

# Stormwater 2022

Te Roopu Wai Āwhātanga

18–20 May | Te Pae, Ōtautahi Christchurch

## PRELIMINARY PROGRAMME

WEDNESDAY 18 MAY 2022				
8.00am	Registrations open			
9.00am	<b>Welcome and Conference Opening:</b> <b>Keynote Address: Hon Nanaia Mahuta, Local Government Minister [PLENARY AUDITORIUM]</b> <b>Keynote Address: Professor Te Maire Tau, Ngāi Tahu [PLENARY AUDITORIUM]</b>			
10.45-11.15am	Morning Tea [Venue: Exhibition Area]			
	<b>TE MANA O TE WAI</b> [DOBSON 1]	<b>FLOOD MODELLING</b> [DOBSON 2]	<b>INNOVATION AND DIGITAL</b> [DOBSON 3]	<b>FUTURE OF STORMWATER</b> [DOBSON 4]
11.15am	<i>KŌRERO KI TE WAI – THE VOICE OF WATER IS TRANSFORMING AOTEAROA NZ'S FUTURE Troy Brockbank – Pattle Delamore Partners Ltd</i>	<i>KUMEU FLOODS - PREDICTED 12 YEARS EARLIER Jahangir Islam &amp; Wui-Shen Tay - Auckland Council</i>	<i>AUTOMATED STREAM EROSION ASSESSMENT TO SUPPORT THE KAIPARA MOANA REMEDIATION Josh Irvine - WSP</i>	<i>TOWARDS A NATIONAL DIGITAL TWIN FOR FLOOD RESILIENCE IN NEW ZEALAND Greg Preston – University of Canterbury</i>
11.45am	<i>THREE-WATERS: PRACTITIONER-FOCUSED SOLUTIONS FOR TE ORANGA O TE TAI AO AND TE MANA O TE WAI, Clare Feeney - Environmental Communications Ltd, Barry Carter &amp; Damian Young – Zealandia Consulting</i>	<i>DIRECT RAINFALL, RUNOFF-ROUTING AND FFA IN AN URBAN SETTING - WHAT CAN WE TRUST? Jordan Multby &amp; Ben McMaster - AECOM</i>	<i>CONNECTING PEOPLE THROUGH COLLABORATIVE DIGITAL DESIGN Hamish McLean &amp; Tayler Hubber-Davis - Beca</i>	<i>PRIORITISING STORMWATER CAPABILITY AND CAPACITY DURING WATER REFORM  James Reddish - WSP</i>
12.15pm	<i>HŌTEO SEDIMENT REDUCTION PROJECT: GEOMORPHOLOGY, AND ANCHORING MĀTAURANGA MĀORI IN GEMS Sarah Nolan, Scott Speed, Tom Stephens – Auckland Council</i>	<i>UNCERTAINTY IN THE PROCEDURE OF DEVELOPING DIGITAL ELEVATION MODELS FROM LIDAR DATA FOR FLOOD MODELLING Martin Nguyen - University of Canterbury</i>	<i>WHERE IS THE RAIN? – THE FUTURE OF RAINFALL DATA Kris Fordham - Auckland Council &amp; Luke Sutherland-Stacey Weather Radar New Zealand Limited</i>	
12.45pm	Lunch [Venue: Exhibition Area]			
1.45pm	Keynote Address: Blair Turnbull, CEO Tower Insurance NZ [PLENARY AUDITORIUM]			
	<b>FLOOD RISK &amp; COMMUNICATION</b> [DOBSON 1]	<b>STORMWATER TREATMENT</b> [DOBSON 2]	<b>RAINFALL &amp; RUNOFF</b> [DOBSON 3]	<b>WORKSHOP</b> [DOBSON 4]
2.15pm	<i>COMMUNICATING FLOOD HAZARDS WITH THE PUBLIC - IS IT WORTH THE EFFORT? Nadia Nitsche - Wellington Water &amp; Ben Fountain – Porirua City Council</i>	<i>PERFORMANCE OF A DOWNPIPE TREATMENT SYSTEM REMOVING METALS FROM ROOF RUNOFF Jessika Carvalho - University of Canterbury</i>	<i>EFFECT OF DESIGN RAINFALLS ON DESIGN FLOW RATE AND ATTENUATION STORAGE REQUIREMENTS Lucy Douglas - Pattle Delamore Partners Ltd</i>	<i>WORKSHOP 1: Brief overview of pre-conference workshop – The water sector &amp; Te Ao Māori  Implementing Mahinga kai as a compulsory NOF value Ian Ruru (Maumahara Consultancy Services), Wolfgang Kanz (Awamoana Limited), Emily Afoa (Tektus Consultants)</i>
2.45pm	<i>FLOODWALKER: 3D FLOOD VISUALISATION INITIATIVE Claudia Zucco, Keith Hastings &amp; Jarad Sinni - Jacobs</i>	<i>LIFE CYCLE ASSESSMENT OF STORMWATER DOWNPIPE TREATMENT SYSTEMS Josefien Van Dael &amp; Ariana Wilks - University of Canterbury</i>	<i>BEYOND THE RATIONAL METHOD - HYDROLOGY LESSONS FOR ENGINEERS Kate Purton - Beca</i>	
3.15pm	Afternoon Tea [Venue: Exhibition Area]			

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	POLICY & PLANNING [DOBSON 1]	STORMWATER INFRASTRUCTURE [DOBSON 2]	FLOOD RISK & MODELLING [DOBSON 3]	STORMWATER TREATMENT [DOBSON 4]
3.45pm	<p><i>WHY PLANNING MATTERS - ACHIEVING STORMWATER OUTCOMES THROUGH EFFECTIVE PLANNING</i></p> <p><i>Jenny Vince, Dean Yee &amp; Jess Rose - Beca</i></p>	<p><i>IMPROVING WATER QUALITY IN THE WAITEMATA HARBOUR</i></p> <p><i>Matt Beswick - McConnell Dowell Constructors Ltd &amp; Karun Kumar – McConnell Dowell</i></p>	<p><i>FORESTALLING THE FITZROY: GAUGING THE SOCIAL RISKS OF FLOODING IN ROCKHAMPTON</i></p> <p><i>Matthew Huff &amp; Richard Corbett - AECOM</i></p>	<p><i>WASTE SEASHELLS AS A NEW ENGINEERED SUBSTRATE AND FOR STORMWATER TREATMENT WITHIN LIVING ROOFS</i></p> <p><i>Stephanie Koviessen - University of Canterbury / Environment Canterbury</i></p>
4.15pm	<p><i>CONSENTING STORMWATER NETWORK DISCHARGES TO IMPROVE WATERWAY HEALTH IN CANTERBURY</i></p> <p><i>Paul Hopwood – Environment Canterbury &amp; Michelle Stevenson – Canterbury Regional Council</i></p>	<p><i>HOW TO SELECT THE RIGHT STORMWATER PIPE FOR PROJECTS?</i></p> <p><i>Bruce Balaei - GHD</i></p>	<p><i>FLOOD MODEL RESULTS: HOW SURE ARE YOU OF THAT INCREASE?</i></p> <p><i>Greg Cross &amp; Iain Smith - Beca</i></p>	<p><i>ASSESSMENT OF STORM-WATER SAND FILTER MEDIA FOR A READY-MIX CONCRETE PLANT – A PILOT STUDY</i></p> <p><i>Babar Mahmood - Unitec New Zealand</i></p>
4.45pm		<p><i>DEVELOPMENTS IN REINFORCED CONCRETE PIPE INSTALLATION OVER THE LAST 100 YEARS - WHERE TO NEXT?</i></p> <p><i>Americo dos Santos - Hynds Pipe Systems Ltd</i></p>	<p><i>IMPROVING LONG TERM FLOOD RESILIENCE FROM OVERLAND FLOW WITH REGIONALLY CONSISTENT DATA</i></p> <p><i>Nick Brown - Auckland Council</i></p>	
5.15pm	InterGroup Welcome Function [Venue: Exhibition Area]			

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THURSDAY 19 MAY 2022				
7.15am-8.15am	Pink Ribbon Breakfast			
8.00am	Registration Opens			
8.30am	Keynote Address: Martin Knuijt, Founding Partner of OKRA (Netherlands) [PLENARY AUDITORIUM]			
9.00am	Keynote Address: Bill Bayfield, Chief Executive – Taumata Arowai [PLENARY AUDITORIUM]			
9:30am	Innovation Showcase [PLENARY AUDITORIUM]			
10.30am	Morning Tea [Venue: Exhibition Area]			
	<b>GREEN INFRASTRUCTURE [DOBSON 1]</b>	<b>PROJECT CASE STUDIES [DOBSON 2]</b>	<b>WATER QUALITY MODELLING [DOBSON 3]</b>	<b>EDUCATION &amp; TRAINING [DOBSON 4]</b>
11.00am	NATURE-BASED SOLUTIONS TO INCREASE URBAN WATER CYCLE RESILIENCE IN EUROPE: CURRENT STATE, TOOLS, WAY FORWARD <i>Karine Borne - NIWA</i>	CHURCHILL EAST – PLANNING PUMPSTATION ASSET MANAGEMENT FOR FUTURE RESILIENCE AND NATIVE SPECIES <i>Kim Longman - GHD, Ryan Mackinnon - WSP &amp; Richard Doder - Waikato Regional Council</i>	RADICAL ADVANCES IN WATER QUALITY MODELLING - AUCKLAND'S FRESHWATER MANAGEMENT TOOL <i>Thomas Stephens, Healthy Waters - Auckland Council</i>	RIISING TO OUR CHALLENGES IN A SKILLS-SHORT WORLD: A ROAD MAP <i>Clare Feeney - Environmental Communications Ltd</i>
11.30am	OAKLEY CREEK OUTFALL: REDUCING COST, CARBON AND CONTAMINANTS THROUGH WITH GREEN INFRASTRUCTURE <i>Faye Mendes-Underwood &amp; Nick McLean - Beca</i>	MANGAKOOTUKUTUKU URBAN RESEARCH HUB - FIRST 2 YEARS <i>Jennifer Gadd - NIWA</i>	PROACTIVELY PLANNING WATER QUALITY IMPROVEMENTS - A CASE STUDY OF TE AUAUNGA AWA (OAKLEY CREEK) <i>Sally Be - Auckland Council &amp; Shany Curry - WSP</i>	WORKSHOP 2: MAKING STORMWATER GREATER: RAISING THE PROFILE OF STORMWATER IN WATER REFORM <i>Clare Feeney, Environmental Communications, James Reddish, WSP, Allan Leahy, Auckland Council, Linda Norman, ACH Consulting &amp; Bruce Balaei, GHD</i>
12.00pm	PERMEABLE PAVEMENT – MORE THAN JUST A PERMEABLE SURFACE <i>Aidan Cooper - GHD</i>	STORMWATER DETENTION IN DISPERSIVE SOILS - A RISK BASED DESIGN APPROACH <i>Duncan Farish &amp; Luke Janett - Jacobs</i>	ADVANCES OF INTEGRATED MODELLING FROM SEA-TO-MOUNTAIN <i>Theodore Kpodonu - Auckland Council</i>	
12.30pm	Lunch [Venue: Exhibition Area]			
12.30pm-1.00pm	Poster Q&A session			
1.30pm	Keynote Address: Helen Beaumont, Head of Three Waters, Christchurch City Council [PLENARY AUDITORIUM]			
	<b>FISH PASSAGE [DOBSON 1]</b>	<b>POLICY [DOBSON 2]</b>	<b>CLIMATE CHANGE &amp; RAINFALL [DOBSON 3]</b>	<b>WORKSHOP [DOBSON 4]</b>
2.00pm	MAYBE MABEY ROAD NEEDS A FISH PASSAGE...MAYBE? <i>Jerry Liu – Beca</i>	INCENTIVES FOR STORMWATER REUSE – HOW STORMWATER REUSE IN NEW ZEALAND COULD BE INCENTIVISED <i>Hannah West - WSP</i>	A YEAR OF GLOBAL WATERING, <i>Graeme Smart - NIWA</i>	WORKSHOP 3: BARRIERS TO STORMWATER DEVICE MAINTENANCE - PANEL DISCUSSION <i>Mike Hannah – Stormwater360</i>
2.30pm	FISH PASSAGE DESIGN OF HIGH GRADIENT CHANNELS USING COMPUTATIONAL FLUID DYNAMICS (CFD) <i>Mark Groves - WSP</i>	USING BYLAWS TO MANAGE STORMWATER – HOW FAR DOES IT GO? <i>Dean Yee - Auckland Council</i>		
3.00pm	Afternoon Tea [Venue: Exhibition Area]			

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3.30pm	COX'S QUAI FES STORMWATER FACILITY, A "GREENPRINT" FOR SUCCESS Peter Dawson - Beca	STORMY ISSUES – WET WEATHER MONITORING OF CHRISTCHURCH URBAN STREAMS Jennifer Gadd – NIWA & Belinda Margetts – Christchurch City Council	OPERATION CLEAN SWEEP: ADDRESSING PLASTIC PELLET POLLUTION IN THE FREIGHT INDUSTRY Bianca Lilley - Auckland Council & Cushla Barfoot – Wilkinson Environmental Ltd	
4:00pm		THE EFFECT OF SUB-CATCHMENT INDUSTRIALISATION ON THE HEALTH OF AHURIRI ESTUARY Hannah Ludlow - Napier City Council		
4.30pm – 5:15pm	Conference Close [DOBSON 1] Stormwater Group Annual General Meeting [DOBSON 1]			
7.00pm – 11:00pm	Stantec Conference Dinner [THE RIVERS ROOM – TE PAE]			

## FRIDAY 20 MAY 2022

9am – 1pm	Site Visits		
SITE VISIT ONE BELLS CREEK AND DUDLEY CREEK	SITE VISIT TWO EVOLVING STORMWATER MANAGEMENT IN SOUTH-WEST CHRISTCHURCH	SITE VISIT THREE CENTRAL CITY HIKOI – ŌTĀKARO AVON WATERWAY	