept. of Natural Resources and Environmental Sciences, IL

**AFFILIATIONS**

- 2023-present Affiliated Faculty, Human Dim. of the Evt. Minor, NC State  
2021-present Affiliate Member, Global Water, Health & Sanitation, NC State  
2020-present Fellow, Center for Human Health and the Environment, NC State  
2019-present Faculty Affiliate, USGS-sponsored SE Climate Adaptation Science Center  
2019-present Graduate Faculty, PhD in Geospatial Analytics, NC State University, NC  
2019-present Graduate Faculty, Masters in Natural Resources, NC State University, NC  
2016-present Fellow, NC State University, Center for Geospatial Analytics, NC State  
2011-2016 Affiliated Faculty, University of Illinois at Urbana-Champaign, Dept. of Geography and Geographical Information Science, IL  
2011-2016 Graduate Faculty, University of Illinois at Urbana-Champaign, Program in Ecology, Evolution, and Conservation, IL

**HONORS**

- Academy of Outstanding Faculty in Extension and Engagement, NC State 2022  
Winner, Outstanding Faculty Engagement Award, NC State, 2022  
Fellow, NC State Faculty Leadership Education and Development, NC State 2021  
Finalist, Outstanding Graduate Faculty Mentor, NC State, 2020  
Fellow, Conference for Pre-Tenure Women, Susan Bulkeley Butler Center, Purdue, 2013  
Finalist, J. Warren Nystrom Award, Association of American Geographers, 2012  
Fellow, National Great Rivers Research and Education Center, 2012  
Teaching Fellow, University of Illinois Sustainability, 2012  
Winner, Saarinen Student Paper Competition, Environmental Perception and Behavior Specialty Group, Association of American Geographers, 2010

## I. SCHOLARSHIP

- Underlined names indicate undergraduate or high school coauthor advised by Cutts.
- Underlined and italicized names indicate graduate student contributors advised by Cutts.

## A. PUBLICATIONS REFEREED – IN PREPARATION:

Cutts, B. B., Dinan, M., Seekamp, E. K., Martin, K. M., Supak, S., Randall, J. (in preparation). A Multi-stakeholder Examination of Cultural Ecosystem Services on Desert Grasslands.

Note: Cutts is corresponding author

## B. PUBLICATIONS, REFEREED – IN REVIEW:

Breyer, B., Cutts, B. B. London. J. K., Cadenasso, M. L. (revise and resubmit). Seeing the Capitalocene: Strategies for environmental science educators. *Journal of Environmental Education* (revised submission needed)

Myers, G., Mullenbach, L. E., Duran Jolley, J. **Cutts, B. B.** Larson, L. (in review June 2023). Advancing Social Equity in Urban Tree Planting: Lessons Learned from an Integrative Review of the Literature. *Urban Forestry and Urban Greening*.

Futch, S. E., Larson, L. R., Cooper, C., **Cutts, B. B.**, Allf, B., Sharova, M. V., Cavalier, D., & Davis, C. (in review). Exploring project connections across the citizen science landscape: a social network analysis of shared volunteers. *SAGE Open*.

## C. PUBLICATIONS, REFEREED – IN PRESS:

Cutts, B. B., Vilá, O.V., Bray, L., Harris, A. R., Hornsby, G., Goins, H., McLean, S., Crites, M., Allen, A., McMenamin, N., Harlee, T. (in press). Shifting Terrains: Soil and Environmental Health Risk Perceptions Following Floods. Accepted Oct 2023

Gibson L., Stevenson, K. T. Busch, K. C., **Cutts, B.** Seekamp, E., Krementz, S. (in press) Pushing towards systemic change in the Capitalocene: Investigating the efficacy of existing behavior prediction models on individual and collective pro-environmental actions in high school students. *Journal of Environmental Education* (Accepted August 2023)

## D. PUBLICATIONS, REFEREED – PUBLISHED

- *Numbered publications are peer reviewed scholarly journal articles.*

41. Reilly, C., Stevenson, K. T., **Cutts, B. B.**, Brune, S., Knollenberg, W., Barbieria, C. (2023). Family matters: Intergenerational influences on youth agricultural literacy. *Journal of Environmental Education*. Online 23 Sept 2023. <https://doi.org/10.1080/00958964.2023.2257884>

40. Ifediora, B., & **Cutts, B. B.** (2023). Open and shut: Identifying activity patterns by volunteer organizations active in disaster using space-time permutation scan statistics. *International Journal of Mass Emergencies & Disasters*, 41(1), 174-185. <https://doi.org/10.1177/02807270231171629>

39. Beckham, T. L., Cutts, B. B., Rivers III, L., Dello, K., Bray, L. A., & Vilá, O. (2023). BRIDGE Builders—Leadership and social capital in disaster recovery governance. *International Journal of Disaster Risk Reduction*, 96, 103942. <https://doi.org/10.1016/j.ijdr.2023.103942>
38. Vilá, O., A. Bray, L., B. Cutts, B., Crites, M., Goins, H., McMenamin, N., ... & McLean, S. (2023). Recognition and ethical research practices: The role of community specialists. *International Journal of Mass Emergencies & Disasters*, 41(1), 9-25. <https://doi.org/10.1177/0280727023117>
37. Vilá, O.V., Cutts, B., Knollenberg, W., & Rivers, L. (2023). Environmental justice in disaster recovery: Recognition of the Latinx community by nonprofit leaders. *Climate Risk Management*, 40, 100502. DOI:10.1016/j.crm.2023.100502. Journal Article
36. Thompson, A., Bunds, K., Larson, L., **Cutts, B.**, & Hipp, J. A. (2023). Paying for nature-based solutions: A review of funding and financing mechanisms for ecosystem services and their impacts on social equity. *Sustainable Development* <https://doi.org/10.1002/sd.2510>. Journal Article
35. Gibson, L. M., Busch, K. C., Stevenson, K. T., **Cutts, B. B.**, DeMattia, E. A., Aguilar, O. M., ... & Wheaton, M. (2022). What is community-level environmental literacy, and how can we measure it? A report of a convening to conceptualize and operationalize CLEL. *Environmental Education Research*, 28(10), 1423-1451. <https://doi.org/10.1080/13504622.2022.2067325>. Journal Article
34. **Cutts, B. B.**, Greenlee, A. J., & Chantrill, C. V. (2022). Coupling ecosystem-centered governance modes with environmental justice. *Frontiers in Sustainable Cities*, 4, 826326. <https://doi.org/10.3389/frsc.2022.826326>. Journal Article
33. Vilá, O., Smith, G., Cutts, B., Gyawali, S., & Bhattarai, S. (2022). Equity in FEMA hazard mitigation assistance programs: The role of state hazard mitigation officers. *Environmental Science & Policy*, 136, 632-641. *Environmental Science & Policy* (accepted July 22 2022). <https://doi.org/10.1016/j.envsci.2022.07.027>. Journal Article
32. Mullenbach, L. E., Breyer, B., **Cutts, B. B.**, Rivers III, L., & Larson, L. R. (2022). An antiracist, anticolonial agenda for urban greening and conservation. *Conservation Letters*, e12889. DOI: 10.1111/conl.12889. Journal Article
31. Bergeson, C. B., Martin, K. L., Doll, B., & **Cutts, B. B.** (2022). Soil infiltration rates are underestimated by models in an urban watershed in central North Carolina, USA. *Journal of Environmental Management*, 313, 115004. <https://doi.org/10.1016/j.jenvman.2022.115004>. Journal Article
30. London, J. K., **Cutts, B. B.**, Schwarz, K., Schmidt, L., & Cadenasso, M. L. (2021). Unearthing the entangled roots of urban agriculture. *Agriculture and Human Values*, 38(1), 205-220. <https://doi.org/10.1007/s10460-020-10158-x>. Journal Article

29. Jurjonas, M, Seekamp, E. L., Rivers, L., & **Cutts, B. B.** (2020). Uncovering Climate (in)Justice with an Adaptive Capacity Assessment: A Multiple Case Study in Rural North Carolina. *Land Use Policy* doi: <https://doi.org/10.1016/j.landusepol.2020.104547>. Journal Article
28. *Bray, L. A., Vilá, O., Cutts, B. B.,* Lowry, D. S., Crites, M., Goins, H., McMenamin, N., Legerton, M., & Harris, A. (2020) Promoting Environmental Justice through Participatory Disaster Research: Hurricane Recovery in Robeson County, North Carolina. *Carolina Planning Journal* **45**, 45-57 url: [https://issuu.com/carolinaplanningjournal/docs/cpj\\_45\\_hazardsinsoutheasternus](https://issuu.com/carolinaplanningjournal/docs/cpj_45_hazardsinsoutheasternus). Journal Article
27. Saia, S. M., Suttles, K. M., **Cutts, B. B.**, Emanuel, R. E., Martin, K. L., Wear, D.W., Coulston, J. W., Vose, J. M. (2020). Applying climate change risk management tools to integrate streamflow projections and social vulnerability. *Ecosystems* **23**, 67–83. <https://doi.org/10.1007/s10021-019-00387-5>. Journal Article
26. **Cutts, B. B.**, Greenlee, A., *Hornik, K.*, & Nigrelli, C. (2020). Hyperlocal sustainabilities: democratizing participation via community based visual research. *Sustainability Science*. **15**, 315–331. <https://doi.org/10.1007/s11625-019-00694-9>. Journal Article
- Emanuel, R. E., Rivers, L. III, **Cutts, B. B.**, Blank, G. B. (2020) Data Analytics for Environmental Justice and Indigenous Rights Early Warning Systems or Blind Spots? AGU Fall Meeting Abstracts 2019, PA41F-1168. Referred Abstract.
25. Schwarz, K., Cadenasso, M. L., London, J. K., & **Cutts, B. B.** (2019). Fertile Ground for Collaboration: Investing in Community-University Partnerships with Soil Money. *Bulletin of the Ecological Society of America* 100(1):e01479. doi: <https://doi.org/10.1002/bes2.1479>. Journal Article
24. Munden-Dixon, K., Tate, K., **Cutts, B. B.**, & Roche, L. (2018). An uncertain future: climate resilience of first-generation ranchers. *The Rangeland Journal*. 41(3) 189-196. doi: <https://doi.org/10.1071/RJ18023>. Journal Article
23. *McLaughlin, D.*, & **Cutts, B. B.** (2018). Neither knowledge deficit nor nimby: understanding opposition to hydraulic fracturing as a nuanced coalition in Westmoreland County, Pennsylvania (USA). *Environmental Management* 62(2), 305–322. doi: <https://doi.org/10.1007/s00267-018-1052-3>. Journal Article
22. **Cutts, B. B.** & Minn, M. M. (2018). Dead grass: Foreclosure and the production of space in Maricopa County, Arizona. *Urban Planning* 3(2), 16-25. doi: <http://dx.doi.org/10.17645/up.v3i3.1352> \*special issue: Urban Planning and the Spatial Ideas of Henri Lefebvre. Journal Article
21. **Cutts, B. B.**, Greenlee A., Prochaska, N., *Chantrill, C.*, Wilhoit, J., Contractor, A. Abts, N., & *Hornik, K.* (2018). Is a clean river a fun for all? Recognizing social vulnerability in watershed planning. *PLoS ONE*, 13(5), e0195416. doi: [10.1371/journal.pone.0196416](https://doi.org/10.1371/journal.pone.0196416). Journal Article
20. **Cutts, B. B.**, London, J. K., Meiners, S., Schwarz, K., & Cadenasso, M. L. (2017). Moving dirt: soil, lead and the unstable politics of urban gardening. *Local Environment*, 22(3), 998-1018. doi:[10.1080/13549839.2017.1320539](https://doi.org/10.1080/13549839.2017.1320539). Journal Article

19. Larson, L. R., Lauber, T. B., Kay, D. L., & **Cutts, B. B.** (2017). Local government capacity to respond to environmental change: Insights from towns in New York State. *Environmental Management*, 60(1), 118-135. doi: [10.1007/s00267-017-0860-1](https://doi.org/10.1007/s00267-017-0860-1). Journal Article
18. London, J. K., Schwarz, K., Cadenasso, M. L. **Cutts, B. B.**, Mason Jr., C., Lim, J., Valenzuela-Garcia, K., Smith, H., (2017). Weaving community-university research and action partnerships for environmental justice. *Participant Action Research*, online. doi: [10.1177/1476750316678915](https://doi.org/10.1177/1476750316678915). Journal Article
17. Hornik, K., **Cutts, B. B.**, & Greenlee, A. J. (2016). Community theories of change: linking environmental justice to sustainability through stakeholder perceptions in Milwaukee, WI. *International Journal of Environmental Research and Public Health*, 13(10), 979. doi:[10.3390/ijerph13100979](https://doi.org/10.3390/ijerph13100979). Journal Article
16. **Cutts, B. B.** Fang, D., Hornik, K., London, J. K., Schwarz, K., Cadenasso, M. L. (2016). Media frames and shifting places of environmental (in)justice: a qualitative historical GIS method. *Environmental Justice*, 9(1), 23-28. doi:[10.1089/env.2015.0027](https://doi.org/10.1089/env.2015.0027). Journal Article  
\*note: recognized by journal as high impact paper
- Cutts, B. B.** (2016). Everything cannot be equal: Ranking priorities and revealing worldviews to guide watershed management. In L. Byrne (ed), *Learner-centered Teaching Activities for Environmental and Sustainability Studies* (149-154). New York, NY: Springer. doi: [10.1007/978-3-319-28543-6](https://doi.org/10.1007/978-3-319-28543-6) Book chapter.
15. Schwarz, K., **Cutts, B. B.**, London, J. K., & Cadenasso, M. L. (2016). Growing gardens in shrinking cities: a solution to the soil lead problem? *Sustainability* 8(2), 141. doi:[10.3390/su8020141](https://doi.org/10.3390/su8020141). Journal Article
14. Muñoz-Erickson, T. A. and **B. B. Cutts.** (2016). Structural dimensions of knowledge-action networks for sustainability. *Current Opinion in Environmental Sustainability*. Special Issue on Sustainability Governance and Transformation 18, 56-64. doi:[10.1016/j.cosust.2015.08.013](https://doi.org/10.1016/j.cosust.2015.08.013). Journal Article  
\*note: papers are by invitation only
13. Roche, L. M., Schohr, T. K., Derner, J. D., Lubell, M. N., **Cutts, B. B.**, Kachergis, E., Eviner, V. T. & Tate, K. W. (2015). Sustaining working rangelands: insights from rancher decision-making. *Rangeland Ecology & Management*, 68(5), 383-389. doi:[10.1016/j.rama.2015.07.006](https://doi.org/10.1016/j.rama.2015.07.006). Journal Article
12. **Cutts, B. B.**, Sinclair, K., Strauch, M., Slivnick, B., Emmons, Z. (2015). The role of technology in natural disaster vulnerability: developing an environmentally just approach. *Environmental Justice*, 8(4), doi:[10.1089/env.2015.0012](https://doi.org/10.1089/env.2015.0012). Journal Article
11. Minn, M. **Cutts, B. B.**, Greenberg, J. A., Pavlovic, N., Fraterrigo, J. M., & Turner, V. K. (2015). Detection of foreclosure-related landscape management changes using Landsat. *Applied Geography*, 62, 217-224. doi:[10.1016/j.apgeog.2015.04.023](https://doi.org/10.1016/j.apgeog.2015.04.023). Journal Article  
\*note: Cutts is corresponding author
10. Roche, L. M., **Cutts, B. B.**, Derner, J. D., Lubell, M. N., & Tate, K. W. (2015). On-ranch grazing strategies: context for the rotational grazing dilemma. *Rangeland Ecology & Management*, 68(3), 248-256. doi:[10.1016/j.rama.2015.03.011](https://doi.org/10.1016/j.rama.2015.03.011). Journal Article

9. **Cutts, B. B.**, Shutters, S. T., & Muñoz-Erickson, T. A. (2015). Public representation in water management—a network analysis of organization and public perceptions in Phoenix, Arizona. *Society & Natural Resources*, 28(12), 1340-1357. doi: [10.1080/08941920.2015.1020581](https://doi.org/10.1080/08941920.2015.1020581). Journal Article
8. Kachergis, E., Derner, J. D., **Cutts, B. B.**, Roche, L. M., Eviner, V. T., Lubell, M. N., & Tate, K. W. (2014). Increasing flexibility in rangeland management during drought. *Ecosphere*, 5(6), art77. doi: [10.1890/ES13-00402.1](https://doi.org/10.1890/ES13-00402.1). Journal Article
7. Lubell, M. **Cutts, B. B.**, Hamilton, M., Roche, L. M., Schohr, T., Tate, K., Derner, J., Kachergis, E. (2013). Conservation program participation and adaptive rangeland decision-making. *Rangeland Ecology & Management*, 66(6), 609-620. doi: <http://dx.doi.org/10.2111/REM-D-13-00025.1>. Journal Article
- Wilson, A.; **Cutts, B.** & Greenlee, A. (2014). Community Perceptions of the Environmental Remediation Effort in the Milwaukee River Estuary. I-ACES the undergraduate research journal, 1(1):11-20, url: <http://bit.ly/1lZVaCk> (Last Accessed 03 Dec 2015). Undergraduate research journal \*A. Wilson was a high school junior in the Research Apprenticeship Program for student from groups underrepresented in science
6. **Cutts, B. B.** Moore, N., Fox-Gowda, A. Knox, A., Kinzig, A. P. (2013). Testing neighborhood, information seeking, and attitudes as explanations of environmental knowledge using random forest and conditional inference models, *The Professional Geographer* 58(4), 561-579 doi: [10.1080/00330124.2012.724347](https://doi.org/10.1080/00330124.2012.724347). Journal Article
5. **Cutts, B. B.** (2013). Spatial interactions among organizations and the symbolic landscapes created by water information campaigns in central Arizona, USA. *Water Policy*, 15(1), 61-78. doi: [10.2166/wp.2012.059](https://doi.org/10.2166/wp.2012.059). Journal Article
- Cutts, B. B.** (2012). Ch 3. Evaluating collective effects: A participatory approach to mapping public information about water issues in an uncertain and politicized context. In P. Lawrence (ed), *Spatial Tools for Urban Water Resources* (37-60). New York, NY: Springer. doi: [10.1007/978-94-007-4734-0](https://doi.org/10.1007/978-94-007-4734-0) Books Chapter.
4. **Cutts, B. B.** White, D. D., & Kinzig, A. P. (2011). Participatory geographic information systems for the co-production of science and policy in an emerging boundary organization. *Environmental Science & Policy* 14(8), 977–985 doi:[10.1016/j.envsci.2011.05.012](https://doi.org/10.1016/j.envsci.2011.05.012). Journal Article
- Knox, A. & **Cutts, B. B.** (2010). Consumption and Conservation: Student Water Use Among Highest in America. *The Science in Society Review*, (Fall 2010) 14-17. Undergraduate research journal.
- Cutts, B. B.**, Muñoz-Erickson, T., Larson, E. K., Neff, M., Darby, K. J., Bolin, B., & Wutich, A. (2010). Egonetwork properties as a way to reveal conflict in collaboration's clothing. *Procedia – Social and Behavioral Sciences* 4, 93-101. doi:[10.1016/j.sbspro.2010.07.486](https://doi.org/10.1016/j.sbspro.2010.07.486). Refereed Proceedings
3. Muñoz-Erickson, T., **Cutts, B. B.**, Larson, E. K., Neff, M., Darby, K. J., Bolin, B., & Wutich, A. (2010). Spanning boundaries in an Arizona watershed partnership: information networks as tools for entrenchment or ties for cooperation? *Ecology & Society* 15 (3): 22 URL: <http://www.ecologyandsociety.org/vol15/iss3/art22/>. Journal Article

2. **Cutts, B. B.**, Darby, K., Brewis, A., & Boone, C. G. (2009). City structure, obesity, and environmental justice: an integrated analysis of physical and social barriers to walkable streets and park access. *Social Science & Medicine* 69(9), 1314-1322. doi: [10.1016/j.socscimed.2009.08.020](https://doi.org/10.1016/j.socscimed.2009.08.020). Journal Article

Shutters, S. T. & **Cutts, B. B.** (2008). A simulation model of cultural consensus and persistent conflict in *Proceedings of the Second International Conference on Computational Cultural Dynamics*, (71-78). AAAI Press, Menlo Park, California. url: <http://www.aaai.org/Papers/ICCCD/2008/ICCCD08-011.pdf> Refereed Proceedings.

1. **Cutts, B. B.**, Saltz, C., and Elser, M. (2008). Considering the cumulative impact of educational messages: multiple organizations address water issues in Maricopa County, Arizona. *Applied Environmental Education and Communication* 7(1): 40-50. doi: [10.1080/15330150802194904](https://doi.org/10.1080/15330150802194904). Journal Article

#### E. PRESENTATIONS & SEMINARS

- *Presentations prior to appointment to associate professor available upon request.*

2023 Osia, U. & Cutts, B. B. (2023). Open Data and Environmental Justice: A Justice40 case study. AGU23. San Francisco, CA: December 14, 2023. [Poster]

2023 Myers, G., Mullenbach, L., Jolley, J. D., **Cutts, B.**, & Larson, L. How can urban tree planting advance social equity? *KIETS Climate Leaders Program Symposium*. Raleigh, NC: September 28-29, 2023. [Poster].

2023 Russell, Z. A., Savage, A. E., Knollenberg, W., Seekamp, E., & **Cutts, B. B.** (2023). Identifying Attributes for a Virtual Community-based Disaster Preparedness Hub: Examples from two coastal communities. Travel and Tourism Research Association. [Oral presentation]. Refereed. International.

2022 Cutts, B., Vilá, O., Brray, L. A., Harris, A., Hornsby, G., Goins, H., McLean, S., Crites, M., Allen, A., McMenamin, N., Harlee, T. (2020). Shifting Terrains: Society-Nature & Hazard Information for Fair-minded Transdisciplinary impact. NC Coastal Conference. November 7 & 8, 2022, Raleigh, NC [Oral Presentation]

2021 **Cutts, B.**, Vilá, O., Mendoza, J., McLean, S., Crites, M., Goins, H., McMenamin, N., Allen, A. Between a River and a Swamp: Equity after Disaster. Geography, Environment, and Sustainability Colloquium Series, UNC Greensboro, (Sept 2, 2021) [Departmental Seminar]

2021 **Cutts, B. B.**, Ifediora, B., Osia, U., Beckham, T., Vila, O., Randall, J., Bray, L., Dinan, M., Kennedy, A., Legerton, M., Lowry, D. S., McLean, S, Crites, M., Goins, H., McMenamin, N., Allen, A., Harlee-McCray, T., Mendoza, J., Harris, A. (2021, February) Just technological enough: planning for transformative disaster resilience through community-university research and action partnerships. Preparedness, Response, Innovation, Mitigation, Recovery (PRIMR), Texas A&M University, College Station TX. [Invited Presentation].

2021 **Cutts, B. B.**, Ifediora, B., Osia, U., Beckham, T., Vila, O., Randall, J., Bray, L., Dinan, M., Kennedy, A., Legerton, M., Lowry, D. S., McLean, S, Crites, M., Goins, H., McMenamin, N., Allen, A., Harlee-McCray, T., Mendoza, J., Harris, A. (2021, January) Just technological enough: planning for transformative disaster resilience through community-university research and action

- partnerships. Race & Place Seminar Series, Geospatial Graduate Student Association, Raleigh NC. Engagement Talk.
- 2020 Cutts, B. B. (2020, April). Disaster recovery science as transdisciplinary research. 2020 University Research Symposium, hosted by the Office of Research and Innovation, Raleigh NC (postponed indefinitely due to COVID). Engagement Talk.
- 2019 **Cutts, B.B.** (2019, March 21). Work-Life Balance (discussant). Career Conversations Panel. NC Water Resources Research Institute 2019 Annual Conference. Raleigh NC (200 attendees at conference, 25 at Career Conversations). DEI Engagement Talk.
- 2020 **Cutts, B. B.** (2020, February). How dead grass, disappearing gardens, and remediated rivers made me rethink environmental justice research and its role in local sustainability. Colloquium for the Department of Geography, University of South Carolina. Invited Seminar.
- 2020 **Cutts, B. B.** (2020, February). How dead grass, disappearing gardens, and remediated rivers made me rethink environmental justice research and its role in local sustainability. Colloquium for the Department of Forestry and Environmental Resources, NCSU. Invited Seminar.
- 2020 Randall, J., B. Cutts., J. Vukomanovic A Framework for the Spatial Analysis of Energy Poverty;. American Association of Geographers (AAG), Denver, CO. April 7. Session Chair. Canceled. Non-refereed. National
- 2020 **Cutts, B. B.** (2020, February). How dead grass, disappearing gardens, and remediated rivers made me rethink environmental justice research and its role in local sustainability. Colloquium for the Department of Geography, University of South Carolina. Invited Seminar.
- 2020 **Cutts, B. B.** (2020, February). How dead grass, disappearing gardens, and remediated rivers made me rethink environmental justice research and its role in local sustainability. Colloquium for the Department of Forestry and Environmental Resources, NCSU. Invited Seminar.
- 2019 Vilá, O., **Cutts, B.**, Harris, A., Bray, L., Hornsby, G., (2019) “Environmental recovery: Citizen science in the post-disaster context” CitSci2019, Raleigh, NC. Oral Presentation. Refereed. National.
- 2019 Panelist, College of Natural Resources “Environmental Justice” Research Roundtable with R. Emmanuel and L. Rivers (organized by L. Larson). January 2019
- 2019 **Cutts, B. B.**, Schwarz, K., Cadenasso, M. L., London, J. K., (2019, March 27). Can I eat the dirt? The impact of soil lead tests on behaviors in the garden, neighborhood and city. Social Environmental Science Exchange, Environmental Protection Agency, Office of Research and Development. (40 EPA personnel nationally). Engagement Talk.
- 2019 **Cutts, B. B.**, (2019, March). Aligning Citizen Action and Contributory Models of Citizen Science for Environmental Justice. In A. Rappold & B. Hubbel (chairs), Citizen Social Science for Environmental Public Health. Panel Discussion conducted at CitSci2019, Raleigh, NC. Oral Presentation. Refereed. National.
- 2019 Randall, J., **Cutts, B.**, Vukomanovic, J., (2019, May). Understanding the spatial justice of mapping energy poverty. *Energy and Society in Transition: 2nd International Conference on Energy Research and Social Science*, Tempe, AZ. Poster. Referreed. International.



- 2019 Vilá, O. Randall, J., Dinan, M., & Cutts, B., (2019, April). Political mobilization via Twitter: A case study on #AltNPS. *National Environment and Recreation Research Symposium*. Annapolis, MD. Poster. Refereed. National.
- 2019 Ifediora, B., Cutts, B. B. (2019, November). Muck Debris, or Tree: A Spatial, Temporal Approach to Predicting who asks for Volunteer Assistance After Disaster and How Quickly Their Needs are Met. *Hurricane*. Greenville, NC. Oral Presentation. Refereed. Regional.
- 2019 Ifediora, B., Cutts, B. B. (2019, November). Muck Debris, or Tree: A Spatial, Temporal Approach to Predicting who Asks for Volunteer Assistance After Disaster and How Quickly Their Needs are Met. Southeastern Division of the American Association of Geographers. Wilmington, NC. Oral Presentation. Non-refereed. Regional.
- 2019 Vilá, O., Cutts, B., Harris, A., Bray, L. Hornsby, G., (2019, April) “Post-Disaster Environmental Risk Insight Gained from Citizen Science Participation” *RISING NC Exhibit*, Raleigh, NC. Poster. Non-refereed. Local.
- 2019 Vilá, O., Cutts, B., Harris, A., Bray, L., Hornsby, G., (2019, March) “Environmental recovery: Citizen science in the post-disaster context” *6th Latin American Student Association Research Symposium*, North Carolina State University. Raleigh, NC. Poster. Non-refereed. Local.
- 2019 Dinan, M. & Cutts, B., (2019, Feb). Identifying the intersection between restoration and Cultural Ecosystem Services. *Graduate Research Symposium*, North Carolina State University, Raleigh, NC. Poster. Non-refereed. Local.
- 2018 Randall, J., Cutts, B., Vukomanovic, J., Minn, M., Greenberg, J. (2018, Feb). Mortgages and Maintenance: Characteristics of Greenness Change in an Urban Desert Landscape. *Graduate Research Symposium*, North Carolina State University, Raleigh, NC. Poster. Non-refereed. Local.
- 2018 **Cutts, B. B.** (2018, July 5). Environmental Justice – Dismantling Inequity and Enabling Sustainability Where We Live, Work and Play. Lunchtime Discovery Series, NC DEQ’s Office of Environmental Education and Public Affairs. Engagement Talk.
- 2019 Dinan, M. & Cutts, B. Land of Encroachment: Identifying sociocultural impacts of ecosystem change on New Mexico Grasslands. *National Environment and Recreation Research Symposium*. Annapolis, MD: April 2019. Oral Presentation. Refereed. National.
- 2018 Vilá, O. & Cutts, B., (2018) “Climate justice in cyberspace: Can the internet amplify and connect marginalized voices?” 2018 Carolinas Climate Resilience Conference, Columbia, SC. Oral Presentation. Refereed. Regional.
- 2018 Randall, J., Smith, C., Slocumb, W., Cutts, B., Vukomanovic, J., (2018, June). Mapping energy efficiency: understanding low-income energy geographies through data collaboration. *Human Geography Dimensions of Energy Access and Use Symposium, WWHGD Working Group*. Washington, DC. Poster. Refereed., International.
- 2018 Randall, J., Smith, C., Slocumb, W., Cutts, B., Vukomanovic, J., (2018, June). Mapping Energy Efficiency: Understanding Low-Income Energy Geographies Through Data Collaboration. *State Energy Conference of North Carolina*. Raleigh, NC. Poster. Refereed. Regional.

- 2019 *Dinan, M., Cutts, B.,* (2019, Dec). Identifying the intersection between restoration and Cultural Ecosystem Services. *A Community for Ecosystem Services*. Washington, DC. Poster. Refereed. National.
- 2018 *Dinan, M. & Cutts, B. B.,* (2018, June). Landscape values in New Mexico: Cultural ecosystem services & restoration management. *International Symposium on Society and Resource Management* (ISSRM), Snowbird, UT. Poster. Refereed. International.

#### F. GRANT PROPOSALS

- *A NC State Research Enterprise Data (RED) report of grant activity is available upon request.*

#### G. GRANT PROPOSALS- PENDING OR IN RE-DEVELOPMENT

- 2023 Title: Mitigating Cumulative Health Impacts and Environmental Health Disparities in Underserved Communities by Optimizing Water Infrastructure Funding PI: Jacqueline Gibson Proposal Number: 133016 Direct Sponsor: US Environmental Protection Agency (EPA) Co-Investigator [Pending]
- 2023 De los Reyes, F L, Ercumen, A., Guiteras, R., Harris, A., Hopping, J. A. NRT: Re-thinking and Transforming Water Sanitation and Health (Re-WASH). National Science Foundation. 2.9 million (senior personnel) [Pending]
- 2022 Schnetzer, A. (PI), Belcher, S.M., Nelson, N, Dietrick, J. C., Hoyo, C., Obenour, D. Ben-Horin, T., Paerl, R, Cutts, B. (2023-2028). North Carolina Center for Coastal Algae, People and Environment (NC C-CAPE). National Institute of Health. \$6,913,382 (\$765,655 to Cutts/ Community Engagement Core) Submitted November 2022 [Pending]
- 2023 Cutts, B. (PI), Osia, U. (2023-2024). Developing a Location Intelligent Platform for Equitable and Collaborative Disaster Recovery. Data Science Seed Grant. \$20,000 Submitted March 31, 2023. [NOT FUNDED – IN REDEVELOPMENT]
- 2023 Osia, U. (PI), Gilligan, K., Wilson, A. (2023-2024). Developing a Location Intelligent Platform for Equitable and Collaborative Disaster Recovery. NC Sea Grant Coastal Resilience Team Competition. (B. Cutts, Faculty mentor). \$10,000 Submitted April 3, 2023 [NOT FUNDED – IN REDEVELOPMENT]

#### H. GRANT PROPOSALS, FUNDED

- 2021 Savage, A., Knollenberg, W. K., Seekamp, E. L, Cutts, B. (2021-22). Leveraging Tourism-Dependent Coastal Community Insights to Develop a Virtual Disaster Preparedness Hub NC Sea Grant \$9,973
- 2021 Stevenson, K. T. (PI), Cutts, B. (2021-2022). Building coastal resilience through youth-led community conversations. NC Sea Grant \$25,000
- 2021 Cutts, B. (PI). Shoenig, A. (2021-2023). Justwater: Policy Leadership And Environmental Justice During Disaster Recovery. NC Sea Grant \$119,998

- 2021 Vukomanovic, J (PI), Cutts, B. (2021). Interdisciplinary Energy Data Analytics Ph.D. Fellows Program Phase II: Training the Next Generation of Energy Data Scholars. Duke University (Alfred P. Sloan Foundation). \$12,212.
- 2020 Larson, L. R. (PI), Cutts, B. Rivers III, L. (2020-2021). Engaging Diverse Communities in Urban Greening Efforts: Lessons Learned and Pathways to Success. Us Forest Service. \$199,371
- 2020 Cutts, B. (2020-2021). Planning Nature-Based Flood Mitigation Strategies Through Participatory Videos. NC Sea Grant. \$10,000
- 2020 Knollenberg, W (PI), Seekamp, E., **Cutts, B.**, McCreary, A. (2020-2021). RAPID: Disaster Recovery Decision Making in Remote Tourism-Dependent Communities. National Science Foundation. \$58,934
- 2019 **Cutts, B** (PI), Vila, O., Bray, L., Lowry, D., Harris, A. (2019 -2020) Robeson County - 100 soil tests near flooded homes. 2019 Hurricane Florence Response Grant Program. Foundation for the Carolinas. \$40,000
- 2018 Vila, O., **Cutts, B. B.** (Faculty PI), (2019). Participatory asset and problem mapping: A citizen science approach for documenting post-disaster flooding and priorities in coastal North Carolina. Graduate Student Research Grant. Funded by the Water Resources Research Institute **2019** (WRRI) and North Carolina Sea Grant (NCSG). \$9,569.
- 2018 Vila, O., **Cutts, B. B.** (Faculty PI), (2018-2019). *Environmental justice and recovery: Citizen science in the post-disaster context*. Quick-Response Research Grant. Funded by the Natural Hazards Center. \$2,010.
- 2018 Cutts, B. (PI). (2018-2020). Building Resilience by Innovating through Diverse Group Engagement (BRIDGE): Long-term recovery from Hurricane Matthew. North Carolina Sea Grant. PI. \$119,980
- 2016 Schooley, R. (PI), B. Bestlemeyer, B. Constantino, & B. Cutts. (2016-2020). Spatial Congruence between Biodiversity and other Ecosystem Services across Scales in a Managed Landscape Mosaic. USDA NIFA. \$440,000
- 2015 UIUC Campus Research Board. Identifying challenges to a just sustainability: implementing Community Voice Method in Milwaukee, WI. PI with A. Greenlee (Co-PI), 2015-2016. \$28,723
- 2014 Cutts, B. (PI), A. J. Greenlee, E. Breyer, J. Wilhoit, M.S. Kashem. (2014-2016). Focal Point: Urban Environmental Equity. UIUC Graduate College. \$15,000
- 2014 Cutts, B. (PI), A. J. Greenlee (2014-2016). Mapping vulnerabilities in EPA-designated Areas of Concern. Illinois-Indiana Sea Grant. \$62,568
- 2012 Fraterrigo, J (PI), B. Cutts, and J. Greenberg (2012-2014). Foreclosure as a natural experiment to quantify the effects of residential landscapes on carbon storage and identify controls on the outcome of potential urban sustainability initiatives. UIUC College of ACES Office of Research. Future Interdisciplinary Research Explorations (FIRE). \$31,451

- 2012 Cutts, B. (PI), J. Fraterrigo, and J. Greenberg. (2012). UIUC Campus Research Board. Foreclosure as an experiment in the erosion of social norms controlling residential vegetation. \$10,000
- 2013 Cutts, B. (PI), X. Cai. (2013). Integrating social data into models of headwater hydrological processes and the NGRREC research agenda. National Great Rivers Research and Education Center. \$65,000
- 2013 Cutts, B. (PI). (2013). Defining Sustainability in the Upper Mississippi River Basin Grant for Intern Funding. National Great Rivers Research and Education Center. \$6,000
- 2012 Cutts, B. (PI). (2012). Drainage Ditch Decision-making in the Illinois River Basin Grant for Intern Funding National Great Rivers Research and Education Center. \$6,000
- 2011 Cutts, B. (PI). (2011). Teaching enhancement grant: using short video production to engage students in social-ecological system research. University of Illinois College of ACES. \$1,320
- 2011 Cadenasso. M. (PI), K. Schwarz, B. Cutts, J. London. (2011-2016). Managing for multiple ecosystem services in working landscapes of Sacramento: Urban agriculture and soil lead contamination. University of California Agricultural and Natural Resources. Co-PI. \$589,000
- 2008 Kinzig, A. (PI) and B. Cutts. (2008-2010). NSF Doctoral Dissertation Improvement Grant. \$12,000
- 2008 Cutts, B. (PI). (2008). Frontiers in Life Sciences Conference Grant, Arizona State University. \$30,000
- 2007 Kinzig, A. (PI) and B. Cutts. (2007-2010). Water Information Providers: Dissertation research support and research assistant stipend. NSF Decision Center for a Desert City internal award. \$145,000

## II. TEACHING AND MENTORING

- *Teaching experience prior to last appointment is available upon request.*

### A. Teaching Effectiveness

#### 1. Courses Taught

Semester	Year	Course Code	Credits	Enrl	Evaluation	
					Student	Peer
F	23	PRT/NR/IDS 203: Humans & Envt	3	48	--	
<b>F</b>	23	PRT 451: Prin Rec Plan Dev	3	23	--	<b>X</b>
S	23	PRT/NR/IDS 203: Humans & Envt	3	42	47%	
<b>F</b>	22	PRT/NR/IDS 203: Humans & Envt	3	46	39%	
F	22	PRT 451: Prin Rec Plan Dev	3	14	36%	
<b>F</b>	22	PRT/NR/IDS 203: Humans & Envt	3	36	37%	
S	22	PRT/NR/IDS 203: Humans & Envt	3	33	60%	<b>X</b>
<b>F</b>	21	NR/IDS 303: Humans & Envt	3	39	covid	
<b>F</b>	21	PRT 451: Prin Rec Plan Dev	3	32	covid	
<b>S</b>	21	PRTM/GIS 810: ST Geo – Data Equity	2	12	covid	
<b>S</b>	21	NR/IDS 303: Humans & Envt	3	39	covid	
<b>S</b>	21	PRTM 810: Ind Study – EJ Curric Dev	1	2	covid	
<b>F</b>	20	NR/IDS 303: Humans & Envt	3	39	covid	
<b>F</b>	20	PRTM 810: Ind Study – Univ Teach	3	1	n/a	
<b>S</b>	20	NR/IDS 303: Humans & Envt	3	40	covid	
<b>F</b>	19	PRT 795/GIS 595: ST -Soc Net An	3	5	80%	
F	19	PRT/NR/IDS 203: Humans & Envt	3	40	58%	

#### 2. Student and Peer Evaluations

- *NC State ClassEval Report and peer teaching evaluations available upon request*

### B. Instructional Development

- 2019- Environmental Justice Graduate Certificate Development, faculty champion
- 2023 “What radical possibility lies in an environmental justice graduate certificate?”  
Black Research Symposium [Workshop Session March 25, 2023]
- 2023 “What radical possibility lies in an environmental justice graduate certificate?”  
Equity Research Symposium [Workshop Session March 8, 2023]
- 2022 Re-centering Transdisciplinarity: A University -Wide Panel Discussion on  
Environmental Justice Learning. Equity Research Symposium [Panel Discussant, Feb 9,  
2022]

- 2021 PRT 451: Principles of Recreation Planning and Facility Development minor course revision in Course Inventory Management (CIM) System.
- 2021 PRT/IDS/NR 203: Humans and the Environment course revision and Course Inventory Management (CIM) System record created. *The triple-crosslisted, solutions-focused course commended by University Courses and Curriculum Committee for creating a stellar course record.* [<https://oucc.dasa.ncsu.edu/course-spotlight-humans-and-the-environment/>]

### C. Mentoring Activities

#### NC State

- |                                                                   |           |
|-------------------------------------------------------------------|-----------|
| 1. Alyanna Wilson - UG                                            | 2023      |
| 2. Kayla Gilligan - UG                                            | 2023      |
| 3. Morgan Antonacci NCSU SLE-LDP: Leadership with communities -UG | 2022      |
| 4. 5 student ES 400 Student Project – UG                          | 2021      |
| 5. 6 students ES 400 Student Project -UG                          | 2020      |
| 6. Jaeleen Mendoza -UG                                            | 2020      |
| 7. Hanna Goins (UNC – Pembroke) -UG                               | 2019      |
| 8. Nathan McMenamin (UNC – Pembroke) -UG                          | 2019      |
| 9. Taleek Harlee -UG                                              | 2019      |
| 10. James Britt -UG                                               | 2018      |
| 11. Jenna Minser (University of Alabama) -UG                      | 2018      |
| 12. Jaleen Mendoza -UG                                            | 2018      |
| 13. Anika Palekar (Environmentors) -HS                            | 2017-2018 |
| 14. Demmitri Smith (Virginia State University) -UG                | 2017      |
| 15. Latia Jackson (Virginia State University) -UG                 | 2017      |

#### University of Illinois

- |                                                                |           |
|----------------------------------------------------------------|-----------|
| 16. Saachi Kuwayama -UG                                        | 2015      |
| 17. Allison Steffens-UG                                        | 2015      |
| 18. Amanda Abraham -UG                                         | 2015      |
| 19. Sarah Helmink -UG                                          | 2015      |
| 20. Michael Hennesy -UG                                        | 2015      |
| 21. Kevin Zhu (Researchers Initiative – Engineering) -UG       | 2014-2015 |
| 22. Nuochen Lyu (Researchers Initiative – Engineering) -UG     | 2014-2015 |
| 23. Jamie Zouras -UG                                           | 2014-2015 |
| 24. Rachel Wilson; (NRES 295) -UG                              | 2014-2015 |
| 25. Megan O’Loughlin;(NRES 295) -UG                            | 2014-2015 |
| 26. Kelly Lutsch; (NRES 295) -UG                               | 2013-2015 |
| 27. Jordan Williams (James Scholar Senior Thesis) -UG          | 2013-2015 |
| 28. Danqi Fang (Researchers Initiative – Women in Science) -UG | 2012-2015 |
| 29. Zili Xiang (Cornell University) -UG                        | 2014      |
| 30. Jia Wang (NGRREC Intern) -UG                               | 2014      |
| 31. Michaele Strauch;(NRES 295) -UG                            | 2012-2014 |
| 32. Kristina Sinclair; (NRES 295) -UG                          | 2013-2014 |
| 33. Mike Gallo; (IB 295) -UG                                   | 2013-2014 |
| 34. Kaitlyn Hornik; (NRES 295) -UG                             | 2013-2014 |
| 35. Vinisha Doshi (Researchers Initiative – Global Health) -UG | 2013-2014 |
| 36. Carly Norris (James Scholar Senior Thesis) -UG             | 2012-2014 |
| 37. Zian Yang; (NRES 295) -UG                                  | 2013      |
| 38. Bryce Hays (NGRREC Intern) -UG                             | 2013      |
| 39. Lisa Brooks -UG                                            | 2012-2013 |
| 40. Brian Slivnick -UG                                         | 2012-2013 |
| 41. Karissa Snouffer (NGRREC Intern) -UG                       | 2012-2013 |

42. Therese Banzuela (Researchers Initiative – Women in Science)-UG	2012-2013
43. Nate Banion -UG	2011-2013
44. Sara Hidder (James Scholar Senior Thesis) -UG	2011-2012
45. Adrienne Wuellner -UG	2011-2012
46. Courtney Kramer -UG	2011
47. 60 academic advisees (Human Dimensions of the Environment) -UG	2011-2016

#### University of California, Davis

48. Alan Eng -UG	2010-2011
49. Quentin Pecota -UG	2010

#### Arizona State University

50. Ariana Fox -UG	2008-2009
51. C. Allyn Knox (Honors) -UG	2007-2008
52. Nicholas Moore-UG	2006-2007

#### D. Graduate Committee Memberships

COMPLETE	IN PROGRESS	
4	1	PhDs Chair
9	1	PhD Committee Member
5	0	MS Chair
13	0	MC Committee Member
6	0	Masters Capstone

Student Name	Degree	Role	Completion date
1. Breyer, B.	PhD (GGIS, UIUC)	co-advisor	2019
2. Vila, O.	PhD (PRTM, NCSU)	Advisor	2022
3. Randall, J.	PhD (PRTM, NCSU)	co-advisor	2022
4. Ifediora, B.	PhD (Geo Anal, NCSU)	Advisor	2023
5. Osia, U.	PhD (Geo Anal, NCSU)	Advisor	In progress
6. Jurjonas, M	PhD (PRTM, NCSU)	committee member	2018
7. Gaydos, D.	PhD (FER, NCSU)	committee member	2020
8. Wood, A.	PhD (FER, NCSU)	committee member	2020
9. Alberico, C.	PhD (PRTM, NCSU)	committee member	2021
10. George, D.	PhD (FER, NCSU)	committee member	2022
11. Hotchkiss, C	PhD (PRTM, NCSU)	committee member	2022
12. Gibson, L	PhD (PRTM, NCSU)	committee member	2022
13. Thompson, A	PhD (PRTM, NCSU)	committee member	2023
14. Sheel, V.	PhD (FER, NCSU)	committee member	In progress
15. Hornik, K.	MS (NRES, UIUC)	Advisor	2016
16. Lower, E.	MS (NRES, UIUC)	Advisor	2017
17. Dinan, M.	MS (NR, NCSU)	Advisor	2019
18. Beckham, T.	MS (NR-PA NCSU)	co-advisor	2021

19.	Mazeski, H,	MS (PRTM, NCSU)	co-advisor	2022
20.	Sahagun, A.	MA, (COMM, UIUC)	committee member	2012
21.	Wilwerth, J.	MS (ACE, UIUC)	committee member	2013
22.	St. James, E.	MS (NRES, UIUC)	committee member	2013
23.	Girod, L.	MS (NRES, UIUC)	committee member	2013
24.	Weiss, J.	MS (NRES, UIUC)	committee member	2014
25.	Chantrill, C.	MUP (DURP, UIUC)	committee member	2015
26.	Johnson, N	MS (NRES, UIUC)	committee member	2015
27.	Zhang, X.	MS (NRES, UIUC)	committee member	2015
28.	Bell, I.	MS (FWCB, NCSU)	committee member	2020
29.	Futch, S.	MS (PRTM, NCSU)	committee member	2020
30.	Reilly, C.	MS (PRTM, NCSU)	committee member	2021
31.	Bergeson, C	MS (FER, NCSU)	committee member	2021
32.	van de Velde, J	MS (PRTM, NCSU)	committee member	2024
33.	McNulty, C.	MS (NRES, UIUC)	capstone adviser	2013
34.	Liggett-Boehm, B.	MS (NRES, UIUC)	capstone adviser	2013
35.	McLaughlin, D.	MS (NRES, UIUC)	capstone adviser	2016
36.	Nakkina, G.	MGIST (NCSU)	capstone adviser	2018
37.	Robinson, E.	MGIST (NCSU)	capstone adviser	2019
38.	Williams, Chantell	MGIST (NCSU)	capstone adviser	2021

### III. EXTENSION & ENGAGEMENT

- *Extension and engagement details prior to last appointment is available upon request.*

#### A. FOCUS

My community engagement approaches focus on environmental health and social equity to draw together and resource transdisciplinary teams. This approach advances a **vision** for a more expansive conception of the public good. Across the world, climate change, environmental pollution and land use decisions have disproportionate and negative impacts on the health and self-determination of communities negotiating policy from a position of disadvantage. From a position at the “frontline” of emerging challenges, community leaders have developed innovative leadership tactics to confront and transform systemic issues that make communities vulnerable to harm. Because they are vulnerable, they have practiced resilience and endurance. Including, centering, and resourcing frontline communities can inform solutions in ways that others cannot. The global reach of climate change and COVID-19 present a critical and urgent need for NC State and other universities to learn *with* frontline community leaders and amplify their knowledge as we re-imagine human-environment relationships in light of global changes.

#### B. GOALS AND OBJECTIVES

The impact of collaboration is relevant to the mission and vision of NC State and the objectives of under-resourced and overburdened communities directly. Additionally, the work has led to changes in policy implementation procedures that are of broader benefit to the people of North Carolina, the U.S., and the world.



The target audiences for engagement projects are frontline communities in North Carolina, NC state and local government agencies, and non-profit organizations with a presence in NC.

Engagement with target audience(s) advance the critical and urgent needs to do the following:

1. Improve direct benefits of university engagement to frontline communities.
2. Enhance capacity of social and environmental resilience programs to identify and relevant social inequities.
3. Communicate the value of environmental health and social equity as a public good.

## C. ENGAGEMENT PROJECTS

### 1. **JustWater: Integrating water system restoration and disaster recovery aid**

JustWater is a research centered engagement project active from 2020-present. The central purpose of the project is to improve the collective capacity of social and environmental non-profits to identify and fulfill their strategic goals for disaster recovery and resilience.

*Effectiveness at marketing programs to new and traditional audiences:* The JustWater research-action partnership leverages the knowledge and coordination initiatives at work in disaster response, recovery, and resilience. For example, we have been able to assess the efficacy of coordination in non-profit response to requests for aid after disaster to inform the member training and best practice recommendations of NC Volunteer Organizations Active in Disaster. We have partnered with NC VOAD and NCIDR to help identify opportunities to reconfigure their member training, evaluation, and data sharing. This reconfiguration will better serve knowledge transfer across areas of NC at different stages of disaster recovery and resilience planning and better serve knowledge integration across sectors within a shared geographic region. Additional work with coastal communities negotiating recovery after Hurricane Dorian provide opportunities to directly apply the lessons and opportunities of the network across new places.

*Team development:* Dr. Cutts works closely with other faculty including Drs. Erin Seekamp, Whitney Knollenberg (NC State PRTM), Ms. Ann Savage (NC State Tourism Extension), Dr. Allie McCreary (Western Kentucky University), Drs. Teshanee Williams and Kimalee Dickerson (UNC School of Government) and Dr. Betsy Albright (Duke Nicholas School) as well as with Rural Forward, a North Carolina-based community development nonprofit that aims to identify, strengthen, and support leaders to make rural counties healthier and thriving. This group includes graduate students Dr. Cutts advises in the newly formed Geospatial Analytics PhD program.

*Approaches to maximize benefits from and impacts of the project:* Non-profit partner Rural Forward is a co-investigator on a grant from NC Sea Grant with control of 50% of the planned budget. Within this budget is support for data management and effort to sustain the NC Inclusive Disaster Recovery Network.

Scholarly publications: 2; Dissertations: 2 in progress; Invited presentations: 2. Students trained: 4.

Outputs not reported elsewhere:

- 2023 Technical Advisory Committee, NC DEQ “Flood Resiliency Blueprint” (online-decision support tool)
- 2023 Gilligan, K., Wilson, A., Osia, U. Cutts, B. B. (2023). Diversity and Inclusion in Community Engagement. NC DEQ Resilient Coastal Communities Contractor Training.

2022 Gilligan, K., Wilson, A., Osia, U. Williams, T. Cutts, B. Shoenig, A. (2023). Mapping and measuring the NCIDR network. Project Updates to the NC Inclusive Disaster Recovery Network. Project Updates to the NC Inclusive Disaster Recovery Network Leadership Team.

2022 Williams, T. Cutts, B. Shoenig, A. (2022). Mapping and measuring the NCIDR network. Project Updates to the NC Inclusive Disaster Recovery Network.

2022 Cutts, B. Williams, T., Shoenig, A. 2022. NCIDR Interactive Network Map: <https://kumu.io/BethanyCutts/ncidr-1014-workshop> v. 1.0

**2. Radicle: Civic education for environmental connection**

Radicle is an education-centered community engagement project active from 2021-present. The mission is to improve civic education and its application to sustainability challenges. This responds to the bipartisan call for investment in civic education to secure democracy in public education.

*Effectiveness at marketing programs to audiences:* The work toward youth engagement in civic action includes partnerships with Boys & Girls Club of New Bern and the STEM Teacher at a Title 1 elementary school in Wake County. These programs reach youth and families navigating environmental concerns and science education from positions that have historically been excluded from narratives of environmental concern and scientific ability in North Carolina and the U.S.

*Team development:* The target audiences for engagement included (1) students from frontline communities defined as students from lower income and higher racial diversity school districts and neighborhoods (2) Leadership and Teachers (Boys and Girls Club of New Bern and Dillard Drive Magnet Elementary School) (3) Local governments that represent students and (4) NC State students now and as lifelong learners.

	Elementary School Objective	NCSU teaching practice
<b>SOIL</b>	Build to food-grade standards to prioritize safety	Identity-centered encourage awareness and reflection on human-environment perspective
<b>SEEDS</b>	Inventory cultivars to ensure diverse US and world culture representation	Pair elementary school work with learning at Sol Garden (NCSU Campus) to emphasize reciprocity
<b>ROOTS</b>	Prioritize DDMES student and staff leadership	Discuss both social and ecological dimensions of garden activity
<b>FRUITS</b>	Create inclusive narratives about who can do science/go to college	Civic engagement experience

Additional partners include The CNR Office of Diversity and Inclusion, Dr. Kathryn Stevenson (PRTM), Dr. Kimberly Bush (PRTM), Dr. Roxann Sykes (Dillard Drive Elementary School) and Mrs. Karen Proctor (Dillard Drive Elementary School).

*Approaches to maximize benefits from and impacts of the project:* Radicle connects environmental learning to opportunities for civic engagement. Mentorship by NC State students in the Environmental Science 400 course and PRT 203: Humans and the Environment enhances culturally relevant and actionable environmental learning among primary school-age students and university undergraduates

Total funded projects: 2; Invited presentations: 3; NC State undergraduate students trained: 221 (5 courses and 1 capstone group as of F 2023). K-12 students engaged per year 70-80.

### 3. Project BRIDGE: Build Resilience and Innovation through Diverse Group Engagement

Project BRIDGE is a research centered community engagement project active from 2018-2023. The central purpose is to resource resilience with data and decision-facilitation tools. Of the three projects highlighted, it is the most mature of the community engagement initiatives.

*Effectiveness at marketing programs to audiences:* The Lumbee Tribe of North Carolina, Robeson County Emergency Management, and Town Officials across the largely rural and racially diverse region of North Carolina have often been the object of research in public health and environmental change. A two-year listening process preceded the implementation of the project. The effectiveness of marketing research engagement in low-income communities was improved by shared governance and financial control of the projects as well as our efforts to systematically catalog and distribute information on research findings and disaster recovery initiatives beyond the scope of our own project. Letters of support for this project have been provided by NC legislators from both major political parties.

*Team development:* The target audiences for engagement included (1) frontline communities defined as flood affected residents of Robeson County, NC, and community organizing groups such as the Robeson County Cooperative for Sustainable Development, the SEEDS of Hope non-profit (2) City and County Government Officials and (3) Nonprofit organizations including: the Winyah Riverkeepers, American Indian Mothers, the Robeson County Partnership for Children, and the Robeson County Long-Term Recovery Committee.

*Approaches to maximize benefits from and impacts of the project:* Broad dissemination of the results of all relevant disaster studies and survivor support systems; web applications to navigate county-level maps of damage; free soil and water testing and interpretation support for over 100 low-income households; and community-generated documentaries and companion discussion guides. For example, the project informs ongoing disaster resilience schools organized in Robeson County by the Robeson County Cooperative for Sustainable Development. The Robeson County Resilience School serves as a blueprint for Southern Vision Alliance's delivery of the resilience school throughout the southeastern US. Additionally, the North Carolina Office of Resilience and Recovery has expressed interest in using the deliberative documentary as part of their staff training for work with disaster survivors.

Projects and deliverables: Scholarly publications: 3; Theses and Dissertations: 2; Capstone projects: 1; Reports: 1; Scholarly presentations: 10; Invited presentations: 2 Students trained: 5

Outputs not reported elsewhere:

2021 Cutts, B. B. & Bray, L. (Producer), Vila, O. (Director). (2021). *Between a River and a Swamp: all that water has to go somewhere*. USA. 19:06 minutes  
<https://www.youtube.com/watch?v=bGip4nQIOy4&t=241s>

resourcing resilience: a deliberative documentary



ROBESON COUNTY NORTH CAROLINA USA  
**BETWEEN A RIVER AND A SWAMP**

CREATED BY MATTHEW PRODUCTION IN PARTNER WITH A COMMUNITY-MADE FILM WRITTEN BY BETHAMNY CUTTS, OLIVER VILA AND LAURA BRAY. MUSIC BY ANA & NICKO. DIRECTOR OF PHOTOGRAPHY BETHAMNY CUTTS. PRODUCED BY BETHAMNY CUTTS. DIRECTED BY LAURA BRAY AND OLIVER VILA

2020 Bray, L. A., Vilá, O., Cutts, B. B. & Harris. A. (2020) *Disaster Recovery Soil Testing: Robeson County Community Report*. Raleigh, NC: North Carolina State University [print]

2019 Vilá, O., Bray, L. A., Cutts B., Harris, A., and Hornsby, G., (2019) “Citizen Science in the Post-Disaster Context.” *Quick Response Research Report*. Boulder, CO: Natural Hazards Center. (<https://hazards.colorado.edu/quick-response-report/environmental-risk-and-recovery>)

2019 Bray L., Cutts B. B., Vila O., Lowry D, McMenamim N, Goins H (2019) Project BRIDGE Training Program. March 6-9 2019. Description: Project BRIDGE training workshop materials. Developed to train researchers and community interviewers. Includes research ethics, interviewing techniques, video and audio equipment training, and cultural competency building exercises. The model emphasizes the two-way exchange of knowledge that informs the project. The training workshop reached hurricane survivors (10)

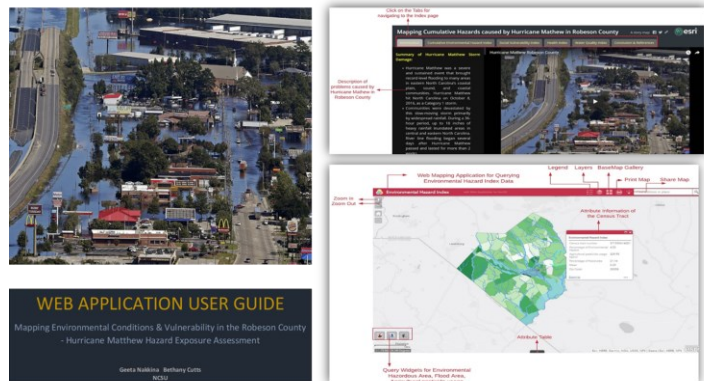
2019 Robinson, E, and Cutts. B. B. (2019) Project BRIDGE: Web Mapping Application - Residential Soil Contaminants in Robeson County. [interactive map]

2019 Co-Organizer of RAPID Response: Hurricane Florence Mini Symposium April 27, 2019. With A. Harris (PI) and G. Smith (co-sponsored by CGA and CNR)

2018 Advise NC DEQ “North Carolina Environmental Justice Mapping Tool” creation.

2018 Nakkina, G. and Cutts, B. B. (2018) Web Application User Guide: Mapping Environmental Conditions & Vulnerability in Robeson County – Hurricane Matthew Hazard Exposure

2017 Organize 5 community meetings with rural communities affected by Hurricane Matthew (2016)



#### 4. Summary of closed engagement projects

Years	Project name (community/ies)	Partners	Central community outputs	Relevance
2010-2018	Soils Lead and Urban Gardens (Sacramento, CA)	3 urban ag orgs 1 local government 3 universities	7 videos-voice projects 80 home gardens installed 100 residential soil lead tests	Inform urban garden ordinance change
2014-2018	Clean Rivers and Great Lakes (Milwaukee, WI & Hammond, IN)	2 environmental groups 2 local govts 1 federal govt 2 churches	<i>Water Connects Milwaukee.</i> [Deliberative Documentary & Discussion Guide] <a href="https://www.fishbase.org/species/10.6084/m9.figshare.6845297">10.6084/m9.figshare.6845297</a>	Support access to open space access following stream remediation

#### IV. SERVICE TO THE UNIVERSITY AND PROFESSIONAL SOCIETIES

- *Professional service prior to promotion to Associate Professor available upon request.*

##### A. University Service

NCSU, Faculty Senate Special Select Committee – Faculty Feedback Chair (2023)  
 NCSU, FER, Certificates and Minors Committee (2021-2022)  
 NCSU, PRTM, Teaching Review Committee (2021-present)

NCSU, Faculty LEAD (Leadership Education and Development) (2021-22)  
NCSU, PRTM, Diversity, Equity, Inclusion and Justice (chair 2021-22)  
NCSU, PRTM, Search Committee, Professional Golf Management Cooperative Education (2021)  
NCSU, Navigating Professional Settings as a Person of Color (attended open sessions) (2021)  
NCSU, LGBT+ in STEM Faculty Participant (Fall 2020)  
NCSU, CNR, Search Committee, Director of Research (2020)  
NCSU, CGA Steering Committee (2020-2021)  
NCSU, PRTM, Search Committee Department Head (2020)  
NCSU, Holhauser Engagement Award Nominating Committee (2020)  
NCSU, Engagement Operations Council Member, Office of Engagement (2020)  
NCSU, Whiteness in the Workplace Diversity Training (July-August 2020)  
NCSU, Diversity.Edu Cultural Competency Training (May 20, 2020)  
NCSU, Racial Equity Institute: Phase One Training (Feb 2020)  
NCSU, National Coalition Building Institute. Building Bridges: Strengthening Diverse Communities (Nov 2019)  
NCSU, DiversityEdu for Faculty: Personal Skills for a Diverse Campus (2019)  
NCSU, CGA Faculty Organizer for Campus-Wide Seminar and Panel Discussion featuring Dr. Julian Agyeman on Just Sustainability (2019)  
NCSU, Office of Sustainability, Environmental Justice Council (2019-present)  
NCSU, PRTM, Faculty advisor to the Graduate Student Association (2019-present)  
NCSU, PRTM, Graduate Program Advisory Committee, 2019-present (co-chair 2019/20, chair 2020-2021)  
NCSU, Project SAFE Ally, 2019-present  
NCSU, GBLT Advocate, 2019-present

## **B. Professional Activities**

2023 External reviewer for Promotion and Tenure, August 2023  
2022 Panel reviewer, National Science Foundation, March 2022  
2021 Panel reviewer, National Science Foundation, May 2021  
2020 Ad hoc reviewer, National Science Foundation, 2020  
2020 ad hoc Reviewer, Community Grant Program, Center for Human Health and the Environment  
2020 Curriculum Review, Eastern Carolina University  
2019 Southeastern Division of the American Association of Geographers (SEDAAG): Organized oral session: Multilevel Resilience: Triangulating Relationships Between Resilience and Vulnerability After Disaster. November 25, 2019. Wilmington, NC  
2017-2022 Associate Editor, *Society & Natural Resources*  
*Ad hoc peer review for journals*: Reviewer Scientific Reports (2019), Society & Natural Resources (2020), Environmental Management, Environmental Justice (2020, 2021), Springer Book Proposal (2021)