

# CHRISTINE A. POMEROY, Ph.D., P.E.

## EDUCATION

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2007	Colorado State University	Fort Collins, Colorado
	<i>Ph.D. Civil Engineering –Hydraulics</i>	
2004	Colorado State University	Fort Collins, Colorado
	<i>M.S. Civil Engineering –Hydraulics</i>	
1995	Michigan State University	East Lansing, Michigan
	<i>B.S. Civil Engineering – Environmental Emphasis</i>	

## PROFESSIONAL REGISTRATION

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- Professional Engineer, State of Michigan

## PROFESSIONAL EXPERIENCE

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- Associate Professor, Lecturer (7/2020 – present), Associate Professor (7/2013 – 6/2020), Assistant (8/2007 – 6/2013)  
Department of Civil & Environmental Engineering, University of Utah, Salt Lake City, UT.
- Consulting Engineer (8/2001 – 9/2007)  
CDM, Fort Collins, CO.
- Research Associate (2/2007 – 9/2007)  
Department of Civil & Environmental Engineering, Colorado State University, Fort Collins, CO.
- Graduate Research Assistant (8/2001 – 1/2007)  
Department of Civil & Environmental Engineering, Colorado State University, Fort Collins, CO.
- Graduate Teaching Assistant (1/2006 – 5/2006, 1/2005-5/2005, 1/2004-5/2004)  
Department of Civil & Environmental Engineering, Colorado State University, Fort Collins, CO.
- Project Manager (11/1998 – 7/2001), Project Engineer (05/1995 – 10/1998)  
CDM, Detroit, MI.
- Environmental, Health, and Safety Co-op (8/1992 – 8/1994)  
General Electric Motors, Fort Wayne, IN.

## TEACHING EXPERIENCE

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### University Courses Taught

University of Utah, Department of Civil & Environmental Engineering

- Undergraduate Required: Introduction to Civil & Environmental Engineering\* (2 times), Hydraulics (5 times), Professional Practice & Design (2 times)
- Undergraduate Elective: Open Channel Flow\* (9 times)

- Graduate: Graduate Research and Seminar\* (1 time) Stormwater Management & Design (4 times), Water Distribution System Analysis & Design\* (5 times), Urban Watershed Management\* (2 times).

\*Developed as new courses, \*\*Revised significantly from prior material

#### SYNERGISTIC ACTIVITIES

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- Selected Professional Service Commitments: American Society of Civil Engineers (ASCE) Environmental Water Resources Institute (EWRI), Urban Water Resources Research Council, Various Subcommittee Roles (2007-present), ASCE EWRI 2013 Congress, Conference Coordinator (2010-2013), National Science Foundation, Panelist (2016 (3), 2011 (1)), State of Utah Nutrient Advisory Committee, Member (2011-present), Water Environment Federation Manual of Practice No. 23 (Urban Runoff Quality Management), co-editor (2007-2009).
- University of Utah Service Commitments: Rio Mesa Center Advisory Committee, Member (2011 – 2016), Global Change and Ecosystem Center, Department Representative (2010 – 2016), College of Engineering Alternate Representative (2011-2014).
- University of Utah College of Engineering Service Commitments: Women in Engineering Program, Faculty Coordinator, (2015-2016); Teaching in Excellence Committee, Member (2017-present).
- University of Utah Department of Civil & Environmental Engineering Service Commitments: Scholarship Committee, Chair (2009-2011), Member (2012-present); Undergraduate & ABET Committee, Member (2012-2018), Co-Chair (2018-present), ASCE Student Chapter, Co-Advisor (2013-2017), Advisor (2017-present), ASCE Rocky Mountain Region Student Conference, Advisor (2015-2017), Outreach Committee, Member (2007-2008, 2017-present).

#### ACTIVE PROFESSIONAL MEMBERSHIPS

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- American Society of Civil Engineers

#### HONORS AND AWARDS

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- 2020 Educator of the Year, American Society of Civil Engineers Utah Section
- 2019 Outstanding Faculty Advisor. American Society of Civil Engineers
- 2017 Outstanding Faculty Award, Department of Civil & Environmental Engineering, University of Utah
- 2017 Outstanding Leadership Award, iUTAH EPSCoR
- 2005 Borland Graduate Student Scholarship, Department of Civil & Environmental Engineering, Colorado State University
- 2005 Jen Song Wang Memorial Scholarship, Department of Civil & Environmental Engineering, Colorado State University
- 2003 Camp Dresser & McKee Fellowship, Department of Civil & Environmental Engineering, Colorado State University
- 2002 Camp Dresser & McKee Fellowship, Department of Civil & Environmental Engineering, Colorado State University
- 1997 Outstanding Performance Recognition Award, Camp Dresser & McKee
- 1995 Winning Team, Waste-Management Education and Research Consortium National Design Competition

- 1995 Service Award, College of Engineering, Michigan State University
- 1993 Chi Epsilon, Civil Engineering National Honors Society

## RESEARCH PROJECTS

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### Grants and Contracts

- Community-enabled Lifecycle Analysis of Stormwater Infrastructure Costs (CLASIC), USEPA, Co-PI with T. Connor (PI), J. Throwe (Co-PI), S. Sharvelle (Co-PI), A. Buzzard (Co-PI), (7/1/2016-12/31/2020), \$2,507,214 (\$294,968 Utah budget).
- 2014 Oil & Gas Environmental BMP Workshop, Duchene County Conservation District, PI, (7/1/2014-6/15/2015), \$4,016.
- Performance of Stormwater Bioretention Systems in Utah's Climate and Hydrologic Conditions, USGS, Co-PI with S. Burian (PI), (3/1/2012-2/28/2013), \$106,000.
- Stormwater Model Comparison, Washington State Department of Transportation, PI, (10/1/2011-2/19/2013), \$48,150.
- innovative Urban Transitions and Aridregion Hydro-sustainability (iUTAH), NSF, Senior Personnel with M. Baker (PI) and many others, (8/1/2012- 7/31/2018), \$20,170,787 (\$6,272,195, Utah budget).
- Collaborative Research: Quantifying Nitrogen Uptake in Bioretention Designed for Semiarid Climates, NSF, PI with K. Hultine (Co-PI), (10/1/2011-9/30/2014), \$394,716 (\$338,601 Utah budget).
- Water Distribution System Modeling, City of Moab, PI, (8/1/2009-1/4/2010), \$18,589.
- Improving Design Discharge Estimates in Utah, Utah Department of Transportation, PI, (12/1/2008-12/30/2009), \$50,000.
- Cost Estimating Spreadsheet Tool Enhancement for Low-Impact Development Best Management Practices, Water Environment Research Foundation, PI, (7/11/2008-2/27/2009), \$45,475.
- Water and Carbon Exchange in Bioretention Stormwater Facilities, University of Utah Research Foundation, PI with K. Hultine (Co-PI), (2/1/2010-10/31/2010), \$30,554.
- Linking Stormwater BMP Systems Performance to Receiving Water Protection to Improve BMP Selection and Design, Water Environment Research Foundation, Co-PI with L. Roesner (PI), R. Meyerhoff (Co-PI), E. Strecker, (Co-PI), \$2,610,400 (\$321,598 Utah budget).
- Whole Life Cost Assessment Report for BMPs, Urban Drainage and Flood Control District, PI while at CSU, then became Co-PI when at Utah, with Larry Roesner (PI), \$97,582 (\$6,974 Utah budget).

## SOFTWARE

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- BMP SELECT, Version 2.0. 2012. Excel extension coded in Visual Basic providing a screening tool for stormwater best management practices. Includes documentation (user manual and technical documentation). Programmers: A. Charles Rowney, William Flower, Shannon Reynolds, Kristianne Sandoval, and Christine Pomeroy. [www.werf.org/SELECT](http://www.werf.org/SELECT).
- BMP and LID Whole Life Cost Models: Version 2.0. 2009. Excel based program for computing costs of stormwater management practices. Programmers: C. Dasch Houdeshel and Christine Pomeroy. [www.werf.org/bmpcost](http://www.werf.org/bmpcost).

## PUBLICATIONS

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### Peer Reviewed Publications (Students Underlined)

15. Lee, S., Burian, S.J. Pomeroy, C.A. 2021. Setting Future Water Rates for Sustainability of a

- Water Distribution System. *Journal of Water Resources Planning and Management*. 147(2).
14. Tavakol-Davani, H., Rahimi, R., Burian, S.J., Pomeroy, C.A., McPherson, B.J., Apul, D. 2019. Combining Hydrologic Analysis and Life Cycle Assessment Approaches to Evaluate Sustainability of Water Infrastructure: Uncertainty Analysis. *Water*, 11(12), 2592.
  13. Feng, Y., Burian, S.J., Pomeroy, C.A. 2016. Potential of Green Infrastructure to Restore Pre-Development Water Budget of a Semi-Arid Urban Catchment. *Journal of Hydrology*. 542: 744–755.
  12. Houdeshel, C.D., Hultine, K.R., Johnson, N.C., Pomeroy, C.A. 2015. Evaluation of three vegetation treatments in bioretention gardens in a semi-arid climate. *Landscape and Urban Planning*. 135:62-72.
  11. Walsh, T.C., Pomeroy, C.A., Burian, S.J. 2014. Hydrologic modeling analysis of a passive, residential rainwater harvesting program in an urbanized, semi-arid watershed. *Journal of Hydrology*. 508:240–253.
  10. Houdeshel, D. and Pomeroy, C. 2013. Storm-Water Bioinfiltration as No-Irrigation Landscaping Alternative in Semiarid Climates. *J. Irrig. Drain Eng.* 10.1061/(ASCE)IR.1943-4774.0000663, 06013004.
  9. Steffen, J., Jensen, M., Pomeroy, C.A. and Burian, S.J. 2013. Water Supply and Stormwater Management Benefits of Residential Rainwater Harvesting in U.S. Cities. *Journal of the American Water Resources Association*. 49(4):810–824.
  8. Houdeshel, C.D., Pomeroy, C.A., and Hultine, K.R.. 2012. Bioretention Design for Xeric Climates Based on Ecological Principles. *Journal of the American Water Resources Association (JAWRA)* 1-12. DOI: 10.1111/j.1752-1688.2012.00678.x
  7. Pomeroy, C.A., Apfelbaum, S., Clark, S., Medina, D.E., Pitt, R. 2012. Effects of Stormwater on Receiving Waters. In *Design of Urban Stormwater Controls*; WEF Manual of Practice No. 23, ASCE/EWRI Manuals and Reports on Engineering Practice No. 87, McGraw-Hill: New York.
  6. Water Environment Federation (WEF), American Society of Civil Engineers (ASCE), Environmental & Water Resources Institute (EWRI). 2012. *Design of Urban Stormwater Controls*; WEF Manual of Practice No. 23, ASCE/EWRI Manuals and Reports on Engineering Practice No. 87, McGraw-Hill: New York. (Co-Editors: Medina, D.E. and Pomeroy, C.A.)
  5. Houdeshel, C.D., Pomeroy, C.A., Hair, L., and Moeller, J. 2011. Cost Estimating Tools for Low-Impact Development Best Management Practices: Challenges, Limitations and Implications. *Journal of Irrigation and Drainage*. 137:183-189.
  4. Burian, S.J. and Pomeroy, C.A. 2010. Urban impacts on the water cycle and potential green infrastructure implications. In: *Urban Ecosystems Ecology*, Aitkenhead-Peterson, J. and Volder, A., American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America.
  3. Pomeroy, C.A., N.A. Postel, P.A. O'Neill, and L.A. Roesner. 2008. Development of Stormwater Management Design Criteria to Maintain Geomorphic Stability in a Kansas City Metropolitan Area Stream. *Journal of Irrigation and Drainage*. 134: 562-566.
  2. Pomeroy, C.A. and L.A. Roesner. 2007. Tools for the evaluation of stormwater management practices that provide ecological stability in urban streams. In *Cities of the Future: Towards Integrated Sustainable Water and Landscape Management*, (V. Novotny, L. Breckenridge, and P. Brown, Eds.), IWA Publishing, London UK.
  1. Rohrer, C.A. and L.A. Roesner. 2006. Matching the Critical Portion of the Flow Duration Curve to Minimize Changes in Modeled Excess Shear. *Water Science and Technology*. 54:347-354.

#### Conference Papers (Students Underlined)

36. Walsh, M., Pomeroy, C., Eliassen, K. 2014. Stormwater Runoff and the Shale Oil & Gas Industry: A State-by-State Review of Regulations and Surface Water Quality Impacts. *Shale Energy Engineering Conference*, Pittsburgh, PA, July 21-23, 2014.
35. Feng, Y., Burian, S., Pomeroy, C. 2013. ET Influence on Urban Stormwater Runoff Estimation.

- Showcasing the Future. Proceedings of the 2013 World Environmental and Water Resources Congress.* May 19-23, 2013. Cincinnati, OH.
34. Feng, Y. Burian, S., Pomeroy, C. 2012. A review of impact of Evapotranspiration (ET) on urban Runoff. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress.* May 20-24, 2012. Albuquerque, NM.
  33. Leisenring, M., Barrett, M., Poresky, A., Strecker, E., Rowney, A.C., Pomeroy, C.A., and Roesner, L.A. 2012. BMP Performance Algorithms for the BMP Selection/Receiving Water Protection Toolbox. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress.* May 20-24, 2012. Albuquerque, NM.
  32. Reynolds, S., Pomeroy, C.A., Rowney, A.C. and Rowney C.M. 2012. Linking Stormwater BMP Systems Water Quality and Quantity Performance to Whole Life Cycle Cost to Improve BMP Selection and Design. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress.* May 20-24, 2012. Albuquerque, NM.
  31. Walsh, T., Pomeroy, C.A., 2012. Decentralization of LID (e.g. Municipal Rainwater Harvesting Program) for Reducing Stormwater Runoff. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress.* May 20-24, 2012. Albuquerque, NM.
  30. Houdeshel, C.D., Houdeshel M. and Pomeroy, C.A. 2011. Can Green Stormwater Infrastructure coexist in the Western Legal Landscape of Prior Appropriation Law? *Bearing Knowledge for Sustainability. Proceedings of the 2011 World Environmental and Water Resources Congress.* May 22-26, 2011. Palm Springs, CA.
  29. Houdeshel, C.D. and Pomeroy, C.A. 2010. Predicting and Verifying Physiological Performance of Plants in a Bioretention System in an Arid Climate. *Challenges of Change. Proceedings of the 2010 World Environmental and Water Resources Congress.* May 16-20, 2010. Providence, RI.
  28. Timpson, A.J. and Pomeroy, C.A. 2010. Regional Regression Analysis for Small Watersheds in Southwestern Utah. *Challenges of Change. Proceedings of the 2010 World Environmental and Water Resources Congress.* May 16-20, 2010. Providence, RI.
  27. Flower W., Burian S.J., Pomeroy C.A., Pardyjak E.R.. 2010. Surface Temperature and Heat Exchange Differences Between Pervious Concrete and Traditional Concrete and Asphalt Pavements. *Redefining Water in the City. Proceedings of the 2010 International Low Impact Development Conference.* April 11 - 14, 2010. San Francisco, CA.
  26. Houdeshel, C.D. and Pomeroy, C.A. 2010. Plant Selection for Bioretention in the Arid West. *Redefining Water in the City. Proceedings of the 2010 International Low Impact Development Conference.* April 11 - 14, 2010. San Francisco, CA.
  25. Jensen M.A., Steffen J., Burian S.J., Pomeroy C.A. 2010. Do Rainwater Harvesting Objectives of Water Supply and Stormwater Management Conflict? *Redefining Water in the City. Proceedings of the 2010 International Low Impact Development Conference.* April 11 - 14, 2010. San Francisco, CA.
  24. Jeyachandran, I., Burian, S.J., Pardyjak, E., Pomeroy, C.A., Skousen, B. 2010. Impact of Green Infrastructure on Urban Energy Fluxes and Microclimate. *Proceedings, ASCE Environmental & Water Resources Institute (EWRI) 3rd International Perspective on Current & Future State of Water Resources and the Environment*, January 5-7, 2010. Chennai, India.
  23. Burian, S.J., Kalyanapu, A., Judi, D., Houdeshel, C.D. and C.A. Pomeroy. 2009. Virtual Laboratory Web Portal for Water Resources Engineering Education. *American Society for Engineering Education 116th Annual Conference & Exposition.* Austin, TX.
  22. Houdeshel C.D., C.A. Pomeroy, L. Hair and R. Goo. 2009. Cost Estimating Tools for Low-Impact Development Best Management Practices. *Great Rivers. Proceedings of the 2009 World Environmental and Water Resources Congress.* May 17-21, 2009. Kansas City, MO.
  21. Karuppasamy E., N. Postel, C.A. Pomeroy, and T.A. Jacobs. 2009. The Impact of Smaller Detention Basins on Flood Hazard Areas in Lenexa, Kansas. *Great Rivers. Proceedings of the 2009 World Environmental and Water Resources Congress.* May 17-21, 2009. Kansas City, MO.
  20. Postel, N.A., C.A. Pomeroy, and T.A. Jacobs. 2009. Analyzing the Impacts of a Retrofit Detention Basin Flow Control Strategy on Biodiversity in an Urban Stream System. *Great Rivers. Proceedings of the 2009 World Environmental and Water Resources Congress.* May 17-21, 2009. Kansas

- City, MO.
19. Schwartz, J.S., S.L. Niezgoda, L.O. Slate, D.D. Carpenter, W.K. Annable, T.M. Wynn, C.A. Pomeroy, M. McPhillips. 2009. A Monitoring and Assessment Framework to Evaluate Stream Restoration Needs in Urbanizing Watersheds. *Great Rivers. Proceedings of the 2009 World Environmental and Water Resources Congress*. May 17-21, 2009. Kansas City, MO.
  18. Burian, S., M. Dietz, C. Pomeroy, B. Gorges, and W. Flower. 2008. Low Impact Development in Utah: Progress, Constraints, and Future Outlook. Proceedings of the 2008 Low Impact Development Conference. November 16-19, 2008. Seattle, WA.
  17. Baker, D.W., C.A. Pomeroy, W.K. Annable, J.G. MacBroom, J. Schwartz, and J. Gracie. 2008. Evaluating the Effects of Urbanization on Stream Flow and Channel Stability - State of Practice. 2008 *Sustainability from the Mountains to the Sea. Proceedings of the 2008 World Environmental and Water Resources Congress*. May 12–16, 2008. Honolulu, HI.
  16. Garrett, N.A., C.A. Pomeroy and T.A. Jacobs. 2008. Examining the Impact of Detention Basins on Floodplains in Lenexa, Kansas. 2008 *Sustainability from the Mountains to the Sea. Proceedings of the 2008 World Environmental and Water Resources Congress*. May 12–16, 2008. Honolulu, HI.
  15. Medina, D.E. and C.A. Pomeroy. 2008. A Fresh Design Outlook: Update of the WEF/ASCE Manual of Practice “Design of Urban Runoff Controls”. 2008 *Sustainability from the Mountains to the Sea. Proceedings of the 2008 World Environmental and Water Resources Congress*. May 12–16, 2008. Honolulu, HI.
  14. Pomeroy, C.A. and L.A. Roesner. 2007. A North Carolina Piedmont Application of Protocols for Studying Wet Weather Impacts and Urbanization Patterns. *80<sup>th</sup> Annual Water Environment Federation Technical Exhibition and Conference*. October 13-17, 2007. San Diego, CA.
  13. Rohrer, C.A. and L.A. Roesner. 2007. A North Carolina Piedmont Application of Protocols for Studying Wet Weather Impacts and Urbanization. *Restoring our Natural Habitat. Proceedings of the 2007 World Environmental and Water Resources Congress*. May 15–19, 2007. Tampa, FL.
  12. Davis, J.P., C.A. Rohrer, and L.A. Roesner. 2007. Calibration of Rural Watershed Models in the North Carolina Piedmont Ecoregion. *Restoring our Natural Habitat. Proceedings of the 2007 World Environmental and Water Resources Congress*. May 15–19, 2007. Tampa, FL.
  11. Cave, K.A., C.L. Hughes, C.C. Catalfo and C.A. Rohrer. 2006. Measuring the effectiveness of watershed-based general stormwater permitting. *79<sup>th</sup> Annual Water Environment Federation Technical Exhibition and Conference*, Dallas, Texas, 21-26 October 2006.
  10. O’Neill P.A., B. Higgins and C.A. Rohrer. 2006. Applying Integrated Watershed Management Techniques in Stevens Creek. *79<sup>th</sup> Annual Water Environment Federation Technical Exhibition and Conference*, Dallas, Texas, October 21-26.
  9. Rohrer, C.A. and L.A. Roesner. 2006. Protocols for the Evaluating the Effects of Land-use Patterns and Runoff Management on Urban Streams. *79<sup>th</sup> Annual Water Environment Federation Technical Exhibition and Conference*, Dallas, Texas, October 21-26.
  8. Davis, J.P., C.A. Rohrer, and L.A. Roesner. 2006. Effects of Catchment Modification on the Flow Frequency Curve Modeled Using the EPA-SWMM Model. *World Environmental and Water Resources Congress: Examining the Confluence of Environmental and Water Concerns*. Omaha, Nebraska, May 21-25.
  7. Edgerly, J.L., L.A. Roesner, C.A. Rohrer, and J.A. Gironas. 2006. Quantifying Urban-induced Flow Regime Alteration and Evaluating Mitigation Alternatives Using Mathematical Models and Hydrologic Metrics. *World Environmental and Water Resources Congress: Examining the Confluence of Environmental and Water Concerns*. Omaha, Nebraska, May 21-25.
  6. Rohrer, C.A. and C.L. Hughes. 2006. Flow Trend Analysis in the Rouge River Watershed and the Effect of Temporal Resolution on Trend Detection. *World Environmental and Water Resources Congress: Examining the Confluence of Environmental and Water Concerns*. Omaha, Nebraska, May 21-25.
  5. Roesner, L.A., B.P. Bledsoe, and C.A. Rohrer. 2005. Physical Effects of Wet Weather Discharges on Aquatic Habitats – Present Knowledge and Research Needs. *10<sup>th</sup> International Conference on Urban Drainage*, Copenhagen/Denmark, August 21-26.

4. Rohrer, C.A. and L.A. Roesner. 2005. Matching the Critical Portion of the Flow Duration Curve to Minimize Changes in Modeled Excess Shear. *10th International Conference on Urban Drainage*, Copenhagen/Denmark, August 21-26.
3. Rohrer, C.A., N.A. Postel, P.A. O'Neill and L.A. Roesner. 2005. Development of Design Criteria for Regional Stormwater Management Facilities to Maintain Geomorphic Stability in Cedar Creek. *World Water & Environmental Resources Congress: Impacts of Global Climate Change on Water Resources and the Environment*. Anchorage, Alaska, May 15-19.
2. Rohrer, C.A., L.A. Roesner, and B.P. Bledsoe. 2004. The Effect of Stormwater Controls on Sediment Transport in Urban Streams. *World Water & Environmental Resources Congress: Critical Transitions in Water & Environmental Resources Management*. Salt Lake City, Utah, June 27 –July 1.
1. Rohrer, C.A. and R.J. Beckley. 2000. Using GIS Tools To Implement an Illicit Discharge Elimination Program in Livonia, Michigan. Conference Proceedings: *Watershed 2000*. Vancouver, BC.

Project Reports (Students Underlined)

12. Sandoval, K. and Pomeroy C.A. 2013. Endangered Species Act Analysis Model Comparison Study Comparing HI-RUN and SELDM for use in Washington State Department of Transportation Biological Assessments. Prepared for Washington Department of Transportation. WA-RD 820.1.
11. Timpson, A.J. and Pomeroy, C.A. 2010. Methods for Estimating Magnitude and Frequency of Peak Flows for Small Watersheds in Utah. Prepared For: Utah Department of Transportation Research Division, Report No. UT-10.11
10. Pomeroy, C.A., L.A. Roesner, J.C. Coleman and E. Rankin. 2008. Protocols for Evaluating Wet Weather Practices and Urbanization Patterns. Final report to Water Environment Research Foundation. WERF, Alexandria, Virginia.
9. Catalfo, C, V.E. Smith & C. Rohrer. 2004. 1999 Baseline Data Summary for the Rouge River Watershed. Rouge River National Wet Weather Demonstration Project. RPO-WMGT-TM35.00. <http://www.rougeriver.com/pdfs/sampling/tm35.00/tm35.00.pdf>
8. Roesner, L.A., K. Carlson, J. Loftis, C.A. Rohrer and A.R.A. Motlagh. 2002. Issues Associated with Raw Water Supplies Impacted by Urban Runoff, Non-Point Pollution, and/or Wastewater Effluents. Final Report Prepared for Water Quality Control Division Colorado Department of Public Health and Environment. 11/18/2002.
7. Rohrer, C. 2002. Summary of the Subwatershed Management Plans for the Rouge River Watershed. Rouge River National Wet Weather Demonstration Project. RPO-NPS-TR47. <http://www.rougeriver.com/pdfs/stormwater/RPO-NPS-TR47.pdf>
6. Johnson, B. and C. Rohrer. 1998. Management Study for the Middle 3 Subwatershed. Rouge River National Wet Weather Demonstration Project. NPS-TPM50.00. <http://www.rougeriver.com/pdfs/stormwater/tpm50.pdf>
5. Rohrer, C. 1998. User's Manual: Watershed Management Model Version 4.1. Rouge River National Wet Weather Demonstration Project. RPO-NPS-TM27.02. <http://www.rougeriver.com/proddata/wmmmanul.pdf>
4. Cave, C., M. VanAllen, C. Rohrer, & J. Bails. 1997. Management Study for the Bell Branch and Tarabusi Creek Subwatershed. Rouge River National Wet Weather Demonstration Project. NPS-TPM55.00. <http://www.rougeriver.com/pdfs/stormwater/tpm55.pdf>
3. Cave, C., R. Alsaigh, C. Pomeroy, and D. Denison. 1996. Pilot Best Management Practice Projects. Rouge River National Wet Weather Demonstration Project. NPS01A-TR02.01. <http://www.rougeriver.com/pdfs/nonpoint/RPO-NPS01A-TR02-01/NPS01A-TRO2-01-chapter1.pdf>
2. Cave, K., K. Reaume, J. Aldrich, and C. Pomeroy. 1996. Pilot Source Control Assessment and Prioritization. Rouge River National Wet Weather Demonstration Project. NPS-TR08.00. <http://www.rougeriver.com/pdfs/nonpoint/RPO-NPS-TR08/RPO-NPS-TR08-chap1-2.pdf>

1. Pomeroy, C., K. Cave and D. Tuomari. 1996. Summary of Illicit Connection Detection Programs in Michigan. Rouge River National Wet Weather Demonstration Project. NPS01A-TM01.00. <http://www.rouge-river.com/pdfs/illicit/T001.pdf>

Presentations, Invited Talks and Workshops (Presenter in Bold, Students Underlined)

65. **Lee, S.**, Pomeroy, C.A., Burian, S.J. 2020. Introducing a Hybrid-System Dynamics Model for Sustainability based Financial Planning of Water Distribution System. *World Environmental and Water Resources Congress*. Henderson, NV, May 17-21, 2020. (oral presentation)
64. **Pomeroy, C.** 2020. Community-enabled Lifecycle Analysis of Stormwater Infrastructure Costs (CLASIC). *World Environmental and Water Resources Congress*. Henderson, NV, May 17-21, 2020. (oral presentation)
63. **Zhang, H., Dell, T., Pomeroy, C., Eagan, J.** 2019. Community-enabled Lifecycle Analysis of Stormwater Infrastructure Costs (CLASIC). *WEFTEC 2019*. Chicago, IL, September 22-25, 2019. (oral presentation)
62. **Pomeroy, C.** 2019. Community-enabled Lifecycle Analysis of Stormwater Infrastructure Costs (CLASIC). *Enabling Future Generations to Solve our Planet's Grand Challenges, The 19<sup>th</sup> Annual Meeting of the American Ecological Engineering Society*. Asheville, North Carolina, June 3-6, 2019. (oral presentation)
61. **Zhang, H., Dell, T., Pomeroy, C., Eagan, J.** 2019. Community-enabled Lifecycle Analysis of Stormwater Infrastructure Costs (CLASIC). *WEF Stormwater and Green Infrastructure Symposium 2019: Integrated Stormwater Management*. Fort Lauderdale, FL, May 8-10, 2019. (oral presentation)
60. **Zhang, H., Dell, T., Sharvelle, S., Pomeroy, C., Pugh, M.** 2019. Community-enabled Lifecycle Analysis of Stormwater Infrastructure Costs (CLASIC). Water Environment Research Foundation Webcast Series. 03/07/2019. (oral presentation)
59. **Pomeroy, C.** 2018. Cost Equations and Collection of Life Cycle Cost Data. Part of Workshop: WEF/WRF – Advancing Green Infrastructure through Life Cycle Cost and Co-Benefit Analysis. *WEFTEC 2018*. Sept. 29 - Oct. 3, 2018. New Orleans, LA. (oral presentation)
58. **Bukhary, S.**, Weidhass, J., Ansari, K., Mahar, R.B., Pomeroy, C., VanDerslice, J., Ahmad, S., Burian, S. 2017. Using Distributed Solar for treatment of Drinking Water in Developing Countries. *Creative Solutions for a Changing Environment. Proceedings of the 2017 World Environmental and Water Resources Congress*. May 21-25, 2017. Sacramento, CA. (poster)
57. **Edwards, T.** and Pomeroy, C. 2017. Variability of N<sub>2</sub>O Fluxes in Bioretention Systems. *Creative Solutions for a Changing Environment. Proceedings of the 2017 World Environmental and Water Resources Congress*. May 21-25, 2017. Sacramento, CA. (poster)
56. **Nishu, N.**, Pomeroy, C., and Burian, S. 2017. Comparison of Centralized and Distributed Water Supply Infrastructure for Small Communities. *Creative Solutions for a Changing Environment. Proceedings of the 2017 World Environmental and Water Resources Congress*. May 21-25, 2017. Sacramento, CA. (poster)
55. **Sapkota, P.** and Pomeroy, C. 2017. Variation of microbial biomass and phospholipid acid in bioretention systems with different treatments. *Creative Solutions for a Changing Environment. Proceedings of the 2017 World Environmental and Water Resources Congress*. May 21-25, 2017. Sacramento, CA. (oral presentation)
54. **Calderon, J., Sapkota, P.** and Pomeroy, C. 2016. Impact of mineralization on nitrogen removal from bioretention systems in a semi-arid climate. *Critical Infrastructure Needs: Water and the Environment. Proceedings of the 2016 World Environmental and Water Resources Congress*. May 22 -26, 2016. West Palm Beach, FL. (poster)
53. **Griggs, R.** and Pomeroy, C. 2016. Red Butte Creek and Urban Runoff: A Stormwater Case Study. *Critical Infrastructure Needs: Water and the Environment. Proceedings of the 2016 World Environmental and Water Resources Congress*. May 22 -26, 2016. West Palm Beach, FL. (poster)
52. **Patterson, L.** and Pomeroy, C. 2016. Vegetative Nutrient Uptake in Bioretention Systems Designed for a Semi-arid Climate. *Critical Infrastructure Needs: Water and the Environment. Proceedings*



- of the 2016 World Environmental and Water Resources Congress. May 22 -26, 2016. West Palm Beach, FL. (poster)
51. **Pomeroy, C.** and **Sapkota, P.** 2016. Greenhouse gas fluxes in experimental bioretention systems in Utah. *Critical Infrastructure Needs: Water and the Environment. Proceedings of the 2016 World Environmental and Water Resources Congress.* May 22 -26, 2016. West Palm Beach, FL. (oral presentation)
  50. **Sapkota, P.** and Pomeroy, C. 2016. Abundance of Nitrifying and Denitrifying Bacteria in Bioretention Systems of Semi-arid Climate. *Critical Infrastructure Needs: Water and the Environment. Proceedings of the 2016 World Environmental and Water Resources Congress.* May 22 -26, 2016. West Palm Beach, FL. (oral presentation)
  49. **Sapkota, P.** and Pomeroy, C. 2015. Nitrogen uptake in plants - an important pathway in nitrogen removal in bioretention in semi-arid climate. *Floods, Droughts and Ecosystems. Proceedings of the 2015 World Environmental and Water Resources Congress.* May 17 -21, 2015. Austin, TX. (oral presentation)
  48. **Feng, Y.**, Burian, S.J., Pardyjak, E.R., and Pomeroy, C.A. 2015. Impacts of green infrastructure on the water budget and other ecosystem services in semi-arid urban areas. *Floods, Droughts and Ecosystems. Proceedings of the 2015 World Environmental and Water Resources Congress.* May 17 -21, 2015. Austin, TX. (oral presentation)
  47. **Burian, S.B.**, Pomeroy, C., Houdeshel, D., Walsh, T., Reynolds, S., Orr, A., Tavakol-Davani, H., Feng, Y., Sandoval, K. 2013. Experimental and Computer Modeling Studies of Green Infrastructure Performance in a Semi-Arid Climate. *2013 Low Impact Development Symposium.* August 18-21, 2013. St. Paul, MN. (oral presentation)
  46. **Feng, Y.**, Burian, S., Pomeroy, C. 2014. Water Demand and Stormwater Management Tradeoffs of Green Infrastructure Use in Semi-arid Cities. *Water Without Borders. Proceedings of the 2014 World Environmental and Water Resources Congress.* June 1-5, 2014. Portland, OR.
  45. **Feng, Y.**, Burian, S., Pomeroy, C. 2014. Green Roof Water Budget Measurements Using Weighing Lysimeters in Salt Lake City, Utah. *Water Without Borders. Proceedings of the 2014 World Environmental and Water Resources Congress.* June 1-5, 2014. Portland, OR.
  44. **Magdol, Z.**, Pomeroy, C. 2014. Assessing the Environmental Impacts of a Botanical Garden on an Urban Stream. *Water Without Borders. Proceedings of the 2014 World Environmental and Water Resources Congress.* June 1-5, 2014. Portland, OR.
  43. **Reynolds, S.**, Pomeroy, C. 2014. A Comparison of Two Approaches to Up-scale Green Infrastructure within an Urban Watershed Planning Model. *Water Without Borders. Proceedings of the 2014 World Environmental and Water Resources Congress.* June 1-5, 2014. Portland, OR.
  42. **Sapkota, P.**, Pomeroy, C. 2014. Role of Microorganisms in Nitrogen Removal in Bioretention in Semi-arid Salt Lake City. *Water Without Borders. Proceedings of the 2014 World Environmental and Water Resources Congress.* June 1-5, 2014. Portland, OR.
  41. **Walsh, M.**, Pomeroy, C. 2014. Stormwater Runoff and the Shale Oil & Gas Industry: Stormwater Regulations and Surface Water Quality Impacts. *Water Without Borders. Proceedings of the 2014 World Environmental and Water Resources Congress.* June 1-5, 2014. Portland, OR.
  40. **Burian, S.J.**, Strong, C., Pomeroy, C., Kochanski, A., Goharian, E. 2013. Climate Data Access and Urban Water System Modeling. *CI-Water Symposium and 2<sup>nd</sup> Annual Conference.* May 29-30, 2013. Salt Lake City, UT. (oral presentation)
  39. **Neupauer, R.M.**, Chan Hilton, A.B., Burian, S., Lauer, J.W., Mathisen, P., Mays, D.C., Nicklow, J.W., Olsen, M.S., Pomeroy, C., Ruddell, B., and Sciortino, A. 2013. H2Oh!: Collection of Classroom Demonstrations and Activities for Improving Student Learning of Water Concepts. *Geological Society of America's 125<sup>th</sup> Anniversary Annual Meeting & Exposition.* October 27-30, 2013. Denver, CO. (oral presentation)
  38. **Heiberger, J.**, Pomeroy, C. 2013. Infiltration and Potential Groundwater Recharge Performance of Stormwater Bioretention Designed for Semiarid Climates. *Showcasing the Future. Proceedings of the 2013 World Environmental and Water Resources Congress.* May 19-23, 2013. Cincinnati, OH.

37. **Houdeshel, D.**, Pomeroy, C. 2013. Nitrogen Removal in Three Bioretention Systems over One Year in a Semi-arid Climate. *Showcasing the Future. Proceedings of the 2013 World Environmental and Water Resources Congress*. May 19-23, 2013. Cincinnati, OH.
36. **Houdeshel, D.**, Pomeroy, C., Hultine, K. 2013. <sup>15</sup>N Tracer Techniques Used to Verify Plant's Roles in Bioretention Treatment of Stormwater Nitrogen. *Showcasing the Future. Proceedings of the 2013 World Environmental and Water Resources Congress*. May 19-23, 2013. Cincinnati, OH.
35. **Orr, A., Houdeshel, D.**, Pomeroy, C. 2013. Plant Performance Considerations for Semi-arid Bioretention and Bioinfiltration System Design. *Showcasing the Future. Proceedings of the 2013 World Environmental and Water Resources Congress*. May 19-23, 2013. Cincinnati, OH.
34. **Sandoval, K.**, Pomeroy, C. 2013. Green Infrastructure Design for Red Butte Creek at the University of Utah. *Showcasing the Future. Proceedings of the 2013 World Environmental and Water Resources Congress*. May 19-23, 2013. Cincinnati, OH.
33. **Steffen, J.**, Pomeroy, C. 2013. Semi-arid Bioretention Performance Modeling. *Showcasing the Future. Proceedings of the 2013 World Environmental and Water Resources Congress*. May 19-23, 2013. Cincinnati, OH.
32. **Walsh, T.**, Pomeroy, C. 2013. Investigation of a Novel Approach to Projecting Decentralized Stormwater Management Networks via Fractals. *Showcasing the Future. Proceedings of the 2013 World Environmental and Water Resources Congress*. May 19-23, 2013. Cincinnati, OH.
31. **Walsh, T., Reynolds, S.**, Pomeroy, C. 2013. A Sensitivity Analysis of the Storm Water Management Model (SWMM) Low Impact Development (LID) Rain Water Harvesting (RWH) Function. *Showcasing the Future. Proceedings of the 2013 World Environmental and Water Resources Congress*. May 19-23, 2013. Cincinnati, OH.
30. **Burian, S.J.**, Strong, C., Pomeroy, C. 2012. Cyberinfrastructure to Advance Linked Climate and Urban Water Management Research. *CI-Water Symposium*. September 6, 2012. Salt Lake City, UT. (oral presentation)
29. **Feng, Y.**, Burian, S.J., Pomeroy, C.A. 2012. A Review of Impact of Evapotranspiration (ET) on Urban Runoff. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress*. May 20-24, 2012. Albuquerque, NM. (poster)
28. **Heiberger, J.R.**, and Pomeroy, C.A. 2012. Whole Life Cost of Urban Stormwater Bioretention Designed for Semiarid Climates. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress*. May 20-24, 2012. Albuquerque, NM.
27. **Houdeshel, C.D., Orr, O.M.**, and Pomeroy, C.A. 2012. Nitrogen removal of three established bioretention plant communities under dormancy. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress*. May 20-24, 2012. Albuquerque, NM.
26. **Neupauer, R.M.**, Chan Hilton, A.B., Burian, S., Lauer, J.W., Mathisen, P., Mays, D.C., Nicklow, J.W., Olsen, M.S., Pomeroy, C., Ruddell, B., and Sciortino, A. 2012. H2O!: Collection of Classroom Demonstrations and Activities for Improving Student Learning of Water Concepts. *AGU Fall Meeting*. December 3-7, 2012. San Francisco, CA. (poster)
25. **Neupauer, R.M.**, Burian, S., Lauer, J.W., Mathisen, P., Mays, D.C., Pomeroy, C., Ruddell, B., Sciortino, A., Chan Hilton, A. 2012. H2O!: Collection of Classroom Demonstrations and Activities for Improving Student Learning of Water Concepts. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress*. May 20-24, 2012. Albuquerque, NM. (poster)
24. **Orr, O.M., Houdeshel, C.D.**, Pomeroy, C.A. 2012. Evapotranspiration in semi-arid bioretention systems system during months of plant dormancy. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress*. May 20-24, 2012. Albuquerque, NM.
23. **Steffen, J.R.** and Pomeroy, C.A. 2012. Bioretention Infiltration and Evapotranspiration Performance. *Crossing Boundaries. Proceedings of the 2012 World Environmental and Water Resources Congress*. May 20-24, 2012. Albuquerque, NM.
22. **Pomeroy, C.A.** 2012. *Bioretention in Arid Climates*. Transportation Research Board 91st Annual Meeting. 01/24/2012. (invited speaker)

21. **Pomeroy, C.A.** and L.A. Roesner. 2011. *Linking BMP Systems Performance to Receiving Water Protection to Improve BMP Selection and Design*. California Stormwater Quality Association Annual Conference. 09/28/2011. (invited speaker)
20. **Pomeroy, C.A.** 2011. *Is Stormwater Bioretention Catching your Attention?* Utah League of Cities and Towns Annual Conference. 09/16/2011. (invited speaker)
19. **Pomeroy, C.A.** 2011. *Managing Water in Cities: Past, Present, and Future*. Watershed Management Seminar Series. Utah State University. 09/14/2011. (invited speaker)
18. **Burian, S.J.**, Bowers, J., Flower, W., Pomeroy, C.A., Rutherford, W. 2010. Permeable Pavement: Concepts, Applications, and Benefits for Tree Health. 2010 Southern Utah Green Industry Conference, November 4, 2010. St. George, UT. (invited speaker)
17. Flower, W., Burian, S.J., **Pomeroy, C.A.**, Pardyjak, E.R. 2010. Surface Temperature and Heat Exchange Differences Between Pervious Concrete and Traditional Concrete and Asphalt Pavements. International Low Impact Development Conference. April 11-14, 2010. San Francisco, CA. (oral presentation)
16. Jensen, M.A., Steffen, J., **Burian, S.J.**, Pomeroy, C.A. 2010. Do Rainwater Harvesting Objectives of Water Supply and Stormwater Management Conflict? International Low Impact Development Conference. April 11-14, 2010. San Francisco, CA. (oral presentation)
15. **Pomeroy, C.A.**, and A.C. Rowney. 2009. Determining the Costs and Effectiveness of Stormwater BMPs. Water Environment Research Foundation Webcast Series. 06/03/2009. (oral presentation)
14. **Pomeroy, C.A.**, L. Hair and C.D. Houdeshel. 2009. *Costs and WERF Cost Tool*. Managing Wet Weather with Green Infrastructure Webcast Series. United States Environmental Protection Agency. 05/12/2009. (oral presentation)
13. **Pomeroy, C.A.**, **S.J. Burian**, **L. Kirschner**. 2008. Emerging Trends in Stormwater Management in Utah, Course Organized by Lorman Education Services. January 30, 2008.
12. **Burian, S.J.**, Dietz, M., Pomeroy, C., Houdeshel, D. 2008. Low Impact Development in Utah: Progress, Constraints, and Future Outlook. 2008 *Low Impact Development Conference*. November 16-19, 2008. Seattle, WA. (oral presentation)
11. **Pomeroy, C.A.**, S.J. Burian and L. Kirschner. 2008. *Emerging Trends in Stormwater Management in Utah*, Course Organized by Lorman Education Services. January 30, 2008.
10. Jensen, M.A., S.J. Burian, and **Pomeroy, C.A.** 2008. Feasibility of rainwater harvesting in Salt Lake City, Utah. *Sustainability 2008*, Water Environment Federation, 22-26 June, 2008, National Harbor, MD. (oral presentation)
9. **Pomeroy, C.A.** 2007. Linking Stormwater BMP Systems Performance to Receiving Water Protection to Improve BMP Selection and Design. *2007 California Stormwater Quality Association Conference*. September 10-12, 2007, Costa Mesa, CA. (invited speaker)
8. **Rohrer, C.A.** and N.A. Postel. 2007. Kansas City Hydrologic Control Evaluation. Kansas Water Environment Association 62<sup>nd</sup> Annual Conference. Topeka, KS, April 2-5. (oral presentation)
7. **Rohrer, C.A.** and L.A. Roesner. 2006. Protocols for evaluating the effects of land-use patterns and runoff management on urban streams. AWRA Annual Water Resources Conference. Baltimore, MD, Nov 6-9. (oral presentation)
6. **Rohrer, C.A.** 2006. Tools for evaluating geomorphic impacts of urbanization. WEFTEC Workshop - WERF: Tools for Understanding Urban Waterways (Attaining Sustainable Stream Systems). Dallas, Texas, Oct 22. (oral presentation)
5. **Rohrer, C.A.** 2006. Protocols for evaluating wet weather management practices and urbanization patterns: North Carolina Application. WEFTEC Workshop - WERF: Tools for Understanding Urban Waterways (Attaining Sustainable Stream Systems). Dallas, Texas, Oct 22. (oral presentation)
4. **Rohrer, C.A.** and L.A. Roesner. 2006. Protocols for evaluating the effects of land-use patterns and runoff management on urban streams. 2006 National Water Quality Monitoring Conference. San Jose, CA, May 7-11. (oral presentation)
3. **Rohrer, C.A.** 2006. Linking land use changes and stream water quality – a Water Environment

- Research Foundation Study. Oregon Association of Clean Water Agencies Stormwater Summit. Eugene, Oregon, April 12. (invited speaker)
2. **Rohrer, C.A.** and J.E. Aichler. 2002. Using GIS to Support Water Distribution Modeling – Two Case Studies. Kentucky/Tennessee AWWA Meeting. Chattanooga, Tennessee. September 19. (oral presentation)
  1. **Rohrer, C.A.** 2000. Water System Modeling for the City of Livonia. Michigan AWWA Regional Meeting. Livonia, Michigan. October 12. (oral presentation)

#### THESIS AND DISSERTATION

Pomeroy, C.A. 2007. "Evaluating the impacts of urbanization and stormwater management practices on stream response" Ph.D. Dissertation, Department of Civil Engineering, Colorado State University, Fort Collins, CO.

Rohrer, C.A. 2004. "Modeling the effect of stormwater controls on sediment transport in an urban stream." Thesis, Department of Civil Engineering, Colorado State University, Fort Collins, CO, September.