

**William H.J. Strosnider, Ph.D.**  
*Ecological Engineer*

University of South Carolina  
Baruch Marine Field Laboratory, rm. 103  
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**Education:**

- Ph.D. Environmental Engineering** University of Oklahoma, 2010  
Dissertation: Augmenting the applicability and efficiency of ecological engineering solutions for water quality improvement (Supervised by Robert Nairn)
- M.S. Environmental Studies** College of Charleston, 2005  
Thesis: Design for nitrogen reduction in estuarine systems: retrofitting coastal ponds with stormwater wetlands (Supervised by Marianne Burke)
- B.S. Mechanical Engineering** University of Dayton, 2003

**Work Experience:**

**Interim Director** 2022→present  
University of South Carolina, [Belle W. Baruch Institute for Marine and Coastal Sciences](#), Columbia, SC

- Overseeing the [North Inlet – Winyah Bay National Estuarine Research Reserve](#), NOAA [Centralized Data Management Office](#), and Baruch Marine Field Laboratory

**Director and Associate → Full Research Professor** 2019→present  
University of South Carolina, [Baruch Marine Field Laboratory](#), Georgetown, SC

- Orienting the lab towards greater fiscal viability via expanded research and educational activity
- Modernizing facilities, vehicles, fleet, tracking systems, and data management with ten core staff across administrative, IT, custodial, research, and trades
- Revamping visiting scientist and internship programs
- Establishing, overseeing, and teaching in the Semester@TheCoast program
- Restructuring courses with main campus faculty to leverage unique coastal access
- Establishing and mentoring a year-round rotation of engineering community service interns with the University of Dayton [ETHOS](#) program
- Promoted from Associate to Full Research Professor in 2022

**Assistant → Associate Professor (Tenured)** 2010→2019  
Saint Francis University, [Environmental Engineering Program](#), Loretto, PA

- Building and accrediting an environmental engineering program
- Guiding the development and accreditation of two other engineering programs
- Establishing and directing the Ecological Engineering concentration
- Establishing and assistant coaching the Club Ice Hockey team
- Establishing and directing the High Andes Research & Service study abroad program
- Director of the Rio Juckucha Restoration Project (Bolivia)
- Faculty in Residence – Ambialet, France campus (2018)

- Teaching 3-4 courses per semester
- Tenured in 2016

**Founder and Center Director**

2012-2019

Saint Francis University, [Center for Watershed Research and Service](#), Loretto, PA

- Providing technical assistance to watershed associations, nonprofit groups, and governmental agencies in Pennsylvania and Andean Latin America
- Postdoctoral supervisor
- Grant writing and administration
- Fee-for-service project management
- Water quality extension project management

**Visiting Scientist**

2016

Clemson University, [Baruch Institute of Coastal Ecology and Forest Science](#), Georgetown, SC

- Specialty crop nursery wastewater reuse research
- Floating treatment wetland research

**U.S. Dept. of Ed. GAANN Fellow → Graduate Research Associate**

2005-2010

University of Oklahoma, [Center for Restoration of Ecosystems and Watersheds](#), Norman, OK

- Researching methods to increase passive water and wastewater treatment efficiency
- Characterizing the impact of centuries of mining contamination across highland Bolivia
- Contamination characterization and solution implementation at the Tar Creek Superfund site
- Establishing the Project for the Restoration of Rio Juckucha
- Advising field engineer for Engineers Without Borders in Guatemala and Bolivia

**Research Assistant**

2003-2005

U.S.D.A. Forest Service, Charleston, SC

- Designing and hydrogeochemically modeling a coastal stormwater wetland

**Teaching Assistant**

2003-2005

College of Charleston, Physics Department, Charleston, SC

- Teaching two physics labs per semester

**Scholars Bowl Coach**

2004-2005

Charleston Upward Bound, Charleston, SC

- Preparing teams of disadvantaged youths for statewide competition

**Tutor**

2003-2004

College of Charleston Center for Student Learning, Charleston, SC

- Certified College Reading and Learning Association tutor for science and math

**Engineering Intern**

Summer 2003

Sistemática, La Paz, Bolivia

- Troubleshooting for artisanal biomass-fueled sugar-refining system underperformance

**Engineering Intern**

Proleña, Managua, Nicaragua and La Paz, Bolivia 2002, 2003

- Designed, built and tested new models of fuel-efficient woodburning cookstoves
- Surveyed indigenous peoples' cooking needs and related health issues

**Engineering Intern**

Summer 2002

Grupo Fenix, Managua, Nicaragua

- Designing, building and testing new models of solar ovens and water heaters
- Researching cooking needs of indigenous women across western Nicaragua

**Engineering Co-Op**

2001-2002

Southwestern Ohio Council of Higher Education, Wright-Patterson Air Force Base, OH

- Corrosion investigations for EPA particulate emission reduction testing
- Aiding forensic failure analysis of airplane crash specimens

**Engineering Co-Op**

2000

TesTech, Inc., Centerville, OH

- Phase I, phase II, and wetland impact reports
- Construction inspection and concrete / soils testing

**Tutor / Program Coordinator / Teacher's Aide**

1995-1999

Woodland Hills School District / Pittsburgh Catholic Diocese, Pittsburgh, PA

- Aiding disadvantaged students with all subjects K-12

**Journal Articles (\*graduate student, undergraduate student, \*postdoctoral author):**

44. Berzonsky MP\*, B Roman<sup>+</sup>, C Cravotta III, RS Hedin, **WHJ Strosnider**, TL Tasker (**In Review**) Dairy manures amended with mine drainage residuals and their influence on rye grass yield and phosphorus retention. *Journal of Environmental Quality*.
43. Dekle J\*, **WHJ Strosnider**, SA White (**In Review**) Phosphorus uptake and release patterns in overwintering constructed floating wetlands. *Water Science and Technology*.
42. Roman B<sup>+</sup>, CA Cravotta III, CD Spellman Jr.\* , **WHJ Strosnider**, JE Goodwill, T Tasker (**In Review**) Enhanced phosphorus removal via cotreatment of mine drainage in municipal wastewater treatment facilities. *Environmental Science & Technology*.
41. Spellman Jr. CD\*, K Ikuma, **WHJ Strosnider**, TL Tasker, B Roman<sup>+</sup>, JE Goodwill (**In Review**) Continuous co-treatment of mine drainage with municipal wastewater. *Water Research*.
40. Sun J, R Zhang, **WHJ Strosnider**, H Ye, P Wu (**In Review**) Geochemistry and stable isotopic composition of mine water at varying sulfurous coalfields. *Catena*.
39. Landaverde AC\*, **WHJ Strosnider**, SA White (**In Review**) Plant suitability for floating treatment wetland applications in brackish waters. *Wetlands Ecology and Management*.
38. McKercher L\*, ME Kimball, A Scaroni, SA White, **WHJ Strosnider** (**Accepted, In Revision**) Stormwater ponds: suitable habitats or ecological traps? *Wetlands Ecology and Management*.

37. Guo X\*, P Wu, **WHJ Strosnider**, Y Takahashi, T Kogure, S Yang, J Sun (2023) A simple multilevel sampler for synchronous collection of stratified waters. *Environmental Monitoring and Assessment*. <https://doi.org/10.1007/s10661-023-10944-0>
36. Spellman Jr. CD\*, PM Smyntek+, CA Cravotta III, TL Tasker+, **WHJ Strosnider (2022)** Pollutant co-attenuation via in-stream interactions between mine drainage and municipal wastewater. *Water Research* 214:118173. <https://doi.org/10.1016/j.watres.2022.118173>
35. Smyntek PM, N Lamagna, CA Cravotta III, **WHJ Strosnider (2022)** Mine drainage precipitates attenuate and conceal phosphate pollution in stream water. *Science of the Total Environment* 815:152672. <https://doi.org/10.1016/j.scitotenv.2021.152672>
34. Hitchcock DR, NL Bell\*, **WHJ Strosnider**, MC Smith (2022) Spatiotemporal water quality variability in a highly loaded surface flow wastewater treatment wetland. *Journal of Environmental Quality* 51:101-111. <https://doi.org/10.1002/jeq2.20309>
33. White SA, **WHJ Strosnider**, MEM Chase\*, MA Schlautman (2021) Removal and reuse of phosphorus from plant nursery runoff with reclaimed iron oxides. *Ecological Engineering* 160:106153. <https://doi.org/10.1016/j.ecoleng.2021.106153>
32. Sun J, Y Takahashi, **WHJ Strosnider**, T Kogure, B Wang, P Wu, L Zhu, Z Dong (2021) Identification and quantification of contributions to karst groundwater using a triple stable isotope labeling and mass balance model. *Chemosphere* 263:127946. <https://doi.org/10.1016/j.chemosphere.2020.127946>
31. Spellman C\*, T Tasker+, JE Goodwill, **WHJ Strosnider (2020)** Potential implications of mine drainage and wastewater co-treatment on solids handling: a review. *Journal of Environmental Engineering* 146(11):0310010. [https://doi.org/10.1061/\(ASCE\)EE.1943-7870.0001814](https://doi.org/10.1061/(ASCE)EE.1943-7870.0001814)
30. Spellman C\*, T Tasker+, **WHJ Strosnider**, J Goodwill (2020) Abatement of circumneutral mine drainage by co-treatment with secondary municipal wastewater. *Journal of Environmental Management* 271: 110982. <https://doi.org/10.1016/j.jenvman.2020.110982>
29. Sun J, **WHJ Strosnider**, RW Nairn, JA LaBar+ (2020) Water quality impacts of in-stream mine tailings on a headwaters tributary of the Rio Pilcomayo, Potosí, Bolivia. *Applied Geochemistry* 113:104464. <https://doi.org/10.1016/j.apgeochem.2019.104464>
28. **Strosnider WHJ**, J Hugo, NL Shepherd\*, BK Holzbauer-Schweitzer\*, C Wolkersdorfer, RW Nairn. (2020) A snapshot of coal mine drainage discharge limits for conductivity, sulfate, and manganese across the developed world. *Mine Water and the Environment* 39: 165-172. <https://doi.org/10.1007/s10230-020-00669-8>
27. Goodwill JE, JA LaBar+, D Slovikosky, **WHJ Strosnider (2019)** Preliminary assessment of ferrate treatment of metals in acid mine drainage. *Journal of Environmental Quality* 48(5): 1549-1556. <https://doi.org/10.2134/jeq2019.02.0079>
26. Sun J, T Kogure, **WHJ Strosnider**, P Wu, X Cao (2019) Tracing and quantifying contributions of end members to karst water at a coalfield in southwest China. *Chemosphere* 234: 777-788. <http://dx.doi.org/10.1016/j.chemosphere.2019.06.066>
25. Smyntek P+, JA Chastel, RAM Peer, E Anthony, J McCloskey, E Bach, RC Wagner, JZ Bandstra, **WHJ Strosnider (2018)** Assessment of sulfate and iron reduction rates during start-up for passive anaerobic co-treatment of acid mine drainage and sewage. *Geochemistry: Exploration, Environment, Analysis* 18(1): 76-84. <https://doi.org/10.1144/geochem2017-001>

24. **Strosnider WHJ, SE Schultz, KA Johnson Strosnider\*, RW Nairn (2017)** Effects on the underlying water column by extensive floating treatment wetlands. *Journal of Environmental Quality* 46: 201-209. <https://doi.org/10.2134/jeq2016.07.0257>
23. Sun J\*, T Kobayashi, **WHJ Strosnider, P Wu (2017)** Stable sulfur and oxygen isotopes as geochemical tracers of sulfate in karst waters. *Journal of Hydrology* 551: 245-252. <https://doi.org/10.1016/j.jhydrol.2017.06.006>
22. Garrido AE\*, **WHJ Strosnider, R Taylor Wilson, J Condori, RW Nairn (2017)** Metal-contaminated potato crops and potential human health risk in Bolivian mining highlands. *Environmental Geochemistry and Health* 39(3): 681-700. <https://doi.org/10.1007/s10653-017-9943-4>
21. Smyntek PM<sup>+</sup>, RC Wagner, L Krometis, S Carvajal, T Wynn-Thompson, **WHJ Strosnider (2017)** Passive biological treatment of mine discharges to reduce conductivity: potential designs, challenges, and research needs. *Journal of Environmental Quality* 46: 1-9. <https://doi.org/10.2134/jeq2016.06.0216>
20. **Strosnider WHJ, S Carvajal, F Llanos-López, RW Nairn, RAM Peer, BK Winfrey (2015)** Análisis del co-tratamiento pasivo de aguas residuales municipales y drenaje ácido de minas en Cerro Rico de Potosí, Bolivia. *Avances en Ciencias e Ingeniería* 6(2): 23-37. <http://www.redalyc.org/articulo.oa?id=323639772003>
19. Farag S\*, R Das\*, **WHJ Strosnider, R Taylor Wilson (2015)** Possible health effects of living in proximity to mining sites near Potosí, Bolivia. *Journal of Occupational and Environmental Medicine* 57(5): 543-551. <http://dx.doi.org/10.1097/JOM.0000000000000401>
18. Peer RAM, JA LaBar\*, BK Winfrey\*, RW Nairn, FS Llanos López, WHJ Strosnider (2015) Removal of less commonly addressed metals via passive co-treatment. *Journal of Environmental Quality* 44(2): 704-710. <https://doi.org/10.2134/jeq2014.08.0338>
17. Kruse NA, **WHJ Strosnider (2015)** Carbon dioxide dynamics and sequestration in mine water and waste: A review. *Mine Water and the Environment* 34: 3-9. <https://doi.org/10.1007/s10230-014-0320-6>
16. Winfrey BK\*, RW Nairn, DR Tilley, **WHJ Strosnider (2015)** Energy and carbon footprint analysis of the construction of passive and active treatment systems for net alkaline mine drainage. *Mine Water and the Environment* 34: 31-41. <http://dx.doi.org/10.1007/s10230-014-0304-6>
15. **Strosnider WHJ, FS Llanos López, CE Marcillo, RR Callapa, RW Nairn (2014)** Contaminantes adicionales de drenaje ácido de mina de Cerro Rico de Potosí impactan la cabecera del Río Pilcomayo. *Avances en Ciencias e Ingeniería* 5(3): 1-17. <http://www.redalyc.org/articulo.oa?id=323632128001>
14. Faldetta KF\*, DA Reighard\*, KL Dickinson\*, CQ Wang\*, DR George, LR Benavides, **WHJ Strosnider (2014)** Assessing domestic water quality in Belén municipality, Iquitos, Peru. *Journal of Water, Sanitation and Hygiene for Development*. 4(3):391-399. <http://dx.doi.org/10.2166/washdev.2014.051>
13. Santamaria B\*, **WHJ Strosnider, MR Apaza Q, RW Nairn (2014)** Evaluating locally available organic substrates for vertical flow passive treatment cells at Cerro Rico de Potosí, Bolivia. *Environmental Earth Sciences* 72:731-741. <http://dx.doi.org/10.1007/s12665-013-2997-4>
12. Sun J\*, C Tang\*, P Wu, **WHJ Strosnider (2014)** Hydrogen and oxygen isotopic composition of karst waters with and without acid mine drainage: Impacts at a SW China coalfield. *Science of the Total Environment* 487: 123-129. <http://dx.doi.org/10.1016/j.scitotenv.2014.04.008>

11. **Strosnider WHJ**, FS Llanos López, JA LaBar\*, KJ Palmer, RW Nairn (2014) Unabated acid mine drainage from Cerro Rico de Potosí, Bolivia: uncommon constituents of concern impact the Rio Pilcomayo headwaters. *Environmental Earth Sciences* 71: 3223-3234. <http://dx.doi.org/10.1007/s12665-013-2734-z>
10. Sun J\*, C Tang, P Wu, **WHJ Strosnider**, Z Han (2013) Hydrogeochemical characteristics of streams with and without acid mine drainage impacts: A paired catchment study in karst geology, SW China. *Journal of Hydrology* 504: 115-124. <http://dx.doi.org/10.1016/j.jhydrol.2013.09.029>
9. **Strosnider WHJ**, BK Winfrey\*, RAM Peer, RW Nairn (2013) Passive co-treatment of acid mine drainage and sewage: Anaerobic incubation reveals a regeneration technique and further treatment possibilities. *Ecological Engineering* 61: 268-273. <https://doi.org/10.1016/j.ecoleng.2013.09.037>
8. **Strosnider WHJ**, RW Nairn, RAM Peer, BK Winfrey\* (2013) Passive co-treatment of Zn-rich acid mine drainage and raw municipal wastewater. *Journal of Geochemical Exploration* 125: 110-116. <http://dx.doi.org/10.1016/j.gexplo.2012.11.015>
7. **Strosnider WH**, BK Winfrey\*, RW Nairn (2011) Alkalinity generation in a novel multi-stage high-strength acid mine drainage and municipal wastewater passive co-treatment system. *Mine Water and the Environment* 30(1): 47-53. <http://dx.doi.org/10.1007/s10230-010-0124-2>
6. **Strosnider WHJ**, FS Llanos López, RW Nairn (2011) Acid mine drainage at Cerro Rico de Potosí II: severe degradation of the Upper Rio Pilcomayo watershed. *Environmental Earth Sciences* 64: 911-923. <http://dx.doi.org/10.1007/s12665-010-0899-2>
5. **Strosnider WHJ**, FS Llanos López, RW Nairn (2011) Acid mine drainage at Cerro Rico de Potosí I: unabated high-strength discharges reflect a five century legacy of mining. *Environmental Earth Sciences* 64: 899-910. <http://dx.doi.org/10.1007/s12665-011-0996-x>
4. **Strosnider WHJ**, BK Winfrey\*, RW Nairn (2011) Novel passive co-treatment of acid mine drainage and municipal wastewater. *Journal of Environmental Quality* 40(1): 206-213. <http://dx.doi.org/10.2134/jeq2010.0176>
3. **Strosnider WH**, BK Winfrey\*, RW Nairn (2011) Biochemical oxygen demand and nutrient processing in a novel multi-stage raw municipal wastewater and acid mine drainage passive co-treatment system. *Water Research* 45: 1079-1086. <https://doi.org/10.1016/j.watres.2010.10.026>
2. **Strosnider WH**, RW Nairn (2010) Effective passive treatment of high strength acid mine drainage and raw municipal wastewater in Potosí, Bolivia using simple incubations and limestone. *Journal of Geochemical Exploration* 105: 34-42. <https://doi.org/10.1016/j.gexplo.2010.02.007>
1. Winfrey BK\*, **WH Strosnider**, RW Nairn, KA Strevett (2010) Highly effective reduction of fecal indicator bacteria counts in an ecologically-engineered acid mine drainage and municipal wastewater passive co-treatment system. *Ecological Engineering* 36(12): 1620-1626. <http://dx.doi.org/10.1016/j.ecoleng.2010.06.025>

#### External Grants:

- **Strosnider W**, M Carbajales-Dale, M Dugo, M Gorstein, A Guthrie, R Lowe, S Pedigo, B Pfirrmann, J Robinson, B Saari, S Schneider, S White **\$2,619,856**. NOAA. “From blue-gray to blue-green: facilitating the transition to non-plastic natural material use within the coastal zone economy” 2023-2026, PI

- **Strosnider W**, L McKercher **\$9,429**. SC Sea Grant Consortium. “Development of a fully biodegradable floating treatment wetland” 2023-2024, PI
- **Strosnider W**, J Stone, M Kimball, A Scaroni, S White **\$33,545**. USGS-South Carolina Water Resources Center. “Quantifying ecological responses following floating treatment wetland application in brackish stormwater ponds” 2022-2023, PI
- **Strosnider WHJ**, S White, A Scaroni, M Kimball **\$135,802**. SC Sea Grant Consortium. “Guiding successful applications of floating treatment wetlands in brackish coastal ponds” 2022-2024, PI
- Goodwill JE, T Tasker, **W Strosnider \$199,630**. U.S. Department of the Interior. “Co-treatment of acid mine drainage in municipal wastewater plants for sustainable design in reclamation” 2021-2023, Co-PI
- White S, **W Strosnider**, A Landaverde **\$9,986**. Clemson University SEED. “Plant selection for floating treatment wetlands in brackish waters” 2021-2022, Co-PI
- Hougham RJ, D Gannon, **W Strosnider**, KD Ryker **\$97,450**. NSF-OCE. “Response to COVID-19 field research and education disruptions: creating virtual field experiences in coastal and estuarine science” 2020-2021, Co-PI
- Smith E, **W Strosnider \$393,492**. NOAA. “The North Inlet – Winyah Bay NERR visiting scientist housing” 2020-2023, Co-PI
- Tasker T, J Eckenrode, **W Strosnider \$16,742**. Trout Unlimited. “Influence of mine drainage residuals on rye grass yield in a greenhouse setting” 2019, Co-PI
- Bandstra J, L Rushitskaya. **\$370,000**. NOAA, Bay Watershed Education and Training Program (B-WET). “Headwaters to estuaries: enhancing meaningful watershed educational experiences with immersive technology” 2018-2020, Senior Personnel
- Reckner M **\$83,624**. Pennsylvania Department of Environmental Protection. “Yellow Creek QHUP Development” 2018-2020, Senior Personnel
- Baldwin R, M Motallebi, A Landis, **W Strosnider**, H Majidzadeh, J Devkota, L Dickes **\$149,755**. National Institute of Food and Agriculture – Agriculture and Food Research Initiative “Keeping the green heart healthy: an ecologically sound and economically viable conservation plan for the Cowasee Basin” 2018-2020, Co-PI
- **Strosnider W \$25,000** Foundation for Pennsylvania Watersheds “Watershed Restoration EXTension (WREX) Program” 2018, PI
- **Strosnider W**, J Goodwill, J LaBar **\$34,426** Foundation for Pennsylvania Watersheds “Evaluation of Inclined Plane acid mine drainage co-treatment feasibility at the Dornick Point Wastewater Treatment Plant” 2018-2019, PI
- Smyntek P, J LaBar, R Wagner, J Duris, C Cravotta, L Krometis, **W Strosnider \$281,500**. Colcom Foundation / USGS. “Assessing the combined effects of sewage and mine water pollution on human and ecosystem health in Southwestern PA” 2018-2020, Co-PI
- Baldwin R, M Motallebi, **W Strosnider \$74,829**. South Carolina National Resources Conservation Service Conservation Innovation Grant “Design a framework for payment for ecosystem services and analysis of adoption behaviour in the Santee Basin” 2018-2021, Co-PI
- **Strosnider W**, P Smyntek, R Wagner **\$4,698**. American Society of Mining & Reclamation. “Undergraduate Research-Learning via the Geolocation of Mine Reclamation Research Sites: Phase 2” 2017-2018, PI

- White S, J Majsztrik, **W Strosnider \$26,144**. USGS-South Carolina Water Resources Center. “Phosphorus removal from nutrient enriched agricultural runoff water” 2017-2018, Co-PI
- **Strosnider W**, J LaBar **\$40,000**. A.J. and Sigismunda Palumbo Charitable Trust. “Student Watershed Assistance Network (SWAN)” 2017, PI
- **Strosnider W \$25,000**. Foundation for Pennsylvania Watersheds. “Student Watershed Restoration Network” 2017, PI
- **Strosnider W \$700**. US State Department Fulbright Outreach Lecturing Fund. “Ruben Mamani-Paco: Guest Lectures in South Carolina” 2016, Author
- MacVean C, **W Strosnider \$29,190**. US State Department Fulbright Program. “Ruben Mamani-Paco: Scholar-In-Residence Proposal” 2016-2017, Co-Author and Faculty Associate
- **Strosnider W**, K Palmer **\$638,944**. Pennsylvania Department of Environmental Protection / United States Department of the Interior. “Puritan AMD Full Treatment” 2016, Co-Author
- **Strosnider W**, P Smyntek, R Wagner **\$10,000**. American Society of Mining & Reclamation. “Undergraduate Research-Learning via the Geolocation of Mine Reclamation Research Sites” 2016, PI
- Beadle R **\$49,675**. United Methodist Committee On Relief. “Engineers-In-Action: Restoration of the Juckucha River Basin” 2016, Senior Personnel
- Krometis L, **W Strosnider**, T Thompson, R Wagner **\$60,000**. Appalachian Research Initiative for Environmental Science. “Evaluation of potential biological treatment design options to reduce conductivity in mine discharges” 2015-2016, Co-PI
- Stephenson D **\$33,055**. United Methodist Committee On Relief. “Engineers-In-Action: Restoration of the Juckucha River Basin” 2015, Co-author and Senior Personnel
- **Strosnider W**, D Johnson **\$30,000**. Foundation for Pennsylvania Watersheds. “Saxton Borough Water Intake Structure Relocation Feasibility Study” 2015, PI
- **Strosnider W**, R Wagner, J Bandstra **\$20,000**. USGS-Pennsylvania Water Resources Research Center. “Passive Co-Treatment of Acid Mine Drainage and Municipal Wastewater: A Novel Solution to Protect and Restore Water Quality” 2015-2016, PI
- **Strosnider WHJ \$2,000**. Community Foundation for the Alleghenies. “Alleghenies Service-Learning Scholar” 2014-2015, PI
- Wagner RC, **WH Strosnider \$15,000**. Dominion Foundation. “Inspiring and Retaining Women in Engineering through Mentoring, Service, and Research” 2014-2015, Co-PI
- **Strosnider WH \$30,000**. Dominion Foundation. “Environmental Engineering Service-Research-Learning Via Community Outreach” 2013-2014, PI
- Felix A **\$231,000**. NOAA, Bay Watershed Education and Training Program (B-WET). “Best Management Practices for Systemic Watershed Education” 2014-2017, Senior Personnel
- Felix A, K Remillard **\$467,195**. Pennsylvania Department of Education. “Math and Science Partnership Reflection and Application of Mathematics Practices” 2013-2016, Senior Personnel
- Bandstra JZ, RA Clark, Y Li, **W Strosnider**, N Youmbi **\$499,755**. NSF-STEP. “STEPping Up: An Interdisciplinary Mentoring Network to Recruit and Retain STEM Majors” 2012-2016, Co-PI
- **Strosnider WH \$168,000**. Foundation for Pennsylvania Watersheds. “Watershed Restoration Amplification Program (WRAP)” 2012-2015, PI
- Felix A **\$7,000**. Pennsylvania Department of Environmental Protection. “Headwaters to Estuaries” 2012, Senior Personnel



- Felix A, J Bandstra, R Clark, E Zovinka, J Harris, **W Strosnider**, B Hargittai **\$285,000**. PA Dept. of Education. “STEM Engaging Educators in Design-based Science.” 2010-2012, Co-PI
- Cooper T **\$77,635**. Rotary International. “Project for the Rehabilitation of Rio Juckucha” 2009-2012, Author

#### Internal Grants:

- **Strosnider W**, T Wilson, B Pfirmann **\$26,339**. UofSC McCausland Innovation Fund. “Engaging the African American community and acknowledging the Black experience at Baruch Marine Field Laboratory” 2022-2023, PI
- **Strosnider W** **\$9,991**. UofSC ASPIRE. “Plant species suitability for floating treatment wetlands in brackish systems” 2021-2022, PI
- Pinckney J, **W Strosnider**, E Smith **\$79,496**. UofSC Office of Research. “Enhancing research and education capacity at the Baruch Marine Field Lab: expansion of research capabilities” 2020-2021, Co-PI

#### Conference Proceedings (\*graduate, undergraduate student author):

124. Hougham J, **W Strosnider**, J Bauer (2023) Anti-racism work in natural sciences: status and needs survey of environmental education organizations. Organization of Biological Field Stations, La Selva, Costa Rica.
123. **Strosnider W**, L McKercher\* (2023) Fully biodegradable floating treatment wetlands: a logical evolution. International EcoSummit, Gold Coast, Australia.
122. McKercher L\*, C Escamilla\*, SA White, A Scaroni, **Strosnider W** (2023) Harvesting floating treatment wetlands: when, why, and how? International EcoSummit, Gold Coast, Australia.
121. White SA, A Landaverde\*, **Strosnider W** (2023) Brackish floating treatment wetland applications: plant nutrient partitioning shifts from soil-based applications. International EcoSummit, Gold Coast, Australia.
120. **Strosnider W**, L McKercher\* (2023) Towards fully biodegradable floating treatment wetlands. American Ecological Engineering Society Annual Conference, Tampa, Florida.
119. **Strosnider W**, L McKercher\* (2022) Floating treatment wetlands: challenges and opportunities. American Ecological Engineering Society Annual Conference, Baltimore, Maryland.
118. **Strosnider W** (2022) Domestic application of international development project best practices and principles. International Water Conference, Norman, Oklahoma.
117. McKercher L\*, C Escamilla\*, M Kimball, J Stone, S White, A Scaroni, **W Strosnider** (2022) Fish assemblages in coastal brackish stormwater ponds. South Carolina Water Resources Conference, Columbia, South Carolina.
116. **Strosnider W**, J Hugo, N Shepherd\*, B Holzbauer-Schweitzer\*, P Hervé-Fernández, C Wolkersdorfer, R Nairn (2022) Coal mine discharge limits for conductivity, sulfate, and manganese: a survey across developed nations. International Mine Water Association Congress, Christchurch, New Zealand.
115. Escamilla C\*, A Scaroni, D Sahoo, **W Strosnider**, S White (2022) Determining plant suitability for floating treatment wetlands in coastal brackish stormwater ponds. Southeast Stormwater Association Conference, Hilton Head, South Carolina.

114. Berzonsky M, B Dumm, J Eckenrode, R Hedin, **W Strosnider**, T Tasker (2022) Determining the effect of mine drainage residuals on phosphorus sequestration and rye grass yield. American Society of Reclamation Science Annual Conference, Duluth, Minnesota.
113. Spellman CJ\*, **W Strosnider**, T Tasker, B Roman, M Caless, A Meyers, J Goodwill (2022) Mine drainage co-treatment in municipal wastewater sequencing batch reactors. American Society of Reclamation Science Annual Conference, Duluth, Minnesota.
112. Burt G, J Oakes, N Himes, H Warner, B Roman, B Neely, C Denholm, **W Strosnider**, J LaBar, J Eckenrode, T Tasker (2022) Treating mine drainage using batch operating limestone treatment systems (BOLTS) can reduce treatment costs. American Society of Reclamation Science Annual Conference, Duluth, Minnesota.
111. Roman B, V LaRosa, CD Spellman Jr.\*, T Tasker, **WHJ Strosnider**, JE Goodwill (2022) Metal and phosphate precipitation and BOD removal rates of acid-mine drainage cotreatment with municipal wastewater. American Society of Reclamation Science Annual Conference, Duluth, Minnesota.
110. **Strosnider W** (2021) Better stormwater management practices: plastics and habitat. American Society of Agricultural and Biological Engineers, Annual International Meeting, Virtual. (invited)
109. Dekle J\*, M Schlautman, **WHJ Strosnider**, SA White (2021) Nutrient dynamics in a floating treatment wetland system after overwintering in eutrophic conditions. Carolinas Society of Environmental Toxicology and Chemistry Annual Meeting, Virtual.
108. Dekle J\*, M Schlautman, **WHJ Strosnider**, SA White (2020) Nutrient dynamics and remediation potential of floating treatment wetlands over winter. Society of Environmental Toxicology and Chemistry North America Annual Meeting, Virtual.
107. White SA, JC Majsztrik, **WHJ Strosnider**, LM Garcia Chance\*, NL Bell\*, DR Hitchcock (2020) From pot to reservoir: tracking nitrogen movement at a SC nursery. American Society for Horticultural Science Southern Region Annual Conference, Louisville, Kentucky.
106. White SA, JC Majsztrik, **WHJ Strosnider**, LM Garcia Chance\*, NL Bell\*, DR Hitchcock (2020) Tracking nitrogen from pot to reservoir: a SC nursery case study. Southern Nursery Association Conference, Baltimore, Maryland.
105. Majsztrik JC, **WHJ Strosnider**, ME Chase\*, LM Garcia Chance\*, SA White (2019) Phosphorus removal from nursery runoff using pilot scale filters. Southern Nursery Association Conference, Baltimore, Maryland.
104. Smyntek PM, CA Cravotta III, J Duris, TL Tasker, RC Wagner, JA LaBar, ES Vargo, WR Stouffer, MJ Russell, **WHJ Strosnider** (2019) Hydrogeochemical and microbial interactions during field mixing of abandoned mine drainage and sewage-impacted streams. National Association of State Land Reclamationists Annual Conference, Pittsburgh, Pennsylvania.
103. Spellman CJ\*, T Tasker, **W Strosnider**, J Goodwill (2019) Co-treating acid mine drainage and municipal wastewater in existing conventional wastewater treatment plants. National Association of State Land Reclamationists Annual Conference, Pittsburgh, Pennsylvania.
102. Goodwill J, C Spellman\*, J LaBar, J Eckenrode, T Tasker, **W Strosnider** (2019) Acid mine drainage addition to secondary wastewater treatment processes for co-treatment. World Environmental & Water Resources Congress, Pittsburgh, Pennsylvania.

101. Goodwill J, J LaBar, D Slovikosky, **W Strosnider (2019)** Preliminary assessment of ferrate for reduced metal oxidation in acid mine drainage treatment. World Environmental & Water Resources Congress, Pittsburgh, Pennsylvania.
100. Spellman C\*, T Tasker, J Goodwill, **W Strosnider (2019)** Bench scale examination of acid mine drainage addition to municipal wastewater for co-treatment. New England Water Environment Association Annual Conference, Boston, Massachusetts.
99. Tasker T, J Eckenrode, **W Strosnider (2019)** Mine water reclamation in Appalachia facilitated by student support and technical assistance from academia. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
98. Smyntek PM, RC Wagner, CE Marcillo, JZ Bandstra, **WHJ Strosnider (2019)** Microbial community structure and diversity in co-treatment of acid mine drainage with municipal wastewater. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
97. Lagan K, T Tasker, J Bandstra, **W Strosnider (2019)** Optimization of drainable limestone beds for treatment of acid mine drainage. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
96. LaBar JA, CA Neely, CF Denholm, TP Danehy, **WHJ Strosnider (2019)** Laboratory testing to optimize retention time in auto-flushing limestone beds. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
95. Bandstra JZ, **WHJ Strosnider (2019)** Modeling the effects of mass transfer limitations in limestone-based passive treatment systems. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
94. Shoemaker S, J Hugo, J Bandstra, **W Strosnider (2019)** Modeling the effects of improved stormwater management at a large open-pit mine. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
93. Rovder A, S Wolfe, K Lagan, L Currie, **W Strosnider**, P Smyntek **(2019)** Geocoding American Society of Mining and Reclamation Proceedings to preserve and easily access reclamation research. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
92. Goodwill J, J LaBar, D Slovikosky, **W Strosnider (2019)** Preliminarily assessing ferrate (Fe(VI)) as an acid mine drainage treatment option. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
91. Gaughan J, N McKnight, L Madison, T Tasker, J Eckenrode, **W Strosnider (2019)** Spaghetti Hole: Retrofit options for an aging passive treatment system. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
90. Slovikosky D, **W Strosnider**, J LaBar, J Goodwill **(2019)** Can acid mine drainage be treated with ferrate (Fe(IV))? American Society of Mining and Reclamation National Conference, Big Sky, Montana.
89. Spellman C, T Tasker, J Goodwill, **W Strosnider (2019)** Bench scale assessment of acid mine drainage addition to secondary municipal wastewater treatment processes for co-treatment. American Society of Mining and Reclamation National Conference, Big Sky, Montana.
88. Bell NL\*, **WHJ Strosnider**, DR Hitchcock, SA White **(2018)** Floating treatment wetland influences hydraulic performance of a pond receiving irrigation runoff. Society of Wetland Scientists Annual Meeting, Denver, Colorado.

87. Majsztrik JC, **WHJ Strosnider**, M Chase\*, SA White (2018) Pilot scale phosphorus adsorption by iron oxide and calcined clay from specialty crop runoff. South Carolina Water Resources Conference, Columbia, South Carolina.
86. **Strosnider WHJ**, DR Hitchcock (2018) Ecological engineering: ecosystem design from the headwaters to the coast. III Encuentro Internacional de Ingenieria y II Simposio Internacional de Gestion Ambiental, Neiva, Colombia. (invited)
85. R Taylor Wilson, **WHJ Strosnider (2018)** The importance of collaboration between engineers and epidemiologists: how to understand environmental fate in preventing disease. III Encuentro Internacional de Ingenieria y II Simposio Internacional de Gestion Ambiental, Neiva, Colombia. (invited)
84. Goodwill JE, JA LaBar, D Slovikosky, **WHJ Strosnider (2018)** Removing iron with iron: preliminary assessment of ferrate (Fe(VI)) for acid mine drainage treatment. Green & Sustainable Chemistry Conference, Berlin, Germany.
83. Rovder A, K Lagan, L Currie, S Wolfe, Z Shoff, D Madl, S Long, **W Strosnider**, P Smyntek (2018) Preserving reclamation research by geocoding American Society of Mining and Reclamation proceedings. American Society of Mining and Reclamation National Conference, St. Louis, Missouri.
82. Baily G, A Ferko, R Fife, R Siwy, CJ West, **W Strosnider**, J LaBar (2018) Rehabilitation of the Reitz #1 passive treatment system. American Society of Mining and Reclamation National Conference, St. Louis, Missouri.
81. Potopa A, D Slovikosky, J Hugo, L Madison, N McKnight, J Goodwill, **W Strosnider (2018)** Continued assessment of acid mine drainage treatment systems in the Greater Kumurana Valley, Bolivia. American Society of Mining and Reclamation National Conference, St. Louis, Missouri.
80. Hugo J, N McKnight, L Madison, **W Strosnider (2018)** Stormwater management for a large open-cast coal mine: a case study and proposed solutions. American Society of Mining and Reclamation National Conference, St. Louis, Missouri.
79. Chase M\*, **WH Strosnider**, SA White (2017) Blue Valley iron oxide substrate and sand mixture capacity to remove phosphorus from solution. Society of Environmental Toxicology and Chemistry North America Annual Meeting, Minneapolis, Minnesota.
78. Nairn RW, **WHJ Strosnider (2017)** Why aren't all mine reclamationists considered ecological engineers? American Society of Mining and Reclamation National Conference, Morgantown, USA.
77. Damico D, A Remillard, **B Strosnider (2017)** American freedom, individualism, and the common good: experiencing public history in Boston. Society for Values in Higher Education Annual Fellows Meeting, Boston, Massachusetts.
76. Patton H, L Mignogna, K Tomkowski, J Vinglish, K Palmer, M Whited, M Crittenden, G Shustrick, **W Strosnider (2017)** Pollution loading tracking to characterize success of an anoxic limestone drain installation on Lamberts Run, Southwestern Pennsylvania. American Society of Mining and Reclamation National Conference, Morgantown, West Virginia.
75. Long S, **W Strosnider**, J Eckenrode (2017) Reclassification of the Upper Little Juniata River based on continuous in-stream monitoring. American Society of Mining and Reclamation National Conference, Morgantown, West Virginia.

74. Whited M, PM Smyntek, J Gaughan, S Rensel, J Hugo, **WHJ Strosnider (2017)** Seasonal recovery of an Appalachian stream affected by acid mine drainage and municipal wastewater. American Society of Mining and Reclamation National Conference, Morgantown, West Virginia.
73. Green KJ, MH Whited, **WHJ Strosnider (2017)** Coupling technical assistance with student service learning in mine water reclamation. American Society of Mining and Reclamation National Conference, Morgantown, West Virginia.
72. Rovder A, Z Shoff, D Madl, S Wolfe, S Long, **W Strosnider**, P Smyntek **(2017)** Georeferencing of American Society of Mining and Reclamation Proceedings: a new tool and patterns in reclamation research. American Society of Mining and Reclamation National Conference, Morgantown, WV, West Virginia.
71. Spellman C, D Madl, A Rose, E Zovinka, J Bandstra, **W Strosnider (2017)** Mass transport controls on aluminum removal in limestone based treatment systems. American Society of Mining and Reclamation National Conference, Morgantown, West Virginia.
70. Moriarty C, J Short, **W Strosnider**, S White, D Hitchcock **(2016)** Floating treatment wetlands: effects of varying coverage on eutrophic pond mesocosms. South Carolina Water Resources Conference, Columbia, South Carolina.
69. Hitchcock DR, **W Strosnider**, JC Majsztrik, DJ Sample, S Kumar, SA White **(2016)** Development of online tools for ornamental container nursery water conservation, remediation, and reuse. South Carolina Water Resources Conference, Columbia, South Carolina.
68. Whited MC, S Rensel, J Hugo, J Gaughan, **W Strosnider (2016)** Macroinvertebrate recovery: a study of Bradley Run as in-situ co-treatment of acid mine drainage and municipal wastewater. Susquehanna River Symposium, Lewisburg, Pennsylvania.
67. Krometis LH, PM Smyntek, RC Wagner, S Carvajal-Sanchez, TM Wynn-Thompson, **WHJ Strosnider (2016)** The potential for passive biological treatment approaches to reduce conductivity in mining wastewaters: past efforts, current challenges, and future research needs. International EcoSummit, Montpellier, France.
66. Sayers M, J Williams, J Rumfelt, E Ecklund, D Damico, **B Strosnider**, K Tonkin, J Wilsey, A Remillard **(2016)** Is civility possible in the climate change “debate”? An interfaith and interdisciplinary panel on Pope Francis and Laudato Si. Society for Values in Higher Education Annual Fellows Meeting, Boston, Massachusetts.
65. Mosier DR, CJ Spellman, JP Krug, CJ Weyant, LJ Stern, RC Krupa, TR Spangler, DK Wolfe, JZ Bandstra, **WH Strosnider**, EP Zovinka **(2016)** Analysis of the open limestone channel at the Swank 13 Abandoned Coal Mine, Reade Township, Pennsylvania. Council on Undergraduate Research: Posters on the Hill, Washington, District of Columbia.
64. Patton HE, C Evans, F Llanos, P O’Connor, P Muiño, R Wagner, **WH Strosnider (2016)** Contaminant and treatment dynamics in the greater Kumurana Watershed: an evaluation of water quality and treatment efficiency. American Society of Mining and Reclamation National Conference, Spokane, Washington.
63. Rovder A, S Wolfe, S Long, D Madl, P Smyntek, R Wagner, **W Strosnider (2016)** Georeferencing of American Society of Mining and Reclamation Proceedings: preliminary trend analysis. American Society of Mining and Reclamation National Conference, Spokane, Washington.
62. **Strosnider B**, T Danehy **(2016)** AMD in the Bolivian Altiplano: Unique problems and solutions. West Virginia Mine Drainage Task Force Symposium, Morgantown, West Virginia. **(invited)**

61. Palmer KJ, JS Vinglish, MA Reckner, **WHJ Strosnider (2016)** The relationship between student service learning and technical assistance in mine water reclamation. American Society of Mining and Reclamation National Conference, Spokane, Washington.
60. Hollern AP, AT Hajec, JE Fortunato, **WHJ Strosnider**, CA Neely, DJ Daley **(2016)** Lab scale batch weathered limestone testing to determine system sizing. American Society of Mining and Reclamation National Conference, Spokane, Washington.
59. Mignogna LG, ST Long, BA Pillot, P Muiño, **WHJ Strosnider**, RC Wagner **(2016)** Geochemistry and biota of Bolivian hypersaline lakes. American Society of Mining and Reclamation National Conference, Spokane, Washington.
58. Smyntek PM, RC Wagner, S Carvajal-Sanchez, TM Wynn-Thompson, LH Krometis, **WHJ Strosnider (2016)** Passive biological treatment approaches to reduce conductivity in waters affected by mine drainage: Key challenges & research needs. American Society of Mining and Reclamation National Conference, Spokane, Washington.
57. Rensel S, J Gaughan, S Wolfe, L Aviles, C Spellman, K Tomkowski, **W Strosnider**, J Bandstra **(2016)** Open limestone channels for acid mine drainage treatment: Effects of agitation on pH increase. American Society of Mining and Reclamation National Conference, Spokane, Washington.
56. Spellman C, K Tomkowski, S Carvajal Sanchez, C Weyant, J Krug, L Stern, D Wolfe, D Mosier, A Rose, EP Zovinka, J Bandstra, **W Strosnider (2016)** Open limestone channel performance for aluminum-rich acid mine drainage. American Society of Mining and Reclamation National Conference, Spokane, Washington.
55. Marcillo C, **WHJ Strosnider**, P Smyntek **(2015)** Sustainable co-treatment of acid mine drainage and municipal wastewater: Performance factors and developing world possibilities. International WaTER Conference, Norman, Oklahoma.
54. Smyntek P, H Patton, D Mack, W Cabral de Andrade, L Mignogna, J Vinglish, CD Spellman, **WHJ Strosnider (2015)** Co-treatment of acid mine drainage and municipal wastewater within an Appalachian stream. Environmental Considerations in Energy Production Conference, Pittsburgh, Pennsylvania.
53. **Strosnider WHJ**, BK Winfrey, RAM Peer, JA McCloskey, J Chastel, P Smyntek, RW Nairn **(2015)** Passive co-treatment of mine drainage with sewage: An approach to save material, energy, and fiscal resources. Environmental Considerations in Energy Production Conference, Pittsburgh, Pennsylvania.
52. Damico DH, **W Strosnider (2015)** A confluence of crises: One example of interdisciplinary collaboration on sustainability. Society for Values in Higher Education Fellows Meeting, Bowling Green, Kentucky.
51. Smyntek P, J Bandstra, R Wagner, **W Strosnider**, C Marcillo (2015) Removal and behavior of metal contaminants during passive co-treatment of synthetic acid mine drainage and synthetic municipal wastewater. American Chemical Society National Meeting, Boston, Massachusetts.
50. Li Y, E Zovinka, R Clark, **W Strosnider**, N Youmbi, J Bandstra **(2015)** STEPPing Up: An Interdisciplinary Mentoring Network to Recruit and Retain STEM Majors. Joint Mathematics Meeting, San Antonio, Texas.
49. Chastel J, R Peer, E Bach, E Anthony, J McCloskey, P Smyntek, R Wagner, J Bandstra, **W Strosnider (2014)** Single-stage anaerobic passive co-treatment of acid mine drainage and municipal wastewater. Geological Society of America Annual Meeting, Vancouver, Canada.

48. **Strosnider WH, S Adams, RW Nairn (2014)** Engineered floating vegetation mats for the passive treatment of acid mine drainage. American Ecological Engineering Society National Conference.
47. **Strosnider WH (2014)** Acid mine drainage Research-Service-Learning in the Laurel Highlands. Susquehanna River Symposium, Lewisburg, Pennsylvania.
46. **Carvajal-Sanchez S, WH Strosnider, C Spellman, J Vinglish, A Rose, E Zovinka, J Bandstra (2014)** Open limestone channels for acid mine drainage treatment: Performance and design guidance. Susquehanna River Symposium, Lewisburg, Pennsylvania.
45. **McCloskey J, R Peer, E Bach, E Anthony, J Chastel, P Smyntek, R Wagner, J Bandstra, W Strosnider (2014)** Passive co-treatment of acid mine drainage and municipal wastewater: Simple anaerobic trials. Susquehanna River Symposium, Lewisburg, Pennsylvania.
44. **Mazzur JE, MA Messina, JA Golanoski, AW Renz, NJ Frank, S Carvajal, J Bandstra, BHJ Strosnider, R Wagner, CD Spellman (2014)** The effect of sodium chloride on the rate of calcite dissolution for acid mine drainage. Susquehanna River Symposium, Lewisburg, Pennsylvania.
43. **Zoubareva T, L Mignogna, D Mack, D Civis, J Skipper, N Lassak, A Conrad, J Bandstra, A Rose, W Strosnider (2014)** Dissolution variability in open limestone channel substrate: Simple lab trials. American Society of Mining and Reclamation National Conference, Oklahoma City, Oklahoma.
42. **Conrad A, K Palmer, A Rose, W Strosnider (2014)** Open limestone channel treatment dynamics: A case study treating low-pH coal mine drainage. American Society of Mining and Reclamation National Conference, Oklahoma City, Oklahoma.
41. **Peer R, J LaBar\*, B Winfrey, R Nairn, F Llanos López, W Strosnider (2014)** Passive co-treatment of polymetallic acid mine drainage at Cerro Rico de Potosí, Bolivia. American Society of Mining and Reclamation National Conference, Oklahoma City, Oklahoma.
40. **Strosnider W, A Conrad, A Rose (2014)** Performance of the Swank open limestone channel, Cambria County, PA. American Society of Mining and Reclamation National Conference, Oklahoma City, Oklahoma.
39. **Nairn RW, WH Strosnider (2013)** Challenges and opportunities in mine land and water restoration in the developing world. National Association of State Land Reclamationists Annual Conference, Hot Springs, Arkansas.
37. **Llanos López F, WH Strosnider, R Nairn (2013)** Tratamiento de aguas contaminadas por actividad minera en la cuenca Kumurana, Potosí-Bolivia. II Congreso Tecnico de la Industria Petrolera, Quimica y Minera, Oruro, Bolivia.
37. **Peer RAM, W Strosnider, B Winfrey\*, R Nairn (2013)** Passive co-treatment of acid mine drainage and municipal wastewater: removal of less commonly addressed metals at Cerro Rico de Potosí, Bolivia. International Mine Water Association International Conference, Denver, Colorado.
36. **Strosnider WHJ, F Llanos López, JA LaBar\*, KJ Palmer, RAM Peer, RW Nairn (2013)** Cerro Rico de Potosí, Bolivia: broader impacts from unabated acid mine drainage. International Mine Water Association International Conference, Denver Colorado.
35. **Nairn RW, K Strevett, JA LaBar\*, WH Strosnider, FS Llanos Lopez, LR Oxenford\* (2012)** Ecological engineering to restore drastically disturbed watersheds: from Superfund to 16,000 feet. International EcoSummit, Columbus, Ohio.
34. **Mignogna LJ, WA Runyon, RW Nairn, WHJ Strosnider (2012)** Preliminary assessment of floodplain soil metal concentrations: Neosho River, Oklahoma. American Society of Mining and Reclamation National Conference, Tupelo, Mississippi.

33. Neptune AA, FS Llanos Lopez, RR Callapa, KJ Palmer, RW Nairn, JZ Bandstra, **WH Strosnider (2012)** The Pailaviri tailings deposit, Potosí, Bolivia: extreme acid mine drainage generation. American Society of Mining and Reclamation National Conference, Tupelo, Mississippi.
32. Palmer KJ, F Llanos Lopez, RR Callapa, AA Neptune, CT Breazile, RW Nairn, **WH Strosnider (2012)** Preliminary evaluation of limestone-based passive treatment systems for low-pH acid mine drainage in Andean Bolivia. American Society of Mining and Reclamation National Conference, Tupelo, Mississippi.
31. **Strosnider WHJ**, BK Winfrey\*, RW Nairn **(2012)** Expanding the scope of passive treatment: co-treatment of acid mine drainage with municipal wastewater. American Society of Mining and Reclamation National Conference, Tupelo, Mississippi.
30. **Strosnider WH**, J Alvarez\*, FS Llanos Lopez, C Breazile, S Crook, P Monje, T Cooper, RW Nairn **(2012)** Design and construction challenges for limestone-based passive treatment systems in the rural Andes, Potosí, Bolivia. American Society of Mining and Reclamation National Conference, Tupelo, Mississippi.
29. Faldetta KF\*, DA Reighard\*, KL Dickinson\*, CQ Wang\*, DR George, **WH Strosnider (2012)** The need for point of use water treatments in areas of peri-urban poverty: case study outside Iquitos, Peru. American Society of Tropical Medicine and Health Annual Meeting, Atlanta, Georgia.
28. Llanos López F, **WH Strosnider**, RW Nairn **(2011)** Passive treatment implementation in the Kumurana-Juckucha watershed, Potosí, Bolivia. International WaTER Conference, Norman, Oklahoma.
27. Rogers R, S Alegre, D Carroll, T Montgomery, K Raus, S Bush, C Breazile, A Neptune, K Palmer, JZ Bandstra, **WH Strosnider**, F Llanos López, J Alvarez, RW Nairn **(2011)** Treating severely contaminated mine waters at 16,000 feet: a project based service learning opportunity in the Bolivian Andes. International WaTER Conference, Norman, Oklahoma.
26. **Strosnider WH**, BK Winfrey\*, RW Nairn **(2011)** Passive co-treatment of municipal wastewater and acid mine drainage: a promising new ecological engineering approach. American Ecological Engineering Society Annual Meeting, Asheville, North Carolina.
25. **Strosnider WH**, FS Llanos López, RW Nairn **(2011)** Managing a project from half a world away: a case study of the rehabilitation of Rio Juckucha, Bolivia. International WaTER Conference, Norman, Oklahoma.
24. **Strosnider WH**, RW Nairn, H Ríos Montero, F Llanos Pinto **(2011)** Water quality impacts from in-stream mine tailings in Rio Tarapaya, Potosí, Bolivia. American Society of Mining and Reclamation National Conference, Bismarck, North Dakota.
23. Nairn RW, JA LaBar\*, KA Strevett, **WH Strosnider**, D Morris\*, CA Neely\*, A Garrido\*, B Santamaria\*, L Oxenford\*, K Kauk\*, S Carter\*, B Furneaux\* **(2010)** A large, multi-cell, ecologically-engineered passive treatment system for ferruginous lead-zinc mine waters. International Mine Water Association Symposium, Sydney, Nova Scotia.
22. LaBar JA\*, RW Nairn, KA Strevett, **WH Strosnider**, D Morris\*, CA Neely\*, AE Garrido\*, K Kauk\* **(2010)** Stream water quality improvements after installation of a passive treatment system. American Society of Mining and Reclamation National Conference, Pittsburgh, Pennsylvania.
21. Nairn RW, JA LaBar\*, KA Strevett, **WH Strosnider**, D Morris\*, AE Garrido\*, CA Neely\*, K Kauk\* **(2010)** Evaluation of a large multi-cell passive treatment system for net-alkaline ferruginous lead-



- zinc mine waters. American Society of Mining and Reclamation National Conference, Pittsburgh, Pennsylvania.
20. Garrido AE\*, **WH Strosnider**, RW Nairn (2010) Accumulation of ecotoxic metals in potato tubers irrigated with acid mine drainage impacted water. American Society of Mining and Reclamation National Conference, Pittsburgh, Pennsylvania.
  19. **Strosnider WH**, RW Nairn (2010) Effects on the underlying water column by ecologically engineered floating vegetation mats. American Society of Mining and Reclamation National Conference, Pittsburgh, Pennsylvania.
  18. Winfrey BK\*, RW Nairn, DR Tilley, **WH Strosnider (2010)** Assessing the benefits of a passive treatment system for mine drainage in Northeast Oklahoma using emergy analysis. American Society of Mining and Reclamation National Conference, Pittsburgh, Pennsylvania.
  17. Nairn RW, JA LaBar\*, KA Strevett, **WH Strosnider**, LR Oxenford\*, TH Beisel, RC Thomas, JS Bays (2010) Passively addressing ferruginous lead-zinc mine waters through hydro-biogeochemical and ecological engineering: the first full-scale mine water treatment system in the Tri-State District. North-Central and South-Central Section Joint Meeting of the Geological Society of America, Branson, Missouri.
  16. Felix AL, JZ Bandstra, **WHJ Strosnider (2010)** Design-based science for STEM student recruitment and teacher professional development. Mid-Atlantic American Society for Engineering Education Conference, Easton, Pennsylvania.
  15. Garrido AE\*, J Condori, **WH Strosnider**, RW Nairn (2009) Acid mine drainage impacts on irrigation water resources, agricultural soils, and potatoes in Potosí, Bolivia. American Society of Mining and Reclamation National Conference, Billings, Montana.
  14. Santamaria B\*, MR Apoza Q., **WH Strosnider**, RW Nairn (2009) Preliminary evaluation of locally available organic substrates for vertical flow passive treatment cells in Potosí, Bolivia. American Society of Mining and Reclamation National Conference, Billings, Montana.
  13. Nairn RW, T Beisel, RC Thomas, JA LaBar\*, KA Strevett, D Fuller, **WH Strosnider**, WJ Andrews\*, J Bays, RC Knox (2009) Challenges in design and construction of a large multi-cell passive treatment system for ferruginous lead-zinc mine waters. American Society of Mining and Reclamation National Conference, Billings, Montana.
  12. Winfrey BK\*, **WH Strosnider**, RW Nairn (2009) Reduction of fecal indicator bacteria counts in an ecologically-engineered acid mine drainage and municipal wastewater passive co-treatment system. American Society of Mining and Reclamation National Conference, Billings, Montana.
  11. **Strosnider WH**, BK Winfrey\*, RW Nairn (2009) Performance of an ecologically-engineered multi-stage acid mine drainage and municipal wastewater passive co-treatment system. American Society of Mining and Reclamation National Conference, Billings, Montana.
  10. Llanos L. FS, **WH Strosnider**, RW Nairn (2009) Mining in Potosí, Bolivia and the struggle to conserve or reclaim crucial water resources in high altitude alpine desert. International WaTER Conference, Norman, Oklahoma.
  9. **Strosnider WH**, RW Nairn (2009) The Project for the Rehabilitation of Rio Juckucha, Bolivia: unique challenges, coalition formation and the road ahead. International WaTER Conference, Norman, Oklahoma.
  8. Nairn R, K Strevett, J LaBar\*, A Sutter\*, J Clifton\*, **W Strosnider**, J Brumley\*, D Lutes\*, B Santamaria\*, J McAllister\*, A Brewer\*, M Roberts\*, K Kauk\* (2008) Watershed-scale

- environmental monitoring to prioritize mine drainage passive treatment implementation. American Society of Mining and Reclamation National Conference, Richmond, Virginia.
7. **Strosnider W**, R Nairn, F Llanos (2008) A legacy of nearly 500 years of mining in Potosí, Bolivia: stream water quality. American Society of Mining and Reclamation National Conference, Richmond, Virginia.
  6. **Strosnider WH**, B Santamaria\*, R Nairn, L Oxenford\*, A Garrido\*, F.S. Llanos (2008) A legacy of nearly 500 years mining in Potosí, Bolivia: environmental degradation and indigenous impacts. 10<sup>th</sup> National Tar Creek Conference, Miami, Oklahoma.
  5. **Strosnider W**, R Nairn, F Llanos (2007) A legacy of nearly 500 years of mining in Potosí, Bolivia: acid mine drainage source identification and characterization. American Society of Mining and Reclamation National Conference, Gillette, Wyoming.
  4. **Strosnider W**, D Hitchcock, M Burke, A Lewitus (2007) Predicting hydrology in wetlands designed for coastal stormwater management. American Society of Agricultural and Biological Engineers Annual International Conference, Minneapolis, Minnesota.
  3. Nairn R, K Strevett, J LaBar\*, D Ertugrul\*, D Hensley\*, K Walker\*, D Lutes\*, **W Strosnider**, B Winfrey, M Roberts\*, T Traw\*, P Baczynski\*, B Johnson\* (2007) Watershed-scale environmental monitoring to examine remediation and restoration success: water quality and hydrology in the Tri-State lead-zinc mining district. American Society of Mining and Reclamation National Conference, Gillette, Wyoming.
  2. **Strosnider W**, D Hitchcock, M Burke, N Shea, A Lewitus (2005) Design for nitrogen reduction in estuarine systems: retrofitting coastal ponds with constructed wetlands. American Ecological Engineering Society Annual Conference, Columbus, Ohio.
  1. **Strosnider W**, M Burke, D Hitchcock, A Lewitus, N Shea, L Kolowith (2005) Continuous hydrologic modelling as a constructed wetland design tool. Society of Wetland Scientists Annual International Conference, Charleston, South Carolina.

#### Trade Journals / Academic Forums (\*graduate, undergraduate student author):

8. Spellman Jr. C\*, T Tasker, **W Strosnider**, J Goodwill (2021) Municipal wastewater co-treatment for cost-effective mine drainage reclamation. *Reclamation Matters*, Fall '21: 32-35
7. Rovder A, **W Strosnider** (2019) Preserving past research via geolocation: a tool for the next generation of reclamationists. *Reclamation Matters*, Fall '19: 33-36.
6. Patton H, **W Strosnider**, K Green (2017) The Center for Watershed Research and Service at Saint Francis University. *Reclamation Matters*, Fall '17: 27.
5. **Strosnider WHJ** (2017) Community engagement for the liberal arts? *Forum Engaging Values, Education, and Responsibility*
4. Nairn R, R Kleinmann, R Hedin, **W Strosnider** (2015) Reflections on two decades of passive treatment. *Reclamation Matters*, Spring '15: 8-9.
3. Spellman Jr. C, S Carvajal, C Weyant, J Krug, R Krupa, D Wolfe, Y Li, EP Zovinka, A Rose, **W Strosnider** (2015) Research, teaching and service with open limestone channels and undergraduates in the Allegheny Highlands. *Reclamation Matters*, Spring '15: 28-31.

2. **Strosnider WHJ**, TA Hughes, RAM Peer, BK Winfrey\*, NF Gray, RW Nairn **(2012)** Co-treatment of acid mine drainage with municipal wastewater: A Promising New Approach. *Reclamation Matters*, Fall '12: 26-29.
1. **Strosnider WH**, RW Nairn, B Santamaria\*, FS Llanos, A Garrido\*, LR Oxenford\* **(2009)** Strengthening scientific expertise in the Bolivian Andes through research, teaching and outreach: tackling severe mining-related pollution in Potosí, Bolivia. *Reclamation Matters*, Fall '09: 16-19.

**Engineering Consulting (> \$180K gross income thus far in addition to pro-bono\* work):**

- 2017-present: Coastal stormwater, revegetation, and pit lake management in Patagonian Chile
- 2022: Water resource management for One Living Sanctuary (California)\*
- 2018-2019: Passive treatment redesign for the Spaghetti Hole discharge (Pennsylvania)
- 2018-2019: Passive treatment retrofits for the Squatter Falls discharge (Pennsylvania)
- 2018-2019: Passive treatment redesign for the Oven Run B discharge (Pennsylvania)
- 2017: Reitz #1 wetland treatment system rehabilitation in Central City, Pennsylvania
- 2016-2019: Pollutant loading on the Quemahoning River (Pennsylvania)
- 2016-2017: Pollutant loading on Lambert's Run (Pennsylvania)
- 2015-2016: Pollutant loading on Brubaker Run (Pennsylvania)
- 2015-2020: Passive treatment for the Puritan discharge in Portage, Pennsylvania
- 2009: Eco-latrines in Cotani, Bolivia\*
- 2007-2008: Drinking water quality assessment in Rio Bravo, Guatemala\*

**Program Consulting:**

- 2023-present: Inter-American Development Bank – Bahamas Agriculture & Marine Science Institute assessment team leader
- 2022-present: US National Academy of Sciences, Engineering, and Medicine – Mesopotamian River Revival team
- 2021-2023: Juniata College Environmental Engineering program accreditation
- 2022: UNC Coastal Studies Institute external reviewer

**Courses Taught:**

Appropriate Technologies for Humanitarian and Environmental Service	Lead – SFU
Aquatic and Atmospheric Chemistry	Lead – SFU
Chemical and Biological Reactor Design	Lead – SFU
College Physics I & II	Lead – SFU
Ecological Engineering	Lead – SFU
Ecological Engineering Science	Co-taught – OU
Environmental Engineering Case Studies	Co-taught – OU
Environmental Engineering Field Measurements	Lead – SFU
Environmental Engineering Laboratory Measurements	Lead – SFU
Environmental Engineering Senior Capstone Sequence	Lead – SFU
Environmental Engineering Statistics Laboratory	Lead – SFU
Environmental and Human Health Issues in Western Europe	Lead – SFU
Environmental and Hazards and Human Health	Lead - UofSC

Engineering Seminar	Lead – SFU
Engineering Physics I	Lead – SFU
Field and Laboratory Investigations in Marine Science	Co-taught – UofSC
Introduction to Engineering II	Lead – SFU
Lowcountry Culture and History	Lead – UofSC
Mining and the Environment (bilingual English/Spanish)	Lead – UATF
Nonpoint Source Management in Engineered Ecosystems	Co-taught – CU
Stormwater Management	Lead – SFU
Transport Processes	Lead – SFU
Water Wars: Power, Technology, Violence	Lead – SFU
Wetland Science and Management	Co-taught – OU

### Awards, Honors, and Fellowships:

- 2021 American Society of Reclamation Science Researcher of the Year
- 2017 Western Pennsylvania Environmental Award (Center for Watershed Research & Service)
- 2017 American Society of Reclamation Science Early Career Award
- 2016 Gerald and Helen Swatsworth Award for Excellence in Teaching, Research, and Service
- 2015 Society for Values in Higher Education Robert Atwood Spivey Excellence in Scholarship Award
- 2015 Saint Francis University Student Government Outstanding Organization Award (Club Ice Hockey)
- 2012 American Society of Reclamation Science Recruiter of the Year
- 2011, 2012, 2013, 2015, 2017 Saint Francis University Excellence in Education Grants
- 2011, 2016, 2018 Saint Francis University Faculty Development Grants
- 2009 American Society of Reclamation Science Memorial Ph.D. Scholarship
- 2009 Scholarship for Wetland Science and Management Study at Universität Hamburg
- 2009 University of Oklahoma Graduate Student Senate Travel Grant
- 2007, 2008 & 2010 American Society of Reclamation Science Student Presentation Awards
- 2006 University of Oklahoma Graduate College Robberson Travel Grant
- 2006 University of Oklahoma Graduate Student Senate Research and Activity Grant
- 2005-2007 United States Department of Education GAANN Fellow
- 2005, 2007, 2008 University of Oklahoma Presidential International Travel Fellowships
- 2004, 2005 College of Charleston Summer Research Awards
- 2003 Br. Andrew R. Weber Award for Outstanding Service and Achievement in Mechanical Engineering
- 2002, 2003 Cordell W. Hull International Service Fellow

### Professional Societies (\*lifetime):

American Ecological Engineering Society*	Southeastern Estuarine Research Society
American Society of Reclamation Sciences*	National Association of Marine Laboratories
International Mine Water Association	Organization of Biological Field Stations
Coastal and Estuarine Research Federation	Society for the Future of Higher Education

**Advising:**

I. Postdoctoral researchers

[Travis Tasker](#)

Supervisor: 2018-2019

- Productivity: two journal articles in development, three journal articles published, eight conference proceedings, co-PI on \$216K of total awarded grants, \$20K of consulting income
- Current employment: Saint Francis University Environmental Engineering Program, tenure-track assistant professor

[Julie LaBar](#)

Supervisor: 2017-2018

- Productivity: three journal articles in development, three journal articles published, four conference proceedings, co-PI on \$356K of total awarded grants, \$15K of consulting income
- Current employment: Oklahoma State University Environmental Science Program, tenure-track assistant professor

[Peter Smyntek](#)

Supervisor: 2015-2017

- Productivity: one journal article in development, four journal articles published, eleven conference proceedings, co-author on \$310K of total awarded grants
- Current employment: Saint Vincent College Interdisciplinary Science Program, tenured associate professor

II. Graduate students

Clare Escamilla

Committee member: 2022-present

- Ph.D. in Plant and Environmental Sciences, Clemson University
- Dissertation: *TBD, will concern floating treatment wetland plant suitability and nutrient dynamics*

Levi McKercher

Primary advisor: 2021-present

- Ph.D. in Biology, University of South Carolina
- Dissertation: *TBD, will concern floating treatment wetland habitat provisioning capacity*

Kristen Laccetti

Committee member: 2020-2021

- M.S. in Marine Science, University of South Carolina
- Thesis: *Harmful algal bloom dynamics in coastal South Carolina stormwater control ponds*

Jack Dekle

Committee member: 2020-2022

- M.S. in Environmental Toxicology, Clemson University
- Thesis: *Overwintering floating treatment wetlands: nutrient cycling dynamics and remediation*

[Charles Spellman, Jr.](#)

Committee member: 2019-2021

- M.S. in Environmental Engineering, University of Rhode Island
- Dissertation: *Feasibility assessment of acid mine drainage and municipal wastewater co-treatment*

Megan Chase Committee member: 2017-2018

- M.S. in Environmental Toxicology, Clemson University
- Thesis: *Iron hydroxide from abandoned coal mine drainage to remove and re-use phosphorus from greenhouse and plant nursery runoff*

Marie Shoenenberger Committee member: 2015-2016

- M.S. in Ecological Engineering, SUNY College of Environmental Science and Forestry
- Thesis: *Mycorrhizal colonization of Salix spp. in amended Solvay process waste*

III. Undergraduate students (*limited to one per cohort of SFU environmental engineering students*)

[Ashley Rovder](#) Geospatial trends in reclamation research: 2016-2019

- Productivity: four conference proceedings, one trade journal article
- Current employment: engineer at Naval Nuclear Laboratory

[Hannah Patton](#) Watershed contamination dynamics: 2016-2018

- Productivity: one trade journal article, three conference proceedings
- Current employment: Ph.D. candidate in Biological Systems Engineering at Virginia Tech

[Cristina Marcillo](#) Bolivian Altiplano trace metal pollution dynamics: 2014-2016

- Productivity: one journal article, two conference proceedings
- Current employment: Interdisciplinary Scientist with US EPA (after Ph.D. in Biological Systems Engineering at Virginia Tech)

[Rebecca Peer](#) Co-treatment of mine drainage and sewage: 2012-2014

- Productivity: five journal articles, one trade journal article, six conference proceedings
- Current employment: Lecturer in Civil Systems Engineering at the University of Canterbury (after Ph.D. at the University of Southern California and postdoc at Stanford University)

[Kelsea Palmer](#) Mine drainage contamination in Bolivia and Pennsylvania: 2010-2013

- Productivity: one journal article, one trade journal article, five conference proceedings
- Current employment: Teacher at DuBois Central Catholic School

[Luke Mignogna](#) Floodplain soil metal dynamics in the Neosho River: 2010-2012

- Productivity: one conference proceeding
- Current employment: P.E. Construction Engineer at Fluor Corp. (after M.S. in Civil & Environmental Engineering at the University of Pittsburgh)

IV. Penn State Medical College Global Health Scholars

Kimberly Faldetta, Derek Reighard, Katie Dickinson, Chloe Wang Co-advisor: 2012-2013

- Topic: Seasonal flooding and disease prevention along the Amazon River in Iquitos, Peru
- Current employment: all licensed and employed M.D.'s

Sarah Farag, Riva Das

Co-advisor: 2008-2009

- Topic: Heavy metal pollution and human health in Highland Bolivian mining communities
- Current employment: both licensed and employed M.D.'s

#### Peer Reviewer:

Over eight dozen manuscripts for the following journals:

- *Applied Geochemistry*
- *Applied Microbiology and Biotechnology*
- *Chemosphere*
- *Ecological Engineering*
- *Ecotoxicology and Environmental Safety*
- *Environmental Earth Sciences*
- *Environmental Impact Assessment Review*
- *Environmental Management*
- *Environmental Monitoring and Assessment*
- *Environmental Science and Pollution Research*
- *Environmental Science & Technology*
- *Environmental Technology*
- *Geochemistry: Exploration, Environment, Analysis*
- *International Journal of Analytical Chemistry*
- *International Journal of Coal Geology*
- *Journal of Cleaner Production*
- *Journal of Contaminant Hydrology*
- *Journal of Environmental Engineering*
- *Journal of Environmental Management*
- *Journal of Environmental Chemical Engineering*
- *Journal of Environmental Planning and Management*
- *Journal of Environmental Quality*
- *Journal of Geochemical Exploration*
- *Journal of Hazardous Materials*
- *Journal of Hydrology*
- *Journal of Water Process Engineering*
- *Journal of Water, Sanitation & Hygiene for Development*
- *Land-Grant Press*
- *Mine Water and the Environment*
- *Mineralogical Magazine*
- *Resources, Conservation & Recycling*
- *Science of the Total Environment*
- *Scientific Reports*
- *Water Research*
- *Water SA*

- *Water Science & Technology*
- *Water, Air & Soil Pollution*

Grant proposals/reports/fellowships:

- National Science Foundation
  - Environmental Engineering Program
  - Partnership for International Research and Education
- National Environment Research Council (UK)
- United States Geological Survey
- National Oceanic and Atmospheric Administration
- American Society of Reclamation Science National Conferences
- Indo-US Science & Technology Forum
- Kazakhstan National Centre of Science and Technology
- Maryland Industrial Partnerships Program
- Belle W. Baruch Foundation
- Chesapeake Bay Trust
- College of Charleston Environmental & Sustainability Science Program
- Internal
  - Saint Francis University Faculty Development Grants
  - NI-WB NERR Mary Davidson Graduate Fellowships
  - UofSC Vernberg, Spivey, and Golde Fellowships
  - UofSC SC EBSCoR letters of intent

**Boards, Committees, and Professional Service:**

- *Journal of Environmental Quality* Associate Editor (2023-present)
- *Reclamation Sciences* Associate Editor (2022-present)
- American Ecological Engineering Society, Treasurer (2022-present)
- Universities Council on Water Resources Member Delegate for UofSC (2022-present)
- Coastal Carolina University Engineering Science External Advisory Board (2019-present)
- South Carolina Sea Grant Consortium, Contaminants of Emerging Concern Advisory Committee (2023-present)
- Saint Francis University Environmental Engineering Visiting Council (2019-present)
- University of Wisconsin Upham Woods Outdoor Learning Center Research and Innovation Advisory Committee (2021-2023)
- UofSC Faculty Senator (2022-2023)
- [Engineers In Action](#), Advisory Board (2019-present)
- [Engineers In Action](#), Board of Directors (2010-2019)
- Stonycreek Conemaugh River Improvement Project, Board of Directors (2010-2019)