

## Monday 11 October- Day one

9.30am	Conference opening				
10.30am	Morning tea Visit the posters, exhibition and meeting hub				
	<b>Concurrent 1a</b>	<b>Concurrent 1b</b>	<b>Concurrent 1c</b>	<b>Concurrent 1d</b>	<b>Concurrent 1E</b>
	Sharing knowledge, science and management lesson of wetlands across boundaries – From Alaska, via Northeast Asia to New Zealand symposium			Integrated constructed wetlands - culturally led, science informed symposium	The role of natural infrastructure, particularly wetlands, in future water resource development symposium
<b>Chair</b>	<b>Changwoo Ahn</b>	<b>Shane Orchard</b>	<b>Philippe Gerbeaux</b>	<b>Gabe Ross &amp; Tanya Blakely</b>	<b>James Robinson</b>
11.00am	Raising the awareness of environmental security through collaboration to share knowledge, science, and management lessons of wetlands across boundaries Changwoo Ahn	Restoring peatland in a regional park Philippa Crisp	Can invertebrates be used to assess wetland health? Lovisa Ekelund	The Whakaora Te Ahuriri Constructed Wetland: An Example of Collaboration and Consensus David Murphy	Investing in flood management: lessons on making the case for natural processes James Robinson
11.15am	North Korea and Developments for Wetland Conservation Felix Glenk	Assessing the effectiveness of protected areas as 'safe havens' in the face of natural disasters and climate change Shane Orchard	Seepage wetlands: Valuable assets in our farmed landscape Lucy McKergow	Constructed wetlands at a landscape scale: Experience from Te Ahuriri Su Young Ko & Stu Farrant	"Wetlands don't work": wetlands, water quality and confronting barriers to change Robert McInnes
11.30am	Securing a future for endangered cranes and wetland biodiversity along the East Asian Flyway Richard Beilfuss	Exploring the limits of drought resilience in New Zealand's peatland carbon sink Jordan Goodrich	Sediment properties & denitrification capacity in seepage wetlands in pastoral hill country Suha Sanwar		Wetlands and flow regulation Matthew McCartney
11.45am	The Yellow Sea working group- an innovative regional platform to support the conservation and management of the intertidal wetlands and associated species in the Yellow Sea Raphaël Glémet	Determining the hydrological functioning of palmiet wetlands in the Eastern and Western Cape of South Africa Caitlin Smith	Groundwater discharge into coastal lagoons: Insights From a Waituna-Type lagoon in New Zealand Katie Coluccio	Whakamataara Ahuriri – the journey towards reinstating and restoring a once thriving cultural ecosystem and habitat Mapihi Martin-Paul	Constructed urban wetlands - the opportunities that lie beyond traditional stormwater management Giuseppe La Spina
12.00pm	The Yellow Sea and the East Asian Australasian – Flyway Partnership Hyeseon Do	Monitoring wetland cover and landscape fragmentation changes in Ramsar sites over the past three decades Karen Kie Yan Chan	Flood Mitigation Benefits of Western Coastal Wetlands in Taiwan Yu-Lan Chien	Live Q&A	Flood control and water quality benefits accruing from wetlands in urban environments Priyanie Amerasinghe
12.15pm	Migrations of bar-tailed godwits around the east Asian-Australasian flyway – threats and responses David Melville	Live Q&A	Live Q&A		Technical and stakeholder solutions to enhance the functions of natural infrastructure Matthew Simpson
12.30pm	Live Q&A				Live Q&A
12.45pm	Lunch Visit the posters, exhibition and meeting hub				

1.30pm	Keynote address David Irwin, <i>Isthmus Group</i>				
2.30pm	11th INTECOL 2021 International Wetlands Conference Resolution to Promote the Rights of Wetlands Shona Myers				
2.45pm	Afternoon tea Visit the posters, exhibition and meeting hub				
	<b>Concurrent 2a</b>	<b>Concurrent 2b</b>	<b>Concurrent 2c</b>	<b>Concurrent 2d</b>	<b>Concurrent 2E</b>
	Addressing global issues and promoting wise use under the Ramsar Convention symposium	Wetland Policy symposium			
Chair	<b>Hugh Robertson</b>	<b>Shona Myers</b>	<b>Tim Davie</b>	<b>Amy Whitehead</b>	<b>David Perenara-O'Connell</b>
3.00pm	RAMSAR Introduction	The Policy of Building Constructed Wetland Systems: A Case Study in Metropolitan Taipei, Taiwan Wei-Ta Fang	Wairarapa Moana Wetlands - where to from here? Philippa Crisp	Identifying priority habitats for protecting braided river birds Amy Whitehead	Avoiding perverse outcomes: A solution for concept bias within wetland carbon sinks John Gallagher
3.15pm	Sustainable agriculture and wetlands – reviewing the positive and negative impacts of agricultural practices Hugh Robertson	The root causes of wetland loss in New Zealand Melanie Dixon	What is Influencing the State and Condition of Wetlands in Wellington? Helen White	Tōrea/South Island pied oystercatcher on the move: Linking movements and vital rates to inform conservation of New Zealand mobile species Emma Williams	Response of wetland vegetation regenerating since sugarcane cropping abandonment to managed hydrology and salinity regimes Rebekah Grieger
3.30pm	Coastal blue carbon ecosystems: state of knowledge of blue carbon in the Ramsar site network Siobhan Fennessy	Protecting New Zealand's Wetlands: Essential Freshwater Policies, Regulations and Implementation Tools Jessica Dickinson	Access and impact: To what extent are off-road vehicles affecting saltmarsh wetlands in New Zealand? Johanna Blakely	Exploring the relationship between the Rights of Wetlands, biodiversity loss and threats to human well-being Siobhan Fennessy	Assessing land use change to improve water quality in Lake Ōkareka, New Zealand Gebiaw Ayele
3.45pm	Peatland ecosystems – status, restoration and role in climate regulation Lars Dinesen	Live Q&A	Monitoring the performance of a constructed wetland using an unmanned aerial vehicle (UAV) Marinus Boon	Late Holocene history of long- and short-term environmental changes in a backbarrier wetland, Moawhitu, Rangitoto ki te Tonga/D'Urville Island Catherine Chagué	Hydrology driven state and transition simulation models for flow ecology (HySTSiM) Luke McPhan
4.00pm	Calibration of a global model for regulating ecosystem services of inland wetlands Anne A. van Dam		Impacts of climate change on freshwater wetlands of the Mekong River Delta Triet Tran	Subtropical coastal peatlands of eastern Australia: Past, Present and Future Patrick Moss	Live Q&A
4.15pm	Emerging issues for wetland conservation and wise use Max Finlayson		Live Q&A	On the Use of Surface Elevation Tables to Determine Potential Gains in Soil Carbon Sequestration on Mangrove Sites Undergoing Hydrologic Rehabilitation Ken Krauss	
4.30pm	Progressing the use of the Ramsar convention - discussion			Live Q&A	
4.45 - 5.30pm	Virtual networking function Kindly sponsored by NIWA				

## Tuesday 12 October - Day two

9.15am	Minister for the Environment Address Hon David Parker					
9.30am	Climate Change Hope in 2021: Finding Practical and Game-Changing Wetland Solutions Gillian Davies, BSC Group					
10.30am	Morning tea Visit the posters, exhibition and meeting hub					
	<b>Concurrent 3a</b>	<b>Concurrent 3b</b>	<b>Concurrent 3c</b>	<b>Concurrent 3d</b>	<b>Concurrent 3E</b>	<b>Concurrent 3F</b>
	<b>Carbon sequestration and sea level rise in coastal wetlands: empirical studies and historical reconstructions symposium</b>	<b>Advances in wetland restoration in New Zealand symposium Kindly sponsored by Arawai Kākāriki Wetland Restoration Programme</b>	<b>Floating treatment wetlands: from natural to novel ecosystems symposium</b>			
<b>Chair</b>	<b>Glenn Guntenspergen</b>	<b>Hugh Robertson</b>	<b>Rebecca Eivers</b>	<b>Elizabeth Graham</b>	<b>David Perenara-O'Connell</b>	<b>Tim Davie</b>
10.45am	Coastal wetland carbon storage is controlled by accommodation space and influenced by sea-level rise Kerrylee Rogers	Restoring Aotearoa New Zealand's wetlands: threats, management challenges and the development of restoration tools Colin O'Donnell	Floating wetlands and stream enhancement in an urban stream Katie Noakes	Mai te rangi ki te whenua, mai te whenua ki te rangi: kaupapa Māori literature review identifying land-based values and actions to benefit freshwater systems Corey Ruha	Estimation of Blue Carbon Storage in Indonesia's Coastal Wetlands: Problems and Perspectives Devi Choesin	Leaf litter of riparian tree species has contrasting effects on nutrients leaching from soil during large rainfall events Hannah Franklin
11.00am	Carbon Storage During Upslope Marsh Transgression in Chesapeake Bay, USA Kathryn Schreiner	Rare ecosystems – recovery of Sporadanthus raised bog Beverley Clarkson	Treatment of organic compounds in floating plant root mat Zhongbing Chen	Lagniappe for the working coast: reducing flood risk and protecting sacred sites and tribal communities' resilience by strengthening Louisiana's marshes Julie Maldonado	The effects of sea-level rise and watershed sediment supply on tidal freshwater wetlands Gregory Noe	Restored river-floodplain connectivity promotes woody plant establishment Sarah Fischer
11.15am	Mangrove extent and carbon burial during the closing stages of the postglacial marine transgression Neil Saintilan	Respecting our tuākana: Using eDNA and mātauranga Māori to restore healthy tuna (eel) populations Russleigh Parai	Aerated Floating Treatment Wetlands for enhanced wastewater treatment Chris Tanner	Optimal riparian buffer design – lessons learned from 24 NZ streams Elizabeth Graham	Climate-Change Driven Conservation in a North American Coastal Landscape Shared by Whooping Cranes and People Elizabeth Smith	Warmer water temperatures exacerbate the negative impacts of inundation on herbaceous riparian plants Alanna Main
11.30am	Live Q&A	The threat of invasive non-native plants to New Zealand wetlands and management to protect and restore them Paul Champion	A snap-shot of microbial populations at the Lake Areare floating wetland Suzanne Lambie	Live Q&A	Soil seed banks and wetland restoration potential in Northeast of China Guodong Wang	Impacts of hydrologic management on soil surface elevation and carbon sequestration at Tomago Wetland, Australia Nicole Cormier
11.45am		Understanding predator-prey interactions in New Zealand freshwater wetlands Emma Williams	Nutrient removal and hydraulic performance of a floating wetland treating agricultural pollutants in the Lake Areare catchment Rebecca Eivers		Advancing Wetland Restoration at Ramsar Sites and Beyond Andy Herb	Live Q&A
12.00pm		Quantifying nutrient addition impacts on pristine wetlands & methods to calculate change from baseline Olivia Burge	Live Q&A		Live Q&A	
12.15pm	Lunch Visit the posters, exhibition and meeting hub					

	Concurrent 4a	Concurrent 4b	concurrent 4c	Concurrent 4d	Concurrent 4E	Concurrent 4F
	Using lessons from the past to guide lake and wetland management and revitalisation	Advances in wetland restoration in New Zealand symposium continued <i>Kindly sponsored by Arawai Kākāriki Wetland Restoration Programme</i>	Review of current methods for sharing wetland knowledge and explore future needs and solutions symposium	Declaration on Wetland Rights: Responding to Nature Rights movement and Scientists' Second Warning to Humanity symposium		
<b>Chair</b>	<b>Jason Butt</b>	<b>Hugh Robertson</b>	<b>Swapan Paul</b>	<b>Gillian Davies</b>	<b>Jenny Davis</b>	<b>Matt Kavermann</b>
1.00pm	Recovery of lake communities following volcanic eruptions: evidence from the palaeoecological record Stuart Caird	Wetland drainage and large-scale catchment modifications in New Zealand James Blyth	WWT – engaging local people for sustainable wetland conservation Chris Rostron	Rights of Nature and Wetland Rights: Responding to the Scientists' Second Warning to Humanity Gillian Davies	Reproduction and dispersal in aquatic plants - the role of sexual and asexual reproduction in <i>Eleocharis acuta</i> (common reed) and <i>Marsilea drumondii</i> (common nardoo) Will Higginson	Who is eating who? Complexities of fish restoration attempts in New Zealand Matt Kavermann
1.15pm	Reconstructing historical cyanobacteria abundances from lake sediment cores: do pigments and DNA tell the same story? Mailys Picard	Up, up, and away – aquatic macroinvertebrate community responses to wetland rewetting Tom Drinan	Mekong University Network as a premiere training and research network for wetland management in the Mekong region Triet Tran	The Living Forest Worldview Patricia Gualinga	Wetland restoration: A sustainable strategy to restore lost ecological functions of wetlands Naima Iram	Native or cultural ecosystem restoration? Insights from the wetland archaeology of Aotearoa Matiu Prebble
1.30pm	Fundamental shifts in aquatic systems following evidence Maori settlement in high country New Zealand Julia Short	Critical barriers, and responses, to achieving wetland restoration in New Zealand Hugh Robertson	Revival The Theory of "Unity between Heaven and Man": Fit Traditional and Community Knowledge In Contemporary Wetland Conservation Scheme and Policy of China Yinru Lei	Wetlands: a necessity - not a gratuitous possibility Eugene Turner	Interrelations between hydro-geomorphological and biological factors in floodplain wetlands of semi-arid regions in New South Wales, Australia Tsuyoshi Kobayashi	Restoring mauri and enhancing the wellbeing of Lake Waorongomai and surrounding wetlands Aroha Spinks
1.45pm	Prospects for wetland recovery clouded by the long-term legacy effects of catchment development, the Murray Darling Basin. Peter Gell	Live Q&A	Indigenous and traditional knowledge can be the new foundation for Wise Use of wetlands Swapan Paul	The Rights of Wetlands in support of a safe climate and effective wetland restoration – The charter model William Moomaw	Wetland waterbirds: Where, when and why they need water Heather McGinness	Delivering mahinga kai outcomes within a catchment wide, multi-party wetland restoration programme Susan Corby
2.00pm	Live Q&A		Live Q&A	Notes of Struggle: Legal and Ethical Strategies to Recognize Nature as a Living Being Patricia Gualinga	Wetland monitoring on a blue planet with rapidly shifting baselines Luca Marazzi	Live Q&A
2.15pm				Cultural, local community and Indigenous peoples' issues for a Declaration of the Rights of Wetlands Matthew Simpson	Understanding the impact of artificial flood schemes on an endangered wetland specialist species: the Australasian bittern Emma Williams	
2.30pm				Declaration on Rights of Wetlands: changing our paradigm to improve wetland outcomes; Max Finlayson	Live Q&A	
2.45pm				Live Q&A		
3.00pm	Afternoon tea Visit the posters, exhibition and meeting hub					

	Concurrent 5a	Concurrent 5b	Concurrent 5c	Concurrent 5d	Concurrent 5E	Concurrent 5F
	Upscaling wetland carbon and greenhouse gas fluxes: from plot to landscape symposium	How in the world do we get people "into" wetlands? Exploring international CEPA case studies	Measuring Coastal Wetland Surface Dynamics in Areas with Vertical Land Movement symposium			Documentary first screening
<b>Chair</b>	<b>Sheel Bansal</b>	<b>Karen Denyer</b>	<b>Christopher M Swarzenski</b>	<b>Philippe Gerbeaux</b>	<b>Shona Myers</b>	<b>David Murphy</b>
3.15pm	Spatially-explicit model of methane emissions from prairie pothole wetlands Sheel Bansal	Welcome & introductions Karen Denyer  Strategies for connecting people with wetlands Christine Prietto, Hunter Wetlands Centre, Australia	The Implication of Vertical Land Motion on Coastal Wetlands: Subsidence and Uplift along the Plate Boundary in New Zealand Paul Denys	Opportunities for Integrating Prairie Pothole Wetlands into Urban Communities Carly Silver	Nine years of long-term research on a "working" constructed treatment wetland in Phoenix, AZ, USA: An example of turquoise Urban Ecological Infrastructure Dan Childers	Whakaora Te Ahuriri: a wetland for Te Waihora
3.30pm	Scaling-up spatially-explicit to regionally-relevant estimates of wetland carbon accounting for prairie potholes Irena Creed	Wetland centres as CEPA delivery tools Chris Rostron, Wetland Link International	Automated elevation corrections using GPS/GNSS to measure water levels in a subsiding Louisiana estuary, USA James R. Fountain	Managed Realignment – Experience from the UK James Robinson	Long-term trajectory of constructed (treatment) wetlands towards urban sustainability and the simplicity (or not) of it: from functions to services, from ecologists to urban planners Paul Bois	
3.45pm	Modeling tidal wetland carbon cycling in the USA using data from a range of spatiotemporal scales Eric Ward	Quick fire CEPA case studies from around the world	Estimating wetland relative sea-level rise using 20 years of SET-MH, GNSS, and tide gage data Camille Stagg	The 4G Ranch Wetlands: The Wetland Solution to Groundwater Recharge, Improved Water Quality, and Habitat Creation Allison Lewis	Emerging studies on the structure and function of coastal urban wetland ecosystems in Miami FL, USA Tiffany Troxler	Live panel session with the director and others involved in the project
4.00pm	Human Impacts to Northern Wetlands - Scaling GHG Fluxes for Canada's National GHG Inventory Lyna Lapointe	Live panel session and Q&A facilitated by Chris Rostron	Twenty years of Saltmarsh Elevation Dynamics Measured using GPS/GNSS and Water Levels Chris Swarzenski	Live Q&A	Restoration of the Kafue Flats, Zambia, as a Working Wetland for all Richard Beilfuss	
4.15pm	Changes in Carbon Storage in Wetlands of the United States: 2011-2016 Amanda Nahlik		Live Q&A		Live Q&A	
4.30pm	Live Q&A	Quick fire CEPA case studies from around the world				
4.45pm	<b>Climate Change - a threat or an opportunity</b> Dr Azzam Awash, <i>American University of Iraq Sulaimani</i>					
6.00pm	<b>Book Launch</b> Te Reo o Repo – Kei konei tonu au: The Voice of the Wetland – I am still here. Yvonne Taura & Bev Clarkson					

## Wednesday 13 October - Day three

9.30am	Ecosystem services of natural, accidental, and designed wetlands in urban environments Nancy Grimm, <i>Arizona State University</i>					
10.30am	Morning tea Visit the posters, exhibition and meeting hub					
	Concurrent 6a	Concurrent 6b	Concurrent 6c	Concurrent 6d	Concurrent 6e	Concurrent 6f
	Conservation in an era of climate and land-use change symposium	Constructing and rehabilitating wetlands for diffuse pollution and biodiversity management in agroecosystems symposium	New Zealand Freshwater Sciences			
Chair	Beth A Middleton	Chris Tanner	Greg Burrell	Shona Myers	Philippe Gerbeaux	Belinda Margetts
10.45am	The Living Water partnership: Can DOC and Fonterra really work together? Can dairying and freshwater thrive side-by-side? Nicki Atkinson/Peter Savage	Quantifying field-scale performance and developing practical guidelines to accelerate uptake of constructed wetlands for on-farm nutrient management Chris Tanner	Time after time: Detecting annual patterns in stream bacterial biofilm communities Anju Gautam	Traditional & anticipated wetland management In Aotearoa farmscapes Di Lucas, Ben Smith & Millan Ruka	Wetlands of the oceanic islands of French Polynesia (South Pacific): ecosystems at high risk! Jean-Yves Hiro Meyer	Urban constructed wetlands-designing to get it right Stu Farrant
11.00am	Red listing of South African wetland ecosystems: comparing a top-down and bottom-up approach Heidi Van Deventer	Strategic wetland restoration and construction to improve water quality in agricultural watersheds in eastern North Carolina, USA Michael Burchell	Relationships in ecological health between connected stream and estuary ecosystems Anna Berthelsen	Waikanae Ki Uta Ki Tai – A treaty house partnership approach to freshwater restoration Steve Bielby	Nexus between EIA and ECDs – not all Ramsar sites are within protected areas Simon Drummond	Constructed Wetlands to treat wastewater for marae (NZ Indigenous communal dwellings): from theory to practice James Sukias
11.15am	Live Q&A	Nitrogen Removal, Greenhouse Gas Emissions, and MeHg production in Wetlands Receiving Nonpoint-Source Nitrate Loads William Crumpton	Mass mortality events in New Zealand freshwater and estuarine ecosystems Greg Burrell	Ngā Awa restoration research, to support 'collaborative river restoration that is enduring, catchment-scale and enhances climate change resilience' Sue Clearwater	The only free drink for a hundred miles: temporary freshwater rock-holes provide an accessible resource to vertebrates of conservation interest in arid Australia Brock Hedges	Ecological restoration of two spring-fed urban waterways in Christchurch Belinda Margetts
11.30am		Implications of Emerging Contaminants on Nitrogen Removal Processes in Treatment Wetlands Tiffany Messer	Filamentous Algae Nutrient Scrubber for diffuse pollution mitigation Rupert Craggs	Building a wetland community of practice: Learnings from global initiatives Marinus Boon & Laura Drummond		Co-development of Final Effluent Wetlands Guided by Māori Knowledge to Lessen the Cultural Impact of Treated Wastewater Discharge to Receiving Waters Rupert Craggs
11.45am		High genetic potential of nitrogen cycling processes result in low N <sub>2</sub> O fluxes in a surface flow constructed wetland treating polluted agricultural runoff Prof Ülo Mander	Biodiversity Conservation in Freshwater Management: Case Studies from Te Papa Atawhai Elizabeth Heeg	What's happening with Aotearoa New Zealand estuaries - connecting people, science and management Helen Kettles	Freshwater scientists need to convince communities their wellbeing depends on sustainable water use Anne Jensen	Structure and composition: The influence of riparian vegetation on river health and macroinvertebrate assemblage composition at large spatial scales Leigh Gould
12.00pm		Design of the treatment wetland determines nitrous oxide emission Kuno Kasak	Live Q&A	Live Q&A	Live Q&A	Live Q&A
12.15pm		Live Q&A				
12.30pm	Lunch Visit the posters, exhibition and meeting hub					
	NZFSS Rōpū Māori AGM					

1.15pm	Reflections from under a rock: from biofilms to bugs, blue duck and big rivers Kevin Collier, 2020 NZFSS medal winner					
1.45pm	Water Compliance & Significance to Wetland Connectivity – Through an Aboriginal Lense Phil Duncan					
2.15pm	Afternoon tea Visit the posters, exhibition and meeting hub					
	<b>Concurrent 7a</b>	<b>Concurrent 7b</b>	<b>Concurrent 7c</b>	<b>Concurrent 7d</b>	<b>Concurrent 7e</b>	<b>Concurrent 7f</b>
	<b>Wetland restoration and functioning improvement symposium</b>	<b>Constructing and rehabilitating wetlands for diffuse pollution and biodiversity management in agroecosystems symposium continued</b>	<b>New Zealand Freshwater Sciences</b>		<b>Australian Freshwater Sciences</b>	
<b>Chair</b>	<b>Prof. Max Finlayson &amp; Prof. Lijuan Cui</b>	<b>Chris Tanner</b>	<b>David Perenara O'Connell</b>	<b>Philippe Gerbeaux</b>	<b>Alisha Steward</b>	<b>Joanne Clapcott</b>
2.30pm	China's Coastal Wetlands in Thirty Years: Degradation Trend, Restoration Practices and Strategies for Function Improvement Lijuan Cui	Constructed wetlands with subsurface flow for nitrogen removal from tile drainage Jan Vymazal	Effects of temperature on swimming capabilities of native New Zealand fish Rachel Crawford	Social-ecological mismatches in wetland ecosystem management: Diverse mechanisms can achieve equity across interest groups Corinne Bataille	Welcome to the AFSS Program Alisha Steward	Mātauranga Māori, history and science combine in "environmental storybook" of Lake Oporoa  Film screening followed by interactive panel session with director Charlotte Šunde (social scientist, Cawthron Institute) and Ngā Puna Rau o Rangitikei project manager Reece Martin (Ngāti Whitikaupeka)  <i>Kindly sponsored by Cawthron</i>
2.45pm	Restoring ephemeral wetlands through community participation - a dry wetland is part of the outcome not a sign of degradation Max Finlayson	Saturated and integrated buffer zones as novel drainage mitigation measures in Denmark Dominik Zak	Surface sediment bacteria as indicators of lake health in New Zealand John Pearman	Developing a database of land use actions to improve river health Christina Robb	The conservation challenge of protecting recently discovered subterranean wetlands and stygofauna in northern Australia Jenny Davis	
3.00pm	Role of governance in sustaining wetlands restoration: Learnings from experiences of Indian National Wetlands Programme Ritesh Kumar	Mitigating the potential for constructed wetlands to release dissolved reactive phosphorus Ben Woodward	Quantifying spatial and temporal patterns in whitebait research: a semiquantitative review Finnbar Lee	Nitrogen signatures and transformations in a constructed wetland system Fabio Silveira	The impact of storm pulses on DOM concentration and composition in Australian Alps peatlands Suman Acharya	
3.15pm	An alternative pathway to restore a wetland - the restoration story of Long Swamp (within the Glenelg River and Discovery Bay Ramsar Site), Victoria, Australia Mark Bachmann	Faecal indicator removal and generation (?) in agricultural wetlands Rebecca Stott	Freshwater Mussel Monitoring in Auckland Lakes – Program Design and Initial Results Ebrahim Hussain	Live Q&A	Seasonality in the trophic base of intermittent Alpine streams Andre Siebers	
3.30pm	Greater Wellington Regional Council's Healthy Waterways programme: Expanding our wetland management toolbox Aprille Gillon	Surface flow treatment wetlands support native biodiversity in intensified agricultural landscapes Brandon Goeller	Identifying the impact of non-native brown tree frog, <i>Litoria Ewingii</i> , on New Zealand pond systems Brittany Earl		Developing stream temperature models for an urbanizing catchment: an approach using spatially balanced sampling and biologically relevant metrics Ryan Burrows	
3.45pm	Hyperspectral Estimation of the Chlorophyll Content in Short-Term and Long-Term Restorations of Mangrove in Quanzhou Bay Estuary, China Wei Lei	Multi-ecosystemic services provided by artificial wetland receiving agricultural subsurface drained water Julien Tournebize	Live Q&A		Organic matter pulses influence ecosystem productivity and food web structure in experimental mesocosms James Hitchcock	
4.00pm	Live Q&A	Doubling the extent of wetlands on dairy farms – what will it take? Aslan Wright-stow			Live Q&A	
4.15pm		Live Q&A				
4.30pm						
5.00pm	NZFSS AGM AFSS AGM					
6.00pm - 7.30pm	'Rohe Kōreporepo The Swamp The Sacred Place' Feature documentary screening Followed by panel session					

## Thursday 14 October - Day four

9.00am	Keynote address Maria Tengo, <i>Stockholm University</i>					
10.00am	Morning tea Visit the posters, exhibition and meeting hub					
	Concurrent 8a	Concurrent 8b	Concurrent 8c	Concurrent 8d	Concurrent 8e	Concurrent 8f
	Wetlandscapes: understanding the large-scale wetland functions in the landscape symposium		New Zealand Freshwater Sciences	New Zealand Freshwater Sciences	Australian Freshwater Sciences	Development of a global wetland school Workshop
Chair	Imenne Åhlén	Mapihi Martin-Paul	Katie Noakes	Anika Kuczynski	Michael Reid & Darren Giling	Chris Rostron
10.15am	Wetlandscape size thresholds for multiple ecosystem service delivery Imenne Åhlén	wet_land: a study of the Hikurangi Repo - an art exhibition that brought a community together to consider its environmental, social history and its future Lisa Clunie, Thorsten Hoppe	Kia titiro whakamuri, ka tere whakamua. Implementing an impactful wai partnership between Tauranga Moana and ESR. Learnings to date and the journey ahead. Sarah Coxon/Pia Bennett	Luxury nutrient uptake by periphyton and diel variation in dissolved oxygen and instream nutrient concentrations Anika Kuczynski	Plant responses and nutrient uptake following relocation of a constructed floating wetland from a construction site into an urban stormwater retention pond Peter Schwammberger	Introducing the concept of a global School of Wetland Conservation James Robinson  How certification of Professional Wetland Scientists can improve wetland practice around the world Matt Simpson  Moderated panel discussion with audience questions welcome
10.30am	Wetlandscape Change Information Database (WetCID): A novel database for wetlandscapes and their changes around the world Navid Ghajarnia	Ecological restoration in Te Hiku, Aotearoa/NZ as a means to oranga (wellbeing) Wendy Henwood, Joanna Murray, Waikarere Gregory	An IoT Sensor Network for Detailed Spatial and Temporal Investigations of Mobilised Contaminants in Catchments James Dare	Using PCR and field data to inform water quality interventions Margaret Leonard	Towards upscaling the effects of flow on river gross primary production Darren Giling	
10.45am	Wetland Connectivity Influences Nutrient Delivery to Downstream Waters Scott Leibowitz	Ngā Pou Mataara Hau: restoring mauri and reconnecting tangata whenua with the Tukituki Awa Kate McArthur, Morry Black, Marei Apatu	In-Lake Biodiversity Monitoring & Ecological Response Metrics - A Step Toward Integrated Ecosystem Monitoring Ebrahim Hussain	Under coastal wetlands - protecting freshwater aquifers from saline intrusion Amandine Bosserelle	The many faces of wetland vegetation: multi-spatiotemporal and trait responses help to maintain diversity, structural complexity and function at landscape scales Cherie Campbell	
11.00am	Serious multidecadal declines in aboveground biomass of the keystone salt marsh species, <i>Spartina alterniflora</i> , are related to climate change in coastal Georgia, USA John Schalles	Stream restoration... lessons learnt from attempting to turn around the fortunes of a lowland stream Emily Arthur-Moore, Mike Cope	Developing a catchment scale monitoring design tool to measure the freshwater benefits of riparian buffers Fleur Matheson	Micro-Investigators: lessons learned from the implementation of a waterway microplastics citizen science programme in Southland, New Zealand Christine Liang	Applying Bayesian Belief Networks to palaeoecological records to improve understanding of floodplain wetland ecosystem change Michael Reid	
11.15am	Live Q&A	Tuia ngā repo me ngā tāngata: Reconnecting communities with their wetlands Yvonne Taura, Cathy Bunting	What drives spatial and temporal patterns in cotton tensile-strength loss in rivers and streams in New Zealand? Joanne Clapcott	Understanding the impact of LED streetlight conversions on flying freshwater insects Michelle Greenwood	Do temperature and water depth influence microcrustacean hatching responses from floodplain wetland sediments Nipa Chaki	
11.30am		Incorporating fishery supply and demand into offsets for mangrove and seagrass loss Deqiang Ma	Live Q&A	Saving fish from the jaws/bucket of an excavator Duncan Law	Live Q&A	
11.45am		Live Q&A		Live Q&A		
12.00pm						



12.15pm	Lunch Visit the posters, exhibition and meeting hub						
1.00pm	From tēnā koutou to yaama; a collaborative journey in water science Ross Thompson, <i>University of Canberra</i>						
1.45pm	Ehh what's up DOC? Down the rabbit hole of dissolved organic matter in aquatic ecosystems Aleicia Holland, <i>La Trobe University</i>						
2.30pm	Afternoon tea Visit the posters, exhibition and meeting hub						
	Concurrent 9a	Concurrent 9b	Concurrent 9c	Concurrent 9d	Concurrent 9e	Concurrent 9f	
		Carbon Research and Management of Terrestrial and Coastal Wetlands		Combining citizen science and community activities to achieve wetland wise use:	Australian Freshwater Sciences		
Chair	Fiona Shanhun	Zhiliang Zhu	David Perenara-O'Connell	Luca Marazzi	Erica Garcia	Philippe Gerbeaux	
2.45pm	Climate Change Assessment Framework: An approach for assessing environmental risk in hydropower catchments Rebecca Sheldon	Hydrarch Succession Pattern of Coastal Wetlands in the Yellow River Delta area: implications for carbon sequestration Siyuan Ye	Traditional knowledge meets drones and spatial imagery to improve wetland management Fernanda Adame	Wetland citizen science: Hard facts or fake news? Robert Mcinnes	Multiple approaches contribute to the collection of baseline information on fish biodiversity in remote waterbodies in northern Australia Erica Garcia	Remote sensing of lacustrine and palustrine wetlands in South Africa under climate change Heidi Van Deventer	
3.00pm	Detecting regional trends in river flows whilst accounting for climate change Doug Booker	Paludiculture: wetland plant cultivation for carbon sinks, for the climate, and for the future Brian Sorrell	Incorporating Indigenous Research Methodologies into Wetlands Management Bradley Moggridge	Engaging K-12 classrooms and community partners to test the effects of saltwater intrusion on organic matter processing in coastal wetlands Nicholas Oehm	Development of downstream passage options for shortfinned eels; the Trevallyn dam downstream eel bypass project David Ikedife	Relationships between land-use practices, geography and global climate change to wetland water quality functions Sindupa De Silva	
3.15pm	Undervalued biogeochemical and fire controls that down-regulate decomposition and alter carbon cycling in peatlands worldwide Curtis Richardson	Carbon cycling in the Supratidal Forested Wetlands of Australia: insights from understudied coastal ecosystems with significant restoration potential Jeff Kelleway	Exploring the immense value of community volunteer involvement in wetland restoration works Mark Bachmann	Citizen science to investigate and reduce plastic pollution in river catchments Luca Marazzi	Fishing the deep web- illegal trade in an unregulated industry Mariah Millington	Phosphorus fate and management on the Somerset Levels and Moors Ramsar ditch systems Ry Crocker	
3.30pm	Live Q&A	Enhancing Carbon Storage in Mangrove Ecosystems of China through Sustained Restoration Actions Luzhen Chen	Sydney Wetland Institute – a successful model for wetland knowledge sharing Swapan Paul	Using Citizen Science to Assess Status of Waterbirds in India Ritesh Kumar	Hydrogeomorphic character = landscape heterogeneity...but do the fish care?! Munique Reid	Characterization of wetland soil colors and redoximorphic features as affected by urbanization and physiography in northern Virginia, USA Stephanie Schmidt	
3.45pm		Land Management Strategies Influence Soil Organic Carbon Stocks of Prairie Potholes Sheel Bansal	Live Q&A	Using Indigenous and local community knowledge for wetland monitoring, management and decision making in Guyana, South America Matthew Simpson	Consequences of hydrological alteration for beta diversity of fish assemblages at multiple spatial scales Rob Rolls	Degradation of palm swamp peatlands in the Peruvian Amazon severely raises emissions of greenhouse gases Kristell Anaik Hergoual'h	
4.00pm		Carbon conservation in an age of climate and land-use change Beth Middleton		Living Bung Yarnda - Developing an environmental stewardship program for Lake Tyers, East Gippsland Pat Bonney	Ecosystem condition monitoring in temporary rivers in Queensland, Australia... with ants, plants, and fish! Alisha Steward	The spatial and temporal variation of flooding of a coastal freshwater depression along the south coast of South Africa Mandy Carolissen	
4.15pm		Live Q&A		Live Q&A	Wise Development: Approaching Wetland Through Community Participation Aparna Phadke	Live Q&A	Live Q&A
4.30pm					Pros and Cons of citizen science, how to make the best use of a participative approach Chris Rostron		
4.45pm					Live Q&A		
5.00pm	Conference closing						
5.30 - 7.30pm	Networking function Riverside Cantina Kindly sponsored by Environment Canterbury						