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The full list of authors will later be available in Conference Programme

The green marked orals are submitted by members of Scientific Advisory Committee

Abstracts accepted for ORAL PRESENTATION

Abstract no.	Surname	First Name	Country	Abstract Title
6	Bieroza	Magdalena	SE	Integrating high- and low-frequency water quality monitoring at the catchment scale
7	Tent	Ludwig	DE	Participation of public groups in brook restoration, a vital tool to improve lively habitats: Urban and rural examples of the metropolitan region of Hamburg, Germany
12	Vehanen	Teppo	FI	Improving the status of river fish communities in changing climate: From in-stream habitat restoration to catchment management
13	Collins	Adie	GB	The effectiveness of on-farm measures for delivering multiple benefits: Integrating farm surveys and modelling to co-design solutions at landscape scale
15	Gutierrez Gines	Maria Jesus	NZ	Water quality, ecosystem restoration and traditional knowledge
17	Valkama	Elena	FI	Nitrogen retention by buffer zones in surface runoff and groundwater: A meta-analysis
18	Wendland	Frank	DE	Agricultural nitrogen reduction requirement to reach groundwater and surface water quality targets in North Rhine-Westphalia (NRW), Germany
19	Wendland	Frank	DE	Which time-lags in groundwater have to be taken into account before nutrient reduction measures show effects after implementation? Case study North Rhine-Westphalia, Germany [presented by Michael Eisele]
23	McDowell	Rich	NZ	Perspectives on global nutrient loads and flows
30	Glavan	Matjaž	SI	Evaluation of barriers and issues in providing integrated scientific support for EU policy [presented by Marina Pintar]
31	Vermaat	Jan	NO	Applying ecosystem services as a framework to analyze the possible effects of a green bio-economy shift on Nordic catchments
36	Bedford	Gary	NZ	Regional-scale stream health responses to riparian management
37	Jiang	Yefang	CA	Ongoing release of legacy nitrate from agricultural vadose zone delays groundwater quality improvement response to BMPs

38	Merz	Christoph	DE	Nitrate transport through groundwater into the sea: A ticking time bomb?
39	Collins	Stephen	NZ	Combining the use of age and isotope tracers to shed light on catchment hydrology, groundwater processes and land use effects
41	Ezzati	Golnaz	IE	Investigating the ditch system in retaining and mobilizing nutrients in an intensive dairy farm
43	Srinivasan	MS	NZ	A biophysical framework to describe the linkages between land use and water quality impacts
47	Merchán	Daniel	ES	Irrigation implementation promotes a new nitrate vulnerable zone in the Cidacos River Watershed (Navarre, Spain)
51	Curk	Miha	SI	Modelling potential for sustainable plant production: A case study of apple orchard in southeastern Slovenia
52	Bechmann	Marianne	NO	Soil tillage effects on water quality in a cold climate
53	Skarbøvik	Eva	NO	Setting reference conditions for nutrients in Nordic surface waters: Methodologies, levels, uncertainty and management implications
54	Kühling	Insa	DE	Effects of reduced N-fertilisation strategies on yield parameters and water quality in the drinking water abstraction area Belm-Nettetal (Lower-Saxony, Germany)
59	Højberg	Anker	DK	Improvements in catchment scale modelling for assessing nitrate reduction
63	van den Brink	Cors	NL	Constraining and enabling factors in implementing agricultural innovations in groundwater protection areas in Overijssel, the Netherlands
65	Hilliges	Falk	DE	Opportunities and limits of official reporting data for scientific purposes in groundwater protection
66	van der Veeren	Rob	NL	The potential role of natural capital and ecosystem services in stopping peat oxidation in the Dutch province of Flevoland
67	van der Wal	Annemieke	NL	Long-term field observations may indicate phosphate leaching in sandy agricultural soils
68	Bönsch	Dorothee	DE	Emissions from drained agricultural field: Detecting subsurface drainages by remote sensing
69	Hansen	Birgitte	DK	Hydro-geochemical controls on nitrate response in shallow groundwater to agricultural N regulation in Denmark
70	Hansen	Line	DK	Flexibility in the choice of N abatement measures: Implications for costs of implementation and environmental service provision
71	Coale	Frank	US	Three decades of effort to attain nutrient loading reduction goals in Chesapeake Bay, USA

73	Willis	Gerard	NZ	Nitrogen limit-setting and allocation of discharge rights in New Zealand
74	Tits	Mia	BE	Impact of fertilizer buffer strips on direct nutrient losses in surface water and farmers cost-benefit-balance in Flanders
75	Schullehner	Jörg	DK	Chronic health effects of nitrate in drinking water
78	Surdyk	Nicolas	FR	Agri-drinking water indicators (ADWIs): Linkage between agricultural practice and good drinking water quality
81	Moore	Philip	US	Long-term effects of grazing management and buffer strips on phosphorus runoff from pastures fertilized with poultry litter
83	Fresne	Maelle	IE	Mobilisation, pathway and delivery experiments to understand the role of colloidal P transfer to groundwater
85	Levine	Brian	NZ	Quantifying the ability of Detainment Bunds to attenuate sediments and nutrients in surface runoff from grazed pasture in the Lake Rotorua catchment, New Zealand
86	Feyereisen	Gary	US	Denitrification bioreactors as a structural water quality measure at catchment scale: Performance and lessons learned
91	Thorburn	Peter	AU	Insurance as a tool to help farmers mitigate nitrogen pollution from intensive cropping
94	Kronvang	Brian	DK	A novel indicator-based approach to assess and plan for multifunctional land consolidation
95	Collentine	Dennis	SE	BIOWATER systems attribute survey: Impacts of the bioeconomy on land use and land management in the Nordic countries in the year 2050
96	van't Veen	Sofie	DK	Is it possible to use stream measurements to calculate nitrogen emissions from agricultural areas in Danish catchments? Investigating the possibility to create a nitrogen emission map for catchments
97	Pohle	Ina	GB	Spatio-temporal variability of water quality determinands in Scottish catchments
100	Konrad	Maria	DK	Ground- and surface-water quality: Spill-over effects and spatial trade-offs
101	Moran	Emma	NZ	Agriculture, water quality and accounting for nutrient losses in Southland, New Zealand
104	Quaglia	Gisela	BE	Mitigating pesticide levels in surface waters: Long-term surface water monitoring in an agricultural catchment
105	Wilson	Scott	NZ	Estimating nitrate transit times in the vadose zone in two contrasting regions in New Zealand
106	McClain	Cynthia	CA	Nitrate occurrence in groundwater of Alberta, Canada
107	Navarrete	Soledad	NZ	Decreased nitrate leaching when lactating cows graze plantain (Plantago lanceolata) pastures

109	Harter	Thomas	US	Nitrate contamination of groundwater from agriculture and other land uses in California's Central Valley: An evolving regulatory landscape
111	Singh	Ranvir	NZ	The landscape nitrogen attenuation index: A framework for effective land use practices and water quality outcomes
112	McCloskey	Gillian	AU	Confronting the extremes, droughts and cyclonic rains: Modelling fine sediment export across the Great Barrier Reef catchments, Australia
113	Dougall	Cameron	AU	Confronting the extremes, droughts and cyclonic rains: Modelling dissolved inorganic nitrogen export across the Great Barrier Reef catchments, Australia
114	Friedel	Michael	NZ	A novel data-driven workflow for 3D predictions of groundwater redox status in agriculturally-dominated regions of New Zealand
117	Audet	Joachim	DK	Nutrient retention in restored riparian wetlands in Denmark
118	Laursen	Rikke	DK	Decision support tools for reduction of nitrate and pesticide pollution from agriculture
120	Zak	Dominik	DK	The multi-functionality of integrated buffer zones in Northwest Europe
121	Burbery	Lee	NZ	Denitrification wall trial in a gravel aquifer
124	Stenger	Roland	NZ	Utilising stream monitoring data to elucidate pathway-specific nutrient transfers in meso-scale catchments
125	Bartosova	Alena	SE	The role of climate, socioeconomics, and mitigation efforts in future nutrient loads to the Baltic Sea
127	Mehdi	Bano	AT	Sustainable nitrogen management under climate change in Austria
130	Andersen	Hans Estrup	DK	Modelling and mapping pesticide exposure risk at catchment scale
131	Hernández-Garcí	Iker	ES	Assessing current flow connectivity indexes to understand differences in sediment and nutrient dynamics in two Mediterranean watersheds in Navarre (Spain)
132	Taylor	Ken	NZ	New Zealand's "Our Land and Water" National Science Challenge: Is it making a difference?
133	Mooney	Damien	IE	Agro-chemicals in Irish groundwaters: Investigating the occurrence of veterinary drugs and their transformation products
135	de Vries	Alma	NL	The role of Multi-Actor Platforms in addressing challenges to protect drinking water supplies
136	Djodjic	Faruk	SE	Optimizing placement of countermeasures at landscape scale as low-hanging fruits to reduce phosphorus losses
137	Jordan	Phil	GB	Phosphorus transfers from soil to water: Linking concentration and flux to catchment carrying capacities

142	Fraters	Dico	NL	Monitoring spring water quality to assess the changing impact of agricultural on the water environment: Case study from the loess region of the Netherlands
144	Turner	Ryan	AU	The increasing risk of imidacloprid in Australia's Great Barrier Reef catchments
145	D'heygere	Tom	BE	Interregional coordination on gap analysis in Belgium for the Water framework directive
147	Warne	Michael	AU	Land-use as a predictor of pesticide concentrations, mixture complexity and mixture toxicity
149	Tanner	Chris	NZ	How much wetland would be needed for 20% and 40% reduction in agricultural nitrogen loads into Te Waihora / Lake Ellesmere?
152	Stott	Rebecca	NZ	Automated high frequency and near-real time monitoring of microbial dynamics for assessing health risks from land use on surface waters in Aotearoa / New Zealand
153	Kyllmar	Katarina	SE	Source apportionment of N and P in small agricultural monitoring catchments as a basis for improved classification of river basins
158	Futter	Martyn	SE	The Nordic Bioeconomy Pathways and water quality futures in agricultural landscapes
160	Heidecke	Claudia	DE	The impact of agricultural production and policy on water quality during the dry year 2018
161	Casquin	Antoine	FR	The role of landscape composition and spatial distribution on N and P transfer in agricultural headwater catchments
162	Coppens	Jan	BE	The use of the nutrient emission model NEMO for quantifying losses of nitrogen and phosphorous from agriculture to surface waters in Flanders
163	Klages	Susanne	DE	Nitrogen surplus- a unified indicator for Europe?
167	Boekhold	Alexandra	NL	Innovative governance approaches to protect drinking water resources against nitrate and pesticide pollution from agriculture
171	Pacholski	Andreas	DE	The role of nitrification inhibitors to control reactive N transport from the root zone
172	Thomas	Ian	IE	Improving national mapping of critical source areas of phosphorus and nitrogen losses in Irish agricultural catchments to support policy
173	Dupas	Rémi	FR	Data-driven quantification of nitrate retention and transit time distribution in agricultural catchments
174	van der Grift	Bas	NL	High-frequency monitoring reveals nutrient sources and transport processes at farm level
175	Stenberg	Maria	SE	A voluntary initiative for long-term changes in farmer attitude and behaviour

176	Hasler	Berit	DK	Cost-effective implementation of agri-environmental schemes for nutrient abatement and climate mitigation: A case study in the Baltic Sea region
179	Duncan	Emily	US	Cover crops and nutrient loss from the edge-of-field network in northwest Ohio, USA
180	Commelin	Meindert	NL	Effectiveness of agricultural management practices to reduce pesticide pollution to ground and surface waters – a meta-analysis
182	Groenendijk	Piet	NL	Review of measures to decrease nitrate pollution of drinking water
183	Stutter	Marc	GB	Typing catchments for risk and resilience factors in P pollution and waterbody impacts: Supporting landscape planning
187	Kraft	Michael	DE	Influence of drought on soil water dynamics and nitrate concentrations on agricultural sites in southwestern Germany
188	Verguts	Veerle	BE	Scientific research to support agricultural nutrient management policy in Flanders
194	Schönhart	Martin	AT	Effectiveness of management measures to reduce nitrogen loads from agriculture in temperate regions under climate change
195	Rozemeijer	Joachim	NL	Monitoring for a spatial targeting approach for nutrients
199	Kardos	Máté Krisztián	HU	Spatio-temporal optimization of monitoring networks with respect to water body classification
200	Dickey	John	US	Quantifying nitrate leaching from Central Valley irrigated lands with the Soil & Water Assessment Tool (SWAT)
202	Mockler	Eva	IE	Reducing nutrient losses to water will improve water quality and save farmers money
208	Rosendorf	Pavel	CZ	Regional, seasonal and inter-annual patterns of phosphorus and nitrogen runoff from agricultural watersheds in the Czech Republic after period of fertilization change
210	Holten	Roger	NO	The effect of freezing and thawing on water flow and MCPA leaching in partially frozen soil
211	Lischeid	Gunnar	DE	Artefacts and pitfalls in assessing land use effects on groundwater, stream and pond water quality
213	Bleeker	Albert	NL	Evaluating the Dutch pesticide policies: How successful were they in reaching the targets of the Water Framework Directive?
214	Thorling	Lærke	DK	Thirty years of national monitoring of groundwater and surface water in Denmark
215	Vandermoere	Stany	BE	Reducing phosphorus (P) losses from drained agricultural fields with iron coated sand (-glauconite) filters

216	Knouft	Jason	US	Influence of best management practices on contemporary and future water resources and biodiversity: A watershed-scale assessment in the Midwestern United States
217	Chambers	Patricia	CA	Hydrological variability affects particulate nitrogen and phosphorus in streams of prairie Canada
218	Emmert	Martin	DE	Risk management and risk-oriented groundwater monitoring in well catchment areas
220	Strauch	Michael	DE	Land use optimization based on scenario analysis: An approach to foster multifunctionality in agricultural landscapes
221	Maxwell	Iain	NZ	The power of collaboration and partnerships, moving from problems to solutions through community engagement and landowner participation: The success story of Whangawehi Stream, New Zealand
224	Waterloo	Maarten	NL	Benefits of a participatory approach to monitoring surface water quality [presented by Sieger Burger]
225	Waterloo	Maarten	NL	Assessment of the effect of water quality measures under current and future climate and farming scenarios using a two-step modelling approach
226	Elliott	Jane	CA	Soil and water management for nutrient control in the Northern Great Plains of Canada and the USA
227	Deakin	Jenny	IE	From science to action – the Irish approach to improving water quality
229	Gassmann	Matthias	DE	PFAS – a new class of emerging agrochemicals?
230	Buckley	Cathal	IE	The disconnect between nutrient demand and supply at farms scale: The potential of better nutrient management to achieve better outcomes
231	Bikše	Jānis	LV	New data on nitrate distribution in shallow groundwater for optimization needs of national nitrates groundwater monitoring in Latvia
235	Svendsen	Lars	DK	Baltic Sea Action Plan: Assessing progress towards fulfilling nutrient reduction targets as prerequisite for a non-eutrophied marine environment
236	Pedersen	Betina	DK	Cover crop effect on nitrate leaching following application of solid animal manure and mineral fertilizer
237	Gertz	Flemming	DK	Catchment officers – a new water management approach in Denmark
238	Kjaergaard	Charlotte	DK	Constructed wetlands targeting nutrient removal in agricultural drainage discharge: A new cost-effective mitigation strategy in Denmark
239	de Jonge	Martin	NL	Nitrate, hardness and herbicide metabolites in 40 wellfields in the Eastern Netherlands
242	van Vliet	Marielle	NL	Forecasting nitrate concentrations in in Dutch chalk springs using tritium based travel time distributions
243	Petersen	Jonas	DK	Groundwater protection in Denmark: Getting to yes using BIG data

245	Broers	Hans Peter	NL	Trends in age-dated groundwater: Analysing diffuse groundwater pollution in the Dutch Meuse River basin
246	van Loon	Arnaut	NL	Impact of past and current pesticide use on groundwater sources used for drinking water production in the Netherlands
247	Stenrød	Marianne	NO	Glyphosate and the sustainability of cropping practices in northern climate
248	Strömqvist	Johan	SE	A new national rainfall-runoff and water quality model for England
249	Brouyère	Serge	BE	A combined stable isotope – pharmaceutical compounds approaches for the characterization of nitrate sources in groundwater
252	Rakovic	Jelena	SE	Unravelling the relative importance of different phosphorus forms for transfer processes at the agricultural catchment scale
253	Andjelov	Miso	SI	Modelling of nutrient fluxes in Slovenia for the report on implementation of the Nitrates Directive for the period 2012-2015
254	Daatselaar	Co	NL	Towards more land-based dairy farming in the Netherlands: Effects on nutrient surpluses and nitrate concentration
255	van Leeuwen	Ton	NL	Improving representativeness of national and regional outcomes on nitrogen surpluses and water quality by weighing of farm results
257	Mellander	Per-Erik	IE	Large-scale weather changes and weather extremes influence on phosphorus loss to small agricultural rivers
259	Phillips	Natalie	GB	Investigating atmospheric and terrestrial excedances at GWDTEs and implications for regulation
260	Gömann	Horst	DE	Development and assessment of regionally adapted agricultural nitrogen reduction measures to reach groundwater and surface water quality targets in North Rhine-Westphalia (NRW), Germany
261	Vernier	Françoise	FR	A decision-making information system to support the governance of territories with water issues
265	De Nies	Joris	BE	From a voluntary sustainable fertilisation programme towards a dual policy with mandatory guidance if needed
266	Linefur	Helena	SE	Agriculture in a changing climate – what can we learn from monitoring?
268	Guillemot	Stella	FR	Controls on the spatial and seasonal variations of nutrient concentrations (C, N, P) of headwater catchments at regional level
270	de Koeijer	Tanja	NL	The economic and environmental effects of derogation on dairy farms in the Netherlands
271	Christel	Wibke	DK	“Targeting regulation”: The challenge of addressing varying nutrient reduction need in aquatic bodies, while maintaining equal regulatory constraints for farmers

273	Prins	Henri	NL	Farm management, nutrient results and water quality with focus on maize
274	Howden	Nicholas	GB	Catchment water quality responses across scales and historical loading: How monitoring data may be both informative and misleading
275	Blicher-Mathiesen	Gitte	DK	A new targeted regulation of agriculture in Denmark
279	Gascuel-Odoux	Chantal	FR	Science-policy interfaces on two cases: Drinking water and eutrophication, from the French experience
284	Hitzfeld	Kristina	DE	Small, vulnerable and largely ignored in the past – UBA initiative for an event-driven monitoring of pesticide residues in small surface waters in German agricultural landscapes
287	Mourot	Frederika	NZ	Farm nutrient losses to groundwater in the West Matukituki Valley, Lake Wanaka catchment (Otago region, New Zealand)
288	Middleton	Bob	GB	Evidence-led: Improving catchment management through the use of evidence
289	Stubsgaard	Eike Freeman	DK	Targeted measures in main groundwater recharge areas in the Aarhus Municipality

Abstracts accepted for POSTER PRESENTATION

Abstract no.	Surname	First Name	Country	Abstract Title
2	Putthividhya	Aksara	TH	Long-term monitoring-modelling of agricultural contamination with nitrate in groundwater systems of Thailand
8	Wenng	Hannah	NO	Effects of land use on nutrient losses from small agricultural catchments in Norway
9	McCormack	Michele	IE	A Technology Acceptance Model of factors influencing farmer adoption of
10	Fletcher	James	US	Implementing irrigation best management practices for water resource protection in central Florida
11	Jiang	Sanyuan	CN	Effects of stream nitrate data frequency on watershed model performance and prediction uncertainty
14	Cameron	Carolyn	AU	Delivering policies for cumulative impact management and net benefits to manage land based runoff and improve the resilience of the Great Barrier Reef
16	Collins	Adie	GB	Combining source tracing and process-based modelling to predict the potential impact of on-farm interventions for sediment mitigation at landscape scale

21	Chivers	Charlotte	GB	Utilising hard evidence tools to improve farm advice relating to water quality
27	Baker	Mary-Anne	NZ	A community based approach to water management decisions
28	Botero-Acosta	Alejandra	US	Contemporary and future effects of environmental stressors on non-point source pollution in an intensively managed watershed
29	Stever-Schoo	Burkhard	DE	Indicators for the early detection of nitrate loads in soil under crop production: A demonstration project
32	Manley	Amber	GB	A laboratory scale sterol degradation study for slurry biomarkers and nutrient associations
33	Dhaese	Kristiaan	BE	Nitrate removal rate in a 'in-ditch'-woodchip bioreactor in Flanders (Belgium)
34	Strand	John	SE	Nutrient monitoring as a base for status classification in the Water Framework Directive: The importance of location of sampling points
40	Wey	Hannah	CH	Monitored risk management for nitrate leaching from arable fields above a groundwater aquifer
42	Fletcher	James	US	Florida Fertilizer Ordinance mobile web app matches work locations to applicable regulations [presented by Esen Momol]
45	Valkama	Elena	FI	Controlling of nitrogen leaching through conservation agriculture in Kazakhstan
46	Momol	Esen	US	Florida's Green Industries Best Management Practices training promotes sustainable urban landscapes [presented by Taylor Clem]
48	Zhang	T.Q.	CA	Modelling climate change impacts on crop yield and P loss in a tile-drained field of Lake Erie basin
49	Jabro	Jay	US	Tillage effects on nitrate leaching through unsaturated zone under irrigated corn-soybean production
50	Goeller	Brandon	NZ	Siting, scaling, and selecting edge-of-field tools to attenuate contaminants across agricultural landscapes [presented by Chris Tanner]
55	Sofo	Adriano	IT	Water and soil quality in Mediterranean orchards managed with sustainable or conventional systems
57	Jensen	Ditte	DK	Variations in the Danish permit practice and the resulting differences in urban discharge of stormwater to the recipients
60	Li	Hengpeng	CN	Agricultural nitrogen emissions in response to historical shifts (1980s-2010s) of fertilizer application in the Taihu Lake Basin, China
62	Petros	Peter	FI	Improving knowledge on water table control in drained cultivated peatland sites: Hydrological studies to assist in GHG emissions mitigation

64	Glendell	Miriam	GB	Applying complementary modelling approaches to link phosphorus pollution and ecological impact – an example from Scotland
72	Zhang	Yi-Fan	AU	SSIM – A deep learning approach for recovering missing time series sensor data
76	Frick	Hanna	CH	Tracing the fate of 15N-labelled animal manure in the environment
77	Strenge	Eva	AT	PhosFate: A model for cost-effective management of phosphorous emissions
79	Molina-Navarro	Eugenio	DK	Modelling the impact of climate and land use changes in the ecological status of the Odense Fjord basin´s streams using Bayesian Belief Networks
80	Zupanc	Vesna	SI	Water quality in vulnerable and shallow aquifers under intensive vegetable production zone
82	Gair	Jonathan	GB	Quantifying groundwater nitrogen pollution risk using statistical emulation of a process-based water quality model: An example for Scotland
84	Liang	Kang	CA	Mitigation of nitrogen leaching from potato-based rotations in Atlantic Canada: New insights from a nitrogen budget and dynamic analysis
87	Bolster	Carl	US	Evaluating the potential for calculating the degree of P saturation from ammonium lactate extractable Al, Fe, and P
88	Vogeler	Iris	DK	Catch crops for increasing nitrogen use efficiency in cropping systems
90	Holbak	Maja	DK	Calibration and validation of the Daisy model for predicting pesticide leaching
93	Kronvang	Brian	DK	A conceptual mini-catchment typology for analyzing eutrophication risks in surface waters in the Nordic countries
98	Kim	Hyojin	DK	Complex nitrate pathways in two Danish catchments: Importance for the future targeted N regulation of agriculture
99	Wheeler	David	NZ	Uncertainty in a farm-scale model for estimating N leaching
103	Quaglia	Gisela	BE	A model for spatial targeting of landscape measures to reduce impact of pesticides in surface water
108	Kouba	Claire	US	Total salt loads and specific thresholds: Can two California regulatory schemes work together?
110	Singh	Ranvir	NZ	Benign denitrification in shallow groundwaters
119	Kaste	Øyvind	NO	Counteracting effects of climate and land-use change on riverine element run-off? A combined analysis of Norwegian natural and agricultural headwater catchments and large rivers' monitoring data
122	Holm	Helle	DK	Combining information from aerial photography with root zone and drainage water to document how areas with limited growth led to higher nitrogen loss

123	Hashemi	Fatemeh	DK	Analysis of mitigation measures at farm and landscape scales to obtain targeted nitrate reduction in a Danish catchment
126	Stenger	Roland	NZ	Critical Pathways: Unravelling sub-catchment scale nitrogen delivery to waterways
128	Burbery	Lee	NZ	In-stream woodchip denitrifying bioreactor trial, New Zealand
129	Marttila	Hannu	FI	Nordic bioeconomy and surface water quality, how do they interact?
134	Friedel	Michael	NZ	Identifying climate- and land-use change signals in a freshwater ecosystem, Upper Illinois River Basin, USA
138	Mehrtens	Anne	DE	Tracking veterinary pharmaceuticals: Combined field and laboratory experiments on the fate of veterinary pharmaceuticals in the environment
139	Jordan	Phil	GB	Short rotation coppice willow for waste-water effluent irrigation: Experience and considerations for future assessment
140	Jordan	Phil	GB	A catchment scale monitoring solution for MCPA: Time and space considerations [presented by Rachel Cassidy]
141	Weeber	Marc	NL	Bridging the gap between national models and datasets and the field scale selection of cost effective mitigation options to reduce nutrient losses
143	Krogh	Signe	DK	Groundwater protection in Denmark: Target regulation as a supplement to
146	Carstensen	Mette	DK	Efficiency of measures reducing nutrient losses from agricultural drainage
148	Brussée	Timo	NL	Relationship between organic matter in sandy soil layers and nitrate concentrations in groundwater
150	Turner	Ryan	AU	Monitoring real-time sediment and nitrate in catchments for the protection of the Great Barrier Reef
151	Riley	Meagan	US	Love that dirty water? Investigating the effects of climate change on water quality in the Charles River Watershed
154	Skaalsveen	Kamilla	GB	Assessing the impact of no-till on water related soil functions and the role of farmer networks in knowledge exchange and implementation: Results from interdisciplinary research
155	Blankenberg	Anne-Grete	NO	Bufferzones along streams: Good for environment but bad for food production?
156	Simpson	Zachary	NZ	Meta-analysis of stream sediment phosphorus buffering at baseflow
159	Vuaille	Jeanne	DK	Effect of pesticide application timing on pesticide leaching to drains: predicting the optimum application date
164	Rankinen	Katri	FI	Effects of climate and land use change on water quality in Finnish rivers
165	Jost	Elisabeth	AT	Soil functions assessments as a means for sustainable water and land use management planning: A regional scale exploration of their sensitivity toward processes of global change

166	Yang	Xiaoqiang	DE	In-stream autotrophic nitrate uptake modelling at river network scale based on continuous high frequency data
168	Shedekar	Vinayak	US	Role of cover crops in water budget and nutrient losses in subsurface drained landscapes of Midwestern United States
169	Øygarden	Lillian	NO	Scenarios for agricultural production systems, land use and environmental effects in a future with bioeconomy
170	Bartosova	Alena	SE	Exploring global sediment sources, processes, and impacts with a global dynamic model
177	Ghaffar	Salman	DE	Spatio-temporal evaluation of a semi-distributed hydrological water quality model in central Germany
178	Stutter	Marc	GB	Effective targeting of novel riparian buffer designs
181	Carnohan	Shane	DK	Integrating stakeholder narratives and simulation modelling to support water resource management in data-scarce environments
184	Hansen	Gail	US	Comparing various irrigation, plant, and turfgrass combinations to improve water conservation and quality in Florida's urban landscapes
186	Troldborg	Mads	GB	Combining detailed land use data with national surveys on pesticide usage to better understand the spatiotemporal variability of pesticides in a Scottish catchment
190	Owens	Phillip	US	Long-term spatial distribution of P and other elements following poultry litter applications
191	Burke	Victoria	DE	On the fate of veterinary pharmaceuticals in the unsaturated zone – a lysimeter study
192	Ashworth	Amanda	US	Developing best management strategies for reducing soluble phosphorus losses from poultry litter in grazing systems
193	Reynaert	Sofie	BE	Estimate of nitrate leaching out of the root zone of irrigated potato considering the variability in soil properties within the field
196	Rozemeijer	Joachim	NL	Climate variability effects on chemical and ecological quality of groundwater, lakes, rivers, and coastal waters in the Netherlands
197	Urbanc	Janko	SI	Estimation of nitrate leaching from agricultural fields by means of mini lysimeters
198	Vu	Ngoc Quynh	DE	Application of calibrated reagent-free spectrophotometry in determining nitrate in river water
201	King	Warren	NZ	Next generation farming systems: Transformation by design
203	Dynes	Robyn	NZ	Development of next generation farming systems using a multi-criteria decision making framework

204	Read	John	US	Rainfall simulation study to assess nitrogen and phosphorus loads in runoff and leachate from Marietta soil amended with poultry litter and cattle manure
205	Thodsen	Hans	DK	Phosporous content in Danish riverbanks
207	Li	Sheng	CA	Hydrology and water quality observed at the outlet of a small agricultural watershed in Atlantic Canada: Effects of climate and land use
212	Vinten	Andrew	GB	Development of a hydraulic model for water management in the Lunan Water, Scotland
219	Futter	Martyn	SE	Phosphorus mass balances in Swedish agricultural catchments
223	Thorling	Lærke	DK	Representative monitoring of the impact of land use on groundwater quality
232	Graversgaard	Morten	DK	Lessons learned from groundwater protection on the Island of Tunø: Are successful mitigation of nitrate exceedances determined by both farmer commitment as well as enforcement mechanisms?
233	Jakubínský	Jiří	CZ	Importance of riparian habitats lining small streams to improve the soil water retention capacity of agricultural landscape
234	Balashova	Natalia	GB	How effective are catchment-based approaches in reducing metaldehyde loss to water supply at a catchment scale
240	Ertaş	Alperen	TR	Determination of the water quality of Balaban Stream (drinking water source of Izmir) in terms of macrozoobenthic organisms
241	Rolighed	Jonas	DK	Parameters for a simple Langmuir-based phosphorus leaching model
250	Retiķe	Inga	LV	Assessment of seasonal changes in spring water chemistry for national groundwater monitoring optimisation in Latvia
251	Verguts	Veerle	BE	Action programme in execution of Nitrates Directive (MAP6) in Flanders: Towards an intensified tailor-made area specific approach
256	Doornewaard	Gerben	NL	Best performing dairy farms in the Netherlands: Their results, strategy and management
258	Zhou	Xiangqian	DE	The effect of river geomorphology on nitrate retention at network scale in Bode catchment, central Germany
263	Aly Jr	Osvaldo	BR	The situation of water resources in agricultural establishments (farms) in Brazil: An analysis of the agricultural livestock census of 2006 and 2017
264	Kjaergaard	Charlotte	DK	Differentiated landscape based strategies for optimized implementation of drainage filter technologies targeting agricultural nutrient losses
267	Grekov	Valeriy	UA	Operational monitoring of land use and field surface runoff
269	Kyllmar	Katarina	SE	Implementation of water retention measures in catchments - a multi-functional and multi-actor approach

272	Deelstra	Johannes	NO	Variability in subsurface drainage behaviour – do soil physical parameters change over time?
276	Mezei-Giber	Alexandra	DE	Quantification of nitrate reduction potential and kinetics of soil samples obtained from sandy aquifers, Schleswig-Holstein, Germany
278	Young	Madaline	NL	Development of a decision support framework to evaluate the impacts of agricultural management on crop, soil, and environmental quality
280	de Klein	Jeroen	NL	Modelling GHG emissions from shallow eutrophic surface waters
281	Reid	Keith	CA	Spatial and temporal trends in risk of phosphorus Loss from agriculture in Canada
282	Carr	Stephen	AU	Monitoring and managing soil acidity on a catchment scale in the Western Australian wheat belt
285	Allen	Brett	US	Fertilizer N rates to optimize bioenergy feedstock production and water quality in semi-arid environments
286	Lescot	Jean-Marie	FR	Tackling water issues in the Charente River basin through greater cohesion between coastal and inland activities: the COASTAL Project
291	Paneru	Carolin	DE	Effects of agricultural land use on nitrate concentrations at catchment scale
296	Bauwe	Andreas	DE	Land management governs nitrate losses: A modelling study
299	Houlbrooke	Dave	NZ	Contaminant losses from contrasting peat soil types and farm dairy effluent regimes
302	Lannergård	Emma	SE	Internal loading from stream bed sediment: insignificant or a missing link?