



» ≈ ANNUAL REPORT

FOR THE YEAR ENDED 31 DECEMBER | 2022



ADVOCATES
FOR THE
TONGARIRO
RIVER

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COMMITTEE 2022

.....

- Carl Bergstrom
Gary Brown » **PRESIDENT**
Warren Butterworth » **CO VICE-PRESIDENT**
Tim Castle
Virginia Church
Sam Coxhead
Mike Forret
Richard Kemp » **CO VICE-PRESIDENT**
Alasdair Keucke
John Martin
Julian Proctor
John Toogood » **TREASURER**
Eric Wilson » **SECRETARY**

LIFE MEMBERS

.....

- Dr Mark Cosgrove
Dr Stuart Crosbie
Heather McDonald
Bob McDonnell
Sylvia Smith
Eric Wilson

COVER



The west mouth of the Tongariro Delta with debris that didn't make it to the lake from the more than 10 floods of 2022.

Registered Office:
**Advocates for the Tongariro
River Incorporated**
117 Taupahi Road
Turangi 3334

Contact can be made through our website
www.tongariroriver.org.nz

≈ **NOTICE OF ANNUAL GENERAL MEETING**

The twenty first Annual General Meeting of the Advocates for the Tongariro River Inc. will be held at 139 Taupahi Road, Turangi, Saturday 20 May 2023, 9.30am. All welcome.

≈ **AGENDA**

The business of the Annual General Meeting will be to:

- record those present and note apologies
- receive the minutes of the twentieth Annual General Meeting
- receive the President's report
- approve the financial statements
- consider motions of which due notice has been provided. The full rules of the of the Advocates for the Tongariro River Inc. are printed in the 2004 Annual Report and are also available on the Advocates website www.tongariroriver.org.nz
- appoint an executive committee comprising a president, vice president, a secretary, a treasurer and 10 committee members
- consider any other matters.

≈ **MINUTES**

Minutes of the twentieth Annual Meeting of the Advocates For The Tongariro River, Saturday 21st May 2022, 10.00am 139 Taupahi Road, Turangi.

Present

Richard Kemp, Gary Brown, Carl Bergstrom, Virginia Church, Mike Forret, Alasdair Keucke, Julian Proctor, John Toogood, Eric Wilson, George Asher, Mike Fransham. George Asher was welcomed to the meeting. He is Co-chair of Te Kopu a Kanapanapa.

Apologies

John Martin, Warren Butterworth, Tim Castle, Sam Coxhead, Renny Cunnack, Sue Martin, Paul Breen, Heather Macdonald, Jen Shieff.

Apologies noted.

Minutes of the 19th Annual Meeting

Matters arising:

1. View Shafts: Remain a work in progress. Dave Lumley is in agreement for the view shafts. to identify viewing areas.
2. Covid restrictions and other understandable matters stalled the matter being completed.

Moved: Alasdair Keucke Seconded Richard Kemp, “That the Minutes are a true and accurate record”. *Carried.*

President's Report

The President's Report as published in the 2021 Annual Report. The Report was taken as read.

Moved: Moved John Toogood Seconded Carl Bergstrom, "That the President's Report is received."

Financial Report

Treasurer noted that donations exceeded subscriptions due to one very generous donation. Few had taken up the opportunity of a constant membership from one year to the next and subscriptions are coming in slowly.

Moved: Virginia Church, Seconded Mike Forret, "That the Finance Report be accepted." *Carried.*

John Toogood thanked for the clarity and accuracy of Finance for Committee and Annual Reports.

Election of Officers

In the absence of nominations nor resignations it was *Moved* "That the existing Committee be the committee for 2022." Eric Wilson, John Toogood. *Carried.*

With the consent of the meeting the following members were elected:

Chairman: Gary Brown, Co Vice Chairmen: Warren Butterworth, Richard Kemp, Secretary: Eric Wilson, Treasurer: John Toogood, and Committee members: Carl Bergstrom, Tim Castle, Virginia Church, Sam Coxhead, Mike Forret, Alasdair Keucke, John Martin, Julian Proctor.

Guest, George Asher was invited to the meeting for the committee to discuss with him the content of Te Kaupapa Kaitiaki and how we may work with Iwi to achieve common aims. Discussion included;

1. Access downstream on the true right bank along the 20 meter strip of the river

bounded by the Grace farm. George explained Maori Land Amendment and Maori Claims Act 1926 gave access to anglers with fishing license and rod over 20 metre strip alongside the river that was Maori Land after 1926. The Act in its formative stage in 1923 gave Maori owners the right to change their land from Maori Land title to General land title. Then owner of Grace farm, Puataata Alfred Grace did that which meant the farm was no longer legally Maori Land. Access is by consent of the Grace Farm landowners.

2. Te Kopu a Kanapanapa is the committee: 4 from Ngati Tuwharetoa, 2 from Taupo District Council and 2 from Waikato Regional Council. The committee is co-chaired by George Asher and Taupo Mayor David Trewavas.
3. The draft, Te Kaupapa Kaitiaki. sets out the aspirations of 26 Hapu of Ngati Tuwharetoa under headings: Cultural, Spiritual and Environment.
4. Discussion was on the areas of interest to us in the document:
Page 35 Te Waiora me nga mahinga objective 3 To protect freshwater ecosystems, indigenous species and trout fisheries and the outcome: A reduction in pest plants and animals. Outcome 6 improved ecological health and wellbeing of indigenous species and trout fisheries.
Page 37 Taurima Issue. Pest Plants and animals have negative impacts on the environment and wider community
5. Under the Treaty settlement they have a compact with DOC for work to be carried out using people of Ngati Tuwharetoa. Such work is with wilding pines and willows and other.
6. Our written concerns should be copied to each party of Te Kopu a Kanapanapa
7. Expressions of concern with issues being sent to higher bodies and not being further dealt with.
8. Taupo Waters and Te Kaupapa Kaitiaki have issues overlapping to be worked through and will take time.
9. Submissions will be called in June on Te Kaupapa Kaitiaki and the final document released by the end of the year.

George sincerely thanked by President.

The meeting closed at 11.15am.

≈ **PRESIDENT'S REPORT 2022**

President Gary Brown reports

Nga mihi nui kia koutou katoa

Warm greetings to our advocate members

It is my pleasure to report on our committee activities for the 2022 year.

During the year we held 5 meetings in January, March, May, September and November.

As members will be aware our major function is to act as a watchdog group to help maintain the pristine environment of the Tongariro river system, and to monitor the health of the Taupo/Tongariro fishery, A further important function is to help maintain river access for our members and the public.

The 2022 year provided several challenges with regard to the seemingly increased number of flood events-one or two with cumec volumes in excess of 500cm.This was of particular relevance to the lower river and Delta area.

During the year we maintained liaison with Waikato Regional Council, Department of Conservation, Taupo District Council, Taupo Harbour Master and iwi representatives.

Possible changes to Taupo fishing regulations is a matter we are keeping a close eye on where they are likely to affect the quality of members enjoyment of the Tongariro experience.

DOC scientist Michel Dedual retired during the year. Michel's contribution to our scientific knowledge of trout in Lake Taupo has been very valuable and we appreciate his attendance at several of our meetings. We wish Michel all the best for the future.

Our Advocates secretary Eric Wilson has kept members up to date with his informative blogs during the year. We are indebted to Eric for his excellent work and it helps Eric if members let him know of any news or anecdotes relating to the Tongariro area or fishery.

Major issues we had involvement with during the year were:

1. WAIKATO REGIONAL COUNCIL (WRC) TONGARIRO WORKS PLAN

The WRC is responsible for flood and river bank protection. This includes vegetation that would impede river flow in a flood. We have a major concern with Willow growth both in the river and on the beaches. We are not seeing implementation of the Works plan and are concerned as neglect is causing work done in the past to be undone. We will continue to liaise with WRC as there are several areas needing urgent attention.

2. RIVER VIEW SHAFTS

There are several locations along the river trail where vegetation growth has interrupted views of the river. Committee member Richard Kemp has had several discussions with David Lumley of DOC who has accepted the need to maintain view shafts in selected areas and has offered to identify suitable areas where view shafts can be opened up.

3. TAUPO FISHERY ADVISORY COMMITTEE

Advocate committee member Julian Proctor is now chairman of TFAC and he and fellow TFAC committee member Richard Kemp keep us up to date with Taupo fishery issues.

4. RIVER FLOODING

The river has experienced a number of substantial floods during the year- the largest reaching a level of 624 cumecs. Flooding has resulted in severe erosion of river banks and changes to fishing pools – particularly in the lower river and delta area, The floods have also washed downstream trees and vegetation which have resulted in restricted fishing water in several pools. Several tree stumps and branches have accumulated in the delta area near the river mouth where consistently high lake levels have prevented this material from flowing into the lake. We have had discussions with Taupo Harbourmaster Jamie Grant who is currently looking into the possibility of removing some of this material in the lower delta area. (Refer to appendix 4 which provides historic flood graphs for the river).

5. RIVER ACCESS

Maintaining comfortable river access—particularly to some pools below the main road bridge is a problem, We have discussed access issues with WRC. George Asher (Co-chair of Iwi developed committee Te Kopu a Kanapanapa) attended our May meeting and offered to assist with Iwi/Advocates /WRC/DOC liaison. During this meeting we agreed to keep George Asher informed of our concerns and to write to Te Kopu a Kanapanapa through WRC.

6. AERIAL SURVEY OF RIVER

During the November meeting it was decided to investigate the most appropriate method of obtaining an aerial photographic river survey to assist with mapping locations where river maintenance work is needed, where better angler access would be desirable. The committee agreed to fund the survey to be carried out during the 2023 year.

7. WILDING PINE INFESTATION

Wilding pine proliferation in the river environment is a continuing problem. John Toogood has had a series of discussions with the Department of Conservation and local landowners with the purpose of obtaining permission for pine eradication on the various landholdings in the upper river area. We are hopeful that closer landowner liaison in the near future will enable some action on this issue.

8. FISHERY

The river fishing generally during the 2022 season was excellent with many good quality fish being taken-several in excess of 2KG.During the year my fishing partner and I enjoyed some great catches and our smoker has been very busy. Richard Kemp continues to keep our committee up to date with fishery issues and with reports from his involvement with the TFAC committee.

9. MEMBERSHIP

Our membership remains in a reasonably healthy state, but to be effective as an advocates group it is important to retain and Increase our membership base. I strongly request all members to introduce at least 1 new member in the 2023 year. Special thanks are due to Mike Forret who has organized our new membership payment system.

10. FINANCIAL

Our finances remain in a strong position and thanks are due to Treasurer John Toogood for his continued excellent work in maintaining our financial records.

Conclusion

It has been my pleasure during the year to work with our committee who are all very dedicated and active in addressing the various issues outlined in this report.

Two of our members, Warren Butterworth and Virginia Church have had health issues during the year and we wish them well in achieving a full recovery.

Once again thanks are due to Eric and Lorraine Wilson who have hosted our meetings and provided coffee and home cooking which has been much appreciated. Thanks are also due to Richard and Honor Kemp who hosted the 2022 AGM at their Turangi home. In conclusion I trust all members will have the opportunity to enjoy the Tongariro river environment and that good fishing continues during the 2023 season.



Gary Brown *President*

≈ **FINANCIAL STATEMENTS**

For the 12-month period ended 31 December 2022

Income and Expenditure

		2022	2021
		\$	\$
Receipts			
<i>Income</i>	Subscriptions	1,798	2,230
	Donations	2,236	2,550
		4,035	4,780
	Interest	740	126
<i>Projects/Grants</i>	Pharazyn Trust	3,000	3,000
		7,775	7,906
Outgoings			
<i>Operating expenses</i>	Admin/general expenses	1,034	50
	Promotion	782	745
	AGM, report, etc	759	782
	Miscellaneous/subscriptions	-	-
<i>Projects</i>	Projects	-	-
		2,575	1,577
	Excess outgoings/receipts	5,200	6,329

Statement of financial position

As at 31 December 2022

	2022	2021
	\$	\$
Current assets		
<i>Bank accounts</i>		
Now-oo A/c	809	1,350
Call A/c @ 3.35% Int.	51,243	45,503
	52,053	46,853

Notes to Accounts

Funds Reserved – see below

Projects, Operating Budget	19,341	16,341
Uncommitted Funds/Reserves	32,712	30,512

Notes to Fund Reserved

Surplus funds from grants set aside for project work only:

Projects/Environment

Pharazyn Trust, Fish Research Surplus, Etc	19,341	
	19,341	16,341

Membership:

138 members

Grants for year:

\$3000 from Pharazyn Trust

≈ **NOTES TO THE FINANCIAL STATEMENTS**

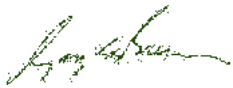
For the period ended 31 December 2022

Statement of Accounting Policies

- The Advocates For The Tongariro River Society Inc. is incorporated under the Incorporated Societies Act 1908.
- The financial Statements have been prepared in accordance with generally accepted accounting practice.
- The financial records are compiled on a cash in versus cash out basis. Funds/ grants for project work are recorded as 'Funds Committed'.
- The accounting principles record historical cost.
- Subscriptions are recorded on a cash received basis.
- There have been no overall changes in accounting policies. All policies have been applied on bases consistent with those used in the previous year.

Preparation of accounts

The accounts have been produced on information available to the Treasurer and have been reviewed by John Radcliffe, retired Insurance Executive and Company Director.



Gary Brown

President

11th February 2023

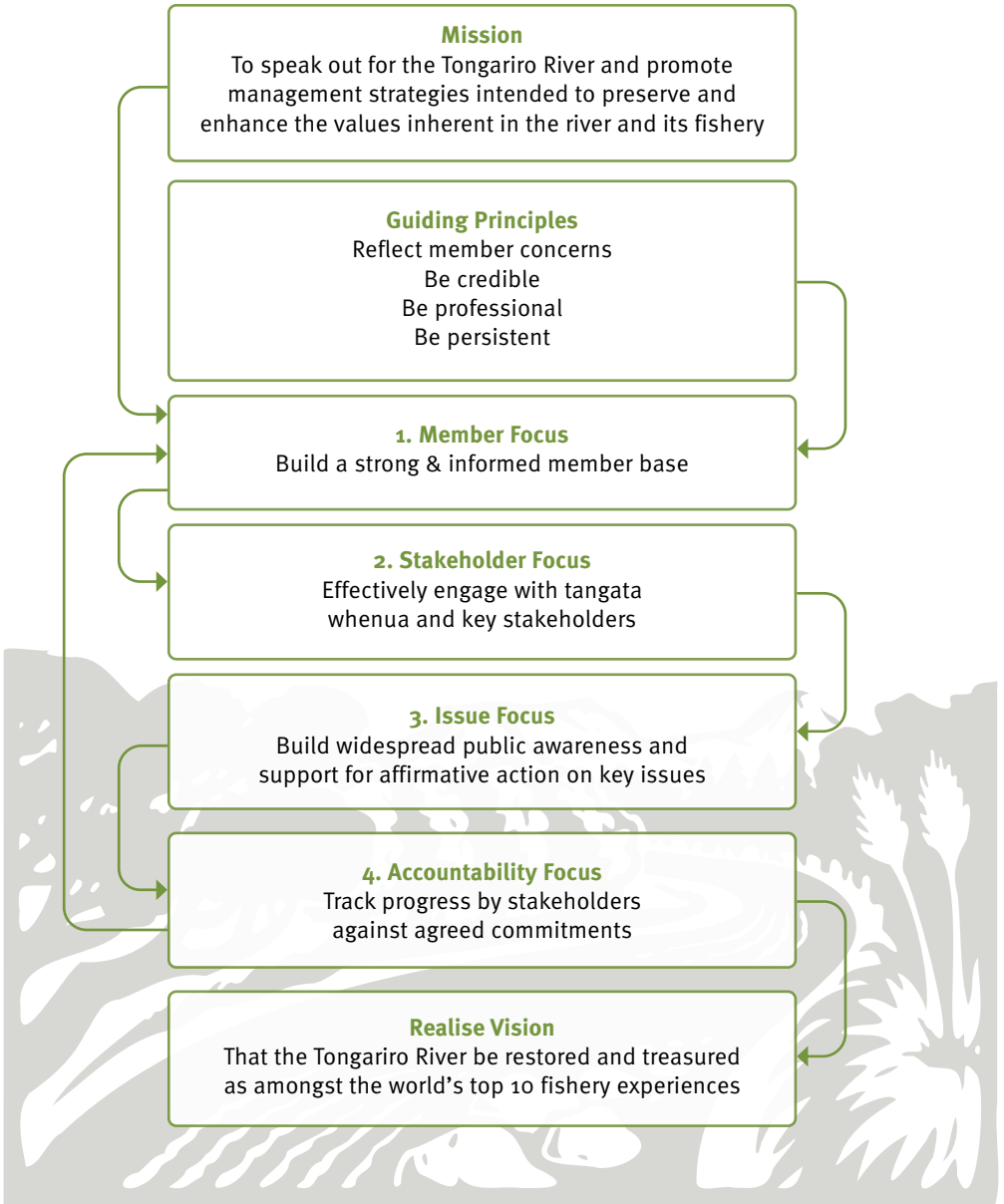


John Toogood

Treasurer

11th February 2023

≈ APPENDIX 1 » STATEMENT OF OBJECTIVES



≈ APPENDIX 2 » MICHEL DEDUAL, THE MAN BEHIND THE MOST-STUDIED FISHERY IN THE WORLD

Sue Hoffart. May 29 2022.



He might be retiring after decades of trout study, but Taupō scientist Michel Dedual says “I cherish the fishery too much to just ignore it”.

PHOTO: CHRISTEL YARDLEY/STUFF

Sue Hoffart is a freelance writer who fished up this story while working for Destination Great Lake Taupō.

After three decades of intense trout study, Taupō scientist Michel Dedual has theoretically reached the end of the line in his working life.

However, the world-renowned researcher will continue to fish for answers and share his knowledge.

“This is among the most studied fisheries in the world,” the Department of Conservation (DOC) trout expert says on the eve of his retirement. “I cherish the fishery too much to just ignore it, I will keep trying to help as much as I can.”

Dedual arrived in Taupō in 1991 with a master's degree in zoology and a doctorate in ichthyology – the study of fish – as well as a deep love of fishing and hunting.

Growing up in the Swiss-French medieval lakeside town of Estavayer-le-Lac, he lived with four generations of his family and a grandfather bought his first rod. Young Dedual slept with that fishing rod when he wasn't roaming the lake shore with other children, casting for carp and bream, pike and the very occasional trout.



Swiss-born Dedual has never forgotten the wow factor the first time he saw Lake Taupō (file photo).

PHOTO: CHRISTEL YARDLEY/STUFF

Epic-sized trout

Dedual's daughter was two when he and wife Colette moved to New Zealand so he could complete a post-doctorate fellowship at Leigh Marine Reserve, north of Auckland. The couple's son was born in New Zealand and the family was contentedly living beside the sea when Colette showed her husband a job advertisement over lunch one day.

“It was for a fishery scientist for DOC in Taupō and the description of the job was basically what I had done for my PhD. I thought, this is unbelievable. It’s something made for me. I’d been dreaming, reading those fishing magazines that show fabulous pictures of epic-sized trout in Taupō. I thought those pictures are fake.”

He recalls the first time he saw the lake.

“I remember that my whole life, driving from Auckland, arriving at the top of the hill and seeing Taupō moana. Wow. I couldn’t believe it.”

The gin-clear rivers were even better than he expected and standing in Tongariro River felt like a kind of pilgrimage.

“I’d seen so many pictures and I thought, now I’m in the middle of the grail. I went for the interview, then went fishing that night. Yes, I did catch a trout.”

He also nabbed the job, which compelled him to study trout and its habitat in order to guide management of the fishery.



As a child, Michel Dedual slept with his first fishing rod, which his grandfather bought him.

PHOTO: CHRISTEL YARDLEY/STUFF/WAIKATO TIMES

Envy of the world

On arrival, in autumn 1992, the multilingual scientist – he speaks four languages - found vast amounts of data. Fish size had been monitored and recorded as far back as 1896, when rainbow trout were first introduced to the region. He could see which years fish numbers dropped away, when trout health waxed or waned and even gauge the disruptive effects of Ruapehu’s 1995 volcanic eruption.

Dedual has pored over lake water quality records and historical photographs to help understand which factors most affect trout health. He has led experiments that tracked fish in the rivers and lakes, noting survival rates after trout have been caught and released or travelled through a turbine.

More recently, his work has focussed on the human side of the equation, including the ways farming intensification or regulation or fishing licence sales affected the trout population. He has also spoken with anglers who have been visiting the region for decades, noting their observations and concerns.

“All that helped us tremendously, to understand the fishery so we can look after it. We’re very lucky. Because Taupō is small in geographic terms, we can study it intensively. The reality is, not many places around the world have studied such a small system over such a long period of time. When I’m talking to colleagues in California, Australia, Canada, France, Switzerland, they envy us.”

From Taupō to the world

Dedual has addressed international fishery conferences and co-authored a book, *Understanding Recreational Fishers*, alongside fellow scientists from around the world. The United Nations placed him on an expert panel and he has received plenty of calls from professionals who have read his published studies and yearned to know more.

Some have contributed their own expertise, like the economist who helped calculate the financial benefits of fishing. Or the Canadian mathematician who helped sift through spawning run data and marry it with the effects of trophy fishing on Lake Otamangakau in the Taupō district. The latter collaboration is helping to guide the way that particular lake’s fishery is managed.

“We can show the effects of human interaction, show at what level of pressure you start to lose fish numbers and size. Then we can turn to the anglers and say, tell us what you want. Do you want lots of fish? Or fewer fish but big ones?”

He views this kind of management process as his legacy. Thanks to all those decades of research and science, it is now far more feasible to predict the outcome of a particular decision.

“The fish have taught me nature does the best job ever and that managing the fishery is mainly about managing anglers, not the fish.”



Dedual used to fish several times a day, but “now, I only fish for the table, for the fish I need to eat”.

PHOTO: CHRISTEL YARDLEY/STUFF

So much knowledge

“Our job is to maintain a sustainable fishery. We want the best for everybody. We involve all the stakeholders – Ngāti Tūwharetoa, DOC, the fishery advisory committee that represents all the fishing guides, shops, moteliers – and we’re putting the responsibility back to anglers.

“Personally, my deep wish is to show my children that I have been doing my best to slow down the degradation of the environment. Probably the ultimate reward for me is that they both have an interest in ecology, fishing and fishing management.”

The scientist will continue to stalk trout in his retirement, which kicks off in early May. But he will be selective about what he takes home.

“I have changed my view about fishing a lot. When I first started working in Taupō, I’d fish before work, at lunch break, after work and during the night. But I have measured the stress levels in fish, how they are emotionally affected by capture, how they recover from it. I know it’s not a picnic to be taken so I don’t want to annoy them and put them back in the water.

“Now, I only fish for the table, for the fish I need to eat. These days, I spend far more time watching fish or talking to other anglers than I do fishing.”

He also expects to field a few phone calls from colleagues in Taupō and around the world.

“I’m proud of what we have achieved here and I still want to be involved. We have built up so much valuable knowledge that hopefully will not be lost.”

What makes the Taupō fishery exceptional?

In Dedual’s words: Many reasons, It is a self-sustained fishery - no trout are being released in the waterways – set against a majestic backdrop of mountains and forests. The mainly-pristine lake catchment is situated within Tongariro National Park and the recreation parks of Kaimanawa and Porirua, which protects water quality.

A large number of streams provide the fish with plenty of premium spawning access while the lake offers good growing conditions; the trout are healthy and they have plenty to eat. It is a very easily accessible fishery, half way between the North Island’s two main centres, yet there are not enough anglers around to dangerously affect the perennialism of the population.

Finally, we now understand this trout population well so we can be confident about the fishery’s future and the measures we must take to protect it.

– *Destination Great Lake Taupō*

≈ APPENDIX 3 » TAUPŌ WATERS



The Taupo Waters Trust was established by the Tuwharetoa Maori Trust Board, and holds title to:

- Taupo-Nui-a-Tia Block;
- Te Awa o Waikato ki te Toka o Tia Block; and
- Te Hokinga mai o te papa o nga awa ki te Poari hei Kaitiaki o nga Hapu o Ngati Tuwharetoa Block.

These titles are collectively known as “Taupo Waters” and have been vested in the Taupo Waters Trust by the Maori Land Court as Maori Freehold land.

Taupō Waters includes the bed of Lake Taupō, the space occupied by the water of the lake, the tributaries flowing into the lake and the Waikato River from the outlet of Lake Taupō to the Rock of Tia (inclusive of the Huka Falls).

The primary responsibility of the Taupo Waters Trust is to administer the assets listed above with specific regard to best practice asset management and to license:

- (i) commercial activities and events;
- (ii) new private and Crown owned structures; and the extension of existing private and Crown owned structures. The Tuwharetoa Maori Trust Board is the trustee of the Taupo Waters Trust, as authorised by s24C of the Maori Trust Boards Act 1955.

≈ APPENDIX 4 » MAXIMUM FLOOD FLOWS 1958-2010

Annual maximum flows recorded at Tongariro River, Turangi (1957-2010)

Rank	Year	Flow (m ³ /s)	Rank	Year	Flow (m ³ /s)	Rank	Year	Flow (m ³ /s)
1	1958	1470	19	1978	441	37	1963	306
2	2004	1442	20	1994	439	38	1960	294
3	1964	1038	21	1993	436	39	1961	287
4	1998	913	22	1972	427	40	1988	282
5	1986	810	23	1991	417	41	1987	272
6	1967	774	24	1982	406	42	1957	270
7	2003	725	25	2009	398	43	1959	257
8	1995	718	26	2006	397	44	1975	255
9	2000	670	27	1971	391	45	1985	254
10	1999	667	28	1977	387	46	1980	249
11	1990	653	29	1962	352	47	1973	229
12	1965	563	30	1974	332	48	1983	211
13	2008	546	31	2002	329	49	2007	202
14	2001	504	32	1996	322	50	1984	166
15	1989	494	33	1979	321	51	1981	148
16	1976	466	34	1968	316	52	1992	132
17	1970	462	35	1969	311	53	2005	128
18	1966	442	36	1997	309	54	2010*	37

Note: 2010 only included data up until April.

SOURCE: Opus, Taupo District Flood Hazard Study, Tongariro River. For Environment Waikato and Taupo District Council, July 2011

≈ APPENDIX 5 » PHOTOS OF KEY FLOODS 1958, 1998, 2004 & 2022



The bridge survived but the abutment from road to bridge was washed away.

PHOTO: RAY TURNER 1958



Temporary Bailey Bridge repair.

1998. Fourth largest flood since 1958.

Inaction led to the formation of the Advocates for the Tongaririo River following a 600 signature petition to Parliament.



2004, second largest flood since 1958.



Debris collected and gathered by very heavy machinery.



The solution, collect and burn.

2022, a series of floods the largest at 624 m³/s.



The track to the Reed washed away.



Tongariro River Bridge SH1.

≈ APPENDIX 6 » AN ALTERNATIVE VIEW TO FLOOD PROTECTION



Flooding at Ashburton Forks in May last year highlights this country's climate change-fuelled problems with river management.

PHOTO: CHRIS ALLEN

NZ ON THE CUSP OF A RIVERS REVOLUTION

FIRST PUBLISHED AUG 1, 2022. UPDATED AUG 1, 2022. COMMENTS BY JODIE HARVEY, PETER DAVIS, GRAHAM TOWNSEND, JULIAN FITTER & OTHERS.

“We’ve been fighting nature for years. Given climate change, it’s high time to let rivers roam.” – **David Williams**, Newsroom’s environment editor, South Island correspondent and investigative writer.

Chris Allen apologises for not being able to speak earlier.

“I was trying to get some lambs dagged, and it was getting wet and cold and dark and horrible.”

There seems to have been a lot of wet and cold, of late.

Allen's sheep, beef and arable cropping farm, Annadale, spans some 360 hectares – just over twice the size of Christchurch's Hagley Park. The farm is where Bowyers and Taylors Streams meet, and then join the south branch of the Hakatere/Ashburton River. Hence the area's name: Ashburton Forks.

In May last year, flood waters gushed across a quarter of Allen's farm, collecting fences and culverts, damaging and drowning machinery, and spreading trees, rocks and gravel. The flood scalloped a hole in the farm's 6.5-hectare irrigation pond, and left a 75cm-deep layer of sediment.

(The total, regionwide recovery work after the flood is estimated by the regional council, ECan, to cost \$20 million, \$7.5 million of which will be paid by the National Emergency Management Agency because of its regional significance.)

That's about 20,000 tonnes of sediment which, now, thanks to the fastidious work of diggers and dump trucks, spread over a five-hectare block the flood blew through. "Over time that will just settle down," Allen says. "It has got grass on it now."

Traces of flood damage might have been erased at Annadale but the threat lingers, as evidenced by storms in recent weeks.

After last year's damage, Allen says the regional council scooped gravel from the bed of Taylors Stream in one spot, "just to shore things up". "And you look at it now and you go, holy shit, that's all filled up with gravel."

At another spot, just above the farm, the stream, spurred on by heavy rain and snow melt, ran incredibly high a fortnight ago. Another nightmare was avoided by just 100 millimetres.

"The water was spilling in, but it didn't have enough depth to do any more damage," he says. "We're really, really vulnerable."

In a climate crisis, Ashburton Forks doesn't hold a monopoly on vulnerability.

Think about [Westport. Edgecumbe](#) in 2017. Or the [rain-drenched North Island](#) in March. In November last year, Gisborne received [more rain in a single day](#) than it did for the whole of the previous summer.

Around the world, the mercury hit 40°C in England, and, in January, 50.7°C in Western Australia.

A year ago, after killer floods in Europe, a group of concerned scientists said the question was no longer whether global warming — caused mainly by the use of fossil fuels — will influence the occurrence of extreme weather events, but “in what way and to what extent”.

Back here, scientists found last year’s Canterbury floods were 15 percent more intense as a result of our warming world.

As NIWA meteorologist Chris Brandolino explained after record rain in March: “In the future, it’s likely such events will become even more common and more extreme.”

Given the extra energy in our already boisterous rivers, building higher floodbanks isn’t going to work, in many cases.

There are calls for a re-think. And in some areas, at least, the revolution, of giving the rivers room to roam, is already underway.



Flooding of Big Kuri Creek closes State Highway 1, just north of Hampden, in Otago, last week.

PHOTO: SUPPLIED

The Canterbury Plains were created by high-energy, braided rivers blasting down slopes between the Southern Alps and the coast, hopping between ancient channels and new ones, forming huge, gravel fans.

Colonised New Zealand has gone to great lengths to try and tame nature, impounding rivers behind banks so floodplains can be developed. Not that it always worked. As former Prime Minister Geoffrey Palmer famously said, Aotearoa is an “irreducibly pluvial nation”.

Human-induced climate change makes extreme weather events more likely, but the way we manage rivers is making matters worse.

“You’d now call it mismanagement,” says Gary Brierley, a Professor of environment at University of Auckland.

Essentially many of our rivers have been strangled, disconnected from their historic channels and confined to smaller areas by engineered flood defences. This has led many riverbeds to build up, or aggrade, considering the huge volume of gravel and sediment being transported from the mountains to the sea.

It has also given people hope, falsely in some cases, that they’ll be safe, pushing development closer to rivers, and within their historical range. Should the worst happen, then, the repair bill for damaged infrastructure and developed property rises, not to mention the risks to lives.

“We are manufacturing future disasters,” Brierley says. “We have created the circumstances by which this is happening.”

Flood periodicity – how often they recur – is changing. Giving them less space ramps up their power, Brierley says.

Another factor is society’s disconnection. “We just perceive the river to be ‘over there’; we’re not living with it.

“And it’s just a disaster waiting to happen because many of our rivers are now perched higher than their floodplains, whether it’s in the Tukituki and rivers around the Ngaruroro, or rivers down in the Wairarapa and the Ruamāhanga, rivers like

Ashburton, or rivers in Canterbury plains that just simply want to re-occupy the bits of the old riverbed that they used to be in.”

Brierley’s colleague at University of Auckland, Dan Hikuroa, a senior lecturer in Māori studies, says when a river floods “it’s a river being a river”.

In Te Ao Māori, the Māori world, rivers are seen as ancestors, and you can derive part of your identity by your connection with it. As proved by generations of Māori observation, those ancestors can meander across a landscape.

One way to explain this behaviour is through purakau – knowledge in story form. Māori might say, Beware the flicking tail of the taniwha (dangerous water spirit), to explain disaster risks in certain areas.

“If we actually listened to the way rivers behaved, and observed their natural fluctuations and observed seasonal things, and also looked out for the critters and things that live in rivers, in our conceptual design, those are the many voices of the river that are speaking to us,” Hikuroa says.

“Sometimes those voices are absent and sometimes those voices are silenced.”



Canterbury’s Opihi River in high flows on July 21.

PHOTO: ECAN

Jonathan Tonkin, a senior lecturer in population and community ecology at University of Canterbury, says from an ecological standpoint, the more space you give a braided river, the more naturally it functions.

That creates variability and heterogeneity in habitat. Water rocking and rolling in riffles and rapids, bubbling up through springs, and sinking into swimming holes, makes homes for a wider variety of species.

Constraining a braided river's complexity with, say, rock revetments, groynes and concrete walls, and choking multiple channels into a single channel, speeds it up, removing species and strangling biodiversity. (There's the other worldwide crisis we hadn't mentioned yet.)

"Disturbances are fundamentally important, a natural thing in ecology," Tonkin says. "It's something that all of our native species are adapted to."

Black stilt/kakī often nest on islands in the middle of braided rivers, away from predators, and hide their camouflaged eggs among the gravels. The threatened Robust grasshopper, with what looks like armour plating, is endemic to riverbeds and terraces in the Mackenzie Basin.

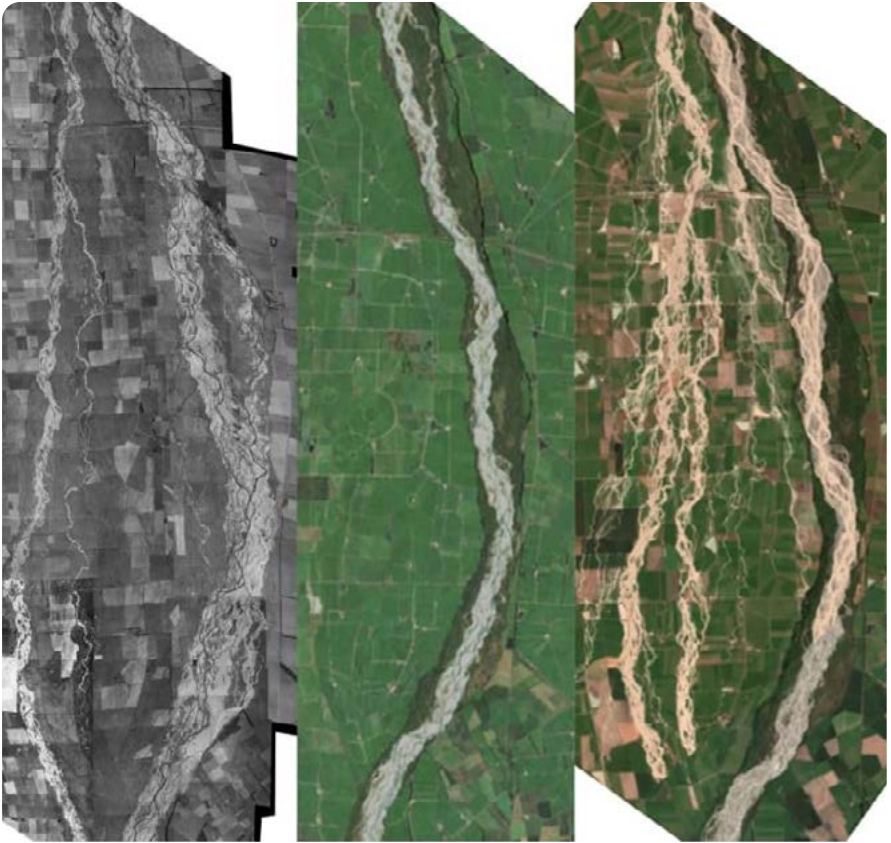
Take away a river's natural character and our fish, birds, macroinvertebrates, tuna and īnanga struggle, or disappear.

At a braided rivers conference at Lincoln University last month, Forest & Bird freshwater advocate Tom Kay showed aerial photos of constrained rivers, compared with their natural range. He says Canterbury is the poster-child for river encroachment.

Yet people are still surprised when rivers burst their artificial banks. "The river's going to take back that room whether we like it or not," Kay says.

"What we're doing isn't working for ecology or ecosystems or community resilience, and we need to do something differently."

Forest & Bird says we need to make room for our rivers, something the [Dutch know a lot about.](#)



Canterbury's Rangitata River, from left, in 1937, 2016-2018, and after floods in 2019.

Images: Constructed by Orianne Etter for Forest & Bird using images from <http://retrolens.nz>; licensed by LINZ CC-BY 3.0; ECan

During most of the 20th Century, Netherlands managed to escape major riverine floods. (Although, a 1953 storm caused the surging North Sea to breach dykes, killing more than 1800 people.) Near-misses in the 1990s spurred its people into action.

The biggest was in 1995, when 250,000 people and a million cattle were evacuated. But no dykes were breached, and no one died.

“Our system was not safe enough,” says Ralph Schielen, a water management expert at the Netherlands’ Ministry of Infrastructure and Water Management. “We had to do something.”

The response became known as Room for the River, for which Schielen became an adviser on hydraulics and morphology.

Effectively, there was too much water for the barriers to handle. The water needed more space to flow, wider areas to meander, and to be slowed through natural sponges.

The Government directed 39 related projects to be built, with the on-the-ground details to be decided by local and regional authorities and communities. The result was new flood by-passes, expanded flood plains, relocated dykes, and lower groynes. (Room for the River was controversial, sparking protests and court challenges.)

Completed in 2018, the project cost €2.3 billion.

Did it work? Schielen says flood levels since have not hit 1995 levels “but we are quite confident that it will work”. Other benefits include the beautification of river areas, enjoyed by more people, and a marked increase in biodiversity.

Many Netherlands’ rivers are constrained, and have been for centuries. Removing banks and letting them meander again is out of the question. The same can’t be said for some New Zealand rivers.

“If you have the possibility and if you have the space, and if there is not so much economic activity in the floodplains, then I would always say try to maintain that space and try to keep the river as natural as possible,” Schielen says.

“You should work along with the river and not against it.”

JUST GETTING STARTED

Despite the Te Ao Māori view, getting people out of nature's way in New Zealand is embryonic.

The country's first attempt at managed retreat, in the [Bay of Plenty town of Matatā](#), has been traumatic for some residents.

In the Hutt Valley, north of Wellington, meanwhile, 120 properties are being bought for the \$750 million project called Riverlink, giving more room for Te Awa Kairangi/Hutt River breathe, at the cost of 120 properties, plus new transport links and a new river park.

Once flood protections are upgraded, the surrounding area will be protected from a one-in-400-year flood.

"The alternative is wet feet," Greater Wellington Regional Council chair Daran Ponter says, while pointing out the Wairarapa faces similar issues. "There's no getting around it. If you don't do these works, you're going to flood whole communities and the consequences of that are dire."

The national conversation about flood defences seems frayed, and money seems at the heart of it. After all, flooding is this country's most frequent natural hazard. And with [sea level rise](#) and vertical land movement, some areas are more vulnerable than others.

The Insurance Council made a detailed submission to the draft national adaptation plan in June. The country needs to get serious about reducing flood risks, chief executive Tim Grafton says.

"Insurance remains readily available and affordable for New Zealanders in flood-prone areas. But the point that we are making is that New Zealand can't sit on its hands and do nothing."

Consents for developments in high-risk, flood-prone areas need to stop now, Grafton says. "Then we need to be identifying higher-risk areas."

In April, a report from regional and unitary councils, called for central government

help to pay for flood protection schemes. The councils spend about \$200 million on flood protection, but that falls short of what's required by \$150 million a year.

As part of the Government's \$3 billion Covid-19 infrastructure fund, \$210 million was earmarked for "**climate resilience and flood protection projects**".

How was that "urgent" request received?

Doug Leeder, who chairs the Bay of Plenty Regional Council, and represents the regional sector on Local Government New Zealand, says the Government acknowledged the issue but, given budget constraints and financial demands, said it wasn't in a position to address it.

The regional sector will push the Government to establish an annual fund for flood protection work.

Does New Zealand need a flood management agency?

Ponter, the Greater Wellington chair, says: "We certainly think that there is a gap. If you look through the lexicon of government agencies, you'd be hard pressed to find the agency that's responsible for flood management, flood control, etcetera."



Warning sign in Matatā.

PHOTO: SHARON BRETTKELLY

Bay of Plenty regional council chair Leeder is using what is, by now, familiar language.

“You won’t build your way out of this, in terms of keeping lifting stop banks up,” he says. Some houses and infrastructure will need continued protected but, to some degree, “you’re going to have let rivers find their own course”.

Leigh Griffiths, rivers manager for Canterbury’s regional council, ECan, says giving rivers more room to move has been an “active conversation” within its walls for years, and it is now “actively talking to central government” about permanent co-investment.

ECan is scoping a 200-year river strategy which will cover many topics, including ‘room for the river’, Griffiths says. “The document has not yet been drafted, but the target date for completion is currently June 2023.”

New Zealand seems on the cusp of quite a different style of water management, beyond stopbanks and strangling rivers, but it's going to take money and leadership.

Newsroom asked several Ministers if a flood management agency has been discussed, and for the Government's reaction to councils' urgent call for flood protection money.

Emergency Management Minister Kieran McAnulty said in an emailed statement: "The Government is assessing what more support may be needed including for flood protection – this is a regional council responsibility but we acknowledge there may be cases where central government support is required. And we are considering these.

"Climate change is causing more severe weather events and the resilience of our infrastructure is being tested."

Even more reason to do something about it, Forest & Bird's Kay says.

"We're going to see our infrastructure damaged more often, and it's going to cost us more, and we're going to be repairing it perpetually."

There's not a single solution, he says. Some stopbanks will be non-negotiable – they have to stay. In other places, regular flooding will lead to honest conversations about the sense of spending money on works in high-risk areas of a floodplain that are doomed to fail again and again.

In that case, a community can come together to solve the problem, including conversations about compensation.

"There'll be places where there's low hanging fruit, where councils already own land alongside rivers, or where there's parks and sports fields and things like that, that can afford to flood from time to time, to completely different scales," Kay says.

"The way to protect our communities and protect the environment and restore nature is actually to work with rivers rather than sort of continuing to try and fight them."

Brierley, the University of Auckland professor, says flooding issues will become more expensive the more they're pushed aside – "because you're just creating the prospect of bigger and bigger disasters".

“We can no longer ignore it.”

The head-scratching reality is we know a great deal about how our rivers behave, but, often, authorities and developers are burying their heads in the river sediment, in what seems to be a dangerous game of denialism. The whole lot – our command and control mentality, our relationship with rivers, and the institutions that look after them – isn’t fit for purpose, Brierley argues.

“We just need a different set of relationships and a different set of institutions, to take us to a different place in the ways that we look after these things.”

Back at Ashburton Forks, farmer Chris Allen recalls the “good old days” of the Ministry of Works and catchment boards, when the Government contributed most money towards river protection works, including building stopbanks.

Nowadays, special rating districts collect money from those who benefit.

Allen argues the country is criss-crossed with important infrastructure – roads, bridges, power lines, and internet cables – so we all benefit from flood protection works, even if that means public money being used to buy private land better used to let rivers roam.

“It’s about having a plan, and the plan needs to be facilitated by central government,” Allen says. “But also put some cash aside because it’s going to need some cash.”

≈ APPENDIX 7 » VISIT BY THE HON JACQUI DEAN RE WILDING PINES

Meeting with Jacqui Dean. MP Waitaki, National spokesperson Conservation.

Venue: Turangi

Time: Sunday 6th March 2022. 10.00am - 11.30am

Present: Jacqui Dean, Eric Wilson, Carl Bergstrom, Virginia Church, Alasdair Keucke.

Jacqui interested in Knowing of our dealings with Wilding Pines in her effort to draft National party policy on the matter and of the AFTR in general.

- Jacqui introduced herself. Born and educated in Palmerston North and moved to Oamaru with her husband when 22. He father was an angler and she had pleasant memories of holidays in Turangi. Wilding pines a significant problem in South Island with the spread starting from the SW of the Island and was seeking information of the problem in the North Island and our part in dealing with it.
- Start with 1998 flood, Virginia's petition to parliament, Waikato Regional Council accepting responsibility for the river, the setting up of the Forum for all party consultation and its demise.
- Need to re-establish the Forum for a coordinated means of dealing with the problem.
- Accept that Wilding Pines nationwide are a huge problem but other plants are a significant problem eg Willows.
- Co-ordination required between Iwi and stakeholders to deal with the problem.
- Jacqui. Funding for wilding pines available today will be short term.
- She acknowledged our issue with the Carp Farm and
- Trout Farming discussed and the process of petitions explained by Jacqui.

Recommended that we read Simon Upton, Parliamentary Commissioner for the Environment, report on Wilding Pines.

≈ PROFILE OF ADVOCATES FOR THE TONGARIRO RIVER COMMITTEE FOR 2022

2022 Office Holders



Carl Bergstrom

Carl has been a regular visitor to Turangi and the surrounding area for over 35 years, and first learnt to fly fish on the Tongariro River. Now retired after a corporate career, he has more time for fishing, and is passionate about preserving this pristine and world renowned river so that future generations may enjoy it too.



Gary Brown – *President, Committee member since 2011*

Gary's family has an association that has lasted over a half century with the Lake Taupo fishery and he has had a life-long interest in hunting and fishing. Gary's prime focus as a committee member is therefore the state of the fishery and monitoring the effectiveness of the Department of Conservation's Taupo Sports Fishery Plan.

Gary lives in New Plymouth and is a retired architect by profession.



Warren Butterworth – *Committee member since 2014
Vice President from 2015*

Warren is a lawyer and part time farmer. He has fished the Tongariro and surrounding streams for more than 40 years and been a member of TALTAC for most of that time.

Warren resides in Auckland and is a board member of two substantial charitable trusts and of many private companies.



Tim Castle – *Committee member 2016*

Tim, a Wellington Barrister was elected to the committee in 2016. His home is in Wellington but he has a keen interest in the area and a holiday home for some years in Waitetoko.

Tim has studied Te Reo Maori and culture since the 1990's and has worked closely with iwi through his legal work.

He does not profess to being more than a keen learner angler.



Virginia Church – *Committee member since 2011*
Acting Secretary from October-December 2013

Virginia's 2001 Petition to Parliament on the plight of the Tongariro, was supported by 602 signatures. This, and the Submission based on that Petition that was presented in 2002 to the Parliamentary Select Committee for Local Government and the Environment, was the catalyst for formation of the Advocates as an incorporated society.

After living in Australia, Virginia and her family have returned to Turangi where they have very close hapu associations with local iwi.



Sam Coxhead – *Committee member since 2014*

Sam has been coming to Turangi for the last 20 odd years. He is a keen angler, who relishes any time he can spend on the river.

Sam and his large young family now have a home in Turangi. It has become more important for him to help with the responsibilities of looking after the river.

Sam wants to help ensure that the fishery, and river environment as a whole, is looked after so the future generations are able to enjoy all it has to offer.



Mike Forret – *Co-opted member 2017*

Mike Forret has been a keen angler for more than twenty years. He enjoys coming to the Tongariro and Turangi whenever he can and is very supportive of the Advocates aims.

Mike retired from the University of Waikato in 2016 where he worked in science and technology education for over twenty years. His main involvement with the Advocates has been provision, maintenance and support of the Advocates' website and membership database through his web services company iConcept Enterprises Ltd.



Richard Kemp – *Committee member since 2002*

A Wellingtonian, Richard has been coming to Turangi to fish all his life – as has his father before him and his son after him. He has a passion for the fishery and a particular interest in its sustainability.

Richard served as Vice-President from 2006-2010 and has been the Advocate's legal advisor throughout. He is the current Advocate's representative on the Taupo Fishery Advisory Committee.

As a lawyer, Richard's networks have been invaluable in helping to profile the Advocates and successfully source funds from philanthropic sources.



Alisdair Keucke – *Committee member since 2018*

Alisdair Keucke retired to Turangi from Auckland in 2015 after a career in manufacturing and electrical engineering. The third generation of an old Raetihi family he recalls holidaying as a child in one of the only two bachs in Kuratau in the 1950's. His father was a keen fly fisherman. Alisdair describes himself as a mere beginner.

Alisdair always had a keen interest in the environment and is primarily interested in the conservation of the Tongariro River and its environs. He had 10 years' experience co-chairing Auckland's Little Shoal Bay Action Committee, which resulted in North Shore City Council buying back reserve land sold to developers, to preserve it as a reserve and protected wetland.



John Martin

John is the strategic advisor to The Whiskey Project Group (Aust), Ltd, an independent director on the board of Statistics New Zealand, the Executive Director of the New Zealand Ocean Foundation, sits on various groups including the leadership assessment panel for Blake NZ and the editorial board of the RNZN Professional Journal.

He consults on governance and strategy to government agencies and coaches senior leaders.



Julian Proctor – *Committee member since 2018*

My father fished the Taupo area in the late 1940's after returning to NZ and started me fishing there in 1954 and built a house in Turangi in 1960. I have fished all of the rivers in the Taupo area and most of the stream mouths but my love has always been the Tongariro river.

I have been a member of TALTAC since I started fishing in Turangi and am now a committee member of the Advocates. I love all types of fishing and still do a lot of shooting. I retired in 2016 and now spend as much time as possible in Turangi.



John Toogood – *Committee member since 2005, Treasurer*

John first came to Turangi at the age of seven with his family in 1950 and still has the family bach that his father and grand-father built in the latter '50s.

He has had a life-long passion for the Turangi/Central Plateau area, the Tongariro in particular as a keen fisherman, and has a deep interest in the health of the environment. His particular concern is the spread of wilding pines and willow along the river, and has initiated a number of eradication programmes.

John and his wife, Susie, have a family business in Wellington.



Eric Wilson – *Secretary since 2005*

Eric was a community appointee to Waikato Regional Council's Lake Taupo Liaison Zone Committee until it ceased as a committee late 2019, and a key local liaison person within the Turangi community.

Eric has been a local Turangi resident for the past 47 years and is a former Principal of Tongariro High School.

Enjoys the outdoor environment of the wider Tongariro Catchment.

≈ LIST OF MEMBERS

Charles J	Andrews	Dr Joan	Forret	Adrian	Rickards
Bill	Avery	Mike	Fransham	Renee	Rickards
Helen	Avery	Helen	Fransham	Ian	Rodger
Dave	Bamford	Benjamin	Fransham	Lola	Rodger
Tim Bamford	Bamford	Jessica	Fransham	Molly	Rodger
Will Bamford	Bamford	Scott	Gibbons	Greta	Rodger
Murray	Bartle	Sher	Gibbons	Jonathan	Ross
Brian	Batson	Wayne	Godkin	Carol	Ross
Jan	Batson	Wendy	Godkin	Grace	Ross
Anthony	Beasley	David	Grant	Miles	Ross
Carl	Bergstrom	Ian R	Hamilton	Graeme	Shanks
Jackie	Bergstrom	Carter	Hayes	Joanna	Shanks
Peter	Bingham	Robert	Hazelwood	Mary	Sherborne
Rob	Blackbeard	Selwyn	Hodder	Murray	Short
Robert	Braze	Marie	Hodder	Niwa	Short
Paul	Breen	Warwick	Horton	Peter	Smith
Ann	Breen	Mike	Hughes	Dan	Stevenson
Paul	Brennan	Gail	Hughes	Prue	Stevenson
Nettie	Ramsay	Murray	Jamieson	Anna	Bashford
Gary	Brown	Christine	Jamieson	Sally	Jones
Marie	Brown	Richard	Kemp	Sam	Stevenson
Rob	Buckley	Honor	Kemp	John	Summerhays
Warren	Butterworth	Alisdair	Keucke	Anne	Summerhays
Nick	Butterworth	Helen	Keucke	Terry	Sutton
James	Butterworth	Stephen	Kyle	Annabelle	Sutton
Alex	Caldwell	Kim	Kyle	Marja	ter Haar
Sarah	Shieff	Peter	Lean	Trish	Frank
Tim	Castle	Valerie	Dandy	John	Toogood
Sharon	Castle	Heather	Macdonald	Susie	Toogood
Barry	Chapman	Jen	Shieff	Georgina	Toogood
Virginia	Church	John	Martin	Mical	Treadwell
Jock	Church	Sue	Martin	Malcolm	Whyte
Liam	Church	John	McCallum	Elizabeth	Whyte
Alison	Cosgrove	Elizabeth	McCallum	Peter	Williams
Sam	Coxhead	Ali	McHattie	Paul	Williams
Jacqui	Crosbie	David	McHattie	Gwynne	Williams
Stuart	Crosbie	Alasdair	McNab	Godfrey	Wilson
Renny	Cunnack	Nick	Miles	Eric	Wilson
Steve	Dickson	Lizzie	Hutton	Lorraine	Wilson
Graeme	Duff	Graeme	Nahkies	Buster	Young
Marion	Duff	Natasha	Nahkies	Trish	Young
Peter	Deakin	Christine	Pritt		
Bill	Fair	Lesley	Hosking		
Dr Michael	Forret	Julian	Proctor		

+ 8 un-named

≈ COMMITTEE NOMINATION FORM

One form per nominee

___/___/2023

I nominate: _____

Signed by nominee: _____

Nominator (signed): _____

Seconded (signed): _____

(Tick position nominated)

- President
- Vice-President
- Committee member

Either

- Secretary
- Treasurer

Or

- Secretary/Treasurer

President, Vice-President, Secretary/Treasurer and up to 11 committee members + Immediate Past-President (15) or President, Vice-President, Secretary, Treasurer and up to 10 committee members + Immediate Past-President (15).

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Seconded (signed): _____

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Or

- Secretary/Treasurer

President, Vice-President, Secretary/Treasurer and up to 11 committee members + Immediate Past-President (15) or President, Vice-President, Secretary, Treasurer and up to 10 committee members + Immediate Past-President (15).

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