

Alena Bartosova, Ph.D.  
List of Publications and Presentations

**PEER REVIEW JOURNAL PUBLICATIONS**

1. Brendel, C. E., Capell, R., **Bartosova**, A., 2023. To tame a land: Limiting factors in model performance for the multi-objective calibration of a pan-European, semi-distributed hydrological model for discharge and sediments. *Journal of Hydrology: Regional Studies*, 50(2023) 101544. <https://doi.org/10.1016/j.ejrh.2023.101544>
2. Bui, T., S. Kantoush, A. Kawamura, T. Du, Bui Thi Nuong, R. Capell, ..., A. **Bartosova**, et al. 2023. Reservoir Operation Impacts on Streamflow and Sediment Dynamics in the Transboundary River Basin, Vietnam. *Hydrological Processes* 37 (September). <https://doi.org/10.1002/hyp.14994>.
3. Matta, E., M. Bresciani, G. Tellina, K. Schenk, P. Bauer, F. Trentini, N. Rüter, and A. **Bartosova**. 2023. "Data Integration for Investigating Drivers of Water Quality Variability in the Banja Reservoir Watershed." *Water* 15 (February): 607. <https://doi.org/10.3390/w15030607>.
4. de Lavenne, A., Lindström, G., Strömqvist, J., Pers, C., **Bartosova**, A., Arheimer, B., 2022. Evaluation of overland flow modelling hypotheses with a multi-objective calibration using discharge and sediment data. *Hydrological Processes* 36, e14767. <https://doi.org/10.1002/hyp.14767>
5. Heal, K., **Bartosova**, A., Hipsey, M. R., Chen, X., Buytaert, W., Li, H. Y., McGrane, S. J., Gupta, A. B., & Cudennec, C. (2022). Ensuring consideration of water quality in nexus approaches in the science–practice continuum. *Hydrological Sciences Journal*, 67(8), 1291-1293. <https://doi.org/10.1080/02626667.2022.2077652>
6. Kuliński, K., Rehder, G., Asmala, E., **Bartosova**, A., Carstensen, J., Gustafsson, B., Hall, P. O. J., Humborg, C., Jilbert, T., Jürgens, K., Meier, H. E. M., Müller-Karulis, B., Naumann, M., Olesen, J. E., Savchuk, O., Schramm, A., Slomp, C. P., Sofiev, M., Sobek, A., Szymczycha, B., and Undeman, E., 2022. Biogeochemical functioning of the Baltic Sea, *Earth Syst. Dynam.*, 13, 633–685, <https://doi.org/10.5194/esd-13-633-2022>, 2022
7. Meier, M., Kniebusch, M., Dieterich, C., Gröger, M., Zorita, E., Elmgren, R., Myrberg, K., Ahola, M., **Bartosova**, A.,... et al., 2022. Climate change in the Baltic Sea region: a summary. *Earth System Dynamics* 13, 457–593. <https://doi.org/10.5194/esd-13-457-2022>
8. **Bartosova** A, B Arheimer, A de Lavenne, R Capell, J Strömqvist, 2021. Large-scale hydrological and sediment modeling in nested domains under current and changing climate. *Journal of Hydrologic Engineering* 26(5). DOI: 10.1061/(ASCE)HE.1943-5584.0002078
9. Capell, R., **Bartosova**, A., Tonderski, K., Arheimer, B., Pedersen, S.M., Zilans, A., 2021. From local measures to regional impacts: Modelling changes in nutrient loads to the Baltic Sea. *Journal of Hydrology: Regional Studies* 36, 100867. <https://doi.org/10.1016/j.ejrh.2021.100867>
10. Carolus, J.F., **Bartosova**, A., Olsen, S.B., Jomaa, S., Veinbergs, A., Zilans, A., Pedersen, S.M., Schwarz, G., Rode, M., Tonderski, K., 2020. Nutrient mitigation under the impact of climate and land-use changes: A hydro-economic approach to participatory catchment management. *J. Environ. Manage.* 271, 110976. <https://doi.org/10.1016/j.jenvman.2020.110976>
11. Heal, K. V., **Bartosova**, A., Hipsey, M. R., Chen, X., Buytaert, W., Li, H-Y., McGrane, S., Gupta, A. B., & Cudennec, C., 2020. Water quality: the missing dimension of water in the water–energy–food nexus. *Hydrological Processes*. <https://doi.org/10.1080/02626667.2020.1859114>
12. Pihlainen, S., Zandersen, M., Hyytiäinen, K., Andersen, H. E., **Bartosova**, A., Gustafsson, B., Jabloun, M., McCrackin, M., Meier, H. E. M., Olesen, J. E., Saraiva, S., Swaney, D., & Thodsen, H. (2020). Impacts of changing society and climate on nutrient loading to the Baltic Sea. *Science of the Total Environment*, 731, [138935]. <https://doi.org/10.1016/j.scitotenv.2020.138935>
13. **Bartosova** A, Capell R, Olesen JE, Jabloun M, Refsgaard JC, Donnelly C, Hyytiäinen K, Pihlainen S, Zandersen M, and Arheimer B., 2019. Future socioeconomic conditions may have larger impact on

nutrient loads to the Baltic Sea than climate change. *Ambio* 48: 1325; <https://doi.org/10.1007/s13280-019-01243-5>

14. Refsgaard JC, **Bartosova** A, Chubarenko B, Hashemi F, Højberg AL, Jakobsen R, De Jonge H, Hansen AL, Hinsby K, Olesen JE, Stelljes N, Wachniew P, Wörman A., 2019. Spatially differentiated regulation measures to reduce nitrate load from agricultural areas to the Baltic Sea. *Ambio* 48: 1278. <https://doi.org/10.1007/s13280-019-01195-w>
15. Olesen JE, Børgesen CD, Hashemi F, Jabloun M, Bar-Michalczyk D, Wachniew P, Zurek AJ, **Bartosova** A, Bosshard T, Hansen AL, Refsgaard JC, 2019. Nitrate leaching losses from two Baltic Sea catchments under scenarios of changes in land use, land management and climate. *Ambio* 48: 1252. <https://doi.org/10.1007/s13280-019-01254-2>
16. Neset T-S, J Wilk, C Navarra, R Capell, A **Bartosova**, 2019. Visualization supported dialogues in the Baltic Sea Region. *Ambio* 48: 1314 <https://doi.org/10.1007/s13280-019-01250-6>
17. Blöschl G, Bierkens MFP, Chambel A., Cudennec C, Destouni G, ... **Bartosova** A, ... et al., 2019. Twenty-three unsolved problems in hydrology (UPH) – a community perspective. *Hydrological Sciences Journal* 64 (10): , 1141-1158, <https://doi.org/10.1080/02626667.2019.1620507>
18. Verma S, **A Bartosova**, M Markus, R Cooke, MJ Um and D Park. Quantifying the Role of Large Floods in Riverine Nutrient Loadings Using Linear Regression and Analysis of Covariance. *Sustainability* 2018, 10(8), 2876; <https://doi.org/10.3390/su10082876>
19. Verma S., M. Markus, **A. Bartosova**, and R.A. Cooke, 2018. Intra-Annual Variability of Riverine Nutrient and Sediment Loadings Using Weighted Circular Statistics. *Journal of Environmental Engineering*, Volume 144 Issue 3 - March 2018; [https://doi.org/10.1061/\(ASCE\)EE.1943-7870.0001327](https://doi.org/10.1061/(ASCE)EE.1943-7870.0001327)
20. Novotny, V., A. **Bartosova**, N. O'Reilly, and T. Ehlinger, 2005. Unlocking the Relationship of Biotic Integrity of Impaired Waters to Anthropogenic Stresses. *Water Research* 39, pp. 184–198 <https://doi.org/10.1016/j.watres.2004.09.002>
21. Clark, D.E., V. Novotny, R. Griffin, D. Booth, A. **Bartosova**, M.C. Daun, and M. Hutchinson, 2002. Willingness to pay for flood and ecological risk reduction in an urban watershed. *Water Science & Technology* 45 (9), pp. 235-242 <https://doi.org/10.2166/wst.2002.0247>
22. **Bartosova**, A. and V. Novotny, 1999. Model of Spring Runoff Quantity and Quality for Urban Watersheds. *Water Science and Technology* 39 (12): 249-256 [https://doi.org/10.1016/S0273-1223\(99\)00341-8](https://doi.org/10.1016/S0273-1223(99)00341-8)

## PEER REVIEWED SCIENTIFIC REPORTS

ISWS Contract Reports can be accessed from <https://www.ideals.illinois.edu/>

1. Markus, M., **A. Bartosova**, and S. Verma, 2016. Detection and Predictability of Spatial and Temporal Patterns and Trends of Riverine Nutrient Loads in the Midwest. Illinois State Water Survey, Contract Report CR2016-03, Champaign, IL.
2. **Bartosova**, A., 2013. *Fox River Watershed Investigation: Stratton Dam to the Illinois River, Phase III, Evaluation of Watershed Management Scenarios*. Illinois State Water Survey, Contract Report CR2013-07, Champaign, IL.
3. **Bartosova**, A., M. Rahim, and S. McConkey, 2011. *Fox River Watershed Investigation: Stratton Dam to the Illinois River, Phase II, Hydrologic Simulation Model*. Illinois State Water Survey, Contract Report CR2011-06, Champaign, IL.

4. **Bartosova, A.**, W. Gillespie, J. Hecht, and M. Ondrejcek, 2010. *Modeling Effects of FMWRD Discharges During Storm Events on Fox River Water Quality*. Illinois State Water Survey, Contract Report CR 2010-05, Champaign, IL.
5. **Bartosova, A.**, 2008. *Fox River Watershed Investigation: Stratton Dam to the Illinois River, Phase II, Analyses of Biological Data*. Illinois State Water Survey, Contract Report CR 2008-09, Champaign, IL.
6. **Bartosova, A.**, 2008. *Development of a Hierarchical Risk Based Model for Studying Ecological Response of Streams to Anthropogenic Watershed Stresses and Stream Modifications*. Technical Report No.9. Illinois State Water Survey, Contract Report CR 2008-10, Champaign, IL.
7. Singh, J., **A. Bartosova**, M. Rahim, and S. McConkey. 2007. *Fox River Watershed Investigation: Stratton Dam to the Illinois River, Phase II, Hydrologic and Water Quality Simulation Models PART 1: Methodology and Procedures for Development of HSPF Models*. Illinois State Water Survey, Contract Report 2007-02, Champaign, IL.
8. **Bartosova, A.**, J. Singh, M. Rahim, and S. McConkey. 2007. *Fox River Watershed Investigation: Stratton Dam to the Illinois River, Phase II, Hydrologic and Water Quality Simulation Models PART 2: Blackberry and Poplar Creek HSPF Models, Calibration and Initial Simulation Results*. Illinois State Water Survey, Contract Report 2007-04, Champaign, IL.
9. **Bartosova, A.**, J. Singh, M. Rahim, and S. McConkey. 2007. *Fox River Watershed Investigation: Stratton Dam to the Illinois River, Phase II, Hydrologic and Water Quality Simulation Models PART 3: Validation of Hydrological Simulation Models, Brewster Creek, Ferson Creek, Flint Creek, Mill Creek, and Tyler Creek Watersheds*. Illinois State Water Survey, Contract Report 2007-07, Champaign, IL.
10. **Bartosova, A.**, S. McConkey, M. Rahim, and J. Singh. 2007. *Fox River Watershed Investigation: Stratton Dam to the Illinois River, Phase II, Blackberry Creek and Poplar Creek Hydrologic and Water Quality Simulation Methods: Executive Summary*. Illinois State Water Survey, Contract Report 2007-05, Champaign, IL.

## OTHER SCIENTIFIC REPORTS

1. **Bartosova A**, Strömquist J, de Lavenne A, Musuuza J, and Arheimer B, 2019. *Source To Sea: Evaluating the Impact of Climate Change. Case Study Of Umngeni River, South Africa*. SMHI, Norrköping, Sweden
2. **Bartosova A.**, R. Capell, J. E. Olesen, M. Jabloun, C. Donnelly, G. Strandberg, J. Strömquist, I. Morén, and J. Tengdelius-Brunell, 2018. *Projected Impacts of Climate, Anthropogenic Changes, and Remedial Measures on Nutrient Loads to the Baltic Sea*. BONUS Soils2Sea Deliverable 5.4. Swedish Meteorological and Hydrological Institute, Norrköping, March 2018, [www.Soils2Sea.eu](http://www.Soils2Sea.eu)
3. **Bartosova A.** and R. Capell, 2018. *Baltic Sea Basin under change – impact of climate change on nutrient concentrations, nutrient loads, and river discharges*. BONUS MIRACLE Deliverable 2.5. Swedish Meteorological and Hydrological Institute, Norrköping, 2018, [www.bonus-miracle.eu](http://www.bonus-miracle.eu)
4. **Bartosova A.**, J. Strömquist, and L. Simmonson, 2018. *Water quality changes in the Baltic Sea basin within the HYPE modelling framework*. BONUS Soils2Sea Deliverable 5.3. Swedish Meteorological and Hydrological Institute, Norrköping, March 2018, [www.Soils2Sea.eu](http://www.Soils2Sea.eu)
5. **Bartosova A**, Strömquist J, and Arheimer B, 2017. *Source To Sea: Evaluating the Impact of Scenarios. Case Study Of Umngeni River, South Africa*. SMHI, Norrköping, Sweden
6. **Bartosova A**, Donnelly C, Strömquist J., Capell R., Tengdelius-Brunell J., 2017. *HYPE model for the Baltic Sea Basin*. BONUS Soils2Sea Deliverable 5.1. Swedish Meteorological and Hydrological Institute, Norrköping, May 2017, [www.Soils2Sea.eu](http://www.Soils2Sea.eu)
7. **Bartosova A**, Strömquist J, and Arheimer B, 2016. *Source To Sea: Tracing Causes Of Water Quality Problems And Evaluating Potential Mitigation Options. Case Study Of Umngeni River, South Africa*. SMHI, Norrköping, Sweden

8. **Bartosova, A.**, A. Russell, E. Jenkins, M Machesky, and J. Slowikowski, 2015. *Impact of NPDES Discharges on Total Phosphorus Concentration in Upper Des Plaines River*, Contract Report, Illinois State Water Survey, Champaign, IL.
9. **Bartosova, A.**, E. Jenkins, A. Fleming, M. Machesky, and J. Slowikowski, 2013. *Impact of June 2009 Ethanol Spill on Dissolved Oxygen in the Rock River*. Draft Final Report Submitted to Illinois Department of Natural Resources. Final report will be made public after the litigation is final. Illinois State Water Survey, Champaign, IL.
10. **Bartosova, A.**, and M. Markus, 2013. *Predictability of Nutrient Loads Delivered to Lake Michigan Based on Large Storm Events*. Final Report Submitted to the U.S. EPA and Illinois Indiana Sea Grant. Illinois State Water Survey, Champaign, IL.
11. Russell, A.M., **A. Bartosova**, and J. Slowikowski, 2013. *Canton Lake TMDL Development. Stage 1 Report*. Submitted to the Illinois Environmental Protection Agency (<http://www.epa.state.il.us/water/tmdl/report/canton-lake/final-stage-1.pdf>)
12. Russell, A.M., **A. Bartosova**, and J. Slowikowski, 2013. *Sugar Creek and Vermont City Reservoir TMDL Development. Stage 1 Report*. Submitted to the Illinois Environmental Protection Agency (<http://www.epa.state.il.us/water/tmdl/report/vermont-sugar-creek/final-stage-1.pdf>)
13. Novotny, V., E. Manolagos, T. Ehlinger, A. Bartosova, N. O'Reilly, D. Badoya, K. McGarvey, J. Brooks, D. Beach, J. Farah, R. Shaker, 2007. *Developing Risk Propagation Model for Estimating Ecological Responses of Streams to Anthropogenic Watershed Stresses and Stream Modifications*. Final Report to USEPA NCER. Boston, MA. (<https://repository.library.northeastern.edu/files/neu:329767/fulltext.pdf>)
14. **Bartosova, A.**, J. Singh, J. Slowikowski, M. Machesky, and S. McConkey, 2005. *Overview of Recommended Phase III Water Quality Monitoring: Fox River Watershed Investigation*. Illinois State Water Survey, Contract Report CR 2005-13. Illinois State Water Survey, Champaign, IL
15. **Bartosova, A.**, R. Kandiah, and V. Novotny, 2005. *Development of a Relational Database for Studying Ecological Response of Streams to Anthropogenic Watershed Stresses and Stream Modifications*. Technical Report #5, Center for Urban Environmental Studies, Northeastern University, Boston, MA.
16. McConkey, S., **A. Bartosova**, L. Lin, K. Andrew, M. Machesky, and C. Jennings, 2004. *Fox River Watershed Investigation – Stratton Dam to the Illinois River: Water Quality Issues and Data Report to the Fox River Study Group, Inc.*, Illinois State Water Survey Contract Report CR2004-06, Champaign, IL.
17. **Bartosova, A.**, V. Novotny, and R. Anderson, 2002. *The Effect of Habitat on Ecological Integrity of Oak Creek and Menomonee River*. Technical Report No.13, US EPA/NSF/USDA STAR Watershed program, Institute of Urban Environmental Risk Management, Marquette University Milwaukee, WI.
18. **Bartosova, A.**, 2002. *Estimating the Ecological Risk to Aquatic Biota from Physical and Chemical Impairment Due to Urbanization*. PhD dissertation, Department of Civil and Environmental Engineering, Marquette University, Milwaukee, WI.
19. Novotny, V., C. Melching, D. Zitomer, J. Kasun, and **A. Bartosova**, 2002. *Evaluation of the Impact of the Discharge of Higher Concentration of Ammonia on Outer Harbor and Lake Michigan Waters*. Final Report, Contract Number P-2254. AquaNova International, Ltd., Mequon, WI.
20. Novotny, V., D. Clark, R. Griffin, **A. Bartosova**, D. Booth, and R. Anderson, 2001. *Risk Based Urban Watershed Management – Integration of Water Quality and Flood Control Objectives*. Final Report. Institute for Urban Environmental Risk Management, Marquette University, Milwaukee, WI.
21. Alamilla, S., V. Novotny and **A. Bartosova**, 2001. *GIS based Approach to Floodplain Delineation and Flood Risk Estimation Applied to the Oak Creek Watershed*. Technical Report No.10, US EPA/NSF/USDA STAR Watershed program, Institute of Urban Environmental Risk Management, Marquette University Milwaukee, WI
22. **Bartosova, A.**, V. Novotny, and P. Hajda, 2000. *Evaluation of Water Quality and Ecological Risks*. Technical Report No.7, US EPA/NSF/USDA STAR Watershed program, Institute of Urban Environmental Risk Management, Marquette University, Milwaukee, WI.

23. **Bartosova, A.** and V. Novotny, 2000. *Statistical Considerations in Aquatic Ecological Risk Calculation*. Technical Memo #1, US EPA/NSF/USDA STAR Watershed program, Institute of Urban Environmental Risk Management, Marquette University, Milwaukee, WI.
24. Novotny, V., D. Smith, D. Kuemmel, J. Mastriano, and **A. Bartosova**, 1999. *Urban and Highway Snowmelt: Minimizing the Impact on Receiving Water*. Water Environment Research Foundation Project 94-IRM-2
25. **Bartosova, A.**, D. Clark, V. Novotny, and K. Taylor, 1999. *Using GIS to Evaluate the Effects of Flood Risk on Residential Property Values*. Technical Report, US EPA/NSF/USDA STAR Watershed program, Institute of Urban Environmental Risk Management, Marquette University, Milwaukee, WI
26. Hajda, P., **A. Bartosova**, and V. Novotny, 1999. *Estimating Effects of Urbanization on the Discharge Frequency Relationship of the Menomonee River and Oak Creek*. Technical Report No.4, US EPA/NSF/USDA STAER Watershed program, Institute of Urban Environmental Risk Management, Marquette University, Milwaukee, WI.
27. **Bartosova, A.**, D. Berankova, J. Kupec. 1997. Nutrient Balances for Danube Countries and Options for Surface and Ground Water Protection. Country Report – Czech Republic. Phase 3. Project EU/AR/102A/91. Applied Research Programme of the Danube Environmental Programme. T.G.M. Water Research Institute Brno Research Report, Czech Republic
28. **Bartosova, A.**, Berankova, D., and Kupec, J., 1996. Nutrient Balances for Danube Countries and Options for Surface and Ground Water Protection. Phase 2 Czech Country Report. Project EU/AR/102A/91. Applied Research Programme of the Danube Environmental Programme. T.G.M. Water Research Institute Brno Research Report, Czech Republic
29. Ilija Masliev, Pavel Ivanov, **Alena Bartosova**, Mark Smith, and Olof Bystrom. 1996. The Morava River Basin Collaborative Study. International Institute of Applied Systems Analyses (IIASA) Report, Laxenburg, Austria.
30. **Bartosova, A.**, Berankova, D., and Hlavinec, P., 1996. Nutrient Balances for Danube Countries and Options for Surface and Ground Water Protection. Phase 1 Czech Country Report. Project EU/AR/102A/91. Applied Research Programme of the Danube Environmental Programme. T.G.M. Water Research Institute Brno Research Report, Czech Republic.
31. I. Bernardová, and **A. Bartošová**, 1994. Water Quality Evaluation and Modeling, Morava Project, T.G.M. Water Research Institute Brno Research Report, Czech Republic

## INVITED PRESENTATIONS

1. Interplay between sediment regime and water management structures at a large scale. IAHS-ICWQ Workshop on ““Flood-Drought Disaster Chain and Water Ecological Degradation in the Changing Environment””. Zhuhai, China, 1-3 December 2023
2. Transport of microplastics in surface waters. Vattenmiljöseminariet 2023, Stockholm, Sweden, 24 January 2023
3. Biodiversitet och dricksvattenförsörjning / åtgärdsplanering – Overview of SMHI’s research in water quality and its contribution to societal needs. Inauguration of Prof. Berit Arheimer, 20 October 2022, Norrköping, SMHI.
4. Understanding the interplay between sediment regime and water management structures at a large scale. The 2nd Roorkee Water Conclave, 2-4 March 2022, Roorkee, India (online participation)
5. Large scale modeling under changing climate and socioeconomics. Roorkee Water Conclave, Roorkee, India, 26-28 February 2020
6. Future freshwater inflows to the Baltic Sea under changing climate and socioeconomics: upscaling local effects. 23rd International Congress on Modelling and Simulation (MODSIM2019), Canberra, Australia, 1-6 December 2019

7. Source to Sea – Modeling Hydrology and Water Quality of Rivers. Workshop organized by the Swedish Agency for Marine and Water Management (HaV) at the Swedish University of Agriculture Sciences (SLU), Uppsala, Sweden, May 28 2018
8. Nutrients in Runoff to Baltic Sea: What Can We Say About the Future? Baltic Sea Future Congress – Innovation, vision and leadership for a sustainable Baltic Sea region. Stockholm, Sweden, 8-9 March 2018.
9. From Source to Sea: Fostering Global Water Quality Knowledge and Community. IAHS-ICWQ-Panta Rhei Workshop on Water quality – a component of the water-energy-food nexus. Guangzhou, China, 4-5 December 2017
10. HELCOM – BONUS BALTICAPP regional workshop on the use of ecological-economic research to support and improve marine policy implementation in the Baltic Sea region, Stockholm, 29-30 March 2017
11. International Workshop on Estimation of Nitrogen Loads to the Marine Environment Around the Time of the Year 1900, Sønderborg, Denmark, 14-15 November 2016
12. Illinois Water 2012 Conference. September 24, 2012, Champaign, IL
13. INRS Water Quality Seminar Series. October 19, 2010, Champaign, IL.
14. Ven Te Chow Hydrosystems Laboratory Seminar Series, University of Illinois at Urbana-Champaign. October 9, 2009, Champaign, IL
15. Joint Colloquium by Center for Water Resource Studies and Department of Geography and Geology, Western Kentucky University, Bowling Green, KY. May 12, 2006
16. Poplar Creek Watershed Group Meeting. Streamwood, IL. 29 October, 2004
17. Department of Civil and Environmental Engineering Seminar, Northeastern University, Boston, MA. November 21, 2003
18. Environmental Seminar Series, November 1996, Department of Civil & Env. Eng., Marquette University, Milwaukee, WI.
19. T.G.M. Water Research Institute Seminar Series. May 18, 1996. Praha, Czech Republic.

## CONFERENCE AND OTHER PROFESSIONAL PRESENTATIONS

1. **Bartosova, A.**, Jeppsson Stahl, F, Brendel, C., Temnerud, J., Havelka, J., Arheimer, B. (2023) What can global hydrological models tell us about sources and flows of riverine plastics. Oral presentation at The European Geosciences Union General Assembly, Vienna, Austria, 23-29 April 2023, Vienna, Austria
2. **Bartosova, A.** and Brendel, C. (2023) Many a little makes a mickle: temporal patterns of lake storage losses due to sedimentation. Oral presentation at the 28<sup>th</sup> IUGG General Assembly Conference, 11-20 July 2023, Berlin, Germany
3. **Bartosova, A.** Haun, S., van Broek, M. Schwarzwälder, K.V.A., Achleitner, S., Förster, K. (2023) Climate Impact Indicators inform on climate impacts expected for water reservoirs and the services they provide to different economic sectors. Oral presentation at the European Climate Change Adaptation Conference, 19-21 June 2023, Dublin, Ireland
4. **Bartosova, A.**, Brendel, C., and Arheimer, B. (2022) Evaluating sources and flows of riverine plastics with ensemble modeling. Oral presentation at the Land Use and Water Quality Conference, 12-15 September 2022, Maastricht, Netherlands
5. **Bartosova, A.**, Arheimer, B., de Lavenne, A., Capell, R. and Strömqvist, J. (2022) Assessing robustness of large-scale hydrological and sediment modeling using nested domains under current and changing climate. Oral presentation at The XI<sup>th</sup> Scientific Assembly of the International Association of Hydrological Sciences (IAHS 2022), 29 May to 3 June 2022, Montpellier, France

6. **Bartosova, A., Brendel, C., and Arheimer, B. (2022)** Ensemble modeling of plastic flows in South Africa's rivers with a large-scale hydrological model. Oral presentation at The European Geosciences Union General Assembly, Vienna, Austria, 23-27 May, 2022.
7. **Bartosova, A., Brendel, C., et al. (2022)** Advancing large scale hydrological and sediment modeling for hydropower industry operations. Oral presentation at HYDRO 2022, 25-27 April 2022, Strasbourg, France
8. **Bartosova, A., Arheimer, B., de Lavenne, A., Capell, R. and Strömqvist, J. (2021)** Assessing uncertainty in large-scale hydrological and sediment modelling using nested domains under current and changing climate. Oral presentation at The 24th International Congress on Modelling and Simulation (MODSIM2021), 5-9 December 2021, Sydney, Australia (online participation)
9. **Bartosova, A., Arheimer, B., de Lavenne, A., Capell, R. and Strömqvist, J. (2021)** Are large scale models useful? A case of nested model domains for assessing current and future stream runoff and sediments. Presented at The EGU General Assembly, 19-30 April 2021, online
10. **Bartosova, A, Capell, R, Olesen, JE, and Arheimer B (2020)** Past, current, and future freshwater inflows to the Baltic Sea under changing climate and socioeconomics. Oral presentation at European Geosciences Union General Assembly, Vienna, Austria, 4-8 May 2020
11. **Bartosova A, Capell R, Strömqvist J, and Arheimer B (2019)** Longterm changes in nutrients in European catchments: connecting the past and the future. Oral presentation at The 27<sup>th</sup> IUGG General Assembly, Montreal, Canada, 8-18 July, 2019
12. **Heal K, Bartosova A, Hipsey M, Chen X, Li HY, McGrane S, Cudennec C, Gupta AB, Buytaert W, Stålnacke P (2019)** Water quality: the missing dimension of water in the Water-Energy-Food nexus". Oral presentation at The 27<sup>th</sup> IUGG General Assembly, Montreal, Canada, 8-18 July, 2019
13. **Bartosova A, de Lavenne A, Mussuza J, Strömqvist J, and Arheimer B (2019)** Exploring global sediment sources, processes, and impacts with a global dynamic model. Poster at International Interdisciplinary Conference on Land Use and Water Quality Conference, Aarhus, Denmark, 3-6 June 2019
14. **Bartosova A. Capell R, Strömqvist J, and Arheimer B (2019)** The role of climate, socioeconomics, and mitigation efforts in future nutrient loads to Baltic Sea. Oral presentation at International Interdisciplinary Conference on Land Use and Water Quality Conference, Aarhus, Denmark, 3-6 June 2019
15. **Bartosova A., Capell R, Olesen JE, and Arheimer B (2019)** Future freshwater inflows to the Baltic Sea under changing climate and socioeconomics: learning from uncertainty. Poster at European Geosciences Union General Assembly, Vienna, Austria, 7-12 April 2019
16. **Bartosova A, Capell R, Strömqvist J, Olesen JE, and Arheimer B (2018)** Nutrient concentrations and transport at Pan-European scale – from 1900s to 2050s. Poster at European Geosciences Union General Assembly, Vienna, Austria, 8-13 April 2018
17. **Capell R, Bartosova A, Strömqvist J, and Arheimer B (2018)** Using E-HYPE for estimating nutrient transport – experiences and challenges. Oral Presentation at European Geosciences Union General Assembly, Vienna, Austria, 8-13 April 2018.
18. **Bartosova A, Strömqvist J, Capell R, Olesen JE, Jabloun M, Arheimer B, Donnelly C, Hyytiäinen K, Pedersen SM, Zilans A, Tonderski K, and Zandersen M (2018)** Change in nutrient loads to the Baltic Sea Basin with changing climate, socioeconomic impacts, and land management practices. Oral presentation at the 3rd BONUS symposium: Sustainable Ecosystem Governance under Changing Climate and Land Use in the Baltic Sea Region. Gdansk, Poland, 14-16 March 2018
19. **Capell R, Bartosova A, Strömqvist J, and Arheimer B (2018)** Modelled source apportionment of nutrient loads to Baltic Sea basins under current and future conditions. Oral presentation at the 3rd BONUS symposium: Sustainable Ecosystem Governance under Changing Climate and Land Use in the Baltic Sea Region. Gdansk, Poland, 14-16 March 2018.
20. **Bartosova A, Strömqvist J, Capell R, Simonsson L, and Arheimer B (2018)** Patterns and trends in riverine water quality in the Baltic Sea basin: modeling nutrients with HYPE. Poster at The 3rd BONUS symposium: Sustainable Ecosystem Governance under Changing Climate and Land Use in the Baltic Sea Region. Gdansk, Poland, 14-16 March 2018

21. Carolus, J.F., **Bartosova A.**, Pedersen S.M., Olsen S.B., Jomaa S., and Veinbergs A. (2018) Cost-effectiveness analysis of nutrient mitigating measures: A cross-country comparison under the impact of climate change. The 3rd BONUS symposium: Sustainable Ecosystem Governance under Changing Climate and Land Use in the Baltic Sea Region. Gdansk, Poland, 14-16 March 2018
22. **Bartosova A.**, Arheimer B, Capell R, Donnelly C, Strömqvist J (2017). Spatial patterns and trend analyses on pan-European scale: modelling of riverine nutrient concentrations. Oral presentation at International Interdisciplinary Conference on Land Use and Water Quality: Effect of Agriculture on the Environment. The Hague, Netherlands, 29 May – 1 June 2017
23. **Bartosova A.**, Arheimer B, Capell R, Donnelly C, Strömqvist J (2016) Pan-European modelling of riverine nutrient concentrations. Oral presentation at European Geosciences Union General Assembly, Vienna, Austria, 17-22 April 2016
24. **Alena Bartosova**, 2015. *Evaluating management scenarios for the Fox River watershed*. Presented on October 29, 2015 at the Fox River Study Group, Inc., Annual Meeting in Batavia, IL
25. **Alena Bartosova**, 2014. *Phosphorus in the Fox River watershed*. Presented on October 30, 2014 at the Fox River Study Group, Inc., Annual Meeting in Batavia, IL.
26. **Alena Bartosova**, Momcilo Markus, and Siddhartha Verma, 2014. *Nutrient export: role of large events and temporal variability*. Illinois Water 2014 Conference. October 14-15, 2014 Champaign, IL.
27. **Alena Bartosova**, 2014. *Fox River Watershed: Integrating data, models, and stakeholders*. Illinois Water 2014 Conference. October 14-15, 2014 Champaign, IL.
28. Amy Russell, **Alena Bartosova**, and Jim Slowikowski, 2014. *Science in Total Maximum Daily Load studies*. Illinois Water 2014 Conference. October 14-15, 2014 Champaign, IL.
29. **Alena Bartosova**, Amy Russell, and Jim Slowikowski, 2014. *Science in TMDL Studies for Lakes: Myth or Reality*. Illinois Lake Management Association Conference, April 10, 2014, Sandwich, IL.
30. **Alena Bartosova**, 2013. *Fox Watershed Investigation: Stratton Dam to the Illinois River. Evaluation of Watershed Management Scenarios*. Presented on October 31, 2013 at the Fox River Study Group, Inc., Annual Meeting in Batavia, IL.
31. **Alena Bartosova**, Momcilo Markus, and Siddhartha Verma, 2012. *Predictability of Nutrient Loads Delivered to Lake Michigan Based on Large Storm Events*. Illinois Water 2012 Conference. September 24-25, 2012 Champaign, IL
32. **Alena Bartosova**, 2012. *Fox Watershed Investigation: Stratton Dam to the Illinois River. Future Scenarios*. Presented on October 25, 2012 at the Fox River Study Group, Inc., Annual Meeting in Batavia, IL.
33. **Alena Bartosova**, William Gillespie, Marni Law, and Brad McVay, 2012. *Land cover change in Fox River watershed and its impact on watershed simulation*. American Water Resources Association Spring Specialty Conference on Geographic Information Systems and Water Resources VII. March 26-28, 2012, New Orleans, LA.
34. **Alena Bartosova**, 2011. *Beyond Water Quality Simulation*. Prairie Lightning Symposium, November 16, 2011, Champaign, IL. <https://www.youtube.com/watch?v=gQyLaPqYi1g&noredirect=1>
35. **Alena Bartosova**, 2011. *Fox Watershed Investigation: Stratton Dam to the Illinois River. Computer Modeling Update*. Presented on October 27, 2011 at the Fox River Study Group, Inc., Annual Meeting in Batavia, IL.
36. **Alena Bartosova**, 2010. *Fox Watershed Investigation: Stratton Dam to the Illinois River. Overview of the Fox River Watershed Investigation. Achievements*. Presented on October 28, 2010 at the Fox River Study Group, Inc., Annual Meeting in Batavia, IL.
37. **Alena Bartosova** and William Gillespie, 2010. *Combined Sewer Overflows and Receiving Stream Water Quality*. Invited presentation at the INRS Water Quality Seminar Series. October 19, 2010, Champaign, IL.



38. **Alena Bartosova**, 2010. *Fox River Watershed Investigation: Progressive Approach for Improved Planning*. Presented at the Illinois Waters 2010 Conference, October 5, 2010, Champaign, IL.
39. **Alena Bartosova**, 2009. *Fox River Watershed: Issues and Solutions*. Invited presentation at Ven Te Chow Hydrosystems Laboratory Seminar Series, University of Illinois at Urbana-Champaign. October 9, 2009, Champaign, IL.
40. **Alena Bartosova**, William Gillespie, John Frerich, Carrie Carter, Michal Ondrejcek, and Tze Ling Ng, 2009. *CSOs and Stream Water Quality: Solving the Puzzle with Automated Data Management*. Presented at 2009 Universities Council on Water Resources/National Institutes for Water Resources Conference, Urban Water Management: Issues and Opportunities. July 7-9, 2009, Chicago, IL
41. **Alena Bartosova**, 2009. *Modeling Effect of Habitat on Biotic Integrity Using Risk-Based Approach*. Presented at the Institute of Natural Resource Sustainability Workshop on Conceptual, Spatial and Numerical Modeling for Decision Support in Natural Resource Management, February 3, 2009, Champaign, IL.
42. **Alena Bartosova**, Sally McConkey, Mustafa Rahim, and William Gillespie, 2009. *Fox River Water Quality: Integrated Modeling Approach*. Presented at the Institute of Natural Resource Sustainability Workshop on Conceptual, Spatial and Numerical Modeling for Decision Support in Natural Resource Management, February 2, 2009, Champaign, IL.
43. **Alena Bartosova**, 2009. *Fox Watershed Investigation: Stratton Dam to the Illinois River. Development of Models*. Presented on October 29, 2009 at the Fox River Study Group, Inc., Annual Meeting in Aurora, IL.
44. **Alena Bartosova** and Philip M. Graff, 2008. *Automated Matching of Sampling Sites to Characterize a Stream Reach*. Presented at the American Water Resources Association 2008 Spring Specialty Conference "GIS and Water Resources", March 17-19, 2008, San Mateo, CA.
45. **Alena Bartosova**, 2008. *Fox Watershed Investigation: Stratton Dam to the Illinois River. Biological data and dissolved oxygen model*. Presented on November 20, 2008 at the Fox River Study Group, Inc., Annual Meeting in Aurora, IL.
46. **Alena Bartosova** and Sally McConkey, 2007. *Fox Watershed Investigation: Stratton Dam to the Illinois River. PHASE II Overview*. Presented on November 15, 2007 at the Fox River Study Group, Inc., Annual Meeting in Oswego, IL.
47. **Alena Bartosova**, Jaswinder Singh, Sally McConkey, Mustafa Rahim, and Jim Slowikowski, 2006. *Fox River Watershed Water Quality Investigation: I. The Project Plan*. Presented at the American Water Resources Association National Conference, November 6-9, 2006, Baltimore, MD.
48. Jaswinder Singh, **Alena Bartosova**, Sally McConkey, and Mustafa Rahim, 2006. *Fox River Watershed Water Quality Investigation: II. Hydrologic and Water Quality Modeling*. Presented at the American Water Resources Association National Conference, November 6-9, 2006, Baltimore, MD.
49. **Alena Bartosova**, Jaswinder Singh, Mustafa Rahim, and Sally McConkey. 2006. *Fox Watershed Investigation: Stratton Dam to the Illinois River. Monitoring to Modeling*. Presented on November 15, 2006 at the Fox River Study Group, Inc., Annual Meeting in St. Charles, IL.
50. **Alena Bartosova** and Jaswinder Singh. 2005. *Fox Watershed Investigation: Stratton Dam to the Illinois River. Phase II Overview*. Presented on December 13, 2006 at the Fox River Study Group, Inc., Annual Meeting in St. Charles, IL.
51. **Bartosova, A.**, S. McConkey, Y. Lin, and D.D. Walker, 2004. *Using NHD to Estimate Stream Geometry Characteristics for MODFLOW*. Presented at 2004 American Water Resources Association's Specialty Conference "GIS and Water Resources III", May 17-19, 2004, Nashville, TN
52. **Bartosova, A.**, and W. Saylor, 2004. *Using Modified NHD to Display Information from FIS Models*. Presented at 2004 IAFSM Annual Conference, March 3-4, 2004, Tinley Park, IL.
53. **Bartosova, A.**, S. Alamilla, and V. Novotny, 2001. *Using GIS to Evaluate Effect of Urbanization on Floodplain Expansion in Oak Creek Watershed*. 2001 Wisconsin American Water Resources Association Conference, March 29, Green Lake, WI.

54. Novotny, V., D. Clark, R.J. Griffin, and **A. Bartosova**, 2001. *Balancing Flood Control and Ecological Preservation/Restoration of Urban Watersheds*. Pps. 39-56 in J.Marsalek, F. Sieker, W.E. White, and E. Zeman (eds.), *Advances in Urban Stormwater and Agricultural Runoff Source Controls*. The Netherlands: Kluwer Academic Publishers. 2001
55. Kasun, J., **A. Bartosova**, and V. Novotny, 2001. *Combined ecological risk assessment of contaminated sediment and water column*. Proc. 5th International Water Association International Conf. On Diffuse Pollution and Watershed Management, June 10-15, 2001, Milwaukee, WI.
56. S. Alamilla, V. Novotny and **A. Bartosova**, 2001. *GIS based Approach to Urban River Corridor Delineation*. Proc. 5th International Water Association International Conf. On Diffuse Pollution and Watershed Management, June 10-15, 2001, Milwaukee, WI.
57. Clark ,D.E., M.C. Daun, M. Hutchinson, R. Griffin, V. Novotny, and **A. Bartosova**, 2001. *Flood Risk, Ecological Risk and Willingness to Pay: An Interdisciplinary Approach to Urban Watershed Management*. Proceedings of 40th Annual Meeting of the Western Regional Science Association Held in association with a Special Seminar of the Applied Econometrics Association. February 25 - 28, 2001, Riviera Resort and Racquet Club, Palm Springs, CA.
58. Novotny, V., D. Clark, R.J. Griffin, **A. Bartosova**, and D. Booth, 2001. *Hydrological Impact of Urbanization - Balancing Flood Risks, Ecological Preservation and Socio-Economic Aspects*. Proc. 11th Stockholm Water Symposium, August 10-15, 2001
59. Clark, D.E., V. Novotny, R. Griffin, D. Booth, **A. Bartosova**, M.C. Daun and M. Hutchinson, 2001. *Willingness to pay for flood and ecological risk reduction in an urban watershed*. Proc. 5th International Water Association International Conf. On Diffuse Pollution and Watershed Management, June 10-15, 2001, Milwaukee, WI.
60. Novotny, V., D. Booth, D.Clark, R. Griffin, J. Giese, **A. Bartosova**, and N.O'Reilly, 2000. *Reconciling Flood and Diffuse Pollution Control Objectives in Urban Watershed Management*. Proceedings of the 4th International Conference on Diffuse Pollution, International Water Association, January 2000, Bangkok, Thailand.
61. **Bartosova, A.**, D.E. Clark, V. Novotny, and K.S. Taylor, 1999. *Using GIS to Evaluate the Effects of Flood Risk on Residential Property Values*. Proc. Environmental Problem Solving with Geographical Information Systems: A National Conference, U.S. EPA, September 22-24, 1999, Cincinnati, OH.
62. **Bartosova, A.**, D.E. Clark, V. Novotny, K.S. Taylor, 1999. *Using GIS to Evaluate the Effects of Flood Risk on Residential Property Values*. Proc. Environmental Problem Solving with Geographical Information Systems: A National Conference, U.S. EPA, September 22-24, 1999, Cincinnati, OH.
63. Novotny, V., D. Smith and **A. Bartosova**, 1998. *Winter diffuse pollution in urban watersheds affected by deicing operations*, Surface Water Quality and Ecology I and II, Proc. WEFTEC'98, Water Environment Federation, Orlando, FL, October, pp 389-396.
64. **A. Bartošová** et al., 1996. Morava River Basin Study. Control of Point and Non-Point Source Pollution. Environmental Seminar Series, November 1996, Department of Civil & Env. Eng., Marquette University, Milwaukee, WI.
65. **A. Bartošová**, I. Masliev, P. Ivanov, 1996. Modeling of Diffuse Pollution, Case Study of the Valova River. Presentation on May 18, 1996. Water Research Institute Praha, Czech Republic.