Curriculum Vitae
Francis J. Magilligan
The Frank J. Reagan '09 Chair of Policy Studies

PRESENT ADDRESS:

Department of Geography
Dartmouth College
Hanover, NH 03755

TELEPHONE:

Voice: (603) 646-1475
Fax: (603) 646-1601
e-mail: Magilligan@dartmouth.edu

ADVANCED EDUCATION:

Ph.D. (December, 1988)	-	Department of Geography, University of Wisconsin, Madison.
M.S. (December, 1983)	-	Department of Geography, University of Wisconsin, Madison.
M.S. (May, 1981)	-	Water Resources Management, University of Wisconsin, Madison
B.A. (June, 1977)	-	Department of Geography, Boston University.

Ph.D. RESEARCH:

Slope and roughness variations in small meandering alluvial streams, thesis under the supervision of J.C. Knox.

M.S. RESEARCH:

Historical floodplain alluviation in the Galena River basin, southwest Wisconsin – northwest Illinois, thesis under the supervision of J.C. Knox.

HONORS AND AWARDS:

Fellow, American Association of Geographers (2022-present)
John Simon Guggenheim Foundation Award (2020-2021)
Dean of Faculty Award for Exceptional Service (2020)
Dartmouth College: Senior Faculty Grant (2018)
Association of American Geographers: G.K. Gilbert Award (2017)
William Morris Davis Invited Lecture (2014)
Fellow, Geological Society America (2013-present)
Dartmouth College: Senior Faculty Grant (2013)
Phi Beta Kappa (Elected 2010)
Marsico Visiting Fellow, University of Denver, Winter, 2008.
AAG Geomorphology Specialty Group, Chair, (2002-03)
AAG Geomorphology Specialty Group, Secretary-Treasurer, (2001-02)
Dartmouth College: Petitt Fellowship (2002-2003)
Dartmouth College: Senior Faculty Grant (1999)
Dartmouth College: J. Kenneth Huntington Award For Teaching Excellence (1996)
Dartmouth College: Junior Faculty Fellowship (1994)

PUBLICATIONS:

Cockburn, C., Winter, J.M., Osterberg, E.C., Magilligan, F.J., 2023. Drivers of future streamflow changes in watersheds across the Northeastern United States, *Journal American Water Resources Association*, 1752–1688.13120. https://doi.org/10.1111/1752-1688.13120

Gartner, J.D., Renshaw, C.E., Landis, J. and Magilligan, F.J., 2023, Impact of stream power gradients on storage of sediment and carbon on channel margins and floodplains. *Geology*, 51: 13-17.

Dethier, E.N., Renshaw, C.E., and Magilligan, F.J., 2022, Rapid changes to global river suspended sediment flux by humans, *Science*, 376 (6600), doi: 10.1126/science.abn7980

Sneddon, C.S., Magilligan, F.J., and Fox, C., 2022, River restoration and the contradictions of state power, *Annals American Association of Geographers.* doi.org/10.1080/24694452.2021.1913089

Drapier, L., Germaine, M., Lezpez, L., Magilligan, F., and Sneddon, C., 2022., Networks, coalitions, and the contestation of dam removal across political and institutional scales. *Geographical Review*, doi.org/10.1080/00167428.2021.1953382

Magilligan, F.J., Nislow, K.H., Dietrich, J.T., Doyle, H. and Kynard, B., 2021, Transient versus sustained biophysical responses to dam removal, *Geomorphology*. doi.org/10.1016/j.geomorph.2021.107836

Fields, J., Renshaw, C.E., Magilligan, F. J., Dethier, E.N. and Rossi, R., 2021, A mechanistic understanding of channel evolution following dam removal, *Geomorphology*, doi.org/10.1016/j.geomorph.2021.107971

Magilligan, F.J., Roberts, M.O., Marti, M., and Renshaw, C.E., 2021, The impact of run-of-river dams on sediment longitudinal connectivity and downstream channel equilibrium, *Geomorphology*, doi: 10.1016/j.geomorph.2020.107568

Dethier, E., Sartain, S., Renshaw, C. and Magilligan, F.J., 2020, Spatially coherent regional changes in seasonal extreme streamflow events in the United States and Canada since 1960, *Science Advances*, **6**:eaba5939.

Magilligan, F.J., Nislow, K.H., Renshaw, C.E., 2020, Flow regulation by dams: ongoing and emerging trends. In: Shroder, J. (Editor in Chief), Wohl, E. (Ed.), **Treatise in Geomorphology**. Academic Press, San Diego, CA, *Fluvial Geomorphology*, doi.org/10.1016/B978-0-12-409548-9.12524-2

Dethier, E.N., Renshaw, C.E., Magilligan, F.J., 2020. Toward improved accuracy of remote sensing approaches for quantifying suspended sediment: Implications for suspended-sediment monitoring. *Journal of Geophysical Research – Earth Surface.* 125. https://doi.org/10.1029/2019JF005033

Roberts, M., Renshaw, C.E., and Magilligan, F.J., 2020, Field measurement of the probability of coarse-grained sediment entrainment in natural rivers, *Journal of Hydraulic Engineering*, doi:10.1061/(ASCE)HY.1943-7900.0001694

Renshaw, C.E., Magilligan, F.J., Doyle, H., Dethier, E., and Kantack, K., 2019, Rapid response of New England rivers to shifting boundary conditions: processes, timeframes, and pathways to post-flood channel equilibrium, *Geology*, doi:10.1130/G46702.1

Magilligan, F.J., James, L.A., Lecce, S., Dietrich, J.T., and Kupfer, J.A., 2019, Geomorphic responses to extreme rainfall, catastrophic flooding, and dam failures across an urban to rural landscape, *Annals American Association of Geographers*, 109: 705-729.

Wohl E., Brierley, G., Cadol, T., Coulthard, T., Covino, T., Fryirs, K., Grant, G., Hilton, T., Lane, Magilligan, F., Meitzen, K., Passalacqua, P., Pöppl, R., Rathburn, S., Sklar, L., 2019, Connectivity as an emergent property of geomorphic systems, *Earth Surface Processes and Landforms*, 44: 4–26.

Magilligan, F.J., Sneddon, C.S., and Fox, C.A., 2018, The socio-geomorphology of river restoration: dam removal and the politics of place, In (eds.): M. Werner, J. Peck, R. Lave, B. Christophers, *Doreen Massey: Critical Dialogues*, Columbia University Press, pp. 112 – 120.

Partridge, T.F., Winter, J.M., Osterberg, E.C., Hyndman, D.W., Kendall, A.D., and Magilligan, F.J., 2018, Spatially distinct seasonal patterns and forcings of the U.S. Warming Hole, *Geophysical Research Letters*, doi:10.1002/2017GL076463.

Sneddon, C.S, Magilligan, F.J., and Fox, C.A., 2017, Science of the dammed: Expertise and knowledge claims in contested dam removals, *Water Alternatives*, 10(3): 677-696.

Foley, M.M., J.R. Bellmore, J.E. O'Connor, J.J. Duda, A.E. East, G.E. Grant, C.W. Anderson, J.A. Bountry, M.J. Collins, P.J. Connolly, L.S. Craig, J.E. Evans, S.L. Greene, F.J. Magilligan, C.S. Magirl, J.J. Major, G.R. Pess, T.J. Randle, P.B. Shafroth, C.E. Torgersen, D. Tullos, A.C. Wilcox, 2017, Dam removal—listening in, *Water Resources Research,* doi:10.1002/2017WR020457

Foley, M.M., Magilligan, F.J., Torgersen, C.E., Major, J.J., Anderson, C.W., Connolly P.J., Wieferich, D., Shafroth, P.B., Evans J.E., Infante, D., 2017, Landscape context and the biophysical response of rivers to dam removal in the United States, *PLoS ONE,* doi.org/10.1371/journal.pone.0180107

Magilligan, F.J., Sneddon, C., Fox, C.A. 2017, The social, historical, and institutional contingencies of dam removal, *Environmental Management*, 59(6), 982-994.

Naylor, L.A., Spencer, T., Lane, S.N., Darby, S.E., Magilligan, F.J., Macklin, M.G., and Möller, I., 2017, Stormy Geomorphology: geomorphic contributions in an age of climate extremes, *Earth Surface Processes and Landforms*, 42: 166–190.

Wohl, E., Magilligan, F.J., and Rathburn, S., 2017, Introduction to the special issue: Connectivity in Geomorphology, *Geomorphology*, 277: 1-5.

Chipman, J., Shi, X., Magilligan, F.J., Chen, Y., and Li, B., 2016, Impacts of land cover change and water management practices on the Tarim and Konqi river systems, Xinjiang, China, *Journal of Applied Remote Sensing*, 10(4), 046020 (2016), doi: 10.1117/1.JRS.10.046020.

Spencer, T., Naylor, L.A., Lane, S.N., Darby, S.E., Macklin, M.G., Magilligan, F.J., Möller, I., 2016, Stormy Geomorphology: an introduction to the Special Issue, *Earth Surface Processes and Landforms*. 42: 238–241

Magilligan, F.J., Sneddon, C.S. and Fox, C., 2016, The era of big dam building: it ain't over till it's over, In (eds.): C. Ashcraft and T. Mayer, *The Politics of Fresh Water: Access, Conflict and Identity,* Routledge Press, pp. 78-97.

Magilligan, F.J., Graber, B., Nislow, K.H., Chipman, J, Sneddon, C.S., and Fox, C. 2016**,** River restoration by dam removal: assessing riverine re-connectivity and watershed resilience at a regional scale, *Elementa: Science of the Anthropocene.* doi: 10.12952/journal.elementa.000108

Dethier, E., Magilligan, F.J., Renshaw, C.R., and Nislow, K.H., 2016, Chronic and episodic disturbances: the persistence and legacy of extreme floods, *Earth Surface Processes and Landforms,* 41:1437–1447.

Fox, C., Magilligan, F.J., and Sneddon, C.S., 2016, "You kill the dam, you are killing a part of me": Dam removal and the environmental politics of river restoration", *Geoforum*, 70: 93–104.

Magilligan, F.J., Nislow, K.H. Kynard, B.E., Hackman, A.M., 2016, Immediate changes in stream channel geomorphology, aquatic habitat, and fish assemblages following dam removal in a headwater catchment, *Geomorphology*, 252:158-170

Gartner, J., Dade, W.B., Renshaw, C.E., Magilligan, F.J., 2015, Gradients in stream power influence lateral and downstream sediment flux in floods, *Geology,* 43: 983-986

Gartner, J.D., Magilligan, F.J., and Renshaw, C.E., 2015, Predicting the type, location and magnitude of geomorphic responses to dam removal: role of hydrologic and geomorphic constraints, *Geomorphology*, 251: 20-30.

Underwood, J.W., Renshaw, C.E., Magilligan, F.J., Dade, W.B., and Landis, J.D., 2015, Joint isotopic mass balance: A novel approach to quantifying channel bed to channel margins sediment transfer during storm events, *Earth Surface Processes and Landforms*, 40: 1563–1573.

Magilligan, F.J., Buraas, E.M., and Renshsaw, C.E., 2015, The efficacy of stream power and flow duration on geomorphic responses to catastrophic flooding, *Geomorphology*, 228: 175-188.

Marks, C., Nislow, K.H. and Magilligan, F.J., 2014, Quantifying flooding regime in floodplain forests to guide river restoration, *Elementa: Science of the Anthropocene*, DOI: 10.12952/journal.elementa.000031

Buraas, E.M., Renshaw, C.E., Magilligan, F.J. and Dade, W.B., 2014, Impact of reach geometry on stream channel sensitivity to extreme floods, *Earth Surface Processes and Landforms*, 39: 1778 – 1789.

Kaste, J.M., Magilligan, F.J., Renshaw, C.E., Fisher, G.B., and Dade, W.B., 2014, Seasonal controls on meteoric ^{7}Be in coarse-grained river channels, *Hydrological Processes*, 28: 2738-2748.

Renshaw, C.E., Abengoza, K., Magilligan, F.J., Dade, W.B., and Landis, J.D., 2014, Impact of flow regulation on near-channel floodplain sedimentation, *Geomorphology,* 205:120-127

Magilligan, F.J., Nislow, K.H., Renshaw, C.E., 2013, Flow regulation by dams. In: Shroder, J. (Editor in Chief), Wohl, E. (Ed.), **Treatise on Geomorphology**. Academic Press, San Diego, CA, vol. 9, *Fluvial Geomorphology*, pp. 794–808.

Kasprak, A., Magilligan, F.J., Nislow, K., Renshaw, C.E., Snyder, N. and Dade, W.B., 2013, Differentiating the relative importance of land cover change and geomorphic processes on fine sediment sequestration in a logged watershed, *Geomorphology*, 185: 67-77.

Kasprak, A., Magilligan, F.J., Nislow, K.H., and Snyder, N., 2012, A lidar-derived evaluation of watershed-scale large woody debris sources and recruitment mechanisms: Coastal Maine, USA, *River Research & Applications*, 28: 1462–1476.

Landis, J.D., Hamm, N.T., Renshaw, C.E., Dade, W.B., Magilligan, F.J., Gartner, J.D., 2012, Surficial redistribution of fallout ^{131}Iodine in a small temperate catchment, *Proceedings National Academy of Sciences*, 109: 4064–4069.

Gartner, J.D., Renshaw, C.E., Dade, W.B., Magilligan, F.J., 2012, Time and depth scales of fine sediment delivery into gravel stream beds: Constraints from fallout radionuclides on fine sediment residence time and delivery, *Geomorphology*, 151: 39-49.

Cadwalader, G.O., Renshaw, C.E., Jackson, B.P., Magilligan, F.J., Landis, J., and Bostick, B., 2011, Erosion and physical transport via overland flow of arsenic and lead bound to silt-sized particles, *Geomorphology*, 128: 85-91.

Goldstein, P. and Magilligan, F.J., 2011, Hazard, risk and agrarian adaptations in a hyperarid watershed: El Niño floods, streambank erosion, and the cultural bounds of vulnerability in the Andean Middle Horizon, *Catena*, 85: 155–167.

Dade, W.B., Renshaw, C.E., and Magilligan, F.J., 2011, Sediment-transport constraints on river response to regulation, *Geomorphology*, 126(1-2): 245-251

Black, E., Renshaw, C.E., Magilligan, F.J., Kaste, J., Dade, W.B. and Landis, J., 2010, Determining lateral migration rates in meandering rivers using fallout radionuclides, *Geomorphology*, 12: 364–369.

Zimmerman, J.K.H, Letcher, B.H., Nislow, K.H., Lutz, K.A., and Magilligan, F.J., 2010, Determining the effects of dams on subdaily variation in river flows at a whole-basin scale, *River Research and Applications*, 26: 1246–1260.

National Research Council, 2010, Understanding the Changing Planet: Strategic Directions for the Geographical Sciences, National Academy of Sciences Press, Washington, D.C., 220 pp.

Curtis, K.E, Renshaw, C.E., Magilligan, F.J, and Dade, W.B., 2010, Temporal and spatial scales of geomorphic adjustments to reduced competency following flow regulation in bedload dominated systems, *Geomorphology*, 118: 105-117

Fisher, G.B., Magilligan, F.J., Kaste, J.M., and Nislow, K.H., 2010, Constraining the timescales of sediment sequestration associated with large woody debris with cosmogenic beryllium-7, *Journal of Geophysical Research - Earth Surface*, VOL. 115, F01013, doi:10.1029/2009JF001352

Svendsen, K.M., Renshaw, C.E., Magilligan, F.J., Nislow, K.H., and Kaste, J.M., 2009, Altered flow and sediment regimes at tributary junctions on flow regulated rivers: impact of hydrologic disruptions on benthic macroinvertebrate communities, *Hydrological Processes*, 23: 284-296.

Magilligan, F.J., Goldstein, P., Fisher, G.B., Bostick, B.C, and Manners, R., 2008, Late Quaternary hydroclimatology of a hyper-arid Andean watershed: Climate change, floods, and fluvial responses to the El Niño-Southern Oscillation in the Atacama Desert, *Geomorphology*, 101:14-32.

Magilligan, F.J., Haynie, H.J., and Nislow, K.H., 2008, Channel adjustments to dams in the Connecticut River basin: implications for forested mesic watersheds, *Annals Association American Geographers,* 98(2): 267-284.

Sennatt, K.M., Salant, N.L., Renshaw, C.E. and Magilligan, F.J., 2008. Reply to discussion - "Assessment of methods for measuring embeddedness: application to sedimentation in flow regulated streams". *Journal of the American Water Resources Association*, 44(1): 262-264.

Magilligan, F.J., Nislow, K.H., Fisher, G.B., Wright, J., Mackey, G., Laser, M., 2008, The geomorphic function and characteristics of large woody debris in low gradient rivers, coastal Maine, USA, *Geomorphology*, 97: 467–482.

Manners, R., Magilligan, F.J. and Goldstein, P. 2007, Floodplain development, El Niño, and cultural consequences in a hyperarid Andean environment, *Annals Association American Geographers,* 97(2): 229-249**.**

Salant, N.L., Renshaw, C.E., Magilligan, F.J., Kaste, J., Nislow, K., and Heimsath, A., 2007, The use of fallout radionuclides to quantify transitional bed load transport, *Earth Surface Processes and Landforms*. 32(4): 509-524.

Sennat, K.M, Salant, N.L., Renshaw, C.E., Magilligan, F.J., 2006, Field-based methods of measuring substrate embeddedness in regulated and unregulated streams, *Journal American Water Resources Association*, 42(6):1671-1682**.**

Salant, N.L, Renshaw, C.E. and Magilligan, F.J., 2006, Short and long-term changes to bed mobility and bed composition under altered sediment regimes, *Geomorphology*, 76: 43-53.

Magilligan F.J., Salant, N.L., Renshaw, C.E., Nislow, K.H., Heimsath, A., and Kaste, J., 2006, Evaluating the impacts of impoundment on sediment transport using short-lived fallout radionuclides*,* In: *Sediment Dynamics and the Hydromorphology of Fluvial Systems* (Ed. Rowan, J. and Werrity, A.), The International Association of Hydrological Sciences (IAHS) Special Publication 306, IAHS Press, Wallingford, UK*,* pp. 159 – 165.

Smith, L.C., Sheng, Y., Magilligan, F.J., Smith, N.D., Gomez, B., Mertes, L.A.K., Krabill, W.B., and Garvin, J.B., 2006, Geomorphic impact and recovery from the 1996 Skeidarársandur jökulhlaup, Iceland assessed with repeat-pass airborne lidar, *Geomorphology* 75: 65-75.

Magilligan, F.J., and Nislow, K.H., 2005, Changes in hydrologic regime by dams, *Geomorphology*. 71: 61-78.

Harrison, S., Massey, D., Richards, K., Magilligan, F.J., Thrift, N., and Bender, B., 2004, Thinking across the divide: perspectives on the conversations between physical and human geography, *Area*, 36: 435-442.

Magilligan, F.J., Nislow, K.H., and Graber, B.E., 2003, A scale-independent assessment of discharge reduction and riparian dis-connectivity following flow regulation by dams, *Geology,* 31: 569-572.

Nislow, K.H., Magilligan, F.J., Fassnacht, H., Bechtel, D. and Ruesink, A., 2002, Effects of hydrologic alteration on flood regime of natural floodplain communities in the Upper Connecticut River, *Journal American Water Resources Association*, 38: 1533-1548.

Nislow, K.H., Magilligan, F.J., Folt, C.L., and Kennedy, B.P., 2002, Within-basin variation in the immediate effects of a major flood on stream fishes and invertebrates, *Journal of Freshwater Ecology*, 17: 305-318.

Magilligan, F.J., Gomez, B., Mertes, L., Smith, L., Finnegan, D., Smith, N.D., and Garvin, J., 2002, Geomorphic effectiveness, sandur development, and the pattern of landscape response during jökulhlaups: Skeidarársandur, southeastern Iceland, *Geomorphology*, 44: 95-113.

Magilligan, F.J. and Nislow, K., 2001, Hydrologic alteration in a changing landscape: effects of impoundment in the Upper Connecticut River Basin, USA, *Journal American Water Resources Association,* 36(7): 1551-1569.

Hren, M.T., Chamberlain, C.P., and Magilligan, F.J., 2001, A combined flood surface and geochemical analysis of metal fluxes in a historically mined region: A case study from the New World Mining District, MT, *Environmental Geology*, 40: 1334-46.

Magilligan, F.J. and Goldstein, P.S., 2001, El Niño floods and culture change: A late Holocene flood history for the Rio Moquegua, southern Peru, *Geology*, 29: 431-34.

Gomez, B., Magilligan, F. J., Mertes, L.A.K., and Smith, L.C., 2000, Glacier outburst floods and outwash plain development: Skeidarársandur, Iceland, *Terra Nova*, 12:126-31.

Smith, L.C., Alsdorf, D.E, Magilligan, F.J., Gomez, B., Mertes, L.A.K., Smith, N.D., and Garvin, J.B., 2000, Estimation of erosion and deposition from SAR interferometry and net topographic change during the 1996 jökulhlaup, Skeidarársandur, Iceland, *Water Resources Research*, 36:1583-94.

Magilligan, F.J., Phillips, J.D., Gomez, B., and James, L.A., 1998, Geomorphic and sedimentological controls on the effectiveness of an extreme flood, *Journal of Geology*, 106: 87-95.

Magilligan, F.J. and McDowell, P.F., 1997, Stream channel adjustments following the elimination of cattle grazing, *Journal American Water Resources Association*, 33: 867-878.

Gomez, B., Phillips, J.D., Magilligan, F.J., and James, L.A., 1997, Floodplain sedimentation and sensitivity: Summer 1993 Flood, Upper Mississippi River Valley, *Earth Surface Processes and Landforms*, 22: 923-36.

McDowell, P.F. and Magilligan, F.J. 1997, Response of stream channels to removal of cattle grazing disturbance: overview of western U.S. exclosure studies, In (eds.) S.S.Y. Wang, E.J. Langendoen, and F.D. Shields, *Management of Landscapes Disturbed by Channel Incision*, pp. 469-75, Oxford, Mississippi.

Magilligan, F.J. and Stamp, M.L., 1997, Historical land-cover changes and hydrogeomorphic adjustment in a small Georgia watershed, *Annals Association of American Geographers*, 87: 614-35.

Magilligan, F.J. and Graber, B., 1996, Hydroclimatological and geomorphic controls on the timing and spatial variability of floods in New England, USA, *Journal of Hydrology*, 178:159-80.

Gomez, B., Mertes, L.A.K., Phillips, J.D., Magilligan, F.J. and James, L.A., 1995, Sediment characteristics of an extreme flood: 1993 Upper Mississippi River flood, *Geology*, 23: 963-66.

Brakenridge, G.R., Knox, J.C., Paylor, N., and Magilligan, F.J., 1994, Radar remote sensing aids study of the Great Flood of 1993. *EOS* , 75: 521-527.

Kull, C. A. and Magilligan, F. J., 1994, Controls over landslide distribution in the White Mountains, New Hampshire, *Physical Geography*, 15: 325-341.

Beach, T. and Magilligan, F.J., 1993, Providence Canyon: The Grand Canyon of Southwest Georgia. In (ed.) Bederman, S., *Guidebook for the 1993 Annual Meeting*, Association of American Geographers, pp. 103-09.

Magilligan, F. J. 1992, Thresholds and the spatial variability of flood power during extreme floods, *Geomorphology*, 5:373-390.

Magilligan, F.J., 1992, Sedimentology of a fine-grained aggrading floodplain. *Geomorphology* , 4:393-408.

Magilligan, F.J., 1990, An analysis of the Rae's Creek Geomorphic Report, In: Morgan R.Crook (ed.), *Rae's Creek: A Multicomponent Archeological Site at the Fall Line Along the Savannah River.* Archeology Report to the Environmental Analysis Bureau, Georgia Dept. of Transportation, pp. 203-06.

Magilligan, F.J., 1988, Variations in slope components during large magnitude floods, Wisconsin, *Annals Association American Geographers*, 78: 520-533.

Magilligan, F.J., 1985, Historical floodplain sedimentation in the Galena River basin, Wisconsin and Illinois, *Annals Association American Geographers*, 75: 583-594.

Knox, J.C., S.A. Cary, and F.J. Magilligan, 1981, Climate variation and the mobility and storage of sediment in watersheds, Technical Report WIS WRC 81-03, Water Resources Center, University of Wisconsin, Madison, 56 pp.

Water Resources Management Workshop, 1981, Lake Redstone: a water quality and management study, University of Wisconsin, Madison, Inst. of Environmental Studies Report No. 115, 24 pp.

MANUSCRIPTS IN REVIEW:

Dethier, E.N. Silman M., Díaz Leiva, J., Alqahtani, S., Fernandez, L.E., Pauca, P., Çamalan, S., Tomhave, P., Magilligan, F.J., Renshaw, C.E., and Lutz, D.A., n.d., The global crisis of precious mineral mining in tropical rivers, Re-submission to *Nature*.

.

GRANTS (Total external funding received: $2,800,000):

2022 *Dartmouth College, Rockefeller Center for Public Policy*, River Restoration and Environmental Justice ($12,540). PI: Sneddon, F.; co-PIs: Magilligan, F. and Fox, C.

2020 *National Science Foundation*: Bankfull channel adjustments to episodic and long-term changes in sediment supply ($427,000). PI: Magilligan, F.; co-PI: Renshaw, C.E.

2019 *Dartmouth College, Irving Institute for Energy and Society*, Hydropower development and knowledge controversies in transboundary rivers ($19,000), PI: C. Sneddon; co-PIs: F. Magilligan, C. Fox, and J. Chipman.

2018 *USDA Forest Service*, Monitoring of geomorphic recovery following dam removal ($37,800), PI: Magilligan.

2018 *Dartmouth College, Neukom CompX Grant*, Quantifying stream channel responses to natural and human-induced disturbances ($20,205); co-PIs C. Renshaw and F.J. Magilligan

2016 *National Science Foundation*: Watershed resilience, channel stability, and the pathways to geomorphic recovery ($350,000). PI: Renshaw, C.; co-PI: Magilligan, F.J.

2016 *National Science Foundation*: Patterns of fluvial sedimentation and geomorphic change following an extreme flood event ($49,800). PI: James, A.J.; co-PIs: Kupfer, J., Magilligan, F., Lecce, S., and Dietrich, J.

2016 *National Science Foundation*: Connectivity in Geomorphology: The 47th Annual Binghamton Geomorphology Symposium ($42,000). PI: Wohl, E.; co-PI: Magilligan, F. and Rathburn, S.

2015 *Dartmouth College, Provost Seed Funding Initiative*: Smart cameras meet smart rocks: quantifying stream channel responses to natural and human-induced disturbances ($50,000). PI: Magilligan, F; co-PI: Dietrich, J.

2013 *National Science Foundation*: Environmental conflict and the social dimensions of dam removal, ($220,000). PI: Sneddon, C.; co-PIs: Magilligan, F. and Fox, C.

2012 *National Science Foundation*: Geomorphic response and recovery to Hurricane Irene floods: characterizing reach-scale and regional controls on fluvial adjustments and fine sediment deposition, ($345,000) PI: Renshaw, co-PI: Magilligan, F. and Dade, W.B.

2011 *National Science Foundation*: Geomorphic response and recovery to Hurricane Irene Floods: characterizing reach-scale and regional controls on fluvial adjustments, ($44,604) PI: Magilligan, F.J., co-PI Renshaw, C.E.

2011 *Dartmouth College Rockefeller Center*, How much water does a river get?: Impacts of water over-allocation along the Tarim River, Xinjiang Province, China ($8,000) (PI: X. Shi, co-PIs: F. Magilligan and J. Chipman)

2011 *National Science Foundation*, Connectivity and discontinuity in river systems, (Doctoral Dissertation Research Improvement Grant), $11,995 (PI: Magilligan, co-PI: John Gartner (PhD student).

2010 *National Science Foundation*, Quantifying the geomorphic and sedimentological responses to dam removal ($51,277), PI: Magilligan.

2008 *The Nature Conservancy*, Linking riparian dis-connectivity to hydrologic reductions following flow regulation in the Connecticut River basin ($27,174), PI: Magilligan

2007 *National Science Foundation*, The effects of dams on watershed fragmentation and riparian dis-connectivity across multiple scales ($315,000), PI: Magilligan, co-PIs: C. Renshaw, J. Kaste, and B. Dade.

2007 *Dartmouth College Rockefeller Center*, Climate change, El Niño, and hydrologic development in the Atacama Desert, southern Peru ($7,800), PI: Magilligan.

2007 *National Science Foundation*, Acquisition of Intrinsic Ge Gamma Spectrometers ($97,000). PI: Renshaw; co-PIs: Magilligan, Kaste, and Dade.

2006 *USDA Forest Service*, Monitoring the effects of large woody debris on the sediment budgets of small streams in the Green Mountain National Forest ($25,000), PI: Magilligan.

2005 *National Fish and Wildlife Foundation*, Assessing the role of large woody debris in Maine watersheds ($118,000), PIs: F.J. Magilligan and K.H. Nislow.

2004 *Dartmouth College*: *Rockefeller Center for the Social Sciences,* Climate change and floodplain development in an arid Andean environment, ($13,000), P.I. Magilligan, F.J.

2003 *USDA Forest Service*, Pattern and process in channel unit structure in New England streams: implications for stream ecosystems and fish populations ($10,000), PI: Magilligan.

2003 *National Science Foundation*, The impacts of flow regulation by dams on the physical and ecological characteristics of rivers ($244,300), PI: Magilligan, co-PIs: Renshaw, C., Heimsath, A., and Nislow, K.H.

2002 *Dartmouth College*: *Rockefeller Center for the Social Sciences,* The effects of dams on riparian habitat ($16,000), Magilligan, F., PI

2001 *Dartmouth College: Venture Fund*, Global Positioning Systems within the Geography Curriculum ($10,000).

1999 *Dartmouth College*: *Rockefeller Center for the Social Sciences,* A multi-scale analysis of geomorphic and ecological influences on pool development, ($20,000), Magilligan, F., PI.

1998 *NASA Land Surface Hydrology Program*, Real-time forecasting and rapid post-event assessment of erosional and depositional flood damage, ($343,000 for three years) PI: Smith, L. (UCLA); Co-PIs: Alsdorf, D., Garvin, J., Gomez, B., Izenberg, N., Jacobson, R., Magilligan, F., and Mertes, L.

1997 *The Nature Conservancy*, Hydrologic Regimes in the Connecticut River Rapids Macrosite (CRRM): links to landscape change and ecological integrity, ($43,000), Magilligan, PI.

1997 *National Science Foundation*, Geomorphic impacts of the jökulhlaup flood on the Skeidararsandur, Iceland. Gomez, Magilligan, Mertes, Smith, co-PIs ($48,000).

1996 *Dartmouth College: Rockefeller Center for Social Sciences,* Riparian and stream channel morphologic adjustments in New England streams, ($6,810).

1994 *National Science Foundation*. Processes and timing of geomorphic and hydraulic adjustments during stream channel recovery. ($105,000). P. McDowell (University of Oregon), co-PI.

1993 *Whiting Foundation*. Hydropolitics in the Middle East: hydrologic and social impacts of the Ataturk Dam (Turkey) ($5,800). Magilligan, PI.

1993 *Dartmouth College: Rockefeller Program for Interdisciplinary Research*. The hydrologic response to historical land use change in a Maine watershed ($10,000). Magilligan and Birnie, co-PIs.

1993 *National Science Foundation*. Overbank sedimentation during the Upper Mississippi River flood of 1993 between Muscatine and Keokuk. ($22,000). Gomez, Magilligan, Phillips and James, co-PIs.

1992 *National Science Foundation*. Teaching Enhancement Workshop in Hydrology. Co-sponsored by NSF-USGS. ($500).

1992 *National Science Foundation*. Response and recovery of watersheds to environmental change ($100,000). Magilligan, PI.

1992 *National Science Foundation*. Research Experience for Undergraduates ($5,000). Magilligan, PI.

1991 *American Chemical Society*. Spatial and temporal patterns of sediment mobility during basin de-stabilization. ($18,000). Magilligan, PI.

1990 *Georgia State University*. Vice-President's Research Award. Roughness variation in north Georgia stream channels ($2,000). Magilligan, PI.

1989 *Georgia State University*. Vice-President's Research Award. Roughness variation in north Georgia stream channels ($3,000). Magilligan, PI.

1986 *National Science Foundation*: Doctoral Dissertation Improvement Grant. Slope and roughness variation in small, meandering channels ($11,610). Magilligan, PI.

1986 *Geological Society of America*. Penrose Dissertation Research Award. Slope and roughness variation in small, meandering channels ($800). Magilligan, PI.

1985 *University of Wisconsin*. Graduate School Domestic Travel Fellowship. Slope and roughness variation in small, meandering channels ($150). Magilligan, PI.

RECENT CONFERENCE PAPERS (2012 – present):

"The recent rise of mining in rivers is a global crisis", (Dethier, E.N. Silman M., Díaz Leiva, J., Alqahtani, S., Fernandez, L.E., Pauca, P., Çamalan, S., Tomhave, P., Magilligan, F.J., Renshaw, C.E., and Lutz, D.A.), Annual Meeting of the American Geophysical Union, Chicago, IL, December, 2022.

"Using gradients in stream power to predict log jam distribution and characteristics" (Malkoff, E., Renshaw, C., and Magilligan, F.), Annual Meeting of the American Geophysical Union, Chicago, IL, December, 2022.

"Bedload transport dynamics in supply limited versus supply excess channels in a small upland catchment", (Fields, J., Renshaw, C., Dethier, D., Magilligan, F., and Racela, J.), Annual Meeting of the American Geophysical Union, Chicago, IL, December, 2022.

"Field validation of the virtual velocity approach for estimating bedload flux in gravel-bedded rivers" (Fields, J., Renshaw, C., and Magilligan, F.), Annual Meeting of the American Association of Geographers, New York, NY, February, 2022.

"Impacts of channel morphology and seasonal flow history on sediment mobilization and transport" (Rossi R., Magilligan, F., Renshaw, C., Feng, X., Fields, J., and Nislow, K.), Annual Meeting of the American Geophysical Union, New Orleans, LA, December, 2021.

"Changing frequency of flood and drought on rivers in the United States and Canada" (Dethier, E., Sartain, S., Magilligan, F., and Renshaw, C.), Annual Meeting of the American Meteorological Society, Boston, MA, January, 2020

"Temporal and spatial variations in watershed connectivity dictate suspended sediment source and fate" (Dethier, E., Renshaw, C., and Magilligan, F.), Meeting of the American Geophysical Union, San Francisco, CA, December, 2019

"Bankfull channel adjustments to episodic and long-term changes in sediment supply" (Magilligan, F. and Renshaw, C.), Annual Meeting of the American Geophysical Union, San Francisco, CA, December, 2019.

"What is fluvial geomorphic equilibrium?: evaluating morphologic and sedimentological understandings of channel equilibrium following dam removal in a small upland catchment" (Fields, J., Renshaw, C., and Magilligan, F.), Annual Meeting of the American Geophysical Union, San Francisco, CA, December, 2019.

"River recovery and bedform evolution in a New England stream post-dam removal (Fields, J., Renshaw, C.E., Magilligan, F.J.,), Annual Meeting to the Northeast Geological Society of America, Portland, ME, March 2019.

"Timescales of response to a catastrophic flood: Quantifying "event" and "post-event" effects to assess stream recovery following Tropical Storm Irene" (Dethier, E.N. Magilligan, F.J. Renshaw, C.E.), Annual Meeting to the Northeast Geological Society of America, Portland, ME, March 2019.

Spatial patterns of sediment mobility in rivers disturbed by dam removal (Rossi, R.K. Renshaw, C.E., Magilligan, F.J.,). Annual Meeting to the Northeast Geological Society of America, Portland, ME, March 2019.

"Elevated post-event sediment yield extends the impact of catastrophic flooding" (Dethier, E., Renshaw, C.E., Magilligan, F.J.), Annual Meeting of the American Geophysical Union, Washington, DC, December, 2018.

"Role of run-of-river dams on sediment longitudinal connectivity and channel equilibrium" (with C. Renshaw, M. Marti and M. Roberts), Annual Meeting of the American Geophysical Union, Washington DC, December, 2018.

"Role of run-of-river dams on sediment transport, longitudinal connectivity, and channel equilibrium" (with C. Renshaw, M. Marti and M. Roberts), Annual Meeting of the Association of American Geographers, New Orleans, LA, April, 2018.

"Channel response & recovery to extreme floods at watershed, reach, and cross-sectional scales" (with H. Doyle, K. Kantack, E. Dethier and C. Renshaw), Annual Meeting of the American Geophysical Union, New Orleans, LA, December, 2017.

"Conflicts over dam removal in New England: The good, the bad, and the ugly", (with C. Sneddon and C. Fox), Annual Meeting Association American Geographers, Boston, MA, April, 2017

"Assessing the ecological and geomorphic context of dam removals in the U.S", (with Foley, M.M., Torgersen, C., Major, J., Anderson, C., Connolly, P., Shafroth, P. and Evans, J.E.), Annual Meeting of the American Geophysical Union, San Francisco, CA, December, 2016.

"Effect of small-storage dams on bedload-dominated rivers on fluvial geomorphic equilibrium", (with Marti, M., Renshaw, C., and Dietrich, J.), Annual Meeting of the American Geophysical Union, San Francisco, CA, December, 2016.

"Sediment transport over run-of-river dams", (with O'Brien, M.C., Renshaw, C.E., Magilligan, F.J.), Annual Meeting of the American Geophysical Union, San Francisco, CA, December, 2016."

"Landslides modulate transient adjustment to catastrophic flooding", (with Evan Dethier and Carl Renshaw), Annual Meeting, Geological Society of America, Denver, CO, October, 2016.

"Land cover change and water management on the Tarim and Konqi River systems, Xinjiang", (with J. Chipman, X. Shi, C. Sneddon, J. Winter, Y. Chen, and B. Li), International Geographical Congress, Beijing, China, August, 2016.

"The social, institutional, and management dimensions of dam removal in the US", Annual Meeting of the North American Society of Conservation Biology, Madison, WI, July 2016.

"Grade grubbing channel systems: or how can I maintain my grade if you keep changing the boundary conditions", Annual Meeting Association American Geographers, San Francisco, CA April, 2016 (with Doyle, H., Renshaw, C.E., Dethier, E., and Kantack, K.)

INVITED LECTURES:

Oregon State University, Corvallis, Department of Environmental Engineering, "*Dam removal and the science and politics of river restoration*", February 2021.

University of Illinois, Champaign-Urbana, Department of Geography, "*The science, politics, and geomorphic outcomes of dam removal*", March 2020

University of Paris – East, Department of Geography, "*Watershed restoration by dam removal",* December, 2019

Florida International University, Department of Earth Sciences, "*The biophysical and social dimensions of dam removal*", February, 2019

University of Massachusetts, Amherst, Department of Civil Engineering, *"Dam removal as natural experiments: stream channel responses to sediment re-connectivity",* October, 2018

University of Rhode Island, Department of Geology, *The biophysical and social aspects of dam removal*, December, 2016.

University of New Hampshire, *River restoration by dam removal in New England*, Department of Geology, October, 2016.

Clark University, Department of Geography, *River restoration by dam removal in New England*, February, 2016

University of Vermont, Department of Geology, *The immediate and ongoing geomorphic impacts of Hurricane Irene: persistence of catastrophic floods*, October, 2014.

The William Morris Davis Annual Lecture, University of Connecticut, Department of Geosciences, *River restoration needs, strategies, and outcomes for New England watersheds* (**Invited**), April, 2014.

Middlebury College, Department of Geology, *Lessons learned from Hurricane Irene: From field impacts to fluvial theory to river management*, April, 2014.

Plymouth University (UK), Department of Geography, *The geomorphic and ecological impacts of dams and dam removals,* February, 2014.

Royal Hollaway University (UK), *In-channel and riparian impacts of dam removals*, Department of Geography,

Durham University (UK), Department of Geography, *Role of flow duration, hydrograph shape, & energy expenditure in controlling geomorphic responses to catastrophic flooding,* February, 2014.

University of Massachusetts, Amherst, Department of Geosciences, *Lessons learned from Hurricane Irene: going from field impacts to fluvial theory,* February, 2013.

University of Oregon, Department of Geography, *Dam(n)ed landscapes: the impacts of dams & dam removal on riverine systems*, October, 2012.

Oregon State University, Department of Geosciences, *Hydro-ecological impacts of dam removal,* October, 2012.

University of Georgia, Department of Geography (Invited Globe Lecturer), *The hydrologic and geomorphic impacts of dams across reach and watershed scales*, March, 2011.

Colgate University, Department of Geography (Invited Gould Lecture), *Human impacts on New England watersheds: role of flow regulation and land clearing on stream channel properties,* February, 2011

University of Delaware, Department of Geology, *Watershed disturbance in New England: Impacts of dams and land clearing on channel morphology*, December 2009.

Université de Montreal, Department of Geography, *Watershed scale analysis of the hydro-ecological impacts of dams*, November, 2008.

Charles University (Prague, Czech Republic), Department of Physical Geography, *Long-term evolution of El Niño floods in the Peruvian Atacama desert*, May, 2008

University of Denver, Department of Geography, "*The effects of flow regulation on channel scale and reach scale geomorphology*", February, 2008.

University of Wisconsin, Madison, Department of Geography, "*Evaluating the effects of impoundment on watershed ecology and geomorphology*, February, 2008.

University of Oregon, Department of Geography, *The hydrologic and eco-geomorphic impacts of dams*, November, 2007.

University of California, Santa Barbara, Department of Geosciences, *Geomorphic adjustments to dams,* November 2007.

University of California, Berkeley, Department of Geography, *The hydro-ecological impacts of flow regulation by dams,* October, 2007.

Boston College, Department of Geosciences, *Regional and national impacts of dams on riverine hydrology and ecology,* February 2007.

University of Arizona, Department of Geography, *The hydrologic and geomorphic impacts of dams*, December, 2006

UNH, Department of Civil Engineering, *Riparian dis-connectivity, geomorphic adjustments, and changes in hydrologic regime by dams*. March 2005

UNC, Chapel Hill, Department of Geography, *Damn dams: The hydro-ecologic impacts of impoundment*, April 2004

Georgetown University, Department of Foreign Affairs, *Watershed fragmentation, riparian disconnectivity, and the hydro-ecological impacts of impoundment*, November, 2003

Binghamton Geomorphology Conference, *Changes in hydrologic regime by dams*, Bloomsburg University, Ohio, October, 2002.

Invited Plenary Panel Speaker on "State of Science". Managing River Flows for Biodiversity, Conference sponsored by The Nature Conservancy. *Hydrologic and geomorphic applications to riparian ecology, Fort* Collins, CO, 2001.

University of California at Los Angeles, Department of Geography, *The geomorphic and hydrologic impacts of anthropogenic disturbance*, 1999.

DePaul University, Department of Geography, *Stream channel recovery: links between fluvial geomorphology and aquatic ecology*, 1998.

University of Oregon, Department of Geography, *Response and recovery of watersheds to environmental change*, 1995.

University of Washington, Department of Geography, *Watershed recovery to historical land clearing,* 1995.

Cornell University, *Geomorphic thresholds, equilibrium, and the spatial variability of extreme floods*, May, 1993.

Denison College, *Geomorphic effects of extreme floods*, October, 1992.

Binghamton Geomorphology Conference, *Thresholds and the spatial variability of flood power during extreme floods,* Miami University, Ohio, October, 1992.

University of South Carolina, *Watershed responses to historical land use change*, April 1990. Southeast Division of the Association of American Geographers Annual Meeting,

Getting your first academic position, Panel Discussion co-sponsored by SEDAAG and the Phoenix Group, Charleston, W. Virginia, November, 1989.

University of Georgia, *Slope and roughness variation in small, meandering streams*, May, 1989.

BOOK REVIEWS:

Magilligan, F.J., 2014, Review of Angela H. Arthington, Environmental Flows: Saving Rivers in the Third Millennium, In *Annals AAG* (Forthcoming).

Magilligan, F.J. 2005, Review of R. Allison, Applied Geomorphology: Theory and Practice, *Geoarchaeology*, DOI 20067.

Magilligan, F.J., 2000, Review of Knighton. D., Fluvial Forms and Processes: A New Perspective, In: *Professional Geographer*, 52(3): 575-76.

Magilligan, F.J., 1992, Review of: DuBois, R. 1990, Soil Erosion in a Coastal River Basin, University of Chicago Geography Research Paper 232, In: *Geographical Review*, 82: 344-45.

Magilligan, F.J., 1995, Review of: Kliot, N., 1993, Water Resources Conflict in the Middle East, *Annals Association American Geographers*, 85: 380-83.

TEACHING EXPERIENCE:

July 2002 - present	Professor. Department of Geography. Dartmouth College, Hanover, NH (also Adjunct Professor in the Dept. of Earth Sciences and EEES).
July 1996 - June 2002	Associate Professor. Department of Geography. Dartmouth College, Hanover, NH (also Adjunct Associate Professor in the Dept. of Earth Sciences).
Sept. 1990 - June 1996	Assistant Professor. Department of Geography. Dartmouth College, Hanover, NH.
June 1990 - Aug. 1990	Visiting Assistant Professor. Dept. of Geography. University of Oregon, Eugene, Oregon.
Sept. 1988 - June 1990	Assistant Professor. Dept. of Geography. Georgia State University. Atlanta, Georgia.
Sept. 1985 - Dec. 1987	Lecturer. Department of Geography. University of Wisconsin, Madison. Introductory Physical Geography.
Sept. 1984 - Dec. 1984	Laboratory Instructor. Department of Geology and Geography. University of Wisconsin Center-Rock County Campus. Introductory Physical Geography.
Sept. 1980 - June 1981	Head Teaching Assistant. Department of Geography. University of Wisconsin, Madison. Introductory Physical Geography.
June 1980 - Aug. 1980	Teaching Assistant. Department of Geography. University of Wisconsin, Madison. Fluvial Geomorphology and Introductory Physical Geography.
Sept. 1980 - June 1980	Teaching Assistant. Department of Geography. University of Wisconsin, Madison. Introductory Physical Geography.

WORK EXPERIENCE:

June 1983 - May 1985	Research Assistant. "The magnitude and frequency of Holocene floods" (Knox, PI; National Science Foundation).
June 1984 - Aug. 1984	Project Assistant. Mississippi Valley Archaeology Center. "The archaeology and geomorphology of Sand Lake Creek Coulee, Lacrosse, Wisconsin (Knox, PI).
June 1983 - Aug. 1983	Project Assistant. Wisconsin Department of Transportation Archaeological Investigations. "The archaeology and geomorphology of the Cox Creek site, Vernon County, Wisconsin." (Knox, PI).
June 1981 - June 1983	Research Assistant. "Responses of Midwest streams to Holocene climates." (Knox, PI: National Science Foundation)
June 1980 - Aug. 1980	Project Assistant. University of Wisconsin, Water Resources Management Program. "Lake Redstone: a water quality and management study (Knox, PI).
Sept. 1978 - Aug. 1979	Project Assistant. Wisconsin Water Resources Center. "Climate variation and the mobility and storage of sediments in watersheds." (Knox, PI).
June 1978 - Aug. 1978	Environmental Specialist I. Wisconsin Department of Natural Resources.

PROFESSIONAL MEMBERSHIPS:

Association of American Geographers
Geological Society of America
American Geophysical Union
American Water Resources Association

SERVICE:

Departmental:

- Search Committee for Global Environmental Change Assistant Professor 2022-2023
- Search Committee for Critical GIS Assistant Professor 2017-2018
- Search Committee Chair for Climate Scientist, 2012-2013
- Search Committee Chair for Climate Scientist, 2016-2017
- Chair, Department of Geography, 2001-2007
- Interim Chair, Department of Geography, Spring 2019

- Co-Chair Search Committee for Director of the GIS Center, 2006-2007
- Search Committee for Human Geographer, 2005-2006
- Search Committee for Joint Search with Women's Studies, 2002-3, 2005-2006
- Rockefeller Center Post-doc Competition Search Committee: 2000-2005
- Search Committee for GIS Position, 2001-2002
- Co-Chair Search Committee for Joint Search with Environmental Studies, 1999-2000
- Chair Search Committee for two positions in Human Geography 1996-1997
- Search Committee for Human Geographer, 1993-1994
- Chair, Search Committee for a Physical Geographer, 2012-13
- Chair, Search Committee for Visiting Physical Geographer, 2016

College:

- Member, Council on Academic Freedom and Responsibility (2015-2018)
- Member and Chair, Council on Undergraduate Research and Advising (2017 - 2020).
- Member, Committee Advisory to the President: (2009-2012; Fall 2016) (Substitute 2014-2023)
- Member, Committee on Organization and Policy, 1995, 2001-2004, 2012-2015, Winter 2019 (Chair, 2012-2013 and 2014-2015)
- Member, Sub-Committee on Priorities, 2003-2006, 2012-2015 (Chair, 2012-2013)
- Member, Search Committee for new Director of the Irving Energy Institute, 2017
- Member, Steering Committee of Northern and Polar Studies 2003 – 2008
- Member, Search Committee for new Director of Office of Institutional Diversity, 1999
- Member, Search Committee for new Director of Rockefeller Center, 2004
- Member, Faculty General Steering Committee, 2002-03 and 2012-13.
- Rockefeller Center Faculty Council, 2000-present
- Committee on Graduate Fellowships 1996-1998
- College Course Steering Committee: 2008-2011 (Chair, ’10-’11)
- Dimensions Speaker, April, 2013
- Keynote Speaker, Annual Senior Honors Thesis Dinner, May 2013

Professional:

- Panelist, National Science Foundation, Coupled Natural and Human Systems Panel, 2017-2018
- Member & co-author, National Research Council (NRC/NAS) Report on “Strategic Directions for the Geographical Sciences in the Next Decade”, 2008.
- Panelist, National Science Foundation Geography & Regional Science Program 2005-07
- Panelist, National Science Foundation Graduate Fellowship Program 2005-08

- Advisory Committee, National Science Foundation Freshwater Initiative Program 2004
- Chair, Geomorphology Specialty Group 2002-2003
- Editorial Board, *Annals Association American Geographers*, 2003-2005, 2020-present
- Secretary-Treasurer, Geomorphology Specialty Group 2001-2002
- Member AAG Nystrom Committee 1996 and 1998
- Member AAG Mel Marcus Committee 2020-2023
- Member, Board of Trustees of the New Hampshire Chapter of The Nature Conservancy. 2009-2016
- Editorial Board, *Geomorphology* (2013-present)
- Editorial Board, *Elementa, A Journal of the Anthropocene*, 2013-2020
- Member, USGS Powell Center Working Group on Dam Removal 2013-2015

REVIEWER:

Geological Society of America Bulletin
Water Resources Research
Annals of the Association of American Geographers
National Science Foundation
American Chemical Society
National Research Council
Journal of Geography
Physical Geography
Geomorphology
Earth Surface Processes and Landforms
Journal of Soil and Water Conservation
Journal of Geophysical Research
Journal American Water Resources Association
Journal of Great Lakes Research
Journal of Hydrology
American Midland Naturalist
Proceedings National Academy Sciences
Environmental Management
Geology
River Research & Applications

SUPERVISED UNDERGRADUATE THESES:

Maddy Kroot ’19	Landscapes of Power: the politics of Northern Pass
Jeff Bate ’07:	Landscape controls on LWD accumulation and wood-based restoration techniques in mountain streams of New England
Haley Peckett ‘05	Yosemite National Park and the Development of American Sacred Space

Rebecca Manners ’04	Geomorphic Impacts of Large Floods in a Hyper-Arid Region: Relating Channel Behavior to Riparian Land Use Change
Chelsea Lane-Miller ’04:	Chile and the BioBio Dams: Environmental Conflict in a Privatized Economy
Hannah Haynie ’03	Geomorphic Impacts of Dams in the Connecticut River Basin.
Sara Donahue '02:	Channel Bed Response to Watershed Disturbance: White Mountains, NH
Peter Augello '02:	Institutional and Policy Analysis of the New York City Water Supply
Jolyon Rivoir-Pruzinski '00:	The Geomorphic Response of the Dead Diamond River to Extreme Floods.
Austyn Fudge ‘98:	Characteristics and Mechanisms of Pool Formation in the White Mountains, NH, (Awarded Best Thesis ‘98 in the Earth Sciences Department).
Lara Burgel ‘96:	Native American Reserved Water Rights: The Legal and Historical Development of a Modern Dilemma (Senior Fellow).
Rich Hoffman '94:	The Morphology and Hydrology of Step-Pool Streams (Awarded Best Thesis ‘94 in the Earth Sciences Department).
Jon Fidelak '93:	Roughness Variation in Mink Brook, New Hampshire.
Brian Graber '93:	Land Use Change and Hydrologic Response in a New England Watershed: The Smith River, New Hampshire.
Adam Light '93:	Topographic Controls on Snowfall: Central Wasatch Mtns., Utah
Ben Saunders '92:	Quantification of Indian Reserved Water Rights in the West.
Sean Andrish '92:	Sedimentological Characteristics of Stream Confluences along the South Branch of the Ompompanoosuc River.
Christian Kull '91:	The Geomorphic and Topographic Controls on Landslide Genesis and Distribution in the White Mountains, New Hampshire.