STEVEN M. GORELICK **APRIL 2026**

CYRUS F. TOLMAN PROFESSOR

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EDUCATION

Ph.D. Hydrology, Stanford University, 1981
M.S. Hydrology, Stanford University, 1977
B.A. New College, 1975

PROFESSIONAL EXPERIENCE

2007-present **Professor of Earth System Science (renamed 2015), Stanford University**
2010-present **Senior Fellow, Woods Institute for the Environment, Stanford University**
2005-present **Cyrus F. Tolman Professor, Stanford University**
2009 - present **Director**, Global Freshwater Initiative, Stanford University
1996-2007 **Professor, Dept. of Geological & Environmental Sciences and Dept. of Geophysics, Stanford University (*joint appointment*)**
2023 Visiting Scientist, CSIRO, Brisbane, AU (Spring-Summer)
2021-2022 Visiting Scientists, Helmholtz Centre for Environmental Research (Spring-Summer)
2019 Visiting Professor, Swiss Federal Institute of Technology ETH Zurich (Spring)
2013 Visiting Professor, Swiss Federal Institute of Technology ETH Zurich (Spring)
2012 Visiting Professor, Centre for Ecohydrology, UWA, Perth, AU (Spring)
2009 Visiting Scientist, CSIRO, Land and Water, Perth, AU (Spring-Summer)
2007 Visiting Scholar, University of Cambridge, Dept. of Zoology (Spring-Summer)
2006 Visiting Professor, Ecole Polytechnique Federale de Lausanne (EPFL), Ecological Engineering Laboratory, Switzerland (Spring-Summer)
2005 Visiting Professor, Swiss Federal Institute of Technology (ETH), Zurich (Spring)
1997 Visiting Scholar, Harvard University, Division of Engineering and Applied Sciences (Winter)
1997 Visiting Scientist, CSIRO, Perth, AU (Spring-Fall)
1993-96 **Associate Professor, Dept. of Geological and Environmental Sciences, and Dept. of Geophysics, Stanford University**
1988-93 **Associate Professor of Applied Earth Sciences, Stanford University**
Associate Professor of Geophysics, Stanford University (appt. 1991)
1981-88 Consulting Professor, Applied Earth Sciences, Stanford University
1981-88 U.S. Geological Survey, Water Resources Division
Project Chief (1982-88), Assistant GW Research Advisor (1986-88)
1977-80 Hydrologic Consultant

HONORS AND AWARDS

2023 **Fulbright Fellow - Distinguished Chair** in Science, Technology and Innovation, Australian-American Program, Brisbane, AU
2021-22 **Alexander von Humboldt Foundation Research Award,** Germany
2018 **Award,** THE Excellence in Teaching Award, School of Earth, Energy, and Environ. Sciences
2016 **Fellow,** American Association for the Advancement of Science (*AAAS*)
2015 **Best Paper of 2014**, *Environmental Research Letters (ERL)*
2014 **Distinguished Teacher,** School of Earth Sciences, Stanford
2013 **Editor's Choice Award,** AGU *Water Resources Research*
2012 **Elected Member**, US National Academy of Engineering (**NAE**)
2012 **Vice Provost Visiting Professor**, University of Western Australia, Perth
2011 **International Fellow,** Institute for Envir. Sci. and Research, ESR, New Zealand
2008 **Fulbright Fellow – Senior Scholar,** Australian-American Program
2005 **Fellow**, **John Simon Guggenheim Foundation**
1997 **Fulbright Fellow – Senior Scholar,** Australian-American Program
1990 **Fellow**, American Geophysical Union
1988 **Fellow**, Geological Society of America
2008 **Chester Keisel Memorial Lecturer**, University of Arizona
2008 **Pioneers in Groundwater,** Environmental and Water Resources Institute of the American Society of Civil Engineers (ASCE).
2006 **Award**, International Association for Mathematical Geology, Best Published Paper in *Computers and Geosciences* in 2005
2005 **Cyrus F. Tolman Professorship**, Stanford University
2004 **M. King Hubbert Award**, National Groundwater Association
1998 **Ineson Distinguished Lecturer**, Intl. Assoc. Hydrogeologists, UK & BGS
1994 **O.E. Meinzer Award**, Geological Society of America
1990 **James B. Macelwane Medal**, American Geophysical Union
1989 **Presidential Young Investigator Award**, The White House and the National Science Foundation
1987-97 **President**, International Commission on Groundwater, IAHS

ASSOCIATE EDITORSHIPS

Optimization and Engineering (1999-present)
Transport in Porous Media (2002-2004)
Hydrogeology Journal (1999-2002)
Journal of Hydrology (1990-1996)
Water Resources Research (1983-1987)

PROFESSIONAL ACTIVITIES SINCE 1990

1988-90 **Member, Geohydrology Panel,** National Research Council Committee on Solid Earth Sciences

1988-90 **Scientific Committee,** International Conference on the Scientific Basis for Water Resources Management, Beijing, China, 1990

1989 **Scientific Program Committee,** International Symposium on Groundwater Management: Quantity and Quality, Spain

1989 **Invited Presentation**, STL, Advance Education Seminar, IBM Lab

1989-90 **Co-Convenor,** Geologic Characterization of Media Heterogeneity for Improved Prediction of Subsurface Transport, AGU Special Session

1989-90 **Invited Speaker,** International Conference on Calibration and Reliability in Groundwater Modelling, The Hague, The Netherlands

1989-90 **Advisory Committee,** International Conference on Groundwater Resources Management, Bangkok, Thailand, 1990

1989-95 **Faculty Member**, EPA, Western Region Hazardous Substance Research Center, Stanford University and Oregon State University.

1990-91 **Member,** National Science Foundation Geology and Paleontology Panel

1990 **Workshop Leader,** DOE Meeting on Groundwater Monitoring Network Design

1990-91 **Groundwater Technical Advisory Committee,** CH2M HILL modelling of Santa Clara Valley, California

1991 **Invited Presentations**, University of Michigan, U.C. Berkeley, & EPA

1991-92 **Member,** National Science Foundation Continental Hydrology Panel and Hydrologic Sciences Panel

1992-1993 **Member**, AGU Water Resources Research Editor Selection Committee

1992-2009 **Member,** U.S. National Committee for IAHS

1992-1994 **Member**, AGU Horton Medal Committee

1992-93 **Scientific Advisory Committee,** International Conference on Groundwater Quality Management, Estonia

1992-93 **Advisor,** UNESCO International Hydrologic Program Planning Group

1992-94 **Member,** Battelle Labs Technical Support Group - Arid Zone VOC Integrated Demo

1992-94 **Member,** Geostatistics Experts Group & Conceptual Model Uncertainty Group, Sandia National Laboratory

1993 **Instructor**, Design of Groundwater Contaminant Capture Systems: Decision Analysis and Optimization (w/ A.Freeze, L.Smith, & J.Massmann), E-Cubed, Chicago

1993-94 **International Scientific Committee,** Assessing and Managing Health Risks from Drinking Water Contamination, Rome, Italy

1993-94 **Scientific Advisory Committee,** International Conference on Future Groundwater Resources at Risk, Helsinki, Finland

1995 **Invited Speaker,** Kovacs Colloquium, Paris, 1995

1995 **Invited Instructor**, ETH, Swiss Federal Institute of Technology, 16th International Course, Pollutant Transport and Management in Heterogeneous Aquifers, (w/ J. Wilson)

1995 **Keynote Speaker,** International Conference on Groundwater Quality: Remediation and Protection, Prague, 1995

1995-1997 **Member**, California Environmental Protection Agency Risk Assessment Advisory Committee of the Office of Environmental Health Hazard Assessment Science Advisory Board

1995-1996 **Scientific Advisory Committee**, Model Calibration and Reliability Conference, Golden, CO.

1995-1997 **Scientific Program Committee**, IAHS Scientific Assembly, Morocco.

1995-1998 **Member**, **Chair**, Meinzer Award Committee, Geological Society of America

1996 **Invited Speaker**, Geologisches Institut, Universitat Tuebingen, Germany

1997 **Visiting Scholar**, Harvard University, Division of Engineering and Applied Sciences

1997 **Visiting Scientist**, CSIRO, Perth, Australia

1997 **Visiting Professor**, University of Western Australia, Perth

1997 **Keynote Speaker**, MODSIM 97, Hobart, Tasmania.

1997 **Invited Speaker**, MIT, Harvard, University of Paris, USGS (Reston), CSIRO Perth, CSIRO Canberra, Intl. Association of Hydrogeologists Perth, Univ.of Western Australia/Envir. Dynamics Seminar, Institute of Engineers Melbourne, CSIRO Adelaide, Intl. Assoc. Hydrogeologists Sydney.

1997 **Instructor**, Aquifer Heterogeneity and Optimal Capture of Contaminants, short course, University of New South Wales, Sydney, Australia

1997 **Invited Speaker,** 1997 International Conference on Groundwater Quality Protection : Technology and Management of NAPL Problems, Taiwan

1997-1999 **Member,** Scientific Committee, ModelCARE Conference (Joint IAHS/IAHR), Zurich, Switzerland, Sept. 1999.

1998 **External Examiner,** Ph.D. Committee, Technical University of Denmark.

1998 **Invited Speaker**, Groundwater Research Centre, Technical University of Denmark

1998 **External Juror**, Ph.D. Jury, University of Paris, France

1998-2000 **Member,** Scientific Advisory Committee, Groundwater 2000: Conference on Groundwater Research, Copenhagen, Denmark, June 2000.

1998-2000 **Chair/Consultant**, Review Panel for Groundwater Model for Hanford Site, Washington, PNNL/DOE.

1999-2000 **Member**, **National Research Council Panel** on Grand Challenges in Environmental Sciences Research.

1999 **Member**, Expert Panel to Review Minimum Flows and Water Levels Used for Regulatory Purposes in Southwest Florida.

1999-01 **Scientific Advisory Committee**, International Conference on Future Groundwater Resources at Risk, Lisbon, Portugal, 2001

2000 **Invited Lecturer**, The Johns Hopkins University

2000-2001 **Member**, Hydrogeology Program Planning Group, Ocean Drilling Program/Joint Oceanographic Institutions (JOIDES) for Deep Earth Sampling

2001-2002 **Member**, Scientific Advisory Committee, ModelCARE 2002, Prague

2001-2008 **Representative**, from Stanford University to Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI)

2001-2004	**Advisor**, Regional Aquifer Model Development, Texas Water Development Board
2002-2003	**Member,** CUAHSI Executive Director Search Committee
2002-2004	**Member,** Hydrology Section AGU Fellows Committee
2002-2010	**Advisor**, Evaluation of Demand Uncertainty in Optimal Groundwater Management in Southwest Florida, Tampa Bay Water
2002-2004	**Member**, Hydrology Section AGU Fellows Committee
2003	**Member**, CUAHSI, Audit Committee an Legal Affairs Charter Mission Review Group
2003	**Invited Lecturer**, US Geological Survey Water Resources Division Seminar Series
2003-2004	**Member**, Scientific Advisory Committee, Finite Element Modeling and Modflow Conference, Carlsbad, Czech Republic
2004	**Invited Speaker**, UC Davis Distinguished Speaker Series
2004	**Invited Speaker and Panel Discussant**, Finite Element Modeling and Modflow Conference, Carlsbad, Czech Republic
2005	**Invited Lecturer**, University of Barcelona, Swiss Federal Institute of Technology (ETH), and Swiss National Research Center for Water Pollution Control (EAWAG)
2005	**Public Lecture**, Stanford University, The End of Oil series
2006	**Invited Lecturer**, Ecole Polytechnique Federale de Lausanne (EPFL), Ecological Engineering Laboratory, Switzerland
2007	**Invited Lecturer**, University of Paris, Université Pierre et Marie CURIE
2007	**Invited Lecturer**, Cambridge Conservation Forum, University of Cambridge
2007-2008	**Member**, Scientific Advisory Committee, *HydroPredict 2008*, Prague
2008	**Invited Plenary Lecturer**, World Environmental & Energy Conference, ASCE, Hawaii
2008	**Public Lecture**, Stanford University, Troubled Waters series
2008	**Member**, Peer Review Panel, National Science Foundation, Hydrologic Sciences
2009	**Invited Lectures**, University of Western Australia, School of Environmental Systems Engineering; CSIRO, Division of Land and Water; Engineers of Western Australia; International Association of Hydrogeologists, Perth, AU; USGS, Menlo Park.
2009-2010	**Member**, Scientific Advisory Committee, *HydroPredict 2010*, Prague
2010	**Member**, Visiting Committee, Dept. of Earth Sciences, Dartmouth College
2010 – 2011	**Member**, Water Advisory Board, Natural Capital Project
2011	**Search Committee**, Hydrologist, Natural Capital Project
2011	**External Reviewer**, Doctorate of Xiang Zhao Kong, Swiss Federal Institute of Technology, ETH, Zurich
2011	**Invited Lecturer**, Environmental Science Research (ESR), New Zealand
2011	**Keynote Speaker**, River Corridor Restoration Conference – RCRC11, Monte Verità, Ascona, Switzerland

2011- **present** **Member**, AGU Hydrology Section, Water and Society Technical Committee

2011- 2015 **Member**, Scientific Advisory Board, NIREAS International Water Center, Cyprus

2011 **Invited Lectures**, Swiss Federal Institute of Technology (ETH Zurich), École Polytechnique Fédérale de Lausanne (EPFL), Switzerland, University of Paris – VI, California Independent Petroleum Association, Chevron Retirees Association, and Chevron Fellows meeting

2011 **Co-Organizer**, AGU Session, Assessing Global Soil Change, Impacts on Hydrological and Ecosystem Services

2011 **Co-Organizer**, AGU Session, Water and Society

2012 **Invited Lecture**, Nanyang Technological University, Earth Observatory of Singapore

2012 **Invited Lecture**, Prediction Under Change Workshop : Visionary Speaker, Boulder, Colorado

2012 **Plenary Lecturer**, 34th International Geologic Congress, Brisbane, Australia

2012 **Invited Lecture**, Centre for Ecohydrology, University of Western Australia

2012 **Invited Lecture**, CSIRO, Division of Land and Water, Perth, Australia

2012 **Invited Lecture**, Flinders University, National Groundwater Centre (NCGRT), Adelaide, Australia

2012 **Invited Lecture**, Distinguished Lecture Series, International Water Symposium, Geoscience Australia, Canberra

2012 **Invited Lecture**, Earth Resources Engineering Section, National Academy of Engineering, Washington DC

2013 **Invited Lecture**, Swiss Federal Institute of Technology, ETH, Zurich

2013 **Invited Lecture**, EAWAG, Swiss Federal Institute of Aquatic Science and Technology, Zurich

2013 **Keynote Lecturer**, Vienna Catchment Science Symposium, Austria

2013 **Invited Lecture**, International Workshop: Observation and Modeling of Ecohydrological Processes in Inland River Basins: A Vision for Transformative Science, Beijing, China

2013-15 **Member**, Stanford University, Committee on Research (C-Res)

2014 **Member**, Review Panel, National Science Foundation, Hydrologic Sciences

2014 **Invited Lecture**, Berkeley Civil and Environmental Engineering Seminar

2015 **Invited Lecture**, Stanford Center for Innovation in Global Health Symposium

2014-15 **International Advisory Board**, *MODSIM 2015*, Queensland, Australia

2015 **Invited Expert**, International Water Security Foresight Workshop, Rand Corp., Arlington, VA

2015 **Invited Lecture**, UFZ – Helmholtz Centre for Environmental Research, Leipzig, Germany

2015 **Invited Lecture**, Columbia University, Dept. of Earth and Environmental Engineering

2015-16 **Member**, Scientific Advisory Committee, Groundwater Quality 2016 (GQ16), Shenzhen, China

2015-2018 **Advisory Board**, Southern University of Science and Technology, School of Engineering and Environmental Science, Shenzhen, China

2015-2018 **Chair**, Stanford University Committee on Research (C-Res)

2016 **Keynote Lecturer**, Groundwater Quality 2016, Shenzhen, China

2016-17 **Advisory Committee**, IPWE 2017, International Perspective on Water Resources and the Environment, Wuhan, China

2016 **Invited Speaker**, American Geophysical Union meeting, San Francisco, Session: International Transdisciplinary Approaches toward Resilience and Adaptation for Societal, Managed, and Natural Systems

2017 **Keynote Lecture**, HydroEco 2017, Birmingham, UK

2017 **Invited Lecture**, University of Birmingham, UK

2017 **Panelist**, Round Table Discussion, Shenzhen Environmental Forum, China

2018 **Panelist**, Day Zero: Water, Climate Change, and Governance in MENA, University of Southern California

2018 **Invited Lecture**, New Zealand Ministry for the Environment, Wellington, NZ

2018 **Invited Lecture**, Massey University, Palmerston North, NZ

2018 **Invited Lecture**, *Geoscience Australia* Distinguished Lecturer, Canberra, AU

2018 **Invited Speaker**, Symposium on Sustainable Groundwater Management: The Path Forward, San Jose, CA

2018 **Invited Speaker**, Water Systems Symposium, Stanford University, CA

2018-2023 ***Member**, Intl Advisory Board, Water and Climate in SE Asia Project

2018-present ***Chair**, Advisory Board, Southern University of Science and Technology, School of Engineering and Environ. Science, Shenzhen, China

2018-present ***Member**, Visiting Committee, MIT, Dept of Civil and Environ. Engineering

2019-present ***Member**, Advisory Board, Middle East Water Forum, Amman, Jordan

2019 **Invited Lecture**, World Bank, New Delhi, India

2019 **Invited Lecture**, ETH-Zurich, Institute of Science, Technology and Policy

2019 **Invited Lecture**, EPFL, Lausanne, Environmental Engineering Seminar Series

2020 **Citationist**, Stockholm Water Prize (winner John Cherry), (Stockholm, Sweden, virtual)

2021 **Citationist**, Stockholm Water Prize (winner Sandra Postel), (Stockholm, Sweden, virtual)

2021 **Plenary Lecturer and Discussion Panelist**, 3rd International Forum on Water Security and Sustainability, Nanjing, China (virtual)

2021 **Invited Lecture**, Disruptive Technologies for Improved Groundwater Management, Mashreq Water Knowledge Series, Lebanon (virtual)

2021 **Invited Lecture**, Development Lecture Series, Austrian Foundation for Development Research (OEFSE), Vienna, Austria (virtual)

2022 **Invited Lecture**, Institut für Physische Geographie, Goethe-Universität Frankfurt, Germany

2022 **Invited Lecture**, Helmholtz Centre for Environmental Research, Leipzig, Germany

2023 **Invited Talk**, American Geophysical Union Meeting, San Francisco, CA

2023 **Invited Lectures**, CSIRO, Brisbane, Adelaide, Canberra Australia

2023 **Invited Lecture**, Water Futures Seminar, Australia National University, Canberra, AU

2023 **Invited Lecture**, Flinders University, National Centre for Groundwater Research and Training, Adelaide, AU

2024 **Invited Lecture**, Graduate Schools of Business, Workshop on Advancing Sustainable Water Management, Stanford

2024 **Lightening Talk**, Stanford – IIT-Bombay Workshop on Sustainability, Stanford

2025 **Invited Talk**, European Geophysical Union meeting, Vienna, Austria

2025 **Invited Lectures**, Southern University of Science and Technology, Shenzhen; Tsinghua University, Beijing, China

2025 **Keynote Lecture and Panelist**, International Workshop on Earth Water Futures, North China University of Water Resources and Electric Power, Zhengzhou

2026 **Invited Panelist**, Roundtable Discussion of New and Cutting Edge Water Topics, *Water in the West*, Stanford University

2026 **Invited Lecture**, US-India Research Roundtable, Hoover Institution

PUBLICATIONS: GOOGLE SCHOLAR – > 20,465 CITATIONS, H=75
WEB OF KNOWLEDGE – > 11,331 CITATIONS, H=57 (75 CITES PER ITEM)
RESEARCH GATE – > READS 92,350 AND 16,828 CITATIONS, H=70

176: Wang, A., Klassert, C. J. A., Karutz, R., Smilovic, M., Kahil, T., Burek, P., Zhu, Y., Zozmann, H., Klauer, B., Kublbock, K., Omann, I., Figueroa, A., Wada, Y., Naylor, R., Gorelick, S. M. 2026. Drought-Driven Water Insecurity in an Emerging Indian Megacity: A Coupled Multi-Agent Systems Approach for Policy Evaluation. *Earth's Future*, 14(3). https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2025EF007976

175: Li, Z., Rosa, L., and Gorelick, S.M. 2025. Severe Floods Significantly Reduce Global Rice Yields. *Science Advances*, 11(46). https://www.science.org/doi/10.1126/sciadv.adx7799

174: Li, Z., and Gorelick, S.M. 2025. Societal and Environmental Interconnections: the future of flood inundation models. *Environmental Research Letters*, 20(12)/3004. DOI: 10.1088/1748-9326/ae21f4

173: Womble, P., Gorelick, S.M., Thompson, B., and Suarez, S. 2025. A strategic environmental water rights market for Colorado River reallocation. *Nature Sustainability*, 8, 925–935. https://doi.org/10.1038/s41893-025-01585-x

172: Ge, S., and Gorelick, S.M. 2024. HYDROLOGY, FLOODS AND DROUGHTS | Groundwater and Surface Water. In: North, G.R., Pyle, J., and Zhang, F. (eds.), *Encyclopedia of Atmospheric Sciences* (Second Edition). Academic Press, pp. 209e–216. https://doi.org/10.1016/B978-0-12-382225-3.00171-7

171: Ma, R., Chen, K., Andrews, C.B., Loheide, S.P., Sawyer, A.H., Jiang, X., Briggs, M.A., Cook, P.G., Gorelick, S.M., Prommer, H., Scanlon, B.R., Guo, Z., and Zheng, C. 2024. Methods for Quantifying Interactions between Groundwater and Surface Water. *Annual Review of Environment and Resources*, 49, 623–653. https://doi.org/10.1146/annurev-environ-111522-104534

170: Klassert, C., Yoon, J., Sigel, K., Klauer, B., Talozi, S., Lachaut, T., Selby, P., Knox, S., Avisse, N., Tilmant, A., Harou, J., Mustafa, D., Medellín-Azuara, J., Bataineh, B., Zhang, H., Gawel, E., and Gorelick, S.M. 2023. Unexpected growth of an illegal water market. *Nature Sustainability*. https://doi.org/10.1038/s41893-023-01177-7

169: Lancia, M., Yao, Y., Andrews, C.B., Wang, X., Kuang, X., Ni, J., Gorelick, S.M., Scanlon, B.R., Wang, Y., and Zheng, C. 2022. The China groundwater crisis: a mechanistic analysis with implications for global sustainability. *Sustainable Horizons*, 4, 100042. http://doi.org/10.1016/j.horiz.2022.100042

168: Karutz, R., Omann, I., Gorelick, S., Klassert, C., Zozmann, H., Zhu, Y., Kabisch, S., Kindler, A., Figueroa, A., Wang, A., Kueblboeck, K., Grohs, H., Burek, P., Smilovic, M., and Klauer, B. 2022. Capturing Stakeholders' Challenges of the Food–Water–Energy Nexus—A Participatory Approach for Pune and the Bhima Basin, India. *Sustainability*. https://doi.org/10.3390/su14095323

167: Klauer, B., Kueblbock, K., Omann, I., Karutz, R., Klassert, C., Zhu, Y., Zozmann, H., Smilovic, M., Talozi, S., Figueroa, A.J., Grohs, H., Heilemann, J., and Gorelick, S.M. 2022. Stakeholder Workshops Informing System Modeling—Analyzing the Urban Food–Water–Energy Nexus in Amman, Jordan. *Sustainability*, 14, 11984. https://doi.org/10.3390/su14191198

166: Lee, J.Y., Wang, S., Figueroa, A.J., Strey, R., Lobell, D.B., Naylor, R.L., and Gorelick, S.M. 2022. Mapping Sugarcane in Central India with Smartphone Crowdsourcing. *Remote Sensing*, 14, 703. https://doi.org/10.3390/rs14030703

165: Mao, F., Ullah, S., Gorelick, S.M., Hannah, D.M., and Krause, S. 2021. Increasing nutrient inputs risk an upsurge of global nitrous oxide emission from mangrove ecosystems. *One Earth*, 4(5), 742–748. https://doi.org/10.1016/j.oneear.2021.04.007

164: Ward, E., Solari, K.A., Varudkar, A., Gorelick, S.M., and Hadly, E.A. 2021. Muskrats as a bellwether of a drying delta. *Communications Biology*. https://doi.org/10.1038/s42003-021-02288-7

163: Yoon, J., Klassert, C., Selby, P., Lachaut, T., Knox, S., Avisse, N., Harou, J., Tilmant, A., Klauer, B., Mustafa, D., Sigel, K., Talozi, S., Gawel, E., Medellin-Azuara, J., Bataineh, B., Zhang, H., and Gorelick, S.M. 2021. A coupled human-natural system analysis of freshwater security under climate and population change. *Proceedings of the National Academy of Sciences*, 118(14), e2020431118. https://www.pnas.org/doi/10.1073/pnas.2020431118

162: Zhang, H., Gorelick, S.M., and Zimba, P. 2020. Extracting Impervious Surface from Aerial Imagery Using Semi-Automatic Sampling and Spectral Stability. *Remote Sensing*, 12(3), 506. https://www.mdpi.com/2072-4292/12/3/506

161: Lee, J.-Y., Naylor, R.L., Jain Figueroa, A., and Gorelick, S.M. 2020. Water-Food-Energy Challenges in India: Political Economy of the Sugar Industry. *Environmental Research Letters*, 15(8). https://doi.org/10.1088/1748-9326/ab9925

160: Mady, B., Lehmann, P., Gorelick, S.M., and Or, D. 2020. Distribution of small seasonal reservoirs in semi-arid regions and associated evaporative losses. *Environmental Research Communications*, 2, 061002. https://doi.org/10.1088/2515-7620/ab92af

159: Fakhreddine, S., Prommer, H., Gorelick, S.M., Dadakis, J., and Fendorf, S. 2020. Controlling arsenic mobilization during managed aquifer recharge: The role of sediment heterogeneity. *Environmental Science & Technology*, 54(14), 8728–8738. https://pubs.acs.org/doi/full/10.1021/acs.est.0c00794

158: Dennedy-Frank, P.J., and Gorelick, S.M. 2020. Insights on Expected Streamflow Response to Land-cover Restoration. *Journal of Hydrology*, 589, 12512.

157: Luby, S.P., Davis, J., Brown, R.R., Gorelick, S.M., and Wong, T.H.F. 2019. Tools for Cholera control in Asia: water and sanitation, hygiene and behavior, OCV supplement in – Vaccine. *Vaccine*. https://doi.org/10.1016/j.vaccine.2019.07.084

156: Ward, E.M., Wysong, K., and Gorelick, S.M. 2019. Drying landscape and interannual herbivory-driven habitat degradation control semi-aquatic mammal population dynamics. *Ecohydrology*. https://doi.org/10.1002/eco.2169

155: Dennedy-Frank, P.J., and Gorelick, S.M. 2019. Insights from watershed simulations around the world: Water service programs do not materially enhance streamflow. *Global Environmental Change*, 58, 101938. https://doi.org/10.1016/j.gloenvcha.2019.101938

154: Ward, E.M., and Gorelick, S.M. 2018. Drying drives decline in muskrat population in the Peace-Athabasca delta, Canada. *Environmental Research Letters*, 13, 124026. https://doi.org/10.1088/1748-9326/aaf0ec

153: Womble, P., Perrone, D., Jasechko, S., Nelson, R.L., Szeptycki, L.F., Anderson, R.T., and Gorelick, S.M. 2018. Indigenous communities, groundwater opportunities: A U.S. court decision unlocks vast potential to improve sustainable freshwater management. *Science*, 361(6401), 453–455. https://www.science.org/doi/full/10.1126/science.aat6041

152: Zhang, H., Gorelick, S.M., Zimba, P.V., and Zhang, X. 2017. A remote sensing method for estimating regional reservoir area and evaporative loss. *Journal of Hydrology*, 555, 213–227. https://doi.org/10.1016/j.jhydrol.2017.10.007

151: Rajsekhar, D., and Gorelick, S.M. 2017. Increasing drought in Jordan: Climate change and cascading Syrian land-use impacts on reducing transboundary flow. *Science Advances*, 3(8), e1700581. https://doi.org/10.1126/sciadv.1700581

150: Müller, M.F., Müller-Itten, M., and Gorelick, S.M. 2017. How Jordan and Saudi Arabia are avoiding a tragedy of the commons over shared groundwater. *Water Resources Research*. https://doi.org/10.1002/2016WR020261

149: Yoon, J., Muller, M.F., and Gorelick, S.M. 2017. How the Syrian refugee crisis affected land use and shared transboundary freshwater resources. *Planet Policy*, Brookings Institution (online article, Feb. 3, 2017)

148: Muller, M.F., Yoon, J., Gorelick, S.M., Avisse, N., and Tilmant, A. 2016. Impact of the Syrian refugee crisis on land use and transboundary freshwater resources. *Proceedings of the National Academy of Sciences*. https://doi.org/10.1073/pnas.1614342113

147: Zhang, H., Gorelick, S.M., Avisse, N., Tilmant, A., Rajsekhar, D., and Yoon, J. 2016. A new temperature-vegetation Triangle Algorithm with Variable Edges (TAVE) for satellite-based actual evapotranspiration estimation. *Remote Sensing*, 8, 735. https://doi.org/10.3390/rs8090735

146: Moffett, K.B., and Gorelick, S.M. 2016. Relating salt marsh pore water geochemistry patterns to vegetation zones and hydrologic influences. *Water Resources Research*, 52, 1–17.

145: Moffett, K.B., and Gorelick, S.M. 2016. Alternative stable states of tidal marsh vegetation and channel pattern complexity in the San Francisco Bay estuary, California, USA. *Ecohydrology*. https://doi.org/10.1002/eco.1755

144: Erban, L.E., and Gorelick, S.M. 2016. Closing the irrigation deficit in Cambodia: implications for transboundary impacts on groundwater and Mekong River flow. *Journal of Hydrology*, 535, 85–92.

143: Zoback, M.D., and Gorelick, S.M. 2015. To prevent earthquake triggering, pressure changes due to CO2 injection need to be limited. *Proceedings of the National Academy of Sciences (Letter)*. https://doi.org/10.1073/pnas.1508533112

142: Gorelick, S.M., and Padowski, J.C. 2015. Identifying causes of freshwater vulnerability. *Planet Policy*, Brookings Institution.

141: Rahman, K., Gorelick, S.M., Dennedy-Frank, P.J., Yoon, J., and Rajaratnam, B. 2015. Declining rainfall and regional variability changes in Jordan. *Water Resources Research*. https://doi.org/10.1002/2015WR017153

140: Padowski, J.C., Gorelick, S.M., Thompson, B., Rozelle, S., and Fendorf, S. 2015. Assessment of human-natural system characteristics influencing global freshwater supply vulnerability. *Environmental Research Letters*, 10(10), 104014. https://iopscience.iop.org/article/10.1088/1748-9326/10/10/104014/meta

139: Gorelick, S.M., and Zheng, C. 2015. Global change and the groundwater management challenge. *Water Resources Research*, 51. https://doi.org/10.1002/2014WR016825

138: Gorelick, S.M. 2015. Water Security in Jordan: A Key to the Future of the Middle East. Planet Policy, *Brookings Institution*.

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PATENTED INVENTIONS

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