

RECENTLY RELEASED LGOIMA RESPONSES:

Fluoride and Chlorination of water - updated 30.05.2023

Releases:

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	All policy papers and/or advice prepared for the mayor and/or councillors about ridation – released on 30/05/2023	3
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1. All communication between the Mayor and anyone else that discussed the subject or fluoridation/fluoride anywhere within the communication – released on 30/05/2023

Please find **[below]** - Combined Emails_Redacted.pdf. Some information has been withheld under section 7(2)(a) of the LGOIMA to protect personal privacy.



From:

Tim King fluoride@health.govt.nz

Director General of Health - Fluoridation Subject: Thursday, 3 March 2022 4:01:46 pm Date:

Attachments: image194205.png

image958713.png Director General of Health - Fluoridation .pdf

Téná koe

Please see attached letter regarding the direction to add fluoride to the Tasman District Council's large water supplies.

Ngá mihi

Tim King

Tim King

Koromatua | Mayor

DDI+64 (27) 2448202| Mobile+64 27 244 8202| Tim. King@tasman.govt.nz

Private Bag 4, Richmond 7050, NZ















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janine.dowding@tasman.govt.nz tim.king@tasman.govt.nz

3 March 2022

Director-General of Health PO Box 5013 Wellington 6140

fluoride@health.govt.nz

Tēnā koe Dr Bloomfield

Concerns regarding the direction to add fluoride to the Council's large water supplies

Thank you for your letters of 11 November and 15 December 2021 regarding fluoridation of public water supplies. As requested in the last letter, we have provided the Ministry of Health with information on our fluoridation readiness.

We are writing to raise concems about the anticipated instruction from the Director-General of Health to add fluoride to our large water supplies and, in particular, the timing of that instruction. Our concerns are largely premised around the following:

- the current priority for the Council to comply with the Water Services Act (WSA) 2021; and
- the associated additional demands on sector resources and funding to implement processes and infrastructure to comply with the new regulatory requirements of the WSA 2021.

We are also aware that in the current Covid-19 environment, the potential for fluoridation to further inflame public sentiment amid heightened anti-vaccination and anti-mandate views is very real. The provision of safe and secure water is a top priority for the Council. We have been progressing with a significant capital works programme over the last five years to build new and upgrade existing water treatment plants complying with the drinking water standards. We included \$11 million funding in our Long Term Plan (LTP) 2021-2031 to complete that programme.

We are also taking a proactive approach to our operational programme, by planning and implementing the new Water Services Act 2021 compliance requirements. These programmes are adversely impacting on the Council's debt and rates in the current financial year and subsequent years of the Long Term Plan.

For example, in our Annual Plan 2022/2023, we are proposing additional expenditure for one new water compliance officer of \$95,000, plus additional expenditure of \$0.86 million for monitoring equipment, monitoring and sampling costs, source water risk management plans, water safety plans and other related work. These costs are in the order of an additional 1.18% on rates.

Tasman District Council
Email info@tasman.govt.nz
Website www.tasman.govt.nz
24 hour assistance

Richmond 189 Queen Street Private Bag 4 Richmond 7050 New Zealand Phone 03 543 8400 Fax 03 543 9524 Murchison 92 Fairfax Street Murchison 7007 New Zealand Phone 03 523 1013 Fax 03 523 1012

Motueka 7 Hickmott Place PO Box 123 Motueka 7143 New Zealand Phone 03 528 2022 Fax 03 528 9751 Takaka 14 Junction Street PO Box 74 Takaka 7142 New Zealand Phone 03 525 0020 Fax 03 525 9972



This figure is on top of higher costs from inflation, including contract works, construction, materials, insurances, and salaries, which are also pushing up the Council's rates increases to our ratepayers. The cumulative effect of these programmes strains our community's ability to fund the required infrastructure and maintain them over time.

We are also engaged in the Government's Three Waters Reform programme and implementing our obligations under the National Policy Statement on Urban Development. We need to ensure an adequate supply of homes for our community by growing our three waters' network. Collectively, these strands of work are straining our organisational capacity and capability whilst maintaining business as usual infrastructure services.

We are also taking a proactive approach to our operational programme, by planning and implementing the new Water Services Act 2021 compliance requirements. These programmes are adversely impacting the Council's debt and rates.

Initial cost estimates for the capital works required to fluoridate our five large water supplies, if instructed, is about \$1.3 million and the cost estimates for the operations and maintenance is about \$128,000 per annum. At this stage, these budgets have not been included in our Long Term Plan 2021-2031, nor our upcoming Annual Plan 2022/2023.

We request the Director General of Health delay the direction for at least three years and work with the new Water Service Entities in funding and delivering the required fluoridation infrastructure. This delay would also enable councils to provide for funding through the preparation of their Long Term Plans 2024-2034.

Thank you for the opportunity to comment and we look forward to your response.

Ngā mihi

Tim King Mayor

Te Koromatua o Whakatū

Janine Dowding Chief Executive Tumu Whakarae



From: To:

Chris P Hill; Stuart Bryant; Barry Dowler; Brent Maru; Trindi Walker; Mike Kininmonth; Christeen Mackenzie; Dan Shalkrass; Glen Daikee; Jo Ellis; Mark Greening; Kit Maling; Tim King; Celia Butler

Subject: Fluoridation of our drinking water Date: Tuesday, 14 March 2023 10:32:46 pm

Dear Mayor and councillors,

May I let you know about my concerns please?

The fluoride push is a very serious matter that matters to all of us.

- 1) Who wants stained drinking water and even paying for it?
- 2) Also I would like you to know that you are liable for the consequenCes.
- 3) The finances for that project would be an enormous extra ballast next to the costs of

the present flood repairs.

I am aware that the Director General of Health (DG) has recently sent a Directive to our council to start fluoridation. This is against the wishes of many people in this community. Please stand up for our community as you have been elected to do.

- Fluoride is now well established as a neurotoxic even at the levels present in fluoridated water.
- The legislation that enables the DG to direct councils does not require the DG to consider any potential adverse health effects.
- Most countries in the world, including 97% of Europe, do NOT fluoridate their water supply
- In 2018 the New Zealand Supreme Court ruled that "fluoridation is compulsory medical treatment"
- The research the DG cites in making his decision does not support
- The <u>Cochrane Review of 2015</u> found most studies had been carried out before 1975 and may not be relevant today with the widespread use of fluoridated toothpaste
- The Sapere Report uses data from 2008 is out of date and had too little data to make any firm conclusions
- The New Zealand School Dental Statistics shows there is no discernible difference in decay rates between fluoridated and nonfluoridated areas.
- With faith in your conscience



 From:
 Leonie Rae

 To:
 Robyn Scherer

Subject: FW: Letter: community water fluoridation - next steps

Date: Thursday, 3 November 2022 3:22:58 pm Attachments: image001.png

Tasman District Council.pdf

For circulation to Tim and Councillors

Leonie Rae | CEO Office Tumu Whakarae | Chief Executive Officer DDI +64 3 543 8987

From: Ben Volz <Ben.Volz@health.govt.nz> On Behalf Of Fluoride

Sent: Thursday, 3 November 2022 3:14 pm **To:** Leonie Rae <|eonie.rae@tasman.govt.nz>

Subject: Letter: community water fluoridation - next steps

Kia ora Leonie

Please find attached a letter from the Director- General of Health regarding community water fluoridation- next steps.

Ngá mihi,

Oral Health Team Manatú Hauora/Ministry of Health



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133 Molesworth Street PO Box 5013 Wellington 6140 New Zealand T+64 4 496 2000

3 November 2022

Leonie Rae Chief Executive Tasman District Council Leonie.rae@tasman.govt.nz

Tēnā koe Ms Rae

Community water fluoridation

Thank you for providing information earlier this year on the status of the fluoridation infrastructure in your area and the estimated costs and timeframes that would be necessary to fluoridate your drinking water supplies.

Since the Director-General of Health (the DG) wrote to you in June 2022, the DG has issued directions to 14 local authorities to fluoridate some or all of their drinking water supplies. On 3 November 2022, I wrote to a second set of 27 local authorities advising each that I am now actively considering whether to issue it a direction to fluoridate some or all of its drinking water supplies. I have chosen to prioritise consideration of these local authorities based on the needs and size of the populations served by their water supplies.

Drinking water supplies in your local authority area have not been included in this current set. However, it is likely that you will hear from me in the second quarter of 2023, when I expect to begin active consideration of whether to issue a direction to you to fluoridate some or all of your drinking-water supplies. At that time, I will seek written comment from you on the estimated costs of fluoridation, and the date by which you could comply with a direction to fluoridate. I will also consider the scientific evidence on the effectiveness of fluoridation and, for each drinking water supply, whether the benefits of fluoridation outweigh the financial cost, taking into account the oral health status, population size, and estimated costs of fluoridation.

I continue to be mindful of current service delivery pressures across the water services and broader local government sectors. In light of this, if I do issue directions regarding your drinking water supplies, they will have compliance dates set for after July 2024 when the new water service entities are due to be established.





I would also like to remind you that you do not need to wait for a direction from me to start fluoridating drinking water in your area. Community water fluoridation is widely recognised by national and international expert bodies to improve public health by substantially reducing rates of preventable tooth decay.

Nāku noa, nā

Dr Diana Sarfati

Te Tumu Whakarae mō te Hauora Director-General of Health



From: Tim King To: Subject:

Mayor and Councillors

W: Policy Brief: Climate Commission submission; Water Services Bill submission; Fluoridation Bill reaches second reading; Welcoming Communities update and more

Tuesday, 30 March 2021 7:41:35 am

Date:

Tim King

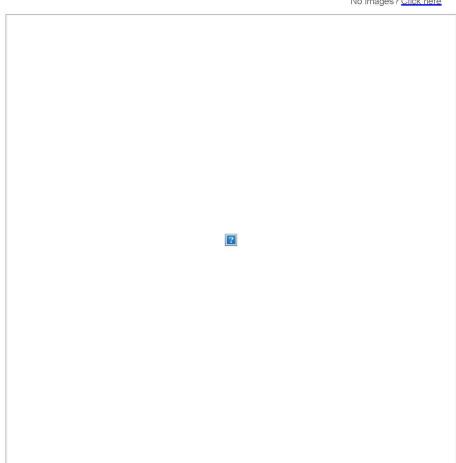
Koromatua | Mayor Extension 802| Mobile+64 27 244 8202| DDI+64 3 543 8400

From: LGNZ <info@lgnz.co.nz> **Sent:** Monday, 29 March 2021 2:55 pm To: Tim King <Tim.King@tasman.govt.nz>

Subject: Policy Brief: Climate Commission submission; Water Services Bill submission; Fluoridation

Bill reaches second reading; Welcoming Communities update and more

No images? Click here



Dear Mayors, Chairs, Chief Executives, elected members and communications contacts

In this Policy Brief:



- Climate Change Commission submission;
- · Water Services Bill submission;
- · Fluoridation Bill reaches second reading;
- Welcoming Communities update;
- Our Land and Water research now available;
- New Zealand Infrastructure Commission seeks feedback;
- · Sign up for Waka Kotahi's newsletter; and
- · Worksafe asbestos clarification.

Flagship Project: Climate Change

Climate Change Commission submission

LGNZ has <u>made a submission</u> on the Climate Change Commission's draft advice to Government.

Key points from LGNZ's submission are:

- Local government is a key actor in reducing climate change emissions;
- We support the policy proposals contained alongside the New Zealand Emissions Trading Scheme;
- Any new obligations foisted on local government need to be accompanied by appropriate funding;
- The national policies suggested by the Commission need to be scaled appropriately, so they account for local government circumstances; and
- Urban form policies need to negotiate housing affordability objectives with climate change objectives, so that net costs across both domains and wider are reduced.

The submission is a result of LGNZ's policy work and feedback from a number of councils. We would like to thank you for your input.

Flagship Project: Water

Water Services Bill submission

LGNZ has <u>made a submission</u> to the Health Select Committee on the Government's proposed Water Services Bill, both <u>in writing</u>, and <u>in person</u> at a Select Committee hearing last week.

While LGNZ supports the intent of the Bill, having advocated for clear drinking water standards and strong enforcement of those standards since 2015, there is potential for a huge passing of costs onto councils, as the Bill would force councils to take over private water networks that fail to meet the standard.

LGNZ has also raised the issue that the new bill would exacerbate the housing shortage, as councils would be highly cautious when assessing developments that include their own community water networks.



Flagship Project: Water

Fluoridation Bill reaches second reading

The <u>Health (Fluoridation of Drinking Water) Amendment Bill</u> has reached its second reading in Parliament.

The Bill amends Part 2A of the Health Act 1956 by inserting a power for DHBs to make decisions and give directions about the fluoridation of local government drinking water supplies in their areas.

A 2014 remit from the sector directs LGNZ to support this amendment. <u>LGNZ's 2017 submission</u> on the amendment Bill provides more information on this.

Policy priority: Social

Welcoming Communities update

In October 2019, following a successful two-year pilot programme (July 2017-June 2019), the Minister of Immigration announced the expansion of Welcoming Communities. The Government approved funding to enable a further 30 communities around the country to join the programme over four years (2020/21 to 2023/24).

Following Welcoming Communities Expression of Interest (EOI) Panel meetings in late 2020 and early 2021 the following councils and their communities are joining Welcoming Communities.

New councils coming on in 2020/21:

- Hamilton City Council
- Horowhenua District Council
- Masterton District Council

New councils registering an interest to come on in 2021/22:

- Queenstown Lakes District Council
- Rangitīkei District Council
- Central Otago District Council

These councils will join the nine councils already in the programme. An update on the new councils is available on INZ's website here.

Any councils wishing to join the programme in the next two years or wanting to find out more should visit the Welcoming Communities section on INZ's website, or contact Alesano.SchusterNakhid@mbie.govt.nz.

For your information

New research released by Our Land and Water



Our Land and Water, a project associated with the National Science Challenge, has released a <u>summary of recent research</u> explaining why efforts on land to reduce water quality stressors may not lead to a seemingly proportional response in our lakes and rivers.

The <u>research</u> looked at how cause and effect are related in managing freshwater pollution and in restoring water quality.

The research identified several different types of stressor-response relationships and applied them to Aotearoa's lakes. The National Policy Statement for Freshwater Management is expected to accelerate regional councils' identification of stressor-response curves for local water bodies.

Key points:

- Degradation of freshwater bodies can be more effectively prevented or reversed by understanding the cause and effect (stressor-response) relationships impacting them, and by locating their position on stressor-response relationship curves;
- Stressor-response curves can help regional councils more accurately predict responses to changes in stressors, and use this information to help develop water quality policies;
- Stressor-response relationships seem to vary by lake (or river) type, which has important implications for freshwater management; and
- This research has developed a method to help identify the most appropriate freshwater management actions, based on stressor-response relationships.

New guidance on designing Farm Environment Plans released

Our Land and Water has also prepared a <u>guidance document</u> for people who need to design effective farm environment plans (FEPs), FEP templates and processes, to help those putting new legislative requirements into action. The guidance is for government, regional councils, primary industry bodies, farm consultants and advisors, farmers and growers.

The guidance contains 7 recommendations and outlines what is required to fully implement them. This is based on current knowledge of the FEP process and its requirements, and is informed by Our Land and Water-funded research and expert opinion.

For your information

New Zealand Infrastructure Commission seeks feedback

The New Zealand Infrastructure Commission, Te Waihanga, is seeking public feedback on New Zealand's 30-year strategy for infrastructure, through their new Aotearoa 2050 online tool.

Aotearoa 2050 is an online engagement tool seeking feedback on some of the country's



top infrastructure issues, possible solutions and priorities for the future. Open to everyone in New Zealand, all feedback will be considered as Te Waihanga develops the country's 30-year strategy for infrastructure.

In the coming months, Te Waihanga will seek feedback on a consultation document that sets out the proposed direction and areas of focus for its strategy. Following consultation, it will present its strategy to the Minister for Infrastructure in September 2021.

Have your say at Aotearoa 2050 online at <u>aotearoa2050.infrastructure.govt.nz</u> or to request a hard copy submission form call 0800 367 876.

For your information

Waka Kotahi NZTA newsletter

Waka Kotahi NZ Transport Agency is creating an e-newsletter to provide updates about activities under <u>Road to Zero</u>, New Zealand's road safety strategy. It will include Road to Zero news, updates, and successes every two months so you can stay up to date.

We encourage councils to sign up to the Road to Zero newsletter here. If you know of others who may want to sign up to receive these updates, please feel free to share the link with them.

For your information

Worksafe asbestos clarification

WorkSafe has become aware of some misleading information circulating in relation to the asbestos licensing renewal requirements and associated guidelines.

The information alleges that WorkSafe has unilaterally increased experience requirements and is in breach of health and safety legislation. This is incorrect. The recent guidelines were sent out to clarify what the requirements have always been.

This link (<u>Apply for a licence | WorkSafe</u>) provides the information that should be relied on. This information has not changed and the misleading information circulating indicates that the requirements in the guidelines have been misinterpreted by the concerned parties.

If anyone in your organisation has received the incorrect information, please point them to this link and note they should rely only on this information.

If you or people in your organisation need any further information or have any questions, please send them through to asbestos@worksafe.govt.nz.



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Level 1, 117 Lambton Quay, PO Box 1214, Wellington 6011 Phone: 04 924 1200 Web: lgnz.co.nz Email: info@lgnz.co.nz

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From:

Tim King Richard Kirby; Mike Schruer; Helen Lane To:

PW: Response letter from Ministry of Health Subject: Date: Thursday, 21 April 2022 11:33:41 am Attachments: 20042022114116-0001.pdf

Hi guys

Response to the letter regarding fluoridation.

Cheers, Robyn **Tim King** Koromatua | Mayor

Mobile+64 27 244 8202| DDI+64 (27) 2448202

From: Niamh McConway < Niamh. McConway@health.govt.nz>

Sent: Wednesday, 20 April 2022 11:50 am

To: Janine Dowding <Janine.Dowding@tasman.govt.nz>; Tim King <Tim.King@tasman.govt.nz>

Subject: Response letter from Ministry of Health

Good afternoon all,

Please find attached a letter from the Director-General of Health in response to the concerns regarding fluoridation.

NgÄ mihi nui,

Niamh McConway (she/her)

Project Coordinator

Office of the Deputy Director-General | Office of the Director-General | Ministry of Health

E: niamh.mcconway@health.govt.nz | M: 021 375 429



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133 Molesworth Street PO Box 5013 Wellington 6140 New Zealand T+64 4 496 2000

19 April 2022

Tasman District Council janine.dowding@tasman.govt.nz tim.king@tasman.govt.nz

Tēnā kōrua

Concerns regarding the direction to add fluoride to the Council's large water supplies

Thank you for your letter of 3 March 2022 raising concerns about the potential direction to fluoridate water supplies in your area and the timing of said direction. Thank you for taking the time to write to me and for the thoughtful analysis presented in your letter.

I acknowledge the competing priorities and delivery pressures councils have at present. You have reflected some of these in your letter to me.

I understand that on 8 February 2022, the Ministry of Health (the Ministry) received your response to the fluoridation 'readiness' information request I sent late last year. The information you have provided in that response is very helpful and will inform fluoridation implementation planning. Thank you for providing it in a timely manner.

We intend to take a staged approach to fluoridation implementation. This approach will consider the Three Waters reform process and current service delivery pressures across the water services and broader local government sector.

To support early adoption of fluoridation, the Ministry has limited funding available for local authorities who can begin the capital works to fluoridate by the end of 2022. I recognise that there are some community water supplies where it may not be feasible to fluoridate within a short timeframe. In some cases, it may be appropriate for implementation to sit with the new Water Service Entities that will be established under the Three Waters reforms.

The Ministry will be in contact with local authorities again in the coming months with further details about the implementation process.

Nāku noa, nā

Dr Ashley Bloomfield

Te Tumu Whakarae mō te Hauora Director-General of Health



Niamh McConway

Janine Dowding: Tim King From:

Subject: Response letter from Ministry of Health Date: Wednesday, 20 April 2022 11:50:26 am

20042022114116-0001.pdf Attachments:

Good afternoon all,

Please find attached a letter from the Director-General of Health in response to the concerns regarding fluoridation.

Ngá mihi nui,

Niamh McConway (she/her)

Project Coordinator

Office of the Deputy Director-General | Office of the Director-General | Ministry of Health

E: niamh.mcconway@health.govt.nz | M: 021 375 429



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133 Molesworth Street PO Box 5013 Wellington 6140 New Zealand T+64 4 496 2000

19 April 2022

Tasman District Council janine.dowding@tasman.govt.nz tim.king@tasman.govt.nz

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Nāku noa, nā

Dr Ashley Bloomfield

Te Tumu Whakarae mō te Hauora Director-General of Health



2. All policy papers and/or advice prepared for the mayor and/or councillors about fluoridation – released on 30/05/2023

Please find attached:

- [Operations Committee Report 20220217.pdf]
- Fluoridation Costs Estimate.pdf We note that the fluoridation cost estimate was a snapshot based on available information at a point in time, and costs have likely changed significantly since [Refer to page 21-23]



d, Brightwater & Wakefield de) specific design	CAPEX Description Dosing Controls Power Connection & Sub Board (For Fluoride) Extractor Fans HFA (Fluoride) Storage Tanks HFA Day Tank & Scales HFA Transfer pump HFA Cosing (Internal Delivery System, Valving & Pipework) HFA Level Sensor Power Cables Telemetry Cables Magflow Meter (200mm) Telemetry (Small) Dosing Pipe - Total Length to each bore head	Unit ea	aty	Rate 1 \$ 1 \$ 1	Total (2015) 10,900 15,000 53,500 54,000 11,500 53,000 54,000 11,500 53,000 5140 5140 5100	w rate @ 0.7ppm Base Life (years) \$10,900 \$15,000 \$3,500 \$3,500 \$8,700 \$8,000 \$11,500 \$3,000 \$2,100	Comments 15 Stock Standard per Site (Irrispective of size) 25 Depends on the sites existing capacity, this is based on no existing power usage at the site 5 Can get away with one at smaller sites 15 Two were required at Wilson. May get away with one at smaller sites 15 Stock Standard per Site (Irrispective of size) 2 Stock Standard per Site (Irrispective of size) 10 Stock Standard per Site (Irrispective of size) 10 One sensor can be used for Multiple tanks
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de)	Power Connection & Sub Board (For Fluoride) Extractor Fans HFA (Fluoride) Storage Tanks HFA Day Tank & Scales HFA Transfer pump HFA Dosing (Internal Delivery System, Valving & Pipework) HFA Level Sensor Power Cables Telemetry Cables Magflow Meter (200mm) Telemetry (5mall)	ea ea ea ea ea m m m		1 \$ 1 1 2 1 5 1 5 15 8 .	15,000 \$3,500 \$3,500 \$8,700 \$4,000 11,500 \$3,000 \$140 \$100	\$15,000 \$3,500 \$3,500 \$8,700 \$8,000 \$11,500 \$3,000	25 Depends on the sites existing capacity, this is based on no existing power usage at the site 5 Can get away with one at smaller sites 15 Two were required at Wilson. May get away with one at smaller sites 15 Stock Standard per Site (Irrispective of size) 2 Stock Standard per Site (Irrispective of size) 10 Stock Standard per Site (Irrispective of size)
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specific design	HFA (Fluoride) Storage Tanks HFA Day Tank & Scales HFA Transfer pump HFA Dosing (Internal Delivery System, Valving & Pipework) HFA Level Sensor Power Cables Telemetry Cables **Telemetry Cables **Telemetry (Small)	ea ea ea ea m m e a		1 2 1 5 1 15 15	\$3,500 \$8,700 \$4,000 11,500 \$3,000 \$140 \$100	\$3,500 \$8,700 \$8,000 \$11,500 \$3,000	15 Two were required at Wilson. May get away with one at smaller sites 15 Stock Standard per Site (Irrispective of size) 2 Stock Standard per Site (Irrispective of size) 10 Stock Standard per Site (Irrispective of size)
specific design	HFA Day Tank & Scales HFA Transfer pump HFA Dosing (Internal Delivery System, Valving & Pipework) HFA Level Sensor Power Cables Telemetry Cables Magflow Meter (200mm) Telemetry (5mall)	ea ea ea m m ea		1	\$8,700 \$4,000 11,500 \$3,000 \$140 \$100	\$8,700 \$8,000 \$11,500 \$3,000	15 Stock Standard per Site (Irrispective of size) 2 Stock Standard per Site (Irrispective of size) 10 Stock Standard per Site (Irrispective of size)
	HFA Transfer pump HFA Dosing (Internal Delivery System, Valving & Pipework) HFA Level Sensor Power Cables Telemetry Cables Magflow Meter (200mm) Telemetry (5mall)	ea ea m m ea		2 1 \$ 1 15 15	\$4,000 11,500 \$3,000 \$140 \$100	\$8,000 \$11,500 \$3,000	2 Stock Standard per Site (Irrispective of size) 10 Stock Standard per Site (Irrispective of size)
	HFA Dosing (Internal Delivery System, Valving & Pipework) HFA Level Sensor Power Cables Telemetry Cables Magflow Meter (200mm) Telemetry (5mall)	ea m m ea		1 \$ 1 15 15	11,500 \$3,000 \$140 \$100	\$11,500 \$3,000	10 Stock Standard per Site (Irrispective of size)
	HFA Level Sensor Power Cables Telemetry Cables Mag(low Meter (200mm) Telemetry (Small)	ea m m ea		1 15 15	\$3,000 \$140 \$100	\$3,000	
	Power Cables Telemetry Cables Magflow Meter (200mm) T elemetry (Small)	m ea ea		15 15 0	\$140 \$100		10. One sensor can be used for Multiple tanks
	Telemetry Cables Magflow Meter (200mm) T elemetry (Small)	m ea ea		15 8 .	\$100	\$2.100	
	Magflow Meter (200mm) Telemetry (Small)	e3		Đ .		T -)	40 To Magflow and Subboard
	Telemetry (5mall)	e3				\$1,500	25 From Control Panel to dose pump & level sensors
				Α.	\$7,100	\$0	45 Not required if you have existing flow controls
	Dosing Pipe - Total Length to each bore head	m			\$9,000	\$0	20 Not required if you can use an existing site
			4	100	\$85	\$34,000	25
	Building	m2		20	\$3,500	\$70,000	75 Depends on whether you have existing building space or not (Plumbing). Land use & building consent etc Likely to be required for new builds
	Driveway Access, and Emergency Overflow drainage to wastewater	m 2		.00	\$250	\$25,000	75 Need to cater for a B-Train filling from the Passengers Side. Talk to local chemical supply re requirements.
	Consultancy fee's - Design, supervision (15%)	L5	1	5%		\$29,505	
29%	,,,,,,					,,	
20%					\$2	26,205.00 \$1,254,8	820.00
45%					•	,	
31%	OPEX						
3170	Dosing Controls					\$727	
	Power Connection & Sub Board (For Fluoride)					\$600	
	Extractor Fans					\$700 \$700	
) CAPEX OPEX	X HFA (Fluoride) Storage Tanks					\$233	
	60,000 HFA Day Tank & Scales					\$580	
	15,000 HFA Transfer pump					\$4,000	
	15,000 HFA Dosing (Internal Delivery System, Valving & Pipework)					\$1,150	
						\$300	
	IS,000 HFA Level Sensor IS,000 Power Cables					\$500 \$53	
108 \$450,000 \$45	Telemetry Cables					\$55 \$60	
4300 000 4330	•					•	
	30,000 Magflow Meter (200mm)					\$0	
10.	0.00% Telemetry (Small)					\$0	
manual to date to	Dosing Pipe - Total Length to each bore head					\$1,360	
OPEX/site (\$K pa)						40.00	
0.41 18.4	Building					\$933	
1.18 36.7	Driveway Access, and Emergency Overflow drainage to wastewater					\$333	
0.46 46.0	Degreciation total					\$1	11,029
	•					·	
	Additional monitoring				\$	5,000.00	
	Chemicals				!	\$10,686.1	40%
						\$76.715	
U	.45 45.U	Depreciation total Additional monitoring	Depreciation total Additional monitoring	Depreciation total Additional monitoring	Depreciation total Additional monitoring	Depreciation total Additional monitoring \$	Depreciation total \$: Additional monitoring \$ 5,000.00



Water NZ figures	low range	high	range			
Design	5 20,000.00	5	35,000.00			
Construction	\$ 100,000.00	3 5	160,000.00			
	\$ 120,000.00	3	195,000.00			
Apex Motueka estin	nate - high level					
Design	5 3,000.00	5 5	5,000.00			
Plant	\$ 25,000.00	3	75,000.00			
Building	\$ 50,000.00	3	150,000.00			
	\$ 78,000.00	3 \$	230,000.00			
Sapere report				2016 medium		
CAPEX	\$ 145,000.00	3	260,000.00			
Minor	CAPEX	\$	170,000.00			
	OFEX	\$	12,121,50			
Medium	CAPEX	5	202,500.00			
	OPEX	5	13,212.50			
Large	CAPEX	\$	347,004.00			
	OFEX	\$	37,650.00			
Flaxmera						
CAPEX	35%/-10%		rie e	t 5000 people	1001/4	2015

\$2000/m2

\$517,960.00

Plant size	Population	Fluoride chemical	Total canital	Annual operating costs	Annual fluoride supply cost ger m ² /day
Neighbourhood	<100		\$112,500	\$6,700	\$3.57
Small	101_800	Sodium fluoride (NaF)	\$117,500	\$7,100	\$3.46
Mirror	501 5,000		\$170,000	\$6,200	\$3.41
Madian	5,001-10,000		\$202,500	\$8,900	\$1.25

\$347,004

\$1.25

\$8,900

Figure 8 Breakdown of fluoridation costs by size* of water plant (note the graph on the left has five plant classifications and the graph on the right is an expansion of the three larger plant sizes)

CAPEX Flow 100 840000 500 520000 Eastbourne 200 395000

	Rate				
Building	45 m2		5	90,000.00	
Vehicle access	150m2		5	12,000.00	
Site civil works, chair	nage, plumbing o	onne	\$	11,000.00	
Fluoridation tanks, p	pumps, pipework		\$	83,000.00	
Electrical, controls a	no instruments		\$	39,000.00	
Preliminiary and ger	reral	10%	\$	23,000.00	
Contingency		15%	\$	39,000.00	
Professionalfees		15%	\$	44,000.00	
			\$	340,000.00	ex

ex GST

Eastbourne St - Designed to close 500 ltr/s peak flow rate @ 0.7ppm

				1.00001	Dear circ
Description	Unit	City	Rate	(2016)	(years)
Dosing Controls	93	1	\$10,930	\$10,900	15
Power Connection & Sul	22	1	\$15,000	\$15,000	25
Extractor Fans	22	2	\$3,500	\$7,000	
HFA (Fluorice) Storage T	PA	3	\$3,500	\$10,500	15
HPA Day Tank & Scales	ea	1	\$8,700	\$8,700	15
HFA Dose pump	84	1	\$4,000	\$4,000	
HPA Dosing [Internal Del	93	1	\$11,500	\$11,500	10
H • A Level Sensor	28	1	\$8,000	\$5,000	10
Power Cables	m	33	5140	\$4,200	40
Telemetry Cables	mh	33	\$100	\$5,000	24
Magflow Meter (200nm	ea	1	\$7,100	\$7,100	15
Telemetry (Small)	23	1	\$9,000	\$9,000	20
Dosing Pipe - Lotal Leng-	m	400	\$85	534,000	25
Building	m2	85	\$3,500	\$297,500	25
Driveway Access, and En	m ¹ /2	103	5250	\$25,000	7*

Comments
15 Stock Standard per Site (infispective of size)
25 Depends on the sites existing capacity, this is based on no existing power usage at the site.

5 Can get away with one at smaller sites

15 Two were required at Wilson. May get away with one at smaller sites.

15 Stock 5 and and per Site (infispective of Size) 2 Stock 5 and and per Site (infispective of Size) 10 Stock 5 tandard per Site (infispective of Size)

10 One sensor can be used for Multiple tanks 40 To Magflow and Subboard

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75. Depends on whether you have existing building space or not (Plumbing). Land use & building consent etc., Likely to be required for new builds

75. Need to cater for a 8-Train filling from the Passengers Side. Talk-to local chemical supply re requirements.

Filtec

Consultancy Fee's - DesigLS

Size (m3/d)		Chemical	Tota	cost		
size (m3/d)	\$000 6000 15000 30000 45000	NaF HEA HEA HEA	Total S S S S S	185,000.00 155,000.00 156,000.00 191,000.00 227,000.00 266,000.00	excludes	civil building chemical supply O&M costs HSA 0 complemes power freight SCADA integration bunding
						monitoring OPEX injection point

CCC

	45 - 53					
	sites (PS)	CAPEX		OPEX	CAPEX/site (\$M)	OPEX/site (\$K pa)
000(2017)		49	20.1	0.9	0.410	18.
ccc		49	59	1.8	1.184	36.1



ua geschemes (500)

			Design		
	Daily Flowr m3/day	Plant flowr Us	_	m3/n	
		assume 20	h/day)		
Richmond	9399	163.071	200	720	-600
Monuera	1503	26,09878	59	212.4	<300
Malous	1893	32,86458	38	136.8	<300
Brightwate	1835	31.85764	33	118.8	<300
Wat reflect	1186	20.59028	30	108	k300



3. Details on which chemical fluoride compounds will be used to fluoridate Tasman's water supply- released on 16/03/2023

Tasman District Council does not add fluoride to any of the water supplies it owns and operates, including Richmond. Fluoride does occur naturally at low levels however.

Any decision to require fluoride to be added to any water supply is made by the Director General of Health, not Council. TDC has not, at this time, been directed to do so.

The following link to the Ministry of Health provides relevant information on this topic - Director-General of Health's role in decision-making on the fluoridation of drinking-water supplies | Ministry of Health NZ [Community water fluoridation | Ministry of Health NZ]

- 4. Where will they be sourced from? released on 16/03/2023 [Please refer Q3's response]
- 5. Will the concentrations and purity of the materials to be used in fluoridation fully standardised, batch-tested and documented as a legal requirement? released on 16/03/2023 [Please refer Q3's response]
- Are the fluoridation compounds proposed to medicate the public water supply meet British Pharmaceutical (BP) or United States Pharmaceutical (USP) - released on 16/03/2023 [Please refer Q3's response]
- 7. Does your Council put fluoride in drinking water- released on 07/03/2021

No, we do not fluoridate any of the Council drinking water supplies.