

Dr. Eric Stein

Department Head

Biology Department

Southern California Coastal Water Research Project

Education

D.Env., environmental science and engineering, University of California, Los Angeles, 1995

M.Ed., science education, University of California, Los Angeles, 1988

B.S., biology, University of California, Los Angeles, 1987

Professional Experience

Department Head, Southern California Coastal Water Research Project. Costa Mesa, CA. 2002-Present

Adjunct Associate Professor, California State University, Los Angeles, Department of Geography and Urban Analysis. Los Angeles, CA. 1998-2001

Principal Ecologist, Associate Principal, PCR Services Corporation. Pasadena, CA. 1998-2002

Biologist, Senior Project Manager, U.S. Army Corps of Engineers, Los Angeles District, Regulatory Branch. Los Angeles, CA. 1993-1998

Graduate Researcher, UCLA Environmental Science and Engineering Program. Los Angeles, CA. 1991-1993

Biology Teacher, Alhambra High School, Alhambra City School District. Alhambra, CA. 1988-1991

Educational Technology Consultant, IBM Educational Instruction Division. 1990-1995

Research Associate, UCLA Department of Physiology. Los Angeles, CA. 1984-1991

Honors and Awards

Doug Wilcox Award for Outstanding Associate Editor for Wetlands (2012)

Paul Douglas State Teaching Fellowship

U.S. Army Achievement Medal for Civilian Service

Professional Appointments

President, Society of Wetland Scientists (2023-present)

Vice-chair, US Army Science Advisory Board/Environmental Advisory Board (2022-present)

Associate Editor Frontiers in Environmental Science: Freshwater Science (2021-present)

Society of Wetland Scientist, Ways and Means Committee (2021-2023)

Associate Editor, Water, Hydrology and Hydroecology Section (MDPI Journal) (2021-present)

Special Issue Editor (Environmental Flows in an Uncertain Future), Frontiers in Environmental Science (2022)

Special Issue Editor (New Perspectives in Wetland Bioassessment and Monitoring), Water (2021-present)

Public Policy Institute of California (PPIC) Water Policy Center research network (2020-present)

LMU Center for Urban Resilience Academic Science Advisory Committee (2019-present)

California Environmental Flows Workgroup (2017-present)

Special Issue Guest Editor (Issue on Environmental Water), Freshwater Biology (2016-2018)

Santa Clara River Estuary Ecological Flows Science Review Panel (2017-2020)

California 4th Climate Assessment Workgroup (2017-2018)

Tijuana Estuary Tidal Restoration Program, Science Advisory Team (2016-present)

Wetland Recovery Project, Science Advisory Panel member (2014-present)

California Healthy Streams Partnership (2011-present)

Santa Monica Bay Restoration Commission Technical Advisory Committee (2013-present)

USEPA, Environmental Law Institute (ELI), Nature Conservancy (TNC) - applying a watershed approach to wetlands mitigation decisions - technical advisory committee (2012-2020).

Associate Editor, Wetlands (Journal of the Society of Wetland Scientists) (2010-2015)

California Wetland Monitoring Workgroup, Co-chair (2008-2014)

USDA-NRCS National Easement Assessment Project - technical team (2011-2013)

U.S. Army Corps of Engineers Workgroup: Quantifying Significance of Aquatic Ecosystems (2010)

Southern California Wetlands Recovery Program Science Advisory Panel, Chair (2004-2010)

Ormond Beach Restoration Science Advisory Committee (2010)

Ballona Wetland Restoration Scientific Advisory Committee, Co-chair (2007-2010)

NOAA National Estuary Eutrophication Workgroup, S. Pacific Coast Coordinator (2007)

Society of Wetland Scientists, Western Chapter President (2008-2010)

Society of Wetland Scientists, Wetland Concerns Committee (2006-present)

National Wetlands Awards, Selection Committee (2007, 2008, 2012)

California State Stream and Wetland Protection Policy Science Advisory Team (2009-2012)

NOAA Water Quality Synthesis, Assessment, and Data Management (SAM) Technical Advisory Committee (2007-2009)

San Francisco Estuary Institute Sources Pathways and Loading Work Group (2006-2011)

Malibu Legacy Park Technical Advisory Committee (2008-2010)

US Army Corps of Engineers - National Workgroup on Arid Stream Assessment (2008)

Bay Area Wetlands Regional Monitoring Program - Science Advisory Group (2008-2012)

Technical Advisory Committee member for Assessment of Ecosystem Values of Watersheds in Southern California (2009-2011)

Science Advisory Panel for the National Evaluation of the Ecological Performance of Compensatory Mitigation (2009-2010)

Professional Societies and Certifications

Coastal and Estuarine Research Federation

Society for Freshwater Science

International Association for Hydro-Environment Engineering and Research

Society of Environmental Toxicology and Chemistry

Society for Wetland Scientists

American Water Resources Association

American Geophysical Union

Pi Lambda Theta Educational Honor Society

Journal Articles

Sytsma, A., D. Philippus, J.M. Wolfand, K. Irving, K.T. Taniguchi-Quan, E.D. Stein, T.S. Hogue. 2024. Channel restoration in urbanized systems: Guiding design using ecological flow targets and future management scenarios. *Journal of the American Water Resources Association* DOI:10.1111/1752-1688.13232.

Doughty, C.L., H. Gu, R.F. Ambrose, E.D. Stein, E. Borgnis Sloane, M. Martinez, K.C. Cavanaugh. 2024. Climate drivers and human impacts shape 35-year trends of coastal wetland health and composition in an urban region. *Ecosphere* DOI:10.1002/ecs2.4832.

Stein, E.D., C.L. Jerde, E. Andruszkiewicz Allan, A.J. Sepulveda, C.L. Abbott, M.R. Baerwald, J. Darling, K.D. Goodwin, R.S. Meyer, M.A. Timmers, P.M. Thielen. 2024. Critical considerations for communicating environmental DNA science. *Environmental DNA* DOI:10.1002/edn3.472.

Kelly, R.P., D.M. Lodge, K.N. Lee, S. Theroux, A.J. Sepulveda, C.A. Scholin, J.M. Craine, E.A. Allan, K.M. Nichols, K.M. Parsons, K.D. Goodwin, Z. Gold, F.P. Chavez, R.T. Noble, C.L. Abbott, M.R. Baerwald, A.M. Naaum, P.M. Thielen, A.L. Simons, C.L. Jerde, J.J. Duda, M.E. Hunter, J.A. Hagan, R.S. Meyer, J.A. Steele, M.Y. Stoeckle, H.M. Bik, C.P. Meyer, E.D. Stein, K.E. James, A.C. Thomas, E. Demir-Hilton, M.A. Timmers, J.F. Griffith, M.J. Weise, S.B. Weisberg. 2024. Toward a national eDNA strategy for the United States. *Environmental DNA* DOI:10.1002/edn3.432.

Goodrich, K.A., N. Ulibarri, R. Matthew, E.D. Stein, M. Brand, B.F. Sanders. 2023. Toward improved sediment management and coastal resilience through efficient permitting in California. *Environmental Management* 72:558-567.

Wolfand, J.M., A. Sytsma, K.T. Taniguchi-Quan, E.D. Stein, T.S. Hogue. 2023. Impact of wastewater reuse on contaminants of emerging concern in an effluent-dominated river. *Frontiers in Environmental Science* DOI:10.3389/fenvs.2023.1091229.

Siu, J., E.D. Stein, J.S. Brown. 2023. When is Aquatic Resource Type Conversion Appropriate: A Framework for Cleaning Sand out of the Gears and a Case Study for McInnis Marsh. *Wetland Science and Practice* 41:70-85.

Stein, E.D., A.C. Horne, R.E. Tharme, J. Tonkin. 2022. Editorial: Environmental flows in an uncertain future. *Frontiers in Environmental Science* 10:1-5.

Brand, M.W., K. Buffington, J.B. Rogers, K. Thorne, E.D. Stein, B.F. Sanders . 2022. The Multi-Decadal Simulation of Marsh Topography Under Sea Level Rise and Episodic Sediment Loads. *Journal of Geophysical Research* 127:1-20.

Wolfand, J.M., A. Sytsma, V.L. Hennon, E.D. Stein, T.S. Hogue. 2022. Dilution and Pollution: Assessing the Impacts of Water Reuse and Flow Reduction on Water Quality in the Los Angeles River Basin. *Environmental Science and Technology* DOI:10.1021/acsestwater.2c00005.

Stein, E.D., J.S. Brown, A. Canney, M. Mirkhanian, H. Lowman, K. O'Connor, R. Clark. 2022. Prioritizing Stream Protection, Restoration and Management Actions Using Landscape Modeling and Spatial Analysis. *Water* 14:1375.

Grantham, T.E., D.M. Carlisle, J. Howard, B. Lane, R. Lusardi, A. Obester, S. Sandoval-Solis, B. Stanford, E.D. Stein, K.T. Taniguchi-Quan, S.M. Yarnell, J.K.H. Zimmerman. 2022. Modeling Functional Flows in California's Rivers. *Frontiers in Environmental Science* 10:787473.

Wolfand, J.M., K.T. Taniguchi-Quan, R. Abdi, E. Gallo, K. Irving, D. Philippus, J.B. Rogers, E.D. Stein, T.S. Hogue. 2022. Balancing water reuse and ecological support goals in an effluent dominated river. *Journal of Hydrology X* 15:100124.

Taniguchi-Quan, K.T., K. Irving, E.D. Stein, A. Poresky, R.A. Wildman Jr., A. Aprahamian, C. Rivers, G. Sharp, S.M. Yarnell, J.R. Feldman. 2022. Developing Ecological Flow Needs in a Highly Altered Region: Application of California Environmental Flows Framework in Southern California, USA. *Frontiers in Environmental Science* 10:787631.

Irving, K., K.T. Taniguchi-Quan, A. Aprahamian, C. Rivers, G. Sharp, R.D. Mazor, S. Theroux, A. Holt, R. Peek, E.D. Stein. 2022. Application of Flow-Ecology Analysis to Inform Prioritization for Stream Restoration and Management Actions. *Frontiers in Environmental Science* 9:787462.

Yarnell, S.M., A. Willis, A. Obester, R.A. Peek, R.A. Lusardi, J. Zimmerman, T.E. Grantham, E.D. Stein. 2022. Functional Flows in Groundwater-Influenced Streams: Application of the California Environmental Flows Framework to Determine Ecological Flow Needs. *Frontiers in Environmental*

Science 9:788295.

Abdi, R., A. Rust, J.M. Wolfand, [K.T. Taniguchi-Quan](#), [K. Irving](#), D. Philippus, [E.D. Stein](#), T.S. Hogue. 2022. [Thermal Suitability of the Los Angeles River for Cold Water Resident and Migrating Fish Under Physical Restoration Alternatives](#). *Frontiers in Environmental Science* 9:749085.

Peek, R., [K. Irving](#), S.M. Yarnell, R. Lusardi, [E.D. Stein](#), [R.D. Mazor](#). 2022. [Identifying Functional Flow Linkages Between Stream Alteration and Biological Stream Condition Indices Across California](#). *Frontiers in Environmental Science* 9:790667.

[Stein, E.D.](#), J. Zimmerman, S.M. Yarnell, B. Stanford, B. Lane, [K.T. Taniguchi-Quan](#), A. Obester, T.E. Grantham, R.A. Lusardi, S. Sandoval-Solis. 2021. [The California Environmental Flows Framework: Meeting the Challenges of Developing a Large-Scale Environmental Flows Program](#). *Frontiers in Environmental Science* 9:769943.

Rogers, J.B., [E.D. Stein](#), M.W. Beck, K. Flint, A. Kinoshita, R.F. Ambrose. 2021. [Modelling future changes to the hydrological and thermal regime of unaltered streams using projected changes in climate to support planning for sensitive species management](#). *Ecohydrology*
DOI:10.1002/eco.2299.

Abdi, R., J.B. Rogers, A. Rust, J.M. Wolfand, D. Philippus, [K.T. Taniguchi-Quan](#), [K. Irving](#), [E.D. Stein](#), T.S. Hogue. 2021. [Simulating the thermal impact of substrate temperature on ecological restoration in shallow urban rivers](#). *Journal of Environmental Management*
DOI:10.1016/j.jenvman.2021.112560.

Brand, M.W., L. Guo, [E.D. Stein](#), B.F. Sanders. 2021. [Multi-decadal simulation of estuarine sedimentation under sea level rise with a response-surface surrogate model](#). *Advances in Water Resources* DOI:10.1016/j.advwatres.2021.103876.

[Stein, E.D.](#), E.M. Gee, J.B. Adams, [K. Irving](#), L.V. Niekerk. 2021. [Advancing the Science of Environmental Flow Management for Protection of Temporarily Closed Estuaries and Coastal Lagoons](#). *Water* DOI:10.3390/w13050595.

[Theroux, S.](#), [R.D. Mazor](#), M.W. Beck, P.R. Ode, [E.D. Stein](#), [M. Sutula](#). 2020. [Predictive biological indices for algae populations in diverse stream environments](#). *Ecological Indicators*
DOI:10.1016/j.ecolind.2020.106421.

Taylor, J., [E.D. Stein](#), M.W. Beck, R.F. Ambrose. 2020. [The impact of climate change induced alterations of streamflow and stream temperature on the distribution of riparian species](#). *PLoS ONE* DOI:10.1371/journal.pone.0242682.

Ulibarri, N., K.A. Goodrich, P. Wagle, M. Brand, R. Matthew, [E.D. Stein](#), B.F. Sanders. 2020. [Barriers and opportunities for beneficial reuse of sediment to support coastal resilience](#). *Ocean*

and Coastal Management DOI:10.1016/j.ocecoaman.2020.105287.

Aylagas, E., A. Borja, X. Pochon, A. Zaiko, N. Keeley, K. Bruce, P. Hong, G.M. Ruiz, E.D. Stein, S. Theroux, N. Geraldi, A. Ortega, L. Gajdzik, D.J. Coker, Y. Katan, T. Hikmawan, A. Saleem, S. Alamer, B.H. Jones, C.M. Duarte, J. Pearman, S. Carvalho. 2020. Translational Molecular Ecology in practice: Linking DNA-based methods to actionable marine environmental management. *Science of the Total Environment* DOI:10.1016/j.scitotenv.2020.140780.

Harvey, M.E., S.N. Giddings, E.D. Stein, J.A. Crooks, C. Whitcraft, T. Gallien, J.L. Largier, L.L. Tiefenthaler, H. Meltzer, G. Pawlak, K. Thorne, K. Johnston, R. Ambrose, S.C. Schroeter, H.M. Page, H. Elwany. 2020. Effects of Elevated Sea Levels and Waves on Southern California Estuaries During the 2015–2016 El Niño. *Estuaries and Coasts* DOI:10.1007/s12237-019-00676-1.

Sultana, R., M. Mroczek, A. Sengupta, S. Dallman, E.D. Stein. 2020. Improving Effective Impervious Estimates to Inform Stormwater Management. *Water Resources Management* DOI:10.1007/s11269-019-02474-7.

Stein, E.D., C.L. Doughty, J. Lowe, M. Cooper, E. Sloane, D. Bram. 2020. Establishing Targets for Regional Coastal Wetland Restoration Planning Using Historical Ecology and Future Scenario Analysis: The Past, Present, Future Approach. *Estuaries and Coasts* DOI:10.1007/s12237-019-00681-4.

Yarnell, S.M., E.D. Stein, J.A. Webb, T. Grantham, R.A. Lusardi, J. Zimmerman, R.A. Peek, B.A. Lane, J. Howard, S. Sandoval-Solis. 2020. A Functional Flows Approach to Selecting Ecologically Relevant Flow Metrics for Environmental Flow Applications. *River Research and Applications* DOI:10.1002/rra.3575.

Giraldo, M.A., S. Dark, P. Pendleton, E.D. Stein, R.D. Mazor, J. Andreas. 2019. Environmental predictors of stream flow in semi-arid watersheds for biological assessments. *Ecological Indicators* 104:429-438.

Beck, M., R.D. Mazor, S. Johnson, K. Wisenbaker, J. Westfall, P.R. Ode, R. Hill, C. Loflen, M. Sutula, E.D. Stein. 2019. Prioritizing Management Goals for Stream Biological Integrity Within the Developed Landscape Context. *Freshwater Science* DOI:10.1086/705996.

Simons, A.L., R.D. Mazor, E.D. Stein, S. Nuzhdin. 2019. Using alpha, beta, and zeta diversity in describing the health of stream-based benthic macroinvertebrate communities. *Ecological Applications* DOI:10.1002/eap.1896.

Parker, S.R., S.K. Adams, R.W. Lammers, E.D. Stein, B.P. Bledsoe. 2019. Targeted hydrologic model calibration to improve prediction of ecologically-relevant flow metrics. *Journal of Hydrology* 573:546-556.

Doughty, C.L., K.C. Cavanaugh, R.F. Ambrose, E.D. Stein. 2019. Evaluating regional resiliency of coastal wetlands to sea level rise through hypsometry-based modeling. *Global Change Biology* 25:78-92.

Lane, B.A., S. Sandoval-Solis, E.D. Stein, S.M. Yarnell, G.B. Pasternack, H.E. Dahlke. 2018. Beyond Metrics? The Role of Hydrologic Baseline Archetypes in Environmental Water Management. *Environmental Management* DOI:10.1007/s00267-018-1077-7.

Guo, L., M. Brand, B.F. Sanders, E. Foufoula-Georgiou, E.D. Stein. 2018. Tidal asymmetry and residual sediment transport in a short tidal basin under sea level rise. *Advances in Water Resources* 121:1-8.

Mazor, R.D., J.T. May, A. Sengupta, K. McCune, B.P. Bledsoe, E.D. Stein. 2018. Tools for managing hydrologic alteration on a regional scale: Setting targets to protect stream health. *Freshwater Biology* DOI:10.1111/fwb.13062.

Arthington, A.H., J.G. Kennen, E.D. Stein, J.A. Webb. 2018. Recent advances in environmental flows science and water management - Innovation in the Anthropocene. *Freshwater Biology* DOI:10.1111/fwb.13108.

Kennen, J.G., E.D. Stein, J.A. Webb. 2018. Evaluating and managing environmental water regimes in a water-scarce and uncertain future. *Freshwater Biology* DOI:10.1111/fwb.13104.

Sengupta, A., S.K. Adams, B.P. Bledsoe, E.D. Stein, K. McCune, R.D. Mazor. 2018. Tools for managing hydrologic alteration on a regional scale: Estimating changes in flow characteristics at ungauged sites. *Freshwater Biology* DOI:10.1111/fwb.13074.

Sengupta, A., R.J. Hawley, E.D. Stein. 2018. Predicting Hydromodification in Streams using Non-Linear Memory Based Algorithms. A Southern California case study. *Journal of Water Resources Planning and Management* DOI:10.1061/(ASCE)WR.1943-5452.0000853.

Stein, E.D., A. Sengupta, R.D. Mazor, K. McCune, B.P. Bledsoe, K. McCune, S. Adams. 2017. Application of regional flow-ecology relationships to inform watershed management decisions: Application of the ELOHA framework in the San Diego River watershed, California, USA. *Ecohydrology* 10:1869.

Fong, L.S., E.D. Stein, R.F. Ambrose. 2017. Development of Restoration Performance Curves for Streams in Southern California Using an Integrative Condition Index. *Wetlands* 37:289-299.

Stein, E.D., J.S. Brown, R.D. Mazor. 2017. Transferability of bioassessment indices among water body types and ecoregions: A California experiment in wetland assessment. *Ecological Indicators* 81:65-73.

Howard, M.D.A., C. Nagoda, R.M. Kudela, K. Hayashi, A. Tatters, D.A. Caron, L. Busse, J.S. Brown, M. Sutula, E.D. Stein. 2017. Microcystin Prevalence throughout Lentic Waterbodies in Coastal Southern California. *Toxins* 9:231.

Pyne, M.I., D.M. Carlisle, C.P. Konrad, E.D. Stein. 2017. Classification of California streams using combined deductive and inductive approaches: Setting the foundation for analysis of hydrologic alteration. *Ecohydrology* 10:e1802.

Ode, P.R., A.C. Rehn, R.D. Mazor, K.C. Schiff, E.D. Stein, J.T. May, L.R. Brown, D.B. Herbst, D.J. Gillett, K. Lunde, C.P. Hawkins. 2016. Evaluating the adequacy of a reference-site pool for ecological assessments in environmentally complex regions. *Freshwater Science* 35:237-248.

Mazor, R.D., A.C. Rehn, P.R. Ode, M. Engeln, K.C. Schiff, E.D. Stein, D.J. Gillett, D.B. Herbst, C.P. Hawkins. 2016. Bioassessment in complex environments: designing an index for consistent meaning in different settings. *Freshwater Science* 35:249-271.

Saintilan, N., K. Rogers, C. Toms, E.D. Stein, D. Jacobs. 2016. Intermittent Estuaries: Linking Hydro-geomorphic Context to Climate Change Resilience. *Journal of Coastal Research* 75:133-137.

Brooks, R.P., D. Faber-Langendoen, G. Serenbetz, J. Rocchio, E.D. Stein, K. Walz. 2016. Towards Creating a National Reference Wetlands Registry. *National Wetlands Newsletter* 38:7-11.

Stein, E.D., L.G. Lackey, J.S. Brown. 2015. How accurate are probability-based estimates of wetland extent? Results of a California validation study. *Wetlands Ecology and Management* 24:347-356.

Cox, H., E.D. Stein, L. Protopapadakis, M. Dojiri. 2015. Water Resources: Water Supply and Use from a Water Quality Perspective. *Urban Coast* 5:3-10.

Fetscher, A.E., E.D. Stein, M.D.A. Howard. 2015. Looking Ahead: Preliminary Examination of Stream Cyanotoxins in Santa Monica Bay and California Watersheds. *Urban Coast* 5:198-200.

Fetscher, A.E., M.D.A. Howard, R. Stancheva, R.M. Kudela, E.D. Stein, M. Sutula, L.B. Busse, R.G. Sheath. 2015. Wadeable streams as widespread sources of benthic cyanotoxins in California, USA. *Harmful Algae* 49:105-116.

Stein, E.D. 2015. Habitat Highlights: Regional Stream Monitoring in Southern California. *Urban Coast* 5:128-129.

Ambrose, R.F., J.H. Dorsey, K. Johnston, E.D. Stein. 2015. Habitat Conditions: Coastal Wetlands. *Urban Coast* 5:59-68.

Dagit, R., F. Federico, L. Kats, E.D. Stein. 2015. Habitat Conditions: Freshwater Aquatic and

Riparian Habitats. *Urban Coast* 5:48-58.

Von Bitner, T., E.D. Stein, L. Protopapadakis, K. Thorsen. 2015. Water Resources: Trash and Debris. *Urban Coast* 5:29-34.

Gibson, J.F., E.D. Stein, D.J. Baird, C.M. Finlayson, X. Zhang, M. Hajibabaei. 2015. Wetland Ecogenomics - The Next Generation of Wetland Biodiversity and Functional Assessment. *Wetland Science and Practice* 32:27-32.

Feldman, D.L., A. Sengupta, L. Stuvick, E.D. Stein, V. Pettigrove, M. Arora. 2015. Governance issues in developing and implementing offsets for water management benefits: Can preliminary evaluation guide implementation effectiveness?. *WIREs Water* 2:121-130.

White, B.P., E.M. Pilgrim, L.M. Boykin, E.D. Stein, R.D. Mazor. 2014. Comparison of four species-delimitation methods applied to a DNA barcode data set of insect larvae for use in routine bioassessment. *Freshwater Science* 33:338-348.

Mazor, R.D., E.D. Stein, P.R. Ode, K.C. Schiff. 2014. Integrating intermittent streams into watershed assessments: applicability of an index of biotic integrity. *Freshwater Science* 33:459-474.

Lackey, L.G., E.D. Stein. 2014. Evaluating Alternative Temporal Survey Designs For Monitoring Wetland Area And Detecting Changes Over Time In California. *Journal of the American Water Resources Association* 51:388-399.

Lackey, L.G., E.D. Stein. 2014. Selecting the optimum plot size for a California design-based stream and wetland mapping program. *Environmental Monitoring and Assessment* 186:2599-2608.

Stein, E.D., B.P. White, R.D. Mazor, J.K. Jackson, J.M. Battle, P.E. Miller, E.M. Pilgrim, B.W. Sweeney. 2014. Does DNA barcoding improve performance of traditional stream bioassessment metrics?. *Freshwater Science* 33:302-311.

Jackson, J.K., J.M. Battle, B.P. White, E.M. Pilgrim, E.D. Stein, P.E. Miller, B.W. Sweeney. 2014. Cryptic biodiversity in streams: a comparison of macroinvertebrate communities based on morphological and DNA barcode identifications. *Freshwater Science* 33:312-324.

Stein, E.D., M.C. Martinez, S. Stiles, P.E. Miller, E.V. Zakharov. 2014. Is DNA Barcoding Actually Cheaper and Faster than Traditional Morphological Methods? Results from a Survey of Freshwater Bioassessment Efforts in the United States. *PLoS ONE* 9:e95525.

Fetscher, A.E., R. Stancheva, J.P. Kociolek, R.G. Sheath, E.D. Stein, R.D. Mazor, P.R. Ode, L.B. Busse. 2013. Development and comparison of stream indices of biotic integrity using diatoms vs.

non-diatom algae vs. a combination. *Journal of Applied Phycology* 26:433-450.

Stein, E.D., B.P. White, R.D. Mazon, P.E. Miller, E.M. Pilgrim. 2013. Evaluating ethanol-based sample preservation to facilitate use of DNA barcoding in routine freshwater biomonitoring programs using benthic macroinvertebrates. *PLoS ONE* 8:e51273.

Lackey, L.G., E.D. Stein. 2013. Evaluation of design-based sampling options for monitoring stream and wetland extent and distribution in California. *Wetlands* 33:717-725.

Burke, M.P., T.S. Hogue, A. Kinoshita, J. Barco, C. Wessel, E.D. Stein. 2013. Pre- and post-fire pollutant loads in an urban fringe watershed in Southern California. *Environmental Monitoring and Assessment* 185:10131-10145.

Brown, J.S., E.D. Stein, D. Ackerman, J.H. Dorsey, J. Lyon, P.M. Carters. 2013. Metals and bacteria partitioning to various size particles in Ballona Creek storm water runoff. *Environmental Toxicology and Chemistry* 32:320-328.

Stein, E.D. 2013. Using regional stormwater monitoring programs to provide reference data for wetland mitigation performance evaluation. *National Wetlands Newsletter* 35:13-14.

Stein, E.D., M.R. Cover, A.E. Fetscher, C. O'Reilly, R. Guardado, C.W. Solek. 2013. Reach-scale geomorphic and biological effects of localized streambank armoring. *Journal of the American Water Resources Association* 49:780-792.

Bledsoe, B.P., E.D. Stein, R.J. Hawley, D. Booth. 2012. Framework and tool for rapid assessment of stream susceptibility to hydromodification. *Journal of the American Water Resources Association* 48:788-808.

Hawley, R.J., B.P. Bledsoe, E.D. Stein, B.E. Haines. 2012. Channel evolution model of semiarid stream response to urban-induced hydromodification. *Journal of the American Water Resources Association* 48:722-744.

Stein, E.D., J.S. Brown, T.S. Hogue, M.P. Burke, A. Kinoshita. 2012. Stormwater contaminant loading following southern California wildfires. *Environmental Toxicology and Chemistry* 31:2625-2638.

Dark, S., E.D. Stein, D. Bram, J. Osuna. 2012. Historical Ecology as a Living Resource for Informing Urban Wetland Restoration. *Urban Coast* 3:54-60.

Solek, C.W., M. Sutula, E.D. Stein, C. Roberts, R. Clark, K. O'Connor, K.J. Ritter. 2012. Determining the health of California's coastal salt marshes using rapid assessment. *Wetland Science and Practice* 29:8-28.

Lopez, S.R., T.S. Hogue, E.D. Stein. 2012. A framework for evaluating regional hydrologic sensitivity to climate change using archetypal watershed modeling. *Hydrology and Earth System Sciences Discussions* 9:13729-13771.

Ranasinghe, J.A., E.D. Stein, P.E. Miller, S.B. Weisberg. 2012. Performance of two southern California benthic community condition indices using species abundance and presence-only data: Relevance to DNA barcoding. *PLoS ONE* 7:e40875.

Brown, J.S., D. Ackerman, E.D. Stein. 2012. Continuous in situ characterization of particulate sizes in urban stormwater: Method testing and refinement. *Journal of Environmental Engineering* 138:673-679.

Solek, C.W., E.D. Stein, M. Sutula. 2011. Demonstration of an integrated watershed assessment using a three-tiered assessment framework. *Wetlands Ecology and Management* 19:459-474.

Ackerman, D., E.D. Stein, K.J. Ritter. 2011. Evaluating performance of stormwater sampling approaches using a dynamic watershed model. *Environmental Monitoring and Assessment* 180:283-302.

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