CURRICULUM VITAE OF JONATHAN W.F. REMO

I. PROFESSIONAL AFFILIATION AND CONTACT INFORMATION

A. Present University Department or Unit:

Professor of Geography and Environmental Resources, School of Earth Systems and Sustainability

B. Office Address:

1000 Faner Drive, Room 4531
Carbondale, Illinois 62901
Southern Illinois University
Carbondale, Il 62901
E-Mail: diamict@siu.edu

II. EDUCATION

Southern Illinois University, Carbondale, Carbondale, IL
Doctor of Philosophy, Environmental Resources and Policy
Concentration: Earth and Environmental Processes
Received December 2008

West Virginia University, Morgantown, WV
Master of Science, Geology / Geomorphology
Received August 1999

Edinboro University of Pennsylvania, Edinboro, PA
Bachelor of Science, Geology; Minor in Geography
Received May 1997

III. PROFESSIONAL EXPERIENCE

July 2024 to Present

Full Professor, School of Earth Systems and Sustainability; Program Director of the Environmental Resources and Policy Ph.D. Program, Southern Illinois University, Carbondale

July 2017 to July 2024
Associate Professor, School of Earth Systems and Sustainability; Program Director of the Environmental Resources and Policy Ph.D. Program, Southern Illinois University, Carbondale

August 2012 to July 2017
Assistant Professor, Department of Geography and Environmental Resources, Southern Illinois University, Carbondale

January 2009 to August 2012
Post-Doctoral Researcher, Department of Geology, Southern Illinois University, Carbondale

January 2004 to December 2008
Graduate Researcher, Department of Geology, Southern Illinois University, Carbondale

August 1999 to January 2004
Engineer/Scientist I, Shaw Environmental and Infrastructure, Knoxville, Tennessee

IV. RESEARCH AND CREATIVE ACTIVITY

A. Interests and Specialties:

The common thread in my academic and professional careers has been the assessment and quantification of human impacts on water resources. Within the broad field of water resources my research interests lie within four major themes: river science, river management, flood hazard assessment, and mitigation. Areas of specialization include fluvial geomorphology, hydrology, hydraulic modeling, river management, disaster-mitigation planning, and disaster-loss modeling.

B. Current Projects:

July 2024 to June 2025, Hydrologic, environmental, and soil carbon assessment to support the development of an agrivoltaics research, development, and demonstration facility at Southern Illinois University's Carterville Campus, Southern Illinois University, Advanced Energy Institute BOOST Grant, $20,000, PI

July 2022 – June 2025, Dogtooth Bend Floodplain Science Project, Phase II, The Nature Conservancy, $150,000, PI

C. Grants Applied for:

Not Funded

$300,000 Identifying tradeoffs in nutrient processing services in reconnected agricultural floodplain wetland Easements, Dogtooth Bend of the Mississippi River. National Resource Conservation Services Conservation Effects Assessment Program. October 2023, PI

$50,000 Enhancing the Resilience of Rural Flood Smart Communities with Civic Engaged Information and Communication Technologies. The National Science Foundation CIVIC Program, July 2020, Co-PI

$10,000 The Contribution of Floodplain Wetlands to Nitrogen Pollution Reduction, U.S. Geologic Survey's Illinois Water Resource Center, April 2019 Co-PI.

$89,780 Lessons from Harvey: Evaluating the Effectiveness of Flood-Mitigation Policies for Flood-Loss Reduction October 2017 – September 2018 NSF Rapid Response Research (RAPID) Collaborative: Co-PI

$599,700 A transdisciplinary framework for incorporating multiple ecosystem services in decision making: A floodplain management case study. U.S. Environmental Protection Agency's STAR Integrating Human Health and Well-Being with Ecosystem Services RFP, (2016) PI

$396,500 Evaluating Strategic Floodplain Reconnection as a Sustainable Management Strategy, National Science Foundation's Geography and Spatial Sciences Program (2015) PI

$ 9,519 A Multidisciplinary Approach to Illinois River Floodplain-Reconnection Modeling, Illinois Water Resource Center / U.S. Geologic Survey (2014) PI

$1,490,000 Strategic Floodplain Reconnection for a Non-Stationary World, National Science Foundation, National Science Foundation Dynamic Coupled Natural and Human Systems (CNH) Program, (2013) Lead-PI

$ 513,292 Cook County Multi-Hazard Mitigation Plan (2013) Co-PI

$197,000 Testing effects of river training structures on flow dynamics, flood levels, and physical habitat. National Science Foundation's Hydrologic Sciences (2013) Co-PI

$ 287,000 - Effect of River Training Structures on Flow Dynamics, Flood Levels, and Physical Aquatic Habitat. National Science Foundation's Hydrologic Sciences. (2011) Co-PI

$275,000 Strategic floodplain reconnection using stacked ecosystem services. National Science Foundation's Geography and Spatial Sciences Program. (2011) Co-PI

D. Grants Received and Completed:

January 2023 - September 2024 Assessing novel polymerase chain reaction (PCR) primers to effectively identify denitrifying soil microorganisms in Mississippi River wetlands at Dogtooth Bend. American Rivers, $20,500, Co-PI

July 2020 - June 2022, Dogtooth Bend Floodplain Science Project. The Nature Conservancy. $227,200, PI

July 2021- December 2021, Enhanced ground- and surface- water monitoring of the Mississippi River Floodplain at Dogtooth Bend. American Rivers $100,100 PI

September 2017 – October 2021 Potential for conservation lands in Middle Mississippi River floodplains to mitigate flood flows for ecosystem services. U.S. Fish and Wildlife Service. $233,500, Co-PI; SIU $84,700

June 2014 – December 2018 Tree-ring Reconstruction of Flood Dynamics on the Mississippi River and Principal Tributaries, National Science Foundation, Geography and Spatial Sciences. $296,876, Co-PI; SIU $118,000

January 2013 - August 2013, Illinois Statewide Flood Exposure Assessment. $155,000 PI.

November 2009 to August 2012, assessing 21st Century Changes in Flood Risk Related to Climate Change Along the Upper Mississippi River, USA. National Commission on Energy Policy. $30,000

E. Honors and Awards:

American Association for the Advancement of Science, 2018-2019 Executive Branch Science and Technology Policy Fellowship Awardee ($120,000 – stipend and travel budget)

Illinois Association of Floodplain and Stormwater Managers (IAFSM), State of Illinois Mitigation Award 2012 (Co-awardee with Beth Ellison and Jen Dierauer, SIU). March 2012

HAZUS User of the Year 2010, Federal Emergency Management Agency. July 2010

Outstanding Graduate Researcher Award, Southern Illinois University, Carbondale. April 2008 ($1,000 Award)

Southern Illinois University Dissertation Research Award: Utilizing archival data to assess historic change in flood flow conveyance of the Mississippi River. May 2007 ($20,000 Award)

International Association of Mathematical Geology Student Grant Award:
The use of retro-modeling to assess the effect of river engineering on Lower Mississippi River Flood Stages August 2006 ($2,000 Award)

Southeast Section Geological Society of America Research Grant
The Structural and Lithologic Controls on Mass Movement in the New River Gorge, West Virginia. April 1998 ($500 Award)

F. Papers and Presentations at Professional Meetings (Selected):
* denotes my student, [x] Invited Talk, [xx] Peer Reviewed Conference Paper

Remo J.W.F., Stony, S., Brooks M., Hamilton-Brehm., S, Leamon, G. Gentz, T. Lefticariu, L., 2023. River-floodplain connectivity and nutrient processing along the Mississippi River. World Large River's Conference, Vienna, Austria. August 21st to 25.

Stony, S., Brooks M., Hamilton-Brehm., S, *Krienert, J.M., Dilks, E., Remo J.W.F., 2023. Cross-Comparisons of Sediment Incubation Methods to Bound Stochastic Influences on Denitrification of Natural Waters from Mississippi River Floodplain Wetlands. European Geophysical Union General Assembly, Vienna, Austria. April 23rd to 28th.

Remo, J.W.F., 2023. Assessing river-floodplain connectivity, sedimentation, and nutrient deposition associated with an active avulsion along the lower most segment of the middle Mississippi River, USA, Mississippi River Research Consortium Meeting, La Crosse WI., April 19th-21st.

Remo, J.W.F., *Giri, T., 2022. The Unintentional Reconnection of the Mississippi River to the Dogtooth Bend Floodplain - Assessment of Changes in Connectivity, Sedimentation, Flood Risk and Nutrient Processing. American Geophysical Union Fall Meeting, Chicago

Stony, S., Brooks M., Hamilton-Brehm., S, *Krienert, J.M., Dilks, E., Remo J.W.F., 2022. Denitrification Rates Relative to Sand Content and Nitrate Enrichment among Middle Mississippi River Floodplain Wetlands along the Dogtooth Bend in Southern Illinois. American Geophysical Union Fall Meeting, Chicago

Hamilton-Brehm, S.C., Leamon, G., Dix, S., Egge B., Lavorini, D. Gutenkauf, Z., Samberg, S., Zimmerman, T., Lawver2, A., *Kienert J.M., Brooks, M. Remo, J.W.F., 2022. Identification and Evaluation of Novel Soil Bacteria Associated with Denitrification within the Mississippi River Floodplain in Southernmost Illinois. American Geophysical Union Fall Meeting, Chicago.

Genz, T. Lefticariu, L., Remo JWF, *Krienert, J. 2022. Evaluation of the nitrate reduction capacities of riparian wetlands with Dogtooth Bend of the Mississippi River. American Geophysical Union Fall Meeting, Chicago. American Geophysical Union Fall Meeting, Chicago.

*Krienert, J.M., Remo, J.W.F. 2022. Ephemeral Surface Water Essential to Modeling Groundwater of a Leveed River Floodplain?

Remo, J.W.F., * Krienert, J.M., 2022. Hydraulic Assessment of Sedimentation within the Middle Mississippi batture and its Implications for Nutrient Storage. Mississippi River Research Consortium Annual Meeting. La Crosse, Wisconsin.

Remo, J.W.F., * Krienert, J.M., 2022. Toward understanding the deposition of sediment and nutrients within the Mississippi River Batture. American Association of Geographers Annual National Conference, New York.

Remo, J.W.F., *Krienert, J.M. 2021, The interplay of hydraulics, morphology, sedimentation, and nutrients within the middle Mississippi River batture. USA American Geophysical Union Fall Meeting, New Orleans.

*Krienert, J.M., Remo, J.W.F., Lefticariu, L., 2021. Mapping hydrologic transport of nutrients through wetlands of the middle Mississippi River valley. USA American Geophysical Union Fall Meeting, New Orleans.

Remo, J.W.F., 2019. Large river floodplain surface water-groundwater interactions: Insights from the 2019 Midwest Flood. USA American Geophysical Union Fall Meeting, San Francisco.

Remo, J.W.F., 2019. Towards Unification of the lower Mississippi River's Flood Record Annual American Association of Geographers Conference, Washington, D.C.

*Krienert, J.M., Remo, J.W.F., Lefticariu, L., 2018. Evaluating Nitrogen Transport in Hydrologically Connected Wetlands of the Mississippi River. Geological Society of America Annual Meeting, Indianapolis, Indiana

Remo, J.W.F., 2018. Sedimentation within the batture lands of the middle Mississippi River, USA Mississippi River Research Consortium Proceedings, v. 50, April 25-26, La Crosse Wisconsin.

Remo, J.W.F., and Therrell, M., 2018. Estimating discharges for historic floods along the middle and lower segments of the Mississippi River. Annual American Association of Geographers Conference, April 9th to 13th, New Orleans, Louisiana

Remo J.W.F., and *Ryherd J., 2017. Sedimentation within the batture lands of the middle Mississippi River, USA American Geophysical Union Fall Meeting, New Orleans, LA

Remo J.W.F and *Ryherd, J. 2017. The Importance Understanding Geomorphic Process within Batture Lands in the Pursuit Sustainable River Management, a Middle Mississippi River Case Study. Annual American Association of Geographers Conference, Boston, Massachusetts

Remo, J.W.F., *Ross, J. and Therrell, M., 2016. Bridging the Gap between the Paleo- and Historical- Flood Record of the Mississippi River: Assessment of Dams, Levees, and Other Sources of Non-stationarity. Geological Society of America Annual Meeting. September 25th to 28th Denver, Colorado.

Remo, J.W.F., *Ross, J. and *Guida, R., 2016. Developing the Long View of the Mississippi River's Flood History: Holocene "Megafloods" to Yesterday. Geologic Society of America North- Central Section Meeting. April 18-19. Urban-Champaign, Illinois.

Remo, J.W.F. *Rushing A., and *Guida R.J., 2015. Hydro-geomorphic Considerations for

River-Floodplain Reconnection within the Mississippi River Basin, USA. The Second Mississippi-Yangtze River Basins Symposium. October 14th to 17th Wuhan, China

Remo, J.W.F. *Rushing A., and *Guida R.J., 2015. Hydro-geomorphic Considerations for River-Floodplain Reconnection Along the Lower Illinois River, USA. The 4th Biennial Symposium of the International Society for River Science, La Crosse, Wisconsin.

Remo, J.W.F, Secchi, S., *Guida, R.J. and *Rushing A., 2015. Strategic Floodplain Reconnection for improving Flood Resilience of Illinois River Floodplain Communities. Annual American Association of Geographers Conference, Chicago, Illinois.

Remo, J.W.F, Secchi, S., *Guida, R.J., 2014. Strategic Floodplain Reconnection for Large River Rehabilitation. Illinois Water 2014, Urbana, Illinois, October.

Remo, J.W.F and *Guida, R.J., 2014. Guiding Large River Management using Retro- and Scenario Modeling. 2nd International Conference on the Status and Future of the World's Large Rivers, Manus, Amazon, Brazil, July.

Remo, J.W.F, *Mahgoub, M., Ellison E., Pinter, N., 2014, Assessing Statewide Flood Vulnerability in Illinois. Annual American Association of Geographers Conference, Tampa Florida.

[xx] Huthoff, F., Barneveld, H., Pinter, N., Remo, J., Eereden, H., 2013. Optimizing design of river training works using 3-dimensional flow simulations. Smart Rivers 2013, September 23-27 Liege, Belgium.

[x]Remo, J.W.F, 2013, A Brief History of the Mississippi River's Physical Template. 2013. American Fisheries Society Annual Meeting, September 8-12, Little Rock, Arkansas.

Remo, J.W.F, Ellison E., 2013, Assessing Statewide Flood Vulnerability in Illinois Using HazusMH. Hazus-MH User Conference - 6th Annual HAZUS Conference, August 23rd -25th, 2013. Indianapolis, Indiana.

Remo, J.W.F, 2013 Do River-Training Structures Enhance Physical Aquatic Habitat? Mississippi River Research Consortium Proceedings, v. 45, April 24-26, La Crosse Wisconsin.

Remo J.W.F. and Pinter, N., 2012. Assessment of chevron dikes for the enhancement of physical-aquatic habitat within the Middle Mississippi River, USA. 2012 American Geophysical Union Fall Meeting, San Francisco, CA

Remo, J.W.F., Pinter, N., Brand, J., Huthoff, F., 2012. Towards a Room for the Rivers Policy in the USA. Association of State Floodplain Mangers 2012 Annual National Conference, San Antonio, Texas.

[xx] Huthoff, F., Remo J.W.F., Pinter, N., 2012. Hydrodynamic Levee-Breech and Inundation Modeling of a Levee District along the Middle Mississippi. *in* Loucks, E.D.(Ed.), World Environmental and Water Resources Congress 2012: Crossing Boundaries. American Society of Civil Engineers. doi.org/10.1061/9780784412312.143

Remo, J.W.F., Carlson, M., Pinter, N., 2012. Hydraulic and flood-loss modeling of floodplain management strategies along the Middle Mississippi River, USA. American Water Resources Association Spring Specialty Conference on GIS and Water Resources VII, in New Orleans, LA, March 26-28, 2012.

[xx] Remo, J.W.F, Pinter, N., 2007. The use of spatial systems, historic remote sensing, and retro-modeling to assess man-made changes to the Mississippi River System. *in*: Zaho, P. et al. (Eds.), Proceedings of International Association of Mathematical Geology 2007 Geomathematics and GIS Analysis of Resources, Environment and Hazards. State Key Laboratory of Geological Processes and Mineral Resources, Beijing, China, pp. 286-288.

Remo, J.W.F. and Kite, J.S., 1999. Geologic Controls on Landslides in the New River Gorge, West Virginia, *in:* New River Symposium Proceedings, April 15-16, Boone, North Carolina, p. 87-97

G. Other:

V. PUBLICATIONS AND CREATIVE WORKS

A. Articles in Professional Journals: (* denotes my student)

1. Samberg SS, M.L. Brooks, J.W. Remo, S.D. Hamilton-Brehm. *in prep*. Quantifying the Breadth of Denitrification in a Mississippi River Floodplain: A Novel Approach to Contrast the Effects of Inundation Path Across Different Sediment Types. Science of the Total Environment.

2. Remo, J.W.F., *Lal Giri, T. 2024. Assessing geomorphic and hydraulic changes related to an unplanned reconnection of the middle Mississippi River and its floodplain near Miller City, Illinois, USA. Geomorphology. 449. https://doi.org/10.1016/j.geomorph.2024.109062

3. Munoz, S.E., Dee, S.G.D., Luo, X., Haider, M.R., O'Donnel, M., Parazin, B., Remo, J.W.F. 2023. Mississippi River low-flows: context, causes, and future projections Environmental Research Climate. 2(3). DOI 10.1088/2752-5295/acd8e3.

4. *Alruzuq, A.R., Remo, J.W.F., Mossa, J., Ash, K., 2023, Socio-hydrology and vulnerability of levee systems along the lower Illinois River. Annals of GIS. https://dx.doi.org/10.1080/19475683.2023.2166113

5. Remo, J.W.F., * Krienert, J.M., 2022, Hydraulics, sedimentation, and nutrient deposition within the middle Mississippi River Batture, USA. Geomorphology. v. 416. https://doi.org/10.1016/j.geomorph.2022.108429

6. Paxton, A., Schoof, J.T., Ford, T.W., Remo, J.W.F., 2021., Extreme Precipitation in the Great Lakes Region: Trend Estimation and Relation with Large-Scale Circulation and Humidity. Frontiers in Water 3:782847. doi: 10.3389/frwa.2021.782847

7. Munoz S.E., Giosan L., Therrell, M.D., Remo, J.W.F., Shen Z., Sullivan, R.M., Wiman, C., O'Donnell, M., Donnelly, J.P. 2018. Mississippi River flood hazard amplified by climate variability and river engineering, Nature. v. 556, 95–98. doi:10.1038/nature26145

8. Remo, J.W.F., *Ryherd, J.K., Ruffner, C.M. Therrell, M.D. 2018. Temporal and spatial patterns of sedimentation within the batture lands of the middle Mississippi River, USA. Geomorphology. 308, 12-141. doi.org/10.1016/j.geomorph.2018.02.010

9. Remo, J.W.F., Ickes, B.S., *Ryherd, J.K., *Guida, R.J., Therrell, M.D. 2018. Assessing the impacts of dams and levees on the hydrologic record of the Middle and Lower Mississippi River, USA. Geomorphology. 33, 15, 88-100 doi.org/10.1016/j.geomorph.2018.01.004

10. McClain S. Bruch, C., Secchi S., and Remo J.W.F., 2017. What Does Nature Have to Do with It? Reconsidering the Distinctions in Policy Frameworks for Disaster Response to Natural and Man-made Disasters in the Danube Basin. Natural Hazards and Earth Systems Science. 17, 2151-2162. doi.org/10.5194/nhess-17-2151-2017

11. Remo J.W.F., *****Guida R.J., Secchi S., 2017, Screening the Suitability of Levee Protected Areas for Strategic Floodplain Reconnection along the LaGrange Segment of the Illinois River, USA. River Research and Application. 33: 6, 1535-1467. https://doi.org/10.1002/rra.3055

12. *****Guida R.J., Remo J.W.F, Secchi S., 2016. Tradeoffs of Strategically Reconnection Rivers to their Floodplains: The Case of the Lower Illinois River (USA). Science of the Total Environment. 572: 43-55. https://doi.org/10.1016/j.scitotenv.2016.07.190

13. *Guida R.J., Remo J.W.F, Secchi S., 2016. Applying geospatial tools to assess the agricultural value of Lower Illinois River floodplain levee districts. Applied Geography 74: 123-135. https://doi.org/10.1016/j.apgeog.2016.07.002

14. *****Kozak J.P., Bennett M.G., Piazza B.P., Remo J.W.F., 2016. Towards dynamic flow regime management for ecosystem restoration in the Atchafalaya River, Basin, Louisiana. Environmental Science and Policy 64, 118-128. https://doi.org/10.1016/j.envsci.2016.06.020

15. Remo J.W.F., Henie R.A., Ickes B.S., 2016, Particle Size Distribution of Main Channel Bed Sediments along the Upper Mississippi River, USA. Geomorphology. 246,118-131. doi:10.1016/j.geomorph.2016.04.012

16. Pinter N., Huthoff, Dieraurer J., Remo, J.W.F. Damptz, A., 2016, Modeling residual flood risk behind levees, Upper Mississippi River, USA, Environmental Science and Policy. 58, 131-140, doi.org/10.1016/j.envsci.2016.01.003

17. Remo J.W.F., Pinter N., *****Mahgoub M., 2015, Assessing Illinois's Flood Vulnerability Using Hazus-MH. Natural Hazards. 81, 265-287. doi:10.1007/s11069-015-2077-z

18. Huthoff, F., Remo, J.W.F., Pinter, N., 2015, Hydrodynamic levee-breach and inundation modeling of the Metro East Levee Cell, Middle Mississippi River, Journal of Flood Risk Management. dx.doi.org/10.1111/jfr3.12066

19. *****Guida R.J., Swanson, T.L., Remo, J.W.F., Kiss, T. 2015, Strategic Floodplain Reconnection for the Lower Tisza River, Hungary: Opportunities for Flood-height Reduction and Floodplain-wetland Reconnection. Journal of Hydrology. doi:10.1016/j.jhydrol.2014.11.080

20. Schoof, J.T., Heern, Z.A., Therrell, M.D., Remo, J.W.F. 2014, Assessing trends in lower tropospheric heat content in the Central USA using equivalent temperature. International Journal of Climatology. doi:10.1002/joc.4175

21. Huthoff, F., Pinter, N., Remo, J.W.F., 2014, Closure to "Theoretical analysis of wing dike Impact on River Flood Stages". Journal of Hydraulic Engineering. 10.1061/(ASCE)HY.1943-7900.0000931

22. Remo, J.W.F., *****Khanal, A., Pinter, N., 2013, Assessment of chevron dikes for the enhancement of physical-aquatic habitat within the Middle Mississippi River, USA. Journal of Hydrology. 50, 146-162. dx.doi.org/10.1016/j.jhydrol.2013.07.007

23. Huthoff, F., Pinter, N., Remo, J.W.F., 2013, Theoretical analysis of stage magnification caused by wing dikes, Middle Mississippi River, USA. Journal of Hydraulic Engineering. 139(5), 550–556. dx.doi.org/10.1061/(ASCE)HY.1943-7900.0000698

24. Remo, J.W.F. and Pinter, N, 2012. Hazus-MH Earthquake Loss Modeling Estimates in the Central United States, Natural Hazards. DOI 10.1007/s11069-012-0206-5

25. Pinter, N. Dierauer, J., and Remo J.W.F., 2012. Flood-loss modeling for assessing impacts of flood-frequency adjustment, Middle Mississippi River, USA. Hydrological Processes. doi:10.1002/hyp.9321

26. Dierauer, J., Pinter, N., and Remo J.W.F, 2012. Evaluation of levee setbacks for floodloss reduction, Middle Mississippi River. Journal of Hydrology. doi:10.1016/j.jhydrol.2012.05.044

27. Remo, J.W.F., Larson, M., Pinter, N. 2012, Hydraulic and Flood Loss Modeling of levee, floodplain, and river management strategies, Middle Mississippi River, USA. Natural Hazards. doi:10.1007/s11069-011-9938-x

28. Flor, A., Pinter, N., Remo, J.W.F., 2011. The ups and downs of levees: GPS-based change detection, Middle Mississippi River USA. Geology. dx.doi.org/10.1130/G31493.1

29. Flor, A., Pinter, N., Remo, J.W.F., 2010. Evaluating levee failure susceptibility on the Mississippi River using logistical regression analysis. Engineering Geology. doi:10.1016/j.enggeo.2010.08.003

30. Pinter, N. Jemberie A. A., Remo J.W.F, Heine, R.A., Ickes B.S. 2010. Cumulative Impacts of River Engineering, Mississippi and Lower Missouri Rivers. River Research and Applications. doi: 10.1002/rra.1269

31. Remo, J.W.F., Pinter, N., Heine, R.A. 2009. The use of retro- and scenario- modeling to assess effects of 100+ years river engineering and land cover change on Middle and Lower Mississippi River flood stages. Journal of Hydrology. doi:doi.10.1016/j.jhydrol.2009.07.049

32. Pinter, N., A. A. Jemberie, Remo, J.W.F., Heine R.A., Ickes, B.S. 2008. Flood trends and river engineering on the Mississippi River system, Geophysical Research Letters, 35, L23404, doi:10.1029/2008GL035987.

33. Remo, J.W.F., Pinter, N., Ickes, B. S., Heine, R. 2008. New Databases Reveals 200 Years of Change on the Mississippi River System. Eos: Transactions of the American Geophysical Union 89, 14, 134-135.

34. Jemberie, A. A., Pinter, N., Remo, J.W.F. 2008. Hydrologic history of the Mississippi and Lower Missouri Rivers based upon a refined specific-gage approach. Hydrological Processes doi:10.1002/hyp7046

35. Remo, J.W.F., Pinter, N. 2007. Retro modeling the Middle Mississippi River. Journal of Hydrology. https://doi.org/10.1016/j.jhydrol.2007.02.008

Creative Contributions: (None)

Chapters in Professional Books:

36. Wagner, M.J., Remo, J.W.F., Sharp, K. 2018. The Power of Place Prehistoric Ritual Landscapes in Southern Illinois. *in* Pauket P.T. and Koldehoff B.H. eds. New Perspectives on Science, Religion and Archaeology, Alabama University Press.

37. Wagner, M.J., Sharp, K., Remo, J.W.F., 2018. Transformed Spaces: A Landscape Approach to the Mississippian Period Rock Art of Illinois. *in* Oxbow Press

38. Remo, J.W.F, 2016. Chapter 11 - Managing the Mississippi River in a non-stationary world: Past practices and future challenges. *in* Fishery Resources, Environment, and Conservation in the Mississippi and Yangtze (Changjiang) River Basins, Chapter: 11, Publisher: American Fisheries Society, Editors: Yushun Chen, Duane Chapman, John Jackson, Daqing Chen, Zhongjie Li, Jack Kilgore, Quinton Phelps, and Michael Eggleton, pp.350

39. Remo, J.W.F, 2006. Chapter 15: Streams, Rivers and Flooding *in* Environmental Geology. Esling, S. ed., Mc Graw Hill, Chicago.

Popular and Creative Writing:

1. Remo, J.W.F., 2016, Comment on River users, River's Behaving Badly. Oldman River Dialogs. August 12, 2016. http://www.oldmanriverdialogs.com/a-river-behaving-badly/
2. Remo, J.W.F., 2016, Comment on River users, stakeholders, and responsibility. Oldman River Dialogs. August 3, 2016. http://www.oldmanriverdialogs.com/river-usersstakeholders-and-responsibility/
3. Christenson, B., Remo J.W.F., and Pinter, N., 2013, Surviving the Hazard: Applying Mitigation Practices in Southern Illinois. Daily Egyptian 11/20/2013.
4. Remo, J.W.F., 2011, Bigger, stronger, levees are not the answer. Riparian Rap Blog. May 15, 2011. http://lrrd.blogspot.com/2011/05/bigger-stronger-levees-are-notanswer.html

B. Book Reviews: (None)

C. Other: Press Interviews

1. For many Illinoisans in flood-prone areas, buyouts are the only way out. May 15th, 2024 St. Louis Post Dispatch. For many Illinoisans in flood-prone areas, buyouts are the only way out (stltoday.com)
2. Is shipping goods by barge good for the environment? September 18th, 2023. Marketplace. https://www.marketplace.org/2023/09/18/is-shipping-goods-by-barge-good-for-the-environment/
3. Climate change affects the Mississippi. But how much does the river contribute to it?, St. Louis National Public Radio. August 9th, 2023. https://www.kcur.org/2023-08-09/climate-change-affects-the-mississippi-but-how-much-does-the-river-contribute-to-it
4. Flood victims in St. Louis area still waiting for buyouts. 'When can we leave?' St. Louis Post Dispatch July 8th, 2023. https://www.stltoday.com/news/local/government-politics/flood-victims-in-st-louis-area-still-waiting-for-buyouts-when-can-we-leave/article_e09cede6-1049-11ee-85b4-bf4789e20515.html
5. Floods are getting more severe and frequent around St. Louis. Here's why. St. Louis Post Dispatch. March 18th, 2023. https://www.stltoday.com/news/local/metro/floods-are-getting-more-severe-and-frequent-around-st-louis-heres-why/article_4fbf7a88-3b4d-5f95-8b9d-956d1befc131.html.
6. What would happen if an earthquake hit Illinois? February 13, 2023. https://wgnradio.com/john-williams/what-would-happen-if-a-earthquake-hit-illinois/
7. Drought Snarls Mississippi River Transit in Blow to Farmers From Minnesota to Louisiana. Chicago Tonight. WTTW. November 3, 2022. https://news.wttw.com/2022/11/03/drought-snarls-mississippi-river-transit-blow-farmers-minnesota-louisiana
8. Bodies of water all over North America are drying up due to drought, climate change: Experts. October 19, 2022. ABC News. https://abcnews.go.com/US/bodies-water-north-america-drying-due-drought-climate/story?id=91737496
9. Barges idling along Mississippi River sign of supply chain woes to come should drought worsen: Experts. October 10, 2022. ABC News. https://abcnews.go.com/US/barges-idling-mississippi-river-sign-supply-chain-woes/story?id=91300170
10. After floods, Eureka, region rethink river management. March 20, 2021. St. Louis Post-Dispatch. https://www.stltoday.com/business/local/after-multiple-historic-floods-eureka-region-rethink-river-management/article_88b16904-952e-5b6d-9b77-bf142540e50d.html
11. Environmental Groups Sue Corps of Engineers, Claim River Barriers Worsen Floods, May 19th 2020. https://news.stlpublicradio.org/post/environmental-groups-sue-corps-engineers-claim-river-barriers-worsen-flooding#stream/0
12. Missouri Gets Buyouts for Flood-Prone Homes More Than Any Other State. June 19th, 2019. https://news.stlpublicradio.org/post/missouri-gets-buyouts-flood-prone-homes-more-any-other-state#stream/0
13. Levees solve and create problems along the Mississippi. June 17th, 2019. https://www.dailycomet.com/news/20190617/levees-solve-and-create-problems-along-mississippi

14. When a community built higher levees to protect itself, flooding worsened for neighbors: The River's Revenge June 17th 2019. https://www.nola.com/environment/2019/06/when-a-community-built-higher-levees-to-protect-itself-flooding-worsened-for-neighbors-the-rivers-revenge.html
15. As Floodwaters Remain High, Many in St. Louis Wonder If They'll Reach Flood Of '93 Levels, June 7, 2019. https://news.stlpublicradio.org/post/floodwaters-remain-high-many-st-louis-wonder-if-they-ll-reach-flood-93-levels#stream/0
16. Midwestern flood pit communities against one another a levees rise ever hire, May 7th 2019. https://www.nytimes.com/2019/05/07/us/flood-midwest-levees.html
17. The Great Flood of '93 could happen again, but scientists don't agree on the odds. St. Louis Public Radio. January 2, 2019. https://news.stlpublicradio.org/post/great-flood-93-could-happen-again-scientists-don-t-agree-odds-0#stream/0
18. Williamson County mine seeks permission to discharge water into Big Muddy River. Southern Illinoian. December 8, 2018. https://thesouthern.com/news/local/environment/williamson-county-mine-seeks-permission-to-discharge-water-into-big/article_2e0a6f14-87a1-5541-92c8-a8a978485f36.html
19. The Inequality of America's Levee Systems. Mother Jones. August 8th, 2018. https://www.motherjones.com/environment/2018/08/the-inequality-of-americas-levee-systems/
20. Flood thy neighbor: Who stays dry and who decides? ProPublica, August 6th, 2018. https://www.revealnews.org/article/flood-thy-neighbor-who-stays-dry-and-who-decides/
21. To See How Levees Increase Flooding, We Built Our Own. ProPublica, August 6th 2018. https://projects.propublica.org/graphics/levees
22. What did we learn from the Great Flood of '93? Not much, say many. St Louis Post Dispatch. July 29th, 2018. https://www.stltoday.com/news/local/metro/what-did-we-learn-from-the-great-flood-of-not/article_2a02652b-3db8-58b3-ac23-8ba4bfc165d3.html
23. "The 'volatile' Mississippi: Challenges ahead as region sees continued development, more floods", June 25, 2018, http://news.stlpublicradio.org/post/volatile-mississippi-challenges-ahead-region-sees-continued-development-more-floods#stream/0
24. "Flood control efforts cause bigger floods Says Nature Article co-authored by SIU researcher". April 14th 2018, http://thesouthern.com/news/local/environment/flood-control-efforts-cause-bigger-floods-says-nature-article-co/article_9c9e8b46-c7c3-585a-be0d-84bb6b39c218.html
25. "Treaty in Levee Wars Called Crucial for Saving Lives" Public New Service, April 12th, 2018. http://www.publicnewsservice.org/2018-04-12/environment/treaty-in-levee-wars-called-crucial-for-saving-lives/a62153-1
26. "Model shows town on wrong side of an Illinois levee district" Alton Telegraph, April 1, 2018 https://www.thetelegraph.com/news/article/Model-shows-towns-on-wrong-side-of-an-Illinois-12798046.php
27. "New Model Shows Towns on the Wrong Side of an Illinois Levee are treading water" ProPublica, March 30th 2018. https://www.propublica.org/article/new-model-shows-towns-on-the-wrong-side-of-an-illinois-levee-district-are-treading-water

28. "How overbuilt levees are razing flood risks in northeast Missouri" St. Louis Public Radio March 30, 2018. http://news.stlpublicradio.org/post/how-overbuilt-levees-are-raising-flood-risks-northeast-missouri#stream/0
29. "A new normal? Springtime flooding becoming more common for Midwest as planet warms" Southern Illinoisan, May 11th, 2017. http://thesouthern.com/news/local/a-new-normal-springtime-flooding-becoming-more-common-for-midwest/article_4010f8a3-1fa4-59fb-ab8d-4f4b14bdeda3.html
30. "Behind the levees: Flood risk can be higher with levees than without them" ScienceDaily.com,
31. February 9th, 2016. https://www.sciencedaily.com/releases/2016/02/160209162403.htm
32. "The man-made flood: Levees and floodplain development are increasing flood damage in Missouri" June 20th 2016. http://scienceline.org/2016/06/the-man-made-flood/
33. "Debate continues in controversial levee project" Daily Egyptian, April 14, 2015 https://dailyegyptian.com/5479/news/debate-continues-in-controversial-levee-project/
34. "Averting Disaster" Southern Illinoisan, May 14, 2014
35. "Final meeting complete for Multi-Hazard Mitigation Plan" The Daily Registrar, June 13, 2012
36. "Local communities ready in case of disaster" Southern Illinoisan, February 7th, 2011

VI. TEACHING EXPERIENCE

A. Teaching Interests and Specialties:

Physical Geography (Geography 303)
Advanced GIS (Geography 420/520)
Field Methods in Geography (Geography 433/433H/533)
Water Resource Hydrology (Geography 434/534)
Natural Hazards (Geography 436/536)
Integrated Water Resources Management (Geography 440/540)
Rivers and Their Management (Geography 440/540)
Fluvial Geomorphology (Geology 578)
Geomorphology (Geology 474)
Environmental Decision Making (Environmental Resources and Policy 502)
Watershed Science (Team Taught; Zoology 523)

B. Teaching and Training Grants:

June 2011 to September 2011 - Curriculum development for Federal Emergency Management Agency's HAZUS-MH 2.0 Earthquake Loss assessment tool. Federal Emergency Management Agency. ($28,000) PI

C. Teaching Awards and Honors: (None)

D. Current Graduate Faculty Status:

Direct Dissertation Environmental Resources and Policy
Regular Geography and Environmental Resources

E. Number of master's and Ph.D. committees on which you have served:

Thesis Committees in the Geography and Environmental Resources Department / Program (16)

Andrew Paxton, M.S., July 2021
Christian Landry, M.S., December 2020
Astha Bista, M.S., August 2019
Jeffery Wright, M.S., August 2019
Michael Bruck, M.S., December 2017
Brandon Polk, M.S., May 2017
Khara Lukancic, M.S., August 2016
Daniel Fucik, M.S., May 2016
Brooke Haldeman, M.S., December 2015
Ashley Suiter, M.S., May 2015
Chen Wang, M.S., May 2014
Zach Heern, M.S., December 2013
Johannes Mack, M.S., August 2013
Alex Vanpelt, M.S., May 2013
Timothy Freeman, M.S., May 2013
Adam Shaffner, M.S., December 2012

Dissertation Committees in Environmental Resource and Policy Ph.D. Program (6)

Di Wu. Ph.D., August 2024
Saroj Thapa, Ph.D., August 2024
Minzi Wang, Ph.D., December 2018
Amanda C. Marshall, Ph.D., May 2017
Shanna McClain, Ph.D., December 2016
Awoke Dannew Teshager, Ph.D., May 2016

Thesis Committees in Anthropology and Archeology (1)

Anthony Farace, M.S., December 2018

Committees in Architecture and Interior Design (1)

Isaac Thomas Grayson, M.S. Architecture, December 2014. (1)

Thesis Committees in Civil and Environmental Engineering (4)

Ranjeet Thakali, M.S., May 2017
Ganesh Raj Ghimire, M.S., May 2016
Nicholas A. Haas, M.S., December 2014
Sanjeet Shrestha, M.S., December 2013

Thesis Committees in the Geology Department / Program (6)

Ty Gentz, M.S., December 2023
Jessica A. Whiteaker, M.S., December 2019
Stephanie K. Jarvis, M.S., December 2014
Jennifer Dierauer, M.S., May 2011
Megan Carlson, M.S., December 2010
Elizabeth Evanoff, M.S., December 2010

Thesis Committees in the Microbiology Program (1)

Garion Leamon, M.S., August 2024

Thesis Committees in the Department / Program of Zoology (2)

Karen Baumann, M.S., May 2016
Stony S. Samberg, M.S., August 2023

F. Names of Students who have completed: Master's Theses (13), Master's research papers (1) and Doctoral Dissertations (3) under your direction:

Nick Keller, M.S. Geography and Environmental Resources, December 2023. Socio-hydrological Assessment of Illinois Levee Systems

Kemar S. Jones, M.S. Geography and Environmental Resources, August 2023. An assessment of surface mine reclamation and the market potential for future coal mining and agriculture: A Case Study in Illinois, USA.

Tara L. Giri, M.S. Geography and Environmental Resources, August 2023. Quantifying the geomorphic change after Len Small Levee Breach, Dogtooth Bend of the Mississippi River

Noah Rocco Scalero, M.S. Geography and Environmental Resources, December 2020. A suitability Analysis of the Wetlands along the Middle Mississippi River, Floodplain for Riverine Nitrate Attenuation.

Nimisha Karki, M.S. Geography and Environmental Resources, July 2020. Assessing the role of river training structures – Chevron and Dike in the creation and diversification on physical aquatic habitats in the middle Mississippi River.

Tara Gracer, M.S. Geography and Environmental Resources, December 2019. Thesis Title: A Hydrologic and Hydraulic Assessment of Cypress Creek for the Identification of the Potential Habitat for the Bald Cypress and Water Tupelo.

Deepak Raj Parajuli, M.S. Geography and Environmental Resources, December 2019. Research Paper Title: Effect of River Engineering, Excessive Nitrogen, and Climate Change on the Hydroecology of the Upper Mississippi River.

Anne Hayden-Lesmeister, Ph.D. Environmental Resources and Policy Program, August 2018. Dissertation Title: Using 1D2D Modeling to inform restoration efforts in the Atchafalaya River Basin, Louisiana.

Ali Alruzuq, M.S. Department of Geography and Environmental Resources, May 2018. Thesis Title: Socio-hydrology of levees along the lower Illinois River.

Julia Ryherd, M.S. Department of Geography and Environmental Resources, July 2017. Thesis Title: Quantifying the rates and spatial distribution of recent hydrologically connected floodplain sedimentation along the Middle Mississippi River, USA using digital elevation models and dendrogeomorphology

Ross J. Guida, Ph.D. Environmental Resources and Policy Program, May 2016. Dissertation Title: Hydraulic, Geospatial, and Socioeconomic modeling of strategic Floodplain Reconnection Tradeoffs Along the Lower Tisza River (Hungary) and Lower Illinois River (Illinois, USA)

Ann Rushing, M.S. Department of Geography and Environmental Resources, December 2015. Thesis Title: The Potential for Reconnection on the Lower Illinois River

Justin P. Kozak, Ph.D., Environmental Resources and Policy, August 2015. Dissertation Title: Restoration and Water Management in the Atchafalaya River Basin Louisiana. Co-chair with Professor Christopher L. Lant.

Samir Shrestha, M.S. Department of Geography and Environmental Resources, December 2014. Thesis Title: Sensitivity of Hazus-MH Flood Loss Estimates to Selection of Building Parameters: Two Illinois Case Studies.

Mohamed Mahgoub, M.S. Department of Geography and Environmental Resource, December 2014. Thesis Title: New Multiple-Scale Technique for the Assessment of Relative Flood Vulnerability.

Miles Lampo, M.S. Department of Geography and Environmental Resources, August 2014.

Thesis Title: A Validation Study of the North Carolina Rapid Field-Based Rating System for Discrimination Flow Permanence Classes of Headwater Streams in Agriculture Basins in Southern Illinois.

Anish Kendal (Co-advisor with Greg Wilkerson), M.S. Department of Civil and Environmental Engineering, May, 2012. Thesis Title: A Two-dimensional numerical simulation study of flow around chevron dikes.

G. Other: (None)

VII. UNIVERSITY EXPERIENCE

1. Department / School Committees:

Program Director of the Environmental Resources and Policy Ph.D. Program.

Adhoc Committee Chair for IT Infrastructure for the School of Earth Systems and Sustainability October 2021 to Present

Chair, School of Earth Systems and Sustainability's Sustainable Search Committee, September 2019 through March 2021

Chair of the Undergraduate Curriculum and Assessment Committee, Department of Geography and Environmental Resources, July 2015 to July 2017

Director of Undergraduate Studies for the Department of Geography and Environmental Resources, July 2015 to July 2017

Department of Geography and Environmental Resources Environmental Geographer Search Committee, October 2014 through March 2015

Department of Geography and Environmental Resources Environmental Geographer Search Committee, January through March 2014

Department of Geography and Environmental Resources Merit Pay Committee, January 2013

2. College and University Committees and Councils:

College of Agriculture, Life, and Physical Science Graduate Faculty Committee, August 2023 to present.

Internal Reviewer for Radio, Television and Digital Media Program's Program Review, August 2021 to December 2021

College of Liberal Arts Council August 2013 – May 2015

College of Science Dean Search Committee August 2006 - August 2007 (As a PhD Student)

3. Other: (None)

VIII. PROFESSIONAL SERVICE

A. Membership in Professional Associations:

American Association for the Advancement of Science (AAAS)
American Geophysical Union (AGU)
Association of American Geographers (AAG)
Geological Society of America (GSA)
International Association for Mathematical Geology (IAMG)

B. Offices Held and honors Awarded in Professional Associations:

2023 William H. Patrick, Jr. Memorial Lectureship - Soil Science Society of America

2021 Co-Award Winner, The Grove Karl Gilbert Award for Excellence in Geomorphological Research – American Association of Geographers

C. Consultantships:

Estimation of greenhouse gas footprint for the Upper Mississippi River / Illinois Waterway Navigation System's Navigation Pools. American Rivers. May 2023 to August 2024.

Millennium Challenge Corporation (U.S. Government International Development Agency) September 2019 to April 2022.

Assessment of flood surcharge related to differences in existing and authorized levee elevations along the Mississippi River between Keokuk, IA and Thebes, IL using the U.S. Army Corps of Engineers Upper Mississippi River Flood Risk Management Model, American Rivers. February to March 2018.

Considerations for the proposed maintenance of Cache River Basin from the south border of Big Creek drainage to approximately eight miles north along the River Basin. The Nature Conservancy. June and July 2017.

Assessment of Cypress Creek's Restoration Potential, Illinois Department of Natural Resources. March 2015 to June 2015

Peer Review of U.S. Environmental Protection Agency's "Flood Loss Avoidance Benefits of Green Infrastructure for Stormwater Management Study" July to August 2014.

Natural Community and Inundation Mapping for Buttonland Swamp and Vicinity, Lower Cache River Valley, Illinois. Illinois Department of Natural Resources. March to June 2014.

Reef Hydrodynamic Workshop for the St. Clair and Detroit Rivers. National Oceanic and Atmospheric Administration See Grant Project through University of Michigan. February 2014

Climate-induced changes in flood risk and land use approaches to mitigate the flood risk in St. Louis County, MO National Oceanic and Atmospheric Administration through Resource for the Future. May 2013 to May 2014

Levee Collection from LiDAR/DEM in Indiana. U.S. Army Corps of Engineers through the Indiana University Purdue University at Indianapolis's Polis Center November 2012 to November 2013

1-D/2-D Hydrodynamic levee breach simulation for the Metro-East Levee and potential impacts to U.S. Steel's Granite City Foundry**.** U.S. Steel Corporation. January 2011 to June 2011.

D. Evaluation of Manuscripts for Journals and Book Publishers and of Grant Proposals for Agencies:

Reviewer for Water Resource Research, Science of the Total Environment, Journal of Hydrology, Natural Hazards, Ecological Engineering, Geoforum, Natural Hazards and Earth System Sciences, Springer Plus, Risk Analysis, Catena, Water, Natural Hazards, PLOS, International Journal of Agricultural and Biological Engineering, Physical Geography, America Journal of Water Resources, International Journal of Disaster Risk Reduction, Journal of Flood Risk Management, Hydrological Science Journal, Environmental Fluid Mechanics, and Southeastern Naturalist

Reviewer for Natural Sciences and Engineering Research Council of Canada (NSERC)
Reviewer for National Science Foundation's Earth Sciences (EAR) Program
Reviewer for National Science Foundation's Geography and Spatial Sciences (GSS) Program
Reviewer for National Science Foundation's Geomorphology and Land Use Program
Reviewer for the Maryland Sea Grant 2016-2018
Reviewer for the New York Sea Grant 2017-2019
Reviewer for the Delta Stewardship Council – Delta Science Program and the California Department of Fish & Wildlife, 2019

E. Other: (None)

IX. COMMUNITY SERVICE

October 2022 to Present - Illinois Drought Monitor Group, Illinois Water Survey, State Climatologist Office
July 2022 to Present, Sustainable Rivers Program Atchafalaya Basin Scientific Advisory Committee
August 2022 to February 2023 - Illinois State Natural Hazard Committee
July 2008 to July 2016 - Federal Emergency Management Agency's HAZUS Loss Estimation Software User Group Coordinator for the State of Illinois
July 2008 to July 2016 - Central United States HAZUS Best Practices Committee
July 2012 to August 2015 - Illinois Geologic Mapping Advisory Committee