

# *SONIA A. NAGORSKI*

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Environmental Science Program  
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## **EDUCATION**

Ph.D. 2001 University of Montana Geology  
M.S. 1997 University of Montana Geology  
B.A. 1994 Amherst College Geology and History

## **CURRENT APPOINTMENT**

**Associate Professor of Geology** (2021-present). Environmental Science Program, Department of Natural Sciences, University of Alaska Southeast, Juneau, AK.

## **PREVIOUS APPOINTMENTS**

**Assistant Professor of Geology** (2015-2021). Environmental Science Program, Department of Natural Sciences, University of Alaska Southeast, Juneau, AK.

**Research Assistant Professor** (2005-2015, part time). Environmental Science Program, University of Alaska Southeast, Juneau, AK.

**Postdoctoral Researcher** (11/2003-11/2004). Laboratoire de Glaciologie et Géophysique de l'Environnement, Université Joseph Fourier, Grenoble, France.

**Environmental Geochemist** (11/2001- 06/2002). Independent contractor. Whiskeytown National Recreation Area, northern CA.

**Geologist.** (06/1997-09/2001). U.S. Geological Survey Mineral Resources Program, Denver, CO (as doctoral student at University of Montana).

**Teaching Assistant.** (08/1994 -12/1995 and 09/1997-05/1998). University of Montana.

**Research Assistant.** (01/1996 - 12/1996). Western Mineland Reclamation Center via University of Montana, Missoula, MT.

**Hydrogeology Intern.** (05/1996 - 08/1996). Missoula County Health Department, Missoula, MT.

**Teaching Assistant.** Amherst College. (09/1991 - 05/1993).

## **TEACHING HISTORY AT THE UNIVERSITY OF ALASKA SOUTHEAST**

- **GEOL 104:** Physical Geology (with lab)
- **GEOL 105:** Geological History of Life
- **GEOL 301:** Geomorphology (with lab)
- **GEOL 320:** Mineral, Energy, and & Renewable Resources
- **GEOL 393:** Field Geology- Death Valley

- **ENVS/GEOG 102:** Earth and Environment
- **ENVS/GEOG 213:** Natural Hazards
- **ENVS 375:** Current Topics: Mass Extinctions
- **ENVS 375:** Current Topics: The Anthropocene
- **ENVS 375:** Current Topics: Plastics in the Environment
- **ENVS 498:** Directed Research in Environmental Science (various topics)
- **HUM 120:** A Sense of Place: Alaska and Beyond
- **HUM 193:** Environment, Ethics, and the UAS Experience

### **PEER-REVIEWED JOURNAL PUBLICATIONS**

**Nagorski, S.A.,** A.W. Vermilyea, and C. Lamborg, (2021) Mercury export from glacial and non-glacial Alaskan watersheds as influenced by bedrock geology, watershed processes, and atmospheric deposition *Geochimica et Cosmochimica Acta*. <https://doi.org/10.1016/j.gca.2021.04.003>

Lepak, R., S. Janssen, D. Krabbenhoft, M. Tate, R. Yin, W. Fitzgerald, **S. Nagorski,** J. Hurley, and D. Engstrom (2020). Resolving atmospheric mercury loading and source trends from isotopic records of remote North American lake sediments. *Environmental Science and Technology*, 54, 15, 9325-9333. DOI: 10.1021/acs.est.0c00579

Sexton, E.K., C.J. Sergeant, J.W. Moore, A.R. Westwood, D.M. Chambers, M.V. McPhee, **S.A.Nagorski,** S.L. O'Neal, J.Weitz, A. Berchtold, M. Capito, C.A. Frissell, J.Hamblen, F.R. Hauer, L.A. Jones, G. Knox, R. Macnair, R. L Malison, V. Marlatt, J. McIntyre, N. Skuce, and D.C. Whited (2020). Canada's mines pose transboundary risks. *Science* 368 (6489) 376-377. DOI: 10.1126/science.abb8819

**Nagorski, S.A.,** S.D. Kaspari, E. Hood, J.B. Fellman, and S.M.Skiles (2019). Radiative forcing by dust and black carbon on the Juneau Icefield, Alaska. DOI: 10.1029/2018JD029411. *Journal of Geophysical Research- Atmospheres*.

Fellman, J.B., E. Hood, **S.A. Nagorski,** J. Hudson, and S. Pyare, (2019). Interactive physical and biotic factors control habitat quality for Pacific salmon in coastal temperate rainforest streams. DOI: 10.1007/s00027-018-0597-9. *Aquatic Sciences*.

Vermilyea, A.W., **S.A. Nagorski,** C.H. Lamborg, E.W. Hood, D. Scott, and G.J. Swarr, (2017). Continuous proxy measurements reveal large mercury fluxes from glacial and forested watersheds in Alaska. *Science of the Total Environment* 599-600: 145-155, DOI: 10.1016/j.scitotenv.2017.03.297

Sergeant, C.J. and **S.A. Nagorski,** (2014). The implications of monitoring frequency for describing riverine water quality regimes. *River Research and Applications*. DOI: 10.1002/rra.2767.

**Nagorski, S.A.** D.R. Engstrom, J.P. Hudson, D.P. Krabbenhoft, E. Hood, J.F. DeWild, G.R. Aiken, (2014). Spatial distribution of mercury in southeastern Alaskan streams influenced by glaciers, wetlands, and salmon. *Environmental Pollution* 184: 62-72. <http://dx.doi.org/10.1016/j.envpol.2013.07.040>

Fellman, J.B., **S. Nagorski,** S. Pyare, A.W. Vermilyea, D. Scott, and E. Hood (2013). Stream temperature responses to variable glacier coverage in coastal watersheds of Southeast Alaska. *Hydrological Processes*. DOI: 10.1002/hyp.9742.

Ferrari, C.P., P.A. Gauchard, A. Dommergue, O. Magand, **S.A. Nagorski,** and 9 others (2005). Snow-to-air exchanges of mercury in an Arctic seasonal snow pack. *Atmospheric Environment* 39: 7633-7645.

Gauchard, P-A, K. Aspö, C. Temme, A. Steffen, C. Ferrari, T. Berg, J. Ström, L. Kaleschke, A. Dommergue, E. Bahlmann, O. Magand, F. Planchon, R. Ebinghaus, C. Banic, **S. A. Nagorski**, P. Baussand, C. Boutron (2005). Study of the origin of atmospheric mercury depletion events recorded in Ny-Ålsund, Svalbard, Spring 2003. *Atmospheric Environment* 39: 7620-7632.

Planchon, F.A.M., P. Gabrielli, A. Dommergue, P.A. Gauchard, C. Barbante, C.F. Boutron, W.R.L. Cairns, G. Capodaglio, P. Cescon, G. Cozzi, C.P. Ferrari, **S.A. Nagorski**, A. Varga and E.W. Wolff, (2004). Direct determination of mercury at the picogram per gram levels in polar snow and ice by ICP-SFMS. *Journal of Analytical Atomic Spectrometry* 19: 823-830.

**Nagorski, S.A.**, J. N. Moore, T.E. McKinnon, and D.B. Smith (2003). Scale-dependent variations in stream water geochemistry. *Environmental Science and Technology*, 37: 859-864. DOI: 10.1021/es025983+

**Nagorski, S.A.**, T.E. McKinnon, and J.N. Moore (2003). Seasonal and storm-scale variations in heavy metal concentrations of two mining-contaminated streams, Montana, USA. Proceedings of the XII International Conference on Heavy Metals in the Environment, Grenoble, France. *Journal de Physique*, 107, 909-912.

**Nagorski, S.A.**, J. N. Moore, T.E. McKinnon, and D.B. Smith (2003). Geochemical response to variable streamflow conditions in contaminated and uncontaminated streams. *Water Resources Research*, 39 (2), 1044, DOI: 10.1029/2001WR001247.

**Nagorski, S.A.**, J.N. Moore, and D.B. Smith (2002). Distribution of metals in water and bed sediment in a mineral-rich watershed, Montana, USA. *Mine Water and the Environment*, 21: 121-136. DOI: 10.1007/s102300200033

**Nagorski, S.A.** and J.N. Moore (1999). Arsenic mobilization in the hyporheic zone of a contaminated stream. *Water Resources Research* 35(11): 3441-3450. DOI: 10.1029/1999WR900204

### **PEER-REVIEWED TECHNICAL REPORTS**

**Nagorski, S. A.**, D. R. Engstrom, D. P. Krabbenhoft, R. F. Lepak, and W. F. Fitzgerald. (2019). Historical trends in mercury deposition as recorded in lake cores near Glacier Bay National Park and Preserve, Alaska. Natural Resource Report NPS/SEAN/NRR—2019/1928. National Park Service, Fort Collins, Colorado. <https://irma.nps.gov/DataStore/Reference/Profile/2260323>

**Nagorski, S.A.**, E.G. Neal, and T.P. Brabets, (2013). Mercury and water-quality data from Rink Creek, Salmon River, and Good River, Glacier Bay National Park and Preserve, Alaska, November 2009–October 2011: U.S Geological Survey Open-File Report 2013-1097, 20 p., <http://pubs.usgs.gov/ofr/2013/5058>.

**Nagorski, S.A.**, C. Sergeant, W. Johnson, B. Moynahan (2012). Freshwater Water Quality Monitoring Protocol, Southeast Alaska Network. Natural Resource Report NPS/SEAN/NRR—2012/496. National Park Service, Fort Collins, Colorado. 236 pp. <https://irma.nps.gov/DataStore/DownloadFile/446718>

**Nagorski, S.A.**, D. Engstrom, J. Hudson, D. Krabbenhoft, J. DeWild, E. Hood, and G. Aiken. (2011) Scale and distribution of global pollutants in Southeast Alaska Network park watersheds. Natural Resource Technical Report NPS/SEAN/NRTR—2011/496. National Park Service, Fort Collins, Colorado. 66pp. <https://irma.nps.gov/DataStore/DownloadFile/440603>

**Nagorski, S.A.**, E. Hood, G. Eckert, S. Pyare (2010). Assessment of coastal water resources and watershed conditions at Kenai Fjords National Park (Alaska). Natural Resource Technical Report NPS/NRPC/WRD/NRTR-2010/192. National Park Service, Fort Collins, Colorado. 178pp. [http://www.nature.nps.gov/water/watershed\\_reports/WSCondRpts.cfm](http://www.nature.nps.gov/water/watershed_reports/WSCondRpts.cfm).

**S. Nagorski**, E. Hood, G. Eckert, S. Pyare (2008). Assessment of coastal water resources and watershed conditions at Lake Clark National Park and Preserve (Alaska). Natural Resource Technical Report NPS/NRPC/WRD/NRTR-2008/144. National Park Service, Fort Collins, Colorado. 138pp. [http://www.nature.nps.gov/water/watershed\\_reports/WSCondRpts.cfm](http://www.nature.nps.gov/water/watershed_reports/WSCondRpts.cfm).

**S. Nagorski**, G. Eckert, E. Hood, S. Pyare (2007). Assessment of coastal water resources and watershed conditions at Katmai National Park and Preserve (Alaska). Natural Resource Technical Report NPS/NRWRD/NRTR-2007/372. National Park Service, Fort Collins, Colorado. 178 pp. [http://www.nature.nps.gov/water/watershed\\_reports/WSCondRpts.cfm](http://www.nature.nps.gov/water/watershed_reports/WSCondRpts.cfm).

**S. Nagorski**, G. Eckert, E. Hood, S. Pyare (2007). Assessment of coastal water resources and watershed conditions at Aniakchak National Monument and Preserve (Alaska). Natural Resource Technical Report NPS/NRWRD/NRTR-2007/371. National Park Service, Fort Collins, Colorado. 112 pp. [http://www.nature.nps.gov/water/watershed\\_reports/WSCondRpts.cfm](http://www.nature.nps.gov/water/watershed_reports/WSCondRpts.cfm).

Eckert, G., E. Hood, **S. Nagorski**, and C. Talus, (2006). Assessment of coastal water resources and watershed conditions at Glacier Bay National Park and Preserve, Alaska. Natural Resource Technical Report NPS/NRWRD/NRTR-2006/353. National Park Service, Fort Collins, Colorado. 129pp. [http://www.nature.nps.gov/water/watershed\\_reports/WSCondRpts.cfm](http://www.nature.nps.gov/water/watershed_reports/WSCondRpts.cfm).

Eckert, G., E. Hood, C. Talus, and **S. Nagorski** (2006). Assessment of coastal water resources and watershed conditions at Sitka National Historical Park, Alaska. National Park Service Water Resources Division Technical Report NPS/NRWRD/NRTR-2006/347. 81 pp. [https://www.nps.gov/sitk/learn/nature/upload/SITK\\_Final.pdf](https://www.nps.gov/sitk/learn/nature/upload/SITK_Final.pdf)

Hood, E., G. Eckert, **S. Nagorski**, and C. Talus (2006). Assessment of coastal water resources and watershed conditions at Klondike Gold Rush National Historical Park, Alaska. National Park Service Water Resources Division Technical Report NPS/NRWRD/NRTR-2006/349. 89 pp.

Hood, E., G. Eckert, **S. Nagorski**, C. Talus (2006). Assessment of coastal water resources and watershed conditions at Wrangell-St.Elias National Park and Preserve, Alaska. National Park Service Water Resources Division Technical Report NPS/NRWRD/NRTR-2006/346. 77 pp.

**Nagorski, S.A.**, J.N. Moore, and D.B. Smith (2001). Geochemical baseline studies and relations between water quality and streamflow in the Upper Blackfoot River watershed, Montana: Data for July 1997-December, 1998. U.S. Geological Survey Open-File Report 01-0059, 93 pp. <http://greenwood.cr.usgs.gov/pub/open-file-reports/ofr-01-0059/>.

**Nagorski, S.A.**, T.E. McKinnon, J.N. Moore, and D.B. Smith (2000). Geochemical characterization of surface water and streambed sediment of the Blackfoot River, Montana, during low flow conditions, August 16-20, 1998. U.S. Geological Survey Open-File Report 00-003, 59 pp. <https://pubs.er.usgs.gov/publication/ofr003>

**Nagorski, S.A.**, J.A. Shifflett, J.N. Moore, and D.B. Smith (1998). Geochemical baseline studies and relations between water quality and streamflow in the Upper Blackfoot River watershed, Montana: Progress Report for July 1997- March 1998. U.S. Geological Survey Open File Report 98-499, 133 pp. <https://pubs.er.usgs.gov/publication/ofr98499>

## **OTHER TECHNICAL REPORTS (not peer-reviewed) AND NEWSPAPER ARTICLES**

Hauer, F.R., J.W. Moore, C.C. Muhlfeld, **S.A. Nagorski**, J.S. Richardson, D.E. Schindler, E.K. Sexton, and M.S. Wipfli (2017). Transboundary Rivers of Northwestern North America: Vulnerable Ecosystems in Crisis. *Whitepaper* prepared for Wilburforce Foundation, Seattle, WA. 61 pp.

**Nagorski, S.**, L. Hoferkamp, (2007) Jordan Creek and Duck Creek Watershed Protection and Recovery, Final report submitted to Alaska Department of Environmental Conservation for the period August 1, 2006- June 30, 2007. 52 pp.

**Nagorski, S.**, E. Hood, L. Hoferkamp, E. Neal, J. Hudson (2006) Jordan Creek, Duck Creek, and Pederson Hill Creek Watershed Protection and Recovery, Final report submitted to Alaska Department of Environmental Conservation for the period August 1, 2005- June 30, 2006. 34 pp.

**Nagorski, S.** Contributions to monthly series, “Sustainable Alaska” in the *Juneau Empire*:

- “Building resilience on a restless Earth” (December 31, 2020)
- “Mining decisions need better science” (November 1, 2019)
- “The problem with fossil fuels” (September 10, 2018)
- “Earth overshoot day” (August 4, 2018)
- “Sustainability and Transboundary Rivers” (August 4, 2017)

## **PRESENTATIONS AT SCIENTIFIC CONFERENCES (since 2005)**

**Nagorski, S.A.**, A.W. Vermilyea, C. H. Lamborg. (2020) Adjacent glacierized watersheds with contrasting bedrock geology exhibit strong differences in annual export of mercury. American Geophysical Union Fall meeting (virtual) December 1-17, 2020.

**Nagorski, S.A.** Mining, Minerals, and Impacts. (Invited). Workshop: *Advancing scientific knowledge of mining impacts on salmonid-bearing watersheds*. October 23-27, 2019. Flathead Lake Biological Station, Polson, MT.

**Nagorski, S.A.**, A.W. Vermilyea. Mercury export from glaciated and non-glaciated watersheds of southeast Alaska, as influenced by bedrock geology, landcover, and atmospheric deposition. Geological Society of America Penrose conference: Climatic controls on continental erosion and sediment transport. 4-10 August, 2019, Juneau, AK.

**Nagorski, S.A.**, J. Hudson, J. Fellman, E. Hood, G. Ylitalo, A. Vermilyea, J. DeWild, D. Krabbenhoft (2019) Spawning salmon deliver marine-derived contaminants to southeast Alaskan streams. American Water Resources Association- Alaska Section annual conference: *Water resources in a changing landscape*, Juneau, AK, September 17-19, 2019.

**Nagorski, S.A.** S.M.Skiles, S.Kaspari, E Hood, J. Fellman, 2018. The role of black carbon and dust in albedo reduction and radiative forcing on the Juneau Icefield, Southeast Alaska. American Geophysical Union Fall Meeting, Washington, D.C., December, 2018.

Engstrom, D., Fitzgerald, W., Hurley, J., Janssen, S., Krabbenhoft, D., Lepak, R., **Nagorski, S.**, Yin, R., Zhu, C. 2017. Historic change in mercury sources and cycling reconstructed from isotopic records in a globally distributed suite of lake sediment cores. Proceedings, 13<sup>th</sup> International Conference on Mercury as a Global Pollutant, Providence, RI. July 16-21, 2017

**Nagorski S.A.**, J. P. Hudson, J. Fellman, E. W. Hood, A. Vermilyea, D. P Krabbenhoft and G. Ylitalo 2016. Do Spawning Salmon Contribute Marine-Derived Contaminants to Southeast Alaskan Streams? American Geophysical Union fall meeting. San Francisco, CA 2016.

Schroth, A, B. Rosenberg, **S. Nagorski**, E. Hood, A. Vermilyea, and E. Joung. Iron speciation and provenance control potential reactivity and impact on carbon and phosphorus cycling from catchments to receiving waters, ASLO Spring Meeting, Santa Fe, NM. February, 2016

Schroth, A.W., B. Rosenberg, **S.A. Nagorski**, E. Hood, J.B. Fellman, D.Scott, A. Vermilyea. Iron, manganese and phosphorus partitioning during high flow events: impacts of land cover and seasonality. American Geophysical Union fall meeting. San Francisco, CA 2015.

**Nagorski, S.A.** Investigations of mercury distribution and cycling in watersheds of southeast Alaska. Geological Society of America Cordilleran Section Meeting, Anchorage, AK, 2015.

**Nagorski, S.A.,** E. Neal, J. Hudson, D.P. Krabbenhoft, G.R.Aiken, E. Hood, J.DeWild, Contrasting mercury dynamics and uptake in three adjacent watersheds near Gustavus, southeast Alaska. Joint meeting- Alaska Chapter of the American Fisheries Society, American Water Resources Association, Southeast Alaska Fish Habitat Partnership. Juneau, October, 2014.

Hood, E.W., J.B. Fellman, **S.A. Nagorski**, A. Vermilyea, S. Pyare, D. Scott. Stream temperature response to variable glacier coverage in coastal watersheds of northern southeast Alaska. American Geophysical Union Fall Meeting. San Francisco, CA 2012.

Fellman, J., **S. Nagorski**, A. Vermilyea, S. Pyare, D. Scott, and E. Hood. Stream temperature response to changing glacier coverage in coastal watersheds of southeast Alaska. American Water Resources Association Alaska Section Annual Conference. Juneau, AK, 2012.

**Nagorski, S.,** J. Hudson, and E. Hood. Mercury occurrence in water and biota across a spectrum of southeastern Alaskan streams. American Water Resources Association Alaska Section Annual Conference. Juneau, AK, 2012.

Vermilyea, A., **S.A. Nagorski**, C.H. Lamborg, D. Scott, E.Hood. Mercury fluxes out of glacial and non-glacial streams, as determined by continued measurements of turbidity and CDOM. American Geophysical Union Fall Meeting. San Francisco, CA. 2011.

Hudson, J., **S. Nagorski**, D. Engstrom, D. Krabbenhoft, and J. DeWild. Mercury distribution in water and biota in diverse southeastern Alaskan watersheds. North American Benthological Society Annual Meeting, Grand Rapids, MI, 2009.

**Nagorski, S.,** D. Engstrom, J. Hudson, E. Hood, D. Krabbenhoft, J. DeWild, and G. Aiken. Mercury distribution in water and biota in diverse southeastern Alaskan watersheds. American Water Resources Association Spring Specialty Conference, Anchorage, AK, 2009.

Schlosstein, N., E. Hood, and **S. Nagorski**. Effects of postglacial succession on stream water quality and chemistry in Southeast Alaska. American Water Resources Association Spring Specialty Conference, Anchorage, AK, 2009.

Korzen, N., E. Knuth, C. Connor, E. Hood, and **S.Nagorski**. Sediment flux and changing lake bathymetry in the pro-glacial Mendenhall Lake/River system. American Water Resources Association Spring Specialty Conference, Anchorage, AK, 2009.

**Nagorski, S.,** E. Hood, R. Edwards, D. D'Amore, Do wetlands and salmon influence mercury concentrations in Juneau area streams? American Water Resources Association- Alaska Section Annual Meeting. Juneau, AK, 2008.

**Nagorski, S.A.**, E. Hood, D.P. Krabbenhoft, R. T. Edwards, D. V. D'Amore, G. Aiken, Salmon and wetland influences on streamwater mercury fluxes in southeastern Alaska. American Geophysical Union Fall Meeting. San Francisco, CA. 2007.

Connor, C.L., A. Prakash, M. Brownlee, **S. Nagorski**, R. Walling, EDGE (Experiential Discoveries in Geoscience Education) field course provides Alaskan high school and middle school students with Earth Science and GIS skills for science fair projects and a college experience. American Geophysical Union Fall Meeting. San Francisco, CA, 2006.

### **INVITED SEMINARS AND PUBLIC LECTURES**

**Nagorski, S.A.** “Global plastic pollution reaches Juneau.” University of Alaska Southeast Evening at Egan lecture series. October, 2020.

**Nagorski, S.A.** S.Kaspari, E. Hood, J.B. Fellman, “Black carbon on white glaciers” presented at Sitka Sound Science Center, Natural History Lecture Series, March 2017; and at the Mendenhall Glacier Visitor Center Fireside Chat series, March 2017.

**Nagorski, S.A.** “Environmental impacts of metal mining” Workshop: Linking the Science and People of our Transboundary Rivers. Juneau Centennial Hall, Juneau, May 2-4, 2017.

**Nagorski, S.A.** S.Kaspari, E. Hood, J.B.Fellman “Albedo reduction on the Juneau Icefield due to accumulation of black carbon mineral dust.” US Forest Service National Air Quality Meeting, Juneau, AK June, 2016.

**Nagorski, S.A.** “Contribution of mercury and persistent organic pollutants by spawning salmon to southeastern Alaska streams.” Alaska INBRE (IDeA Network of Biomedical Research Excellence) annual retreat, Talkeetna, AK, September, 2016.

**Nagorski, S.A.** “Identifying streamwater vulnerability to mercury and other human health stressors in southeast Alaskan watersheds: current status and implications for the region in a warmer, wetter climate.” Alaska INBRE (IDeA Network of Biomedical Research Excellence) annual retreat, Denali, AK, September, 2017.

**Nagorski, S.A.** “Investigating mercury pollution in Southeast Alaska,” Alaska Coastal Rainforest Center weekly seminar series speaker, March 2014.

**Nagorski, S.A.** “Is Southeast Alaska at risk of global mercury pollution?” Evening at Egan Fall lecture series, UAS, 2007.

### **FUNDED RESEARCH GRANTS**

**S.A. Nagorski**, B.Buma, (2018-2021) *Collaborative research: Linking landslide and windstorm exposure to regional carbon stocks and fluxes in the largest US forest carbon reservoir, southeast Alaska.* National Science Foundation, Division of Earth Sciences. \$278,913 (Originally award when B.Buma was PI; additional \$46,401K awarded (in April 2020) during my time as PI).

**S.A. Nagorski** (2020). *Equipment award: An analyzer for identifying and tracking mercury contamination in southeast Alaskan water, soils, and biota.* Direct Mercury Analyzer. Funded by Biomedical Learning and Student Training (BLaST). \$47K.

**S.A.Nagorski** (2020). *Contaminants Inventory of Intertidal Mussels along the Lost Coast of Southeast Alaska.* Southeast Alaska Network, National Park Service, \$17,287.

**S.A. Nagorski**, (2019). *Novel investigation into the magnitude of plastic pollution in coastal southeast Alaska.* University of Alaska Faculty Initiative Fund. \$18K.

**S.A. Nagorski** (2019). Alaska Idea Network of Biomedical Research Excellence (INBRE) Special Requests. For preparation of manuscript associated with *Contribution of mercury and persistent organic pollutants by spawning salmonids to southeastern Alaskan streams*. \$8,179.

**S.A. Nagorski**, J. Fellman, E. Hood. (2017). *Acquisition of in-situ water quality instrumentation for undergraduate training and One Health studies at UAS*. Alaska BLaST Program equipment grant \$28,380.

Fellman, J., A. Bidlack, E. Hood, **S. Nagorski**. (2017). *Acquisition of a total organic carbon analyzer for undergraduate training and research quantifying how climate-glacier interactions impact the land-to-ocean flux of carbon from coastal temperate watersheds*. National Science Foundation Major Research Instrument Program. \$50,000.

**S. Nagorski**, J. Fellman, E. Hood. (2017) *Assessing spatiotemporal variability of water quality impacts to southeast Alaska*. Alaska Idea Network of Biomedical Research Excellence (INBRE) pilot grant \$119,223.

**S. Nagorski**, J. Fellman, E. Hood, S. Kaspari (2016). *Black Carbon Deposition onto the Juneau Icefield*. Alaska EPSCoR Seed Grant. \$43,300.

**S. Nagorski**, (2015). *Contribution of mercury and persistent organic pollutants by spawning salmonids to southeastern Alaskan streams*. Alaska Idea Network of Biomedical Research Excellence (INBRE) pilot grant. \$119,139.

**S. Nagorski**, (2015). *Assistance with development of the Freshwater Contaminants Protocol for the National Park Service's Southeast Alaska Network Inventory and Monitoring Program*, National Park Service. \$45,26.

**S. Nagorski**, A. Schroth, B. Rosenberg, E. Hood, S. Pyare, D. Nimick. (2014-2015) *Evolution and dynamics of iron and other metals in glacial and wetland streams entering the Berner's Bay region*. Alaska EPSCoR. \$35,487.

**S. Nagorski** and D. Engstrom, (2015). *Current and Historical Mercury Sources and Deposition to Remote Southeast Alaskan Lakes*. National Park Service \$8020

**S. Nagorski** (2012). *Landcover influences on temperature in Southeastern Alaskan Streams*. Alaska Climate Science Center \$28,460.

E. Hood, **S.A. Nagorski**, A. Vermilyea, and I. Smith (2011). *Landscape controls on mercury pollution in aquatic ecosystems in southeastern Alaska*. UAS Chancellor's Rainforest Ecology Research Fund. \$6900.

**S. Nagorski** (2009-2012). *Mercury Dynamics in Contrasting Watersheds in Glacier Bay National Park & Reserve*. Joint National Park Service and U.S. Geological Survey. \$42,466.

**S. Nagorski** and E. Hood (2008-2009). *Technical Assistance in Developing the Freshwater Physicochemistry Monitoring Protocol for the National Park Service's Southeast Alaska Network Inventory and Monitoring Program*. National Park Service. \$26,555.

**S. Nagorski** (2007-2008). *Watershed Protection and Recovery of Jordan and Vanderbilt Creeks*. Alaska Department of Environmental Conservation (contract through Juneau Watershed Partnership), \$21,234.

**S. Nagorski** (2007-2008). *Technical Assistance in Developing Monitoring Protocols for the National Park Service's Southeast Alaska Network Inventory and Monitoring Program*. National Park Service. \$30,000.



**S. Nagorski** and J. Hudson. (2007). *Scale and distribution of global pollutants (mercury and POPs) in Southeast Alaska Network park watersheds*. National Park Service, \$85,264.

**S. Nagorski**. (2006). *The role of wetlands in regulating methylmercury concentrations in southeast Alaskan watersheds*. University of Alaska Southeast Research Seed Funding. \$14,255

**S. Nagorski** and L. Hoferkamp. (2006-2007). *Watershed protection and recovery of Jordan Creek, Duck Creek, Lemon Creek, and Vanderbilt Creeks, Juneau, Alaska*. Alaska Department of Environmental Conservation (contract through Juneau Watershed Partnership), \$33,712.

**S. Nagorski, and E. Hood**. (2006). *Technical Assistance in Evaluating, Summarizing, and Developing Monitoring Components of the National Park Service's Southeast Alaska Network Inventory and Monitoring Program*. National Park Service. \$42,000.

**S. Nagorski**, E. Hood, G. Eckert, and S. Pyare, (2005-2006). *Assessment of coastal water resources and watershed conditions in and adjacent to southwest Alaska National Parks*, National Park Service \$87,228.

E. Hood, **S. Nagorski**, and L. Hoferkamp. (2005-2006). *Watershed protection and recovery on Jordan Creek, Duck Creek, and Peterson Hill Creek near Juneau, Alaska*. Alaska Department of Environmental Conservation (contract through Mendenhall Watershed Partnership), \$22,812.

## **SYNERGISTIC ACTIVITIES**

### Professional and scientific

Natural Sciences Department representative to UAS Faculty Senate, 2017-2021.

Collaborator, operation of Mercury Deposition Network station and USGS atmospheric mercury isotope monitoring station, Juneau 2016-2018.

Invited member and focal group lead, "Advancing scientific knowledge of mining impacts on salmonid-bearing watersheds," October 24-26, 2019, Flathead Lake Biological Station, Polson, MT.

Invited expert: Transboundary Mining Scientific Working Group. Seattle, WA. December 2015.

Member, Transboundary Rivers Scientific Advisory Committee 2018-2020.

Field trip leader and conference co-organizer for Geological Society of America Penrose conference: *Climatic controls on continental erosion and sediment transport*. 4-10 August, Juneau, AK.

Journal article reviewer for:

- Science of the Total Environment
- Water Resources Research
- Limnology and Oceanography
- JGR-Biogeosciences
- River Research and Applications
- Environmental Science and Technology;
- Geochimica et Cosmochimica Acta
- NSF, NPS, and EPA grants and publications

Professional Memberships:

- American Geophysical Union
- Association for Women Geoscientists
- American Water Resources Association
- Association for Women in Science
- National Association of Geoscience Teachers, Alaska Section representative

### Education and Community (last 10 years only)

- Chair, UAS Sustainability committee, 2017-2020
- Supervisor of 8 undergraduate teaching assistants for geology courses (2013, 2015-2021).
- Supervisor or co-mentor of 22 undergraduate research assistants and research award recipients on grant funded projects
- Geology educator and guide to: U.S. Forest Service rangers and naturalists at the Mendenhall Glacier Visitor's Center training session (2018, 2019, 2021); Juneau Icefield Research Program students (2014, 2016).
- Member/ scientific advisor of the steering committee of local climate action non-profit, 350Juneau (2018-2020)
- Geoscience guest presenter at: Science Night and "Curiosity Unleashed!" STEAM events at local elementary schools (2016-2020); classroom science presentations at various Juneau schools (2011-2018); Discovery Southeast summer camp (2009, 2014, 2016); Juneau City and State Museum summer camp (2013); Girl Scouts' Women in Science and Technology Day (2009, 2014, 2016, 2018); Future Women of Science, Thunder Mountain High School (2020); Alaska State Museum fossil exhibit (2019).
- Interviewed by local media outlets (KTOO radio, Juneau Empire, Sitka Raven Radio) on various geoscience topics, 2015-2020.
- Coach, Lego Robotics Jr. team 2017, 2018.