Diana M Allen

List of Publications by Year
in descending order

109 papers	6,019 citations	126907 33 h-index	74163 75 g-index
116 all docs	116 docs citations	116 times ranked	6484 citing authors

#	Article	IF	Citations
1	Ground water and climate change. Nature Climate Change, 2013, 3, 322-329.	18.8	1,513
2	Beneath the surface of global change: Impacts of climate change on groundwater. Journal of Hydrology, 2011, 405, 532-560.	5.4	796
3	Implications of projected climate change for groundwater recharge in the western United States. Journal of Hydrology, 2016, 534, 124-138.	5.4	299
4	Groundwater sustainability strategies. Nature Geoscience, 2010, 3, 378-379.	12.9	213
5	Towards Sustainable Groundwater Use: Setting Longâ€Term Goals, Backcasting, and Managing Adaptively. Ground Water, 2012, 50, 19-26.	1.3	208
6	Groundwaterâ€“surface water interaction under scenarios of climate change using a high-resolution transient groundwater model. Journal of Hydrology, 2007, 333, 165-181.	5.4	207
7	Modeled impacts of predicted climate change on recharge and groundwater levels. Water Resources Research, 2006, 42, .	4.2	199
8	Groundwater and climate change: a sensitivity analysis for the Grand Forks aquifer, southern British Columbia, Canada. Hydrogeology Journal, 2004, 12, 270.	2.1	119
9	DRASTIC-Fm: a modified vulnerability mapping method for structurally controlled aquifers in the southern Gulf Islands, British Columbia, Canada. Hydrogeology Journal, 2007, 15, 483-493.	2.1	110
10	Assessing the risk of saltwater intrusion in coastal aquifers. Journal of Hydrology, 2017, 551, 730-745.	5.4	106
11	Towards best practice for assessing the impacts of climate change on groundwater. Hydrogeology Journal, 2012, 20, 1-4.	2.1	99
12	Flood processes in Canada: Regional and special aspects. Canadian Water Resources Journal, 2016, 41, 7-30.	1.2	97
13	Hydraulic conductivity characteristics in mountains and implications for conceptualizing bedrock groundwater flow. Hydrogeology Journal, 2014, 22, 1003-1026.	2.1	89
14	Comparing modelled responses of two high-permeability, unconfined aquifers to predicted climate change. Global and Planetary Change, 2006, 50, 50-62.	3.5	85
15	Water Security Assessment: Integrating Governance and Freshwater Indicators. Water Resources Management, 2013, 27, 535-551.	3.9	78
16	Comparative analysis of hydraulic fracturing wastewater practices in unconventional shale development: Water sourcing, treatment and disposal practices. Canadian Water Resources Journal, 2017, 42, 105-121.	1.2	73
17	Variability in simulated recharge using different GCMs. Water Resources Research, 2010, 46, .	4.2	70
18	Evaluating different GCMs for predicting spatial recharge in an irrigated arid region. Journal of Hydrology, 2009, 374, 265-281.	5.4	65

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19	Groundwater storage variability and annual recharge using well-hydrograph and GRACE satellite data. Hydrogeology Journal, 2011, 19, 741-755.	2.1	58
20	Consistency of groundwater flow patterns in mountainous topography: Implications for valley bottom water replenishment and for defining groundwater flow boundaries. Water Resources Research, 2012, 48, .	4.2	57
21	From days to decades: numerical modelling of freshwater lens response to climate change stressors on small low-lying islands. Hydrology and Earth System Sciences, 2015, 19, 933-949.	4.9	57
22	Groundwater vulnerability on small islands. Nature Climate Change, 2016, 6, 1100-1103.	18.8	51
23	Climate Controls on Runoff and Low Flows in Mountain Catchments of Western North America. Water Resources Research, 2018, 54, 7495-7510.	4.2	49
24	An approach for predicting groundwater recharge in mountainous watersheds. Journal of Hydrology, 2009, 365, 156-172.	5.4	45
25	Snow Drought Risk and Susceptibility in the Western United States and Southwestern Canada. Water Resources Research, 2019, 55, 3076-3091.	4.2	41
26	Regional fracture network permeability using outcrop scale measurements. Engineering Geology, 2009, 108, 259-271.	6.3	40
27	Groundwater recharge indicator as tool for decision makers to increase socio-hydrological resilience to seasonal drought. Journal of Hydrology, 2018, 563, 1119-1134.	5.4	40
28	Simulated response of groundwater to predicted recharge in a semi-arid region using a scenario of modelled climate change. Environmental Research Letters, 2009, 4, 035003.	5.2	38
29	Heat transport simulations in a heterogeneous aquifer used for aquifer thermal energy storage (ATES). Canadian Geotechnical Journal, 2010, 47, 96-115.	2.8	38
30	Sources of Ground Water Salinity on Islands Using18O,2H, and34S. Ground Water, 2004, 42, 17-31.	1.3	37
31	Regional evaluation of hydraulic properties in variably fractured rock using a hydrostructural domain approach. Hydrogeology Journal, 2008, 16, 11-30.	2.1	36
32	Geochemical evolution of groundwater on Saturna Island, British Columbia. Canadian Journal of Earth Sciences, 2001, 38, 1059-1080.	1.3	35
33	Influence of geologic layering on heat transport and storage in an aquifer thermal energy storage system. Hydrogeology Journal, 2014, 22, 233-250.	2.1	35
34	Groundwater level responses in temperate mountainous terrain: regime classification, and linkages to climate and streamflow. Hydrological Processes, 2010, 24, 3392-3412.	2.6	34
35	Mixing processes in hydrothermal spring systems and implications for interpreting geochemical data: a case study in the Cappadocia region of Turkey. Hydrogeology Journal, 2014, 22, 7-23.	2.1	34
36	Determining the circulation depth of thermal springs in the southern Rocky Mountain Trench, south-eastern British Columbia, Canada using geothermometry and borehole temperature logs. Hydrogeology Journal, 2006, 14, 159-172.	2.1	33

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37	Modeling coupled surface water â€“ Groundwater processes in a small mountainous headwater catchment. Journal of Hydrology, 2014, 517, 1089-1106.	5.4	32
38	Wave overwash impact on small islands: Generalised observations of freshwater lens response and recovery for multiple hydrogeological settings. Journal of Hydrology, 2015, 529, 1324-1335.	5.4	32
39	Estimating regional-scale fractured bedrock hydraulic conductivity using discrete fracture network (DFN) modeling. Hydrogeology Journal, 2012, 20, 1081-1100.	2.1	31
40	Groundwater travel times for unconfined island aquifers bounded by freshwater or seawater. Hydrogeology Journal, 2008, 16, 437-445.	2.1	27
41	Groundwater freshening following coastal progradation and land reclamation of the Po Plain, Italy. Hydrogeology Journal, 2015, 23, 1009-1026.	2.1	27
42	Response of a fractured bedrock aquifer to recharge from heavy rainfall events. Journal of Hydrology, 2018, 561, 1048-1062.	5.4	25
43	Comparative Analysis of Hydraulic Fracturing Wastewater Practices in Unconventional Shale Development: Newspaper Coverage of Stakeholder Concerns and Social License to Operate. Sustainability, 2016, 8, 912.	3.2	24
44	Simulating Nitrate Leaching Profiles in a Highly Permeable Vadose Zone. Environmental Modeling and Assessment, 2008, 13, 527-539.	2.2	21
45	Assessing risk to groundwater quality using an integrated risk framework. Environmental Earth Sciences, 2014, 71, 4939-4956.	2.7	21
46	Characterizing Pineapple Express storms in the Lower Mainland of British Columbia, Canada. Canadian Water Resources Journal, 2014, 39, 302-323.	1.2	21
47	Statistical modeling of biogenically enhanced permeability in tight reservoir rock. Marine and Petroleum Geology, 2015, 65, 114-125.	3.3	21
48	Evaluation of Multi-Well Test Data in a Faulted Aquifer Using Linear and Radial Flow Models. Ground Water, 1998, 36, 938-948.	1.3	19
49	Quantifying heterogeneity in variably fractured sedimentary rock using a hydrostructural domain. Bulletin of the Geological Society of America, 2008, 120, 225-237.	3.3	18
50	Data integration and standardization in cross-border hydrogeological studies: a novel approach to hydrostratigraphic model development. Environmental Geology, 2008, 53, 1441-1453.	1.2	17
51	Teaching hydrogeology: a review of current practice. Hydrology and Earth System Sciences, 2012, 16, 2159-2168.	4.9	17
52	Risk to water security for small islands: an assessment framework and application. Regional Environmental Change, 2016, 16, 827-839.	2.9	17
53	Potential application of oxygen-18 and deuterium in mining effluent and acid rock drainage studies. Environmental Geology, 2000, 39, 767-773.	1.2	16
54	Comparing approaches for modeling spatially distributed direct recharge in a semi-arid region (Okanagan Basin, Canada). Hydrogeology Journal, 2010, 18, 339-357.	2.1	16

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55	A novel approach to modelling water transport and drug diffusion through the stratum corneum. Theoretical Biology and Medical Modelling, 2010, 7, 33.	2.1	16
56	Investigation of Potential Saltwater Intrusion Pathways in a Fractured Aquifer using an Integrated Geophysical, Geological and Geochemical Approach. Journal of Environmental and Engineering Geophysics, 2002, 7, 19-36.	0.5	15
57	Climate Change and Health in British Columbia: Projected Impacts and a Proposed Agenda for Adaptation Research and Policy. International Journal of Environmental Research and Public Health, 2010, 7, 1018-1035.	2.6	15
58	Building Interdisciplinary Research Capacity: a Key Challenge for Ecological Approaches in Public Health. AIMS Public Health, 2016, 3, 389-406.	2.6	15
59	Groundwaterâ€"Surface Water Interactions in a Mountain-to-Coast Watershed: Effects of Climate Change and Human Stressors. Advances in Meteorology, 2015, 2015, 1-22.	1.6	14
60	Associations of five food- and water-borne diseases with ecological zone, land use and aquifer type in a changing climate. Science of the Total Environment, 2020, 728, 138808.	8.0	14
61	Characterizing a Faulted Aquifer by Field Testing and Numerical Simulation. Ground Water, 1999, 37, 718-728.	1.3	13
62	Hydrochemical and stable isotope assessment of tailings pond leakage, Nickel Plate Mine, British Columbia. Environmental Geology, 2000, 39, 937-944.	1.2	13
63	Data integration across borders: a case study of the Abbotsfordâ€Sumas aquifer (British) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 0 2008, 44, 921-934.	2.4	13
64	Trends in groundwater levels in British Columbia. Canadian Water Resources Journal, 2014, 39, 15-31.	1.2	13
65	Hydroclimatic variables and acute gastroâ€intestinal illness in <scp>B</scp>ritish <scp>C</scp>olumbia, <scp>C</scp>anada: A time series analysis. Water Resources Research, 2015, 51, 885-895.	4.2	13
66	Assessing the suitability of hydrometric data for trend analysis: The â€˜FlowScreenâ€™ package for R. Canadian Water Resources Journal, 2017, 42, 269-275.	1.2	13
67	Constraining Aquifer Architecture with Electrical Resistivity Imaging in a Fractured Hydrogeological Setting. Journal of Environmental and Engineering Geophysics, 2007, 12, 323-335.	0.5	12
68	Assessment of the Impact of Nutrient Management Practices on Nitrate Contamination in the Abbotsford-Sumas Aquifer. Environmental Science & Technology, 2007, 41, 7229-7234.	10.0	12
69	Application of statistical approaches to analyze geological, geotechnical and hydrogeological data at a fractured-rock mine site in Northern Canada. Hydrogeology Journal, 2014, 22, 1707-1723.	2.1	12
70	Hydrogeochemistry and geothermal characteristics of the White Lake basin, South-central British Columbia, Canada. Geothermics, 2002, 31, 169-194.	3.4	11
71	Recharge sensitivity to local and regional precipitation in semiarid midlatitude regions. Water Resources Research, 2009, 45, .	4.2	11
72	Comparative analysis of hydraulic fracturing wastewater practices in unconventional shale developments: Regulatory regimes. Canadian Water Resources Journal, 2017, 42, 122-137.	1.2	11

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73	Changing Water Resources Under El NiÃ±o, Climate Change, and Growing Water Demands in Seasonally Dry Tropical Watersheds. Water Resources Research, 2021, 57, e2020WR028535.	4.2	11
74	An investigation into the effects of diffusion on salinity distribution beneath the Fraser River Delta, Canada. Hydrogeology Journal, 2006, 14, 1423-1442.	2.1	10
75	Seasonal variation of acute gastro-intestinal illness by hydroclimatic regime and drinking water source: a retrospective population-based study. Journal of Water and Health, 2014, 12, 122-135.	2.6	10
76	Low Flow Variability in Groundwater-Fed Streams. Canadian Water Resources Journal, 2007, 32, 227-246.	1.2	9
77	Evaluating the sensitivity of DRASTIC using different data sources, interpretations and mapping approaches. Environmental Earth Sciences, 2011, 62, 1577-1595.	2.7	9
78	Enhancing water security in a rapidly developing shale gas region. Journal of Hydrology: Regional Studies, 2017, 11, 266-277.	2.4	9
79	Seasonal statistics: The â€˜seasâ€™ package for R. Computers and Geosciences, 2007, 33, 944-951.	4.2	8
80	Estimating soil thaw energy in sub-Alpine tundra at the hillslope scale, Wolf Creek, Yukon Territory, Canada. Hydrology Research, 2009, 40, 1-18.	2.7	8
81	Evaluating the use of a gridded climate surface for modelling groundwater recharge in a semiâ€arid region (Okanagan Basin, Canada). Hydrological Processes, 2010, 24, 3087-3100.	2.6	8
82	Resolving scales of aquifer heterogeneity using ground penetrating radar and borehole geophysical logging. Environmental Earth Sciences, 2011, 63, 581-593.	2.7	8
83	Preface: Hydrogeology of shallow thermal systems. Hydrogeology Journal, 2014, 22, 1-6.	2.1	8
84	Investigating the hydraulic role of a large buried valley network on regional groundwater flow. Hydrogeology Journal, 2019, 27, 2377-2397.	2.1	8
85	Using fuzzy logic for modeling aquifer architecture. Journal of Geographical Systems, 2007, 9, 289-310.	3.1	7
86	Independent component analysis of localâ€scale temporal variability in sedimentâ€water interface temperature. Water Resources Research, 2015, 51, 9679-9695.	4.2	7
87	Climate change impacts on snow and streamflow drought regimes in four ecoregions of British Columbia. Canadian Water Resources Journal, 2021, 46, 168-193.	1.2	7
88	Use of stream response functions to determine impacts of replacing surface-water use with groundwater withdrawals. Hydrogeology Journal, 2010, 18, 1077-1092.	2.1	6
89	Comparing the groundwater contribution in two groundwater-fed streams using a combination of methods. Canadian Water Resources Journal, 2016, 41, 554-571.	1.2	6
90	Approaching four decades of forest watershed research at Upper Penticton Creek, British Columbia: A synthesis. Hydrological Processes, 2021, 35, e14123.	2.6	6

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91	The Successful Use of Microgravity Profiling to Delineate Faults in Buried Bedrock Valleys. Ground Water, 1996, 34, 1132-1140.	1.3	5
92	Use of Pb, 18O, and 2H Isotopes in Mining-related Environmental Studies. Mine Water and the Environment, 2004, 23, 119-132.	2.0	5
93	Climate controls on nitrate concentration variability in the Abbotsford-Sumas aquifer, British Columbia, Canada. Environmental Earth Sciences, 2015, 73, 2895-2907.	2.7	5
94	Upscaling permeability for reservoir-scale modeling in bioturbated, heterogeneous tight siliciclastic reservoirs: Lower Cretaceous Viking Formation, Provost Field, Alberta, Canada. Marine and Petroleum Geology, 2017, 88, 1032-1046.	3.3	5
95	Differentiating sources of dissolved lead in mine waters using lead isotope techniques, Sullivan Mine, British Columbia. Water Resources Research, 2003, 39, HWC 1-1-HWC 1-13.	4.2	4
96	Comparing Approaches for Reconstructing Groundwater Levels in the Mountainous Regions of Interior British Columbia, Canada, Using Tree Ring Widths. Atmosphere, 2020, 11, 1374.	2.3	4
97	Mapping the Vulnerability of Groundwater to Wastewater Spills for Source Water Protection in a Shale Gas Region. Sustainability, 2021, 13, 3987.	3.2	4
98	Comparing isotopic groundwater age measurements with simulated groundwater ages: example of the Abbotsfordâ€“Sumas Aquifer (USA and Canada) and application. Water and Environment Journal, 2012, 26, 30-37.	2.2	3
99	Climate Change Frames in Public Health and Water Resource Management: Towards Intersectoral Climate Change Adaptation. Climate Change Management, 2016, , 35-48.	0.8	3
100	Quantifying the impacts of climate change on groundwater in an unconfined aquifer that is strongly influenced by surface water. Geological Society Special Publication, 2008, 288, 79-98.	1.3	2
101	Complexity of hydrogeologic regime around an ancient lowâ€angle thrust fault revealed by multidisciplinary field study. Geofluids, 2016, 16, 673-687.	0.7	2
102	Data sets for the Upper Penticton Creek Watershed Experiment: a pairedâ€catchment study to support investigations of watershed response to forest dynamics and climatic variability in an inland snowâ€dominated region. Hydrological Processes, 2021, 35, e14391.	2.6	2
103	A methodology for spatially representing the likelihood of occurrence of natural contaminants in groundwater. Environmental Earth Sciences, 2013, 68, 1863-1875.	2.7	1
104	How Important Are Those Fracture Zones? Scale Dependent Characteristics Revealed Through Field Studies and an Integrated Hydrological Model of a Mountain Headwater Catchment. Frontiers in Water, 2021, 3, .	2.3	1
105	"Detailed Pumping Test to Characterize a Fractured Bedrock Aquifer" by Jeffrey D. Gernand and Jeffrey P. Heidtman, July-August 1997 issue, v. 35, no. 4: 632-637.. Ground Water, 1998, 36, 197-197.	1.3	0
106	Quantifying the impacts of climate change on groundwater in an unconfined aquifer that is strongly influenced by surface water. Geological Society Special Publication, 2008, 288, 79-98.	1.3	0
107	Hazard-specific Vulnerability Mapping for Water Security in a Shale Gas Context. Global Environmental Studies, 2018, , 33-43.	0.2	0
108	Geostatistical characterization of aquifer heterogeneity in large coastal deltas: Implications for geophysical data collection. , 2021, , .		0

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109	Characterizing Recharge in Southern Mali Using a Combination of Modeling and Stable Isotopes. Frontiers in Water, 2022, 4, .	2.3	0