



2024 Technical Workshop Programme

9th – 12th April 2024 – Queenstown

Managing Expectations: Quality, Quantity, Resources, Resilience

Tuesday 9 th April		Coronet Room, Rydges Hotel	
Time	Item	Speaker	Organisation
9:30	Registrations Open	Tea and Coffee available	
10:00	Morning Tea		
10:30	Welcome to Technical Workshop & Queenstown	Nick Boyens & Evan Baddock	Otago Regional Council NIWA
10:40	Opening Address by Council Chairperson	Gretchen Robertson	Otago Regional Council
11:00	The role of hydrological data empowering environmental management & decisions	Lee Boon	Pattle Delamore Partners Limited
11:20	Ensuring Monitoring Network Resilience – Opportunities Gained Through Communications Redundancies	Kirstine Malloch	NIWA
11:40	Otago Regional Council's lake buoy monitoring network	Nick Boyens	Otago Regional Council
12:00	Searching for Groundwater - Pacific Island Style	Pete Mason	West Coast Regional Council
12:20	Lunch		
13:20	Keynote Speaker Session: Automating Time Series Data Processing at the USGS: Current Approaches and Vision for the Future	Amber S. Jones	USGS
13:50	Data collaboration across domains and organisations	Paul Sheahan	KISTERS
14:10	Bringing data to life	Michael McDonald	Environment Southland
14:30	NEMS Updates (New QC matrices, Water Temp, DO) & Results of recent Water Quality Regattas	Juliet Milne	Traverse Environmental
14:50	Homegrown Environmental Monitoring: AquaWatch's Journey to Scalable and Precise Real-Time Water Quality Monitoring	James Muir	AquaWatch
15:10	Afternoon Tea		
15:40	Field Day / Gauging Regatta Details	Nick Boyens	Otago Regional Council
15:50	Exhibitor / Trade Stand Presentations	Facilitated by Evan Baddock	
18:00	Social Event at Venue - All invited	<i>Queenstown & Wakatipu Rooms, Level 5, Rydges Hotel</i>	

Wednesday 10th April – Gauging Regatta / Field Day

Time	Item	Details / Venue
9:00	Bus leaves / travel to field site Field Day - Flow Gauging Regatta & demos	Bus leaves outside Rydges Hotel, Queenstown Tucker Beach on Shotover River
15:00	Bus returns to Rydges Hotel	Outside Rydges Hotel, Queenstown

Wednesday 10th April – Data Workshop

Coronet Room, Rydges Hotel

Time	Item	Speaker	Organisation
08:30	Arrival Tea & Coffee		
9:00	Data Workshop Welcome & Introduction	Jennifer Tregurtha	Environment Canterbury
9:10	An Introductory Overview to Hydrologic Information Systems for Aquatic Sensor Data	Amber S. Jones	USGS
9:30	Machine Learning and AI Speed up Data Validation for Quality Assurance	Sean Quereshi	Aquatic Informatics
9:50	Session One Topics	Group Discussion	
10:20	Morning Tea		
10:50	Community Based Monitoring	Juliet Milne	Traverse Environmental
11:10	Session Two Topics	Group Discussion	
11:40	Interactive Session: A Python Package for Automating Aquatic Data QA/QC	Amber S. Jones	USGS
12:30	Lunch		
13:30	How to lower manage expectations and meet annual data targets	Shontelle Milne	Environment Canterbury
13:50	What is happening with my data?	Darren Gerretzen & Jas Robb	NIWA
14:10	Groundwater Quality Metadata: Problems, Solutions & Outcomes	Jennifer Tregurtha	Environment Canterbury
14:30	Session Three Topics	Group Discussion	
15:00	Data Workshop Wrap Up & Feedback	Jennifer Tregurtha	Environment Canterbury
15:05	Data Workshop Close & Afternoon Tea		

Thursday 11th April

Coronet Room, Rydges Hotel

Time	Item	Speaker	Organisation
8:30	Arrival Tea & Coffee		
9:00	Keynote Speaker Session: Progress towards quantifying NZ's seasonal snow	Jono Conway	NIWA
9:30	Access Granted: Stepping up our rivers	Sam Gibbens	West Coast Regional Council
9:50	Stereoscopic camera station development and installation, and HydroSTIV portable overview.	Evan Baddock & Mark Randall	NIWA / Queensland Government
10:10	Old Dogs and New Tricks. STIV & Slope Area meet head on at the mighty Orikaka River in the Buller Gorge	Reuben Stuart & Pete Mason	West Coast Regional Council
10:30	Morning Tea		
11:00	Guidance on using automated anomaly detection for high-frequency water quality data: A collaborative approach	David Wood	NIWA
11:20	Harnessing Data for Water Resource Management: The Otago Regional Council's Innovative Approach	Nicole Nally & Susan Wells	Aquatic Informatics Otago Regional Council
11:40	Evaluating surrogate technologies for river suspended sediment load monitoring	Andrew Willsman	NIWA
12:00	ADCPs and tow tanks – They don't mix	Mic Clayton	Cooma, Australia
12:20	Lunch		
13:20	Keynote Speaker Session: Advancements in Automating Aquatic Time Series QA/QC: Research and Applications	Amber S. Jones	USGS
13:50	Increasing efficiencies and quality of river flow gaugings using autonomous boats	Michael Rogers	Marlborough District Council
14:10	Comparison of high frequency nitrate sensors and consequences for data quality	Alex Vincent	NIWA
14:30	Managing expectations – A case study comparing two remote flood warning flow monitoring sites in the Bay of Plenty	Brent Hutchby	Bay of Plenty Regional Council
14:50	Predicting low oxygen concentrations in lowland streams using stream metabolism and atmospheric reaeration	Ben Woodward	NIWA
15:10	Afternoon Tea		
15:40	Application of index velocity method in complex flow conditions	Daniel Wagenaar	Xylem Water Solutions
16:00	Panel Discussion: More than Measurement: Balancing Expectations, Data Demands, and Resilience	Facilitated by Joe Gendall (Watercare). Panel Members: Rob Davies-Colley (NIWA) Emma Chibnall (Marlborough District Council) Steph Bowis (Tasman District Council) Phil Downes (Environment Canterbury)	
18:00	Formal Workshop Dinner & Drinks	<i>Bazaar Queenstown, 30 Brunswick Street</i>	

Friday 12th April

Coronet Room, Rydges Hotel

Time	Item	Speaker	Organisation
8:30	Arrival Tea & Coffee		
9:00	Keynote Speaker Session: Mutual benefits from integrating river sediment and water quality monitoring	Rob Davies-Colley	NIWA
9:40	Surfbee Application and Findings in Otago	Bradley Thomas	Otago Regional Council
10:00	Groundwater Sampling - The importance of groundwater monitoring bore design and construction	Caitlin Frazer & Nic Love	Pattle Delamore Partners Limited
10:20	Morning Tea		
11:00	Deep groundwater sampling challenges	Ryan Nicol	Pattle Delamore Partners Limited
11:20	High frequency visual clarity sensing – low range turbidity sensor tests	Lucy McKergow	NIWA
11:40	Special Guest Presentation from AHA	Jaymee Woods	Water Corporation, Western Australia
12:00	Prize Giving & Close of Workshop		