



TROUBLE MAKERS

**Catfish, Lakeweeds and Nutrients
- Complex Lake Systems Restoration**

Lakes **WATER**
QUALITY Society

2 Day Symposium

Thursday 31st August and Friday 1st September, 2017
Millennium Hotel, Rotorua

KEY NOTE SPEAKERS



Lindsay Chadderton

Lindsay Chadderton is both a kiwi and the Aquatic Invasive Species Director for The Nature Conservancy's Great Lakes Project. He joined the Conservancy in 2007, where he was tasked with establishing the conservancy's aquatic invasive species program for the Great Lakes region.

Lindsay is part of the team that developed the environmental DNA surveillance method used to track the invasion of Asian carp in the Chicago Area Waterway System that artificially connects the Great Lakes to the Mississippi River basin. He is currently focused on developing new methods for controlling invasive species in the Great Lakes and improving surveillance and response capacity across the Great Lakes region.



Dave Hansford

Dave Hansford is an award-winning writer and photographer based in Nelson, specialising in science and environment issues. He spent 14 years as a press photographer before turning to freelance writing in 2002.

He has worked as a science reporter for National Geographic News and environment writer and columnist on The Listener, and in 2012, had a regular

environment slot on TVNZ's Good Morning show. His writing and photography has also appeared in North and South, Good, NZ Business, BBC Wildlife, Australia Nature, Action Asia, Destinations, Wilderness, Forest & Bird and Seafood magazines, as well as newspapers around the world.



Prof. Brendan Hicks

Brendan Hicks is a Professor in freshwater ecology based at the University of Waikato in Hamilton.

Brendan's research is in freshwater fish ecology, quantification of fish abundance, and responses of native fish communities to invasive fish. Brendan uses stable isotopes to investigate aquatic food webs, and otolith microchemistry to examine fish life histories.



Prof. David Hamilton

David Hamilton is currently Deputy Director of the Australian Rivers Institute, Griffith University, Brisbane.

He served as the inaugural Bay of Plenty Regional Council Chair in Lake Restoration, University of Waikato, for 15 years (2002-2017) following 12 years at the Centre for Water Research, University of Western Australia.

His Ph.D. research at the University of Otago initiated a career in which he has linked research in lake water quality modelling with practical solutions for lake restoration.



Rod Oram

Rod Oram has 40 years' experience as an international business journalist. He has worked for various publications in Europe and North America, including the Financial Times of London.

He contributes weekly to Nine to Noon on RNZ, Newsroom.co.nz and the Larry Williams programme on Newstalk ZB. Rod is also a frequent public speaker on business, economics, innovation, creativity and entrepreneurship, in both NZ and global contexts.

For more than a decade, Rod has been helping fast-growing New Zealand companies through his involvement with The ICEHOUSE, the entrepreneurship centre at the University of Auckland's Business School.



Sir Rob Fenwick

Sir Rob is a conservationist and businessman with a diverse background in resource recovery, biodiversity, heritage conservation, science and iwi governance.

He co-founded Living Earth and led the passage of waste minimisation legislation in New Zealand. He established the NZ Antarctic Research Institute for climate change research and led the restoration of heritage buildings in Antarctica. He is a key figure in Predator Free NZ and the campaign to save the kiwi from extinction. For Ngati Whatua he helped establish the successful broadcasting venture Mai FM. He is a director of Ngati Whatua Orakie, Te Papa, two national science challenges and chairs the panel reviewing the New Zealand fishery system.

Knighthood for services to business and the environment, he is an inductee of the NZ Business Hall of Fame; the Sir Peter Blake Medallist 2015; has an honorary doctorate in Natural Resources from Lincoln University, and the Fenwick Ice Piedmont in Antarctica is named for him.



Mace Ward

Mace Ward is General Manager Parks, Sports and Recreation, Auckland Council

The Parks Sport and Recreation department of Auckland Council is responsible for 4000 parks (45,000 hectares), 42 pools and leisure centres, sport and recreation management, and the administration of co-governed land, including the Tupuna Maunga.

The department seeks to the inspire Aucklanders to be more active, connect to nature, provide outstanding park destinations, conserve natural and cultural heritage and increase Auckland's Maori identity.

Catfish, Lakeweeds and Nutrients - Complex Lake Systems Restoration

Thursday 31st August, 2017

7.30 Registration

Session 1: Scene Setting

Chair: Don Atkinson, LWQS

8.30 Mihi Whakatau and Karakia *Dr Ken Kennedy*

8.40 Te Arawa - Kaitiaki of Te Arawa Lakes
Sir Toby Curtis, Chair, Te Arawa Lakes

9.00 Lakes Water Quality, Lake Weed and Pest Animals
Hon. Nick Smith, Minister for the Environment

9.30 The State of the Rotorua Lakes in 2017
Prof. David Hamilton, Australian Rivers Institute

10.00 Morning Break (30 mins)

Session 2: The Pest Fish Threat

Chair: Hon. Todd McLay, Minister of Trade (TBC)

10.30 The Pest Fish threat and the Great Lakes Example
Lindsay Chadderton, The Nature Conservancy

11.00 Pest Fish throughout New Zealand
Natasha Grainger, DOC

11.20 Lake Rotoiti Catfish Incursion
Prof. Brendan Hicks, University of Waikato

11.40 Catfish in Lake Taupo
Michel Dedual, DOC

12.00 Potential Effects of Catfish on Koura in the Te Arawa Lakes
Ian Kusabs, Ian Kusabs & Assoc.

12.20 Discussion (10 mins)

12.30 Luncheon Break (60 mins)

Session 3: The Lake Weed Menace

Chair: Warren Webber, LWQS

1.30 Lake Weed Then and Now - The Rotorua Te Arawa Lakes
Tracey Burton, NIWA

1.50 Lake Weed - Local Actions and Results
Hamish Lass, BoPRC

2.10 Deoxygenation Impacts of Lake Weed
Max Gibbs, NIWA

2.30 The Restoration of Native Aquatic Plants
Deborah Hofstra, NIWA

2.50 Discussion

3.00 Afternoon Break (30 mins)

Session 4: Whole-of-Lake Weed Strategies

Chair: John Gifford, LWQS

3.30 Strategies to Manage Aquatic Plants
- towards shared understanding
Mary de Winton, NIWA

3.50 Best Practice Toolbox
Paul Champion, NIWA

4.10 Chemical Control of Lake Weeds
Rohan Wells, NIWA

4.30 Discussion (20 mins)

4.50 Free Time (50 mins)

5.30 Annual Mayoral Speaker Forum: Sustainability

Sir Howard Morrison Performing Arts Centre
Panel: Sir Rob Fenwick, Rod Oram

7.00 Symposium Dinner & Entertainment Millennium Hotel

Friday 1st September, 2017

7.30 Registration

Session 5: The Eight Lakes of Tarawera

Chair: Alan Skipwith, Te Pūmāutanga o Te Arawa (TBC)

8.20 Mihi Whakatau and Karakia *Dr Ken Kennedy*

8.30 Predator free New Zealand by 2050 - Benefits for the Lakes
Presenter (TBC)

8.50 Tarawera Lakes Restoration Plan: Overview
Chris Ingle, BoPRC

9.10 Groundwater Study - The Eight Lakes Catchment
Paul White, GNS

9.30 Modelling The Eight Lakes of Tarawera
Chris McBride, University of Waikato

10.00 Morning Break (30 mins)

Session 6: The Eight Lakes of Tarawera (continued)

Chair: Stewart Edward, LWQS

10.30 The Cultural Perspective: Lakeweed and Pest Animals
Ken Raureti, Te Mana o Ngati Rangitahi Trust

10.45 The Impact of 1080 on Aquatic Ecology
Alastair Suren, BoPRC (TBC)

11.00 1080 and the Fight to Save New Zealand's Wildlife
Dave Hansford, Investigative Journalist

11.20 Case Study - Hunua 1080 Project
Mace Ward, Auckland Council

11.40 The Nutrient Impacts of Forestry
Peter Beets, Scion

12.00 Farmer Perspective
Chris Sutton, Rerewhakaaitu

12.15 Discussion (15 mins)

12.30 Luncheon Break (60 mins)

Session 7: Responsibilities, Value and Funding

Chair: Bill Cleghorn, BayTrust (TBC)

1.30 Clean Lakes - What Value? What Cost?
Hannah Mueller, Kessels Ecology

1.50 Lake Tarawera - the Costs of P mitigation and Pest Control
Greg Corbett, BoPRC

2.10 The Cost of Aquatic Weed Control in the
Rotorua Te Arawa Lakes
Paul Champion and Rohan Wells, NIWA

2.30 NEXT Foundation: Perspective on Funding
Jan Hania, NEXT Foundation Environmental Director

2.50 Discussion (10 mins)

3.00 Closing Comments
Warwick Silvester / Kit Rutherford

3.20 Closing Karakia *Dr Ken Kennedy*

Symposium Concludes



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www.lakeswaterquality.co.nz



<https://symposium-mayoral-forum.lilregie.com/>