

Minutes

Board meeting	Public session
Date	7 November 2023
Venue	Watercare Services, Level 3 Boardrooms, 73 Remuera Rd, Remuera and via Microsoft Teams
Time	10am

Attendance		
Board of Directors	Watercare staff	Guests
Margaret Devlin (Chair) Julian Smith Graham Darlow Nicola Crauford Via Microsoft Teams Frances Valintine	Dave Chambers (CE) Mark Bourne (Chief Operations Officer) Shayne Cunis (Exec Programme Director CI) Amanda Singleton (Chief Customer Officer) Sarah Phillips (Chief People Officer) Steve Webster (Chief Infrastructure Officer) (except for item 9) Richie Waiwai (Tumuaki Rautaki ā-lwi me ngā Hononga) Chris Thurston (Head of Sustainability) (for items 1 to 6) Paula Luijken (Acting Head of Health, Safety and Wellness) (for items 9 and 10) Nigel Toms (General Manager Risk, Quality and Assurance) (from item 8) Nikora Wharerau (Kaihautū Matua Rautaki Māori) (from items 1 to 8) Tere Ryan (Security Coordinator) (for items 1 to 6) Helen Jansen (Stakeholder Liaison Advisor) (for items 1 to 6) Emma McBride (Head of Legal and Governance) Pinaz Pithadia (Legal and Governance Advisor) Via Microsoft Teams Kevan Brian (Technology Innovation Manager) (for items 1 to 6)	Members from the public Jim Jackson (for item 6) Mark Gasson (for items 1 to 6) Tessa Gasson (for items 1 to 6) David Jackson (for items 1 to 6) Luke Niue, Parnell Community Committee Chair (via Microsoft Teams) (from item 6) Members from Auckland Council Trudi Fava (CCO Programme Lead) (via Microsoft Teams)

1.	<p>Opening karakia</p> <p>Frances Valintine opened the meeting with a karakia.</p> <p>Meeting administration</p> <p>The Chair congratulated the winners from the WaterNZ Conference. The Chair also congratulated Jenny Wigley, customer insight specialist for winning the planning award for Citizen’s Assembly pilot at the IAP2 Australian Core Values Awards.</p> <p>The Chair noted that Graham Darlow will need to leave the confidential session at 2:15pm.</p>
2.	<p>Apologies</p> <p>Councillor Ken Turner, Watercare’s Lead Councillor sent his apologies.</p> <p>Councillor Shane Henderson, Chair, CCO Oversight and Direction Committee sent apologies for the public meeting, but indicated he planned to attend the confidential session.</p>
3.	<p>Quorum</p> <p>All directors were present at the meeting, so a quorum was established.</p>
4.	<p>Declaration of any conflicts of interest</p> <p>No conflicts of interest were noted.</p>
5.	<p>Minutes of the previous meeting of 10 October 2023</p> <p><i>The Board resolved that the minutes of the public session of the Board meeting held on 10 October 2023 be confirmed as true and correct.</i></p>
6.	<p>Public deputations</p> <p>Mark Gasson, a member of the public introduced himself and provided a presentation (Attachment 1).</p> <p>Mark noted that he has an engineering background and used to work for the NZ Steel mill in Waiuku for many years.</p> <p>Mark’s presentation outlines an opportunity he sees for Watercare’s Waiuku WWTP to work closely with NZ Steel’s mill, and in turn, reduce each plants' greenhouse gas (GHG) emissions. He made the following key points:</p> <ul style="list-style-type: none"> • NZ Steel has received \$300m from the government to shrink its carbon footprint. • NZ Steel uses lots of water, and whilst much is recirculated, 2% is rejected each time. • Currently, NZ Steel has resource consenting issues around taking additional water from the Waikato River.

	<ul style="list-style-type: none"> NZ Steel has cogeneration plants and 60% of its electricity is generated on site. Mark spoke to the map that showed how close various operators were, which gave the various neighbours (Watercare, NZ Steel, Transpower, Vector Natural Gas, BOC and others) opportunities to work together. Mark stated that whilst it is nice to measure N₂O, the ultimate aim should be to reduce it, given its carbon footprint. Mark's ultimate idea is for the wastewater from Southwest wastewater treatment plant be used by NZ Steel, and for that N₂O to be used in cogeneration of electricity and ultimately be released into the atmosphere as Nitrogen. Wastewater would ultimately be released into the atmosphere as steam (so wastewater would be turned into water vapor which would then eventually become rain). Mark noted that Watercare has said that it needs more projects to achieve our Decarbonisation Roadmap – this project is an ideal candidate. In terms of resourcing, Mark is retired and willing to work for a period of time, not indefinitely, the concept on a volunteer basis. <p>The Chair thanked Mark for the presentation and confirmed a formal response would be sent to him, following consideration of the points raised in his presentation.</p>
7.	<p>Our performance under the 2022 – 2025 Statement of Intent</p> <p>Emma McBride took the report as read. The following key points were made:</p> <ul style="list-style-type: none"> The Equal Justice Project law students are busy with exams, so they are planning to submit a presentation for the December 2023 meeting. In FY23, Watercare had a total of 32 Statement of Intent (SOI) measures, with eight measures not met. Helen Sadgrove from HSE Global has been appointed to undertake an independent review of how Watercare approaches Health and Safety and our performance for Total Recordable Injury Frequency Rate (TRIFR). Our customer net satisfaction score was not achieved. However, despite the uncertainty around reform, floods, cyclones, and infrastructure damage, our community trust score and voice of the community scores remained strong. This highlights our responsiveness during the extreme weather events. The Chair noted that the SOI measures that were not achieved mainly related to staff, customer and asset performance. <p><i>The Board noted the report and the presentation.</i></p>
8.	<p>Te Reo Māori Policy</p> <p>Richie Waiwai and Nikora Wharerau introduced the report. The following key points were made:</p> <ul style="list-style-type: none"> An exemplar in this area is Auckland Council. Their commitment to the Māori language can be seen in various documents such as bilingual signage, dual naming of facilities, digital platforms, intranet pages, publications and digital learning platforms. There is both a good quantity and quality of Māori language at Council. Richie noted that Watercare has made incremental steps, but it is a long journey. It was noted that it is everybody's job at Watercare to integrate the Te Reo Māori language and Māori culture into the fabric of the organisation so it is seen, heard, spoken and learned. The policy is to be driven by the Executive Leadership team. <p><i>The Board approved the Te Reo Māori Policy 2023.</i></p>

9.

Chief Executive's report

The CE introduced the report. The following key point were made:

Our people and customers

- Efforts are continuing to reach a positive resolution to the one outstanding collective agreement currently in the bargaining process. The agreement covers around 80 staff in a trade collective. This therefore remains a potential risk.
- The NTU has reached agreement with all relevant unions. However, these agreements will drop away if water reform does not proceed.
- The dams' storage level was at 99%. Whilst the supplies look good for this summer, a risk remains for the summer 2024/2025. We are closely monitoring rainfall forecasts and customer demand. In the meantime, we are continuing to encourage Aucklanders to be water efficient.

Progress update on Ōrākei main sewer failure

- Watercare is in a process of applying for retrospective resource consent for both the discharge and the ongoing sewer repair construction works at 79 St Georges Bay Road.
- An independent reviewer has been appointed and the report is likely to be received in early 2024 and will be made public.
- The incident level was reduced from level 3 to a level 2 + incident on 18 October 2023. This means the Operations team is leading the response and our stakeholders are getting weekly updates.
- The bypass solution is working well. There have been no overflows into the harbour over last 12 days, including when it has rained.
- The noise issue for neighbours remains a concern as the pump station must be ventilated and cannot be fully enclosed. Marshall Day, acoustics experts, are helping to minimise noise to surrounding neighbours.
- We are keeping lines of communication open with neighbours concerning noise and disruption to businesses and parking.
- The designs for rehabilitation of sewer are progressing. The sewer is going to be relined with a GRP (glass reinforced plastic) liner being manufactured in Dubai. The designs are being peer reviewed and we are working out how much of the sewer needs to be rehabilitated. Currently, accessing the sewer can only be done up until the blockage, with drones, and we have not been able to get workers into the sewer. Boulders as large as 800-900mm are blocking the way into the sewer and need to be removed. Accessing the site safely and minimising the risk of further collapse remain key concerns.
- We continue to keep Ngāti Whātua Ōrākei informed of developments and the rahui has reduced.
- We are also keeping Auckland Council/Healthy Waters informed, who manage SafeSwim.
- In response to a query from the Board, the CE noted that a weekly stakeholder update is being circulated to Auckland Civil Defence, the Mayor's office, Auckland Councillors and Local Board members, mana whenua, key stakeholders, neighbours to the sinkhole site and Watercare Board. In addition, Nathaniel Wilson, Environmental Care Manager will be interviewed by RNZ to discuss opportunities to contribute to environmental initiatives that will protect and restore the Waitematā Harbour.
- In relation to the retrospective resource consent, Mark noted that the consent relates to our emergency construction activities.
- In response to a query from a Board member regarding emergency overflows, Mark noted that our network discharge consent allows for overflows under certain parameters. The scale and duration of the overflows in this instance were outside of these parameters. Accordingly, a retrospective resource consent is being sought to legitimise these overflows. The overflows have stopped so arguably there is no need for the consent. However, the application will still be lodged for the regulator (Auckland Council) to make their final decision on whether a consent is required.

- The Board noted the weather forecast for *El Nino* and its impact on ground stability and increased fire risk. Mark confirmed that during dry weather, breaks increase, so this is something that is on our radar for the coming summer, especially after such a wet year. Mark also confirmed that “hot work permits” are required before doing any work that presents a fire risk to our catchments, including works such as lawnmowing.
- The Board thanked Management for their open and transparent communication in relation to the Parnell incident, including to the media throughout the incident.

Privacy breach

- Management confirmed that we are assisting the Privacy Commissioner regarding the alleged privacy breach, including providing further information as directed by the Commissioner.

Legal action related to Huia Water Treatment Replacement Plant

- Negotiations with the appellants are ongoing.
- By 17 November 2023, the parties need to update the Environment Court (EC) regarding the mediation.
- We anticipate that we are unlikely to achieve positive outcomes via this process.
- The next step would be to go the EC, which will likely to be in late 2024.
- The debate on the appropriate treatment of Kauri Dieback is ongoing.
- The Board asked for an update in the next CE’s report, which includes the risks associated with further delays to this project due to prolonged legal action. In particular, the update should make clear for the Board and our stakeholders/community what further delays mean in terms of service delivery (operational risks), and risks to our infrastructure investment. The update should also detail if there any other options to fast-track the legal proceedings.

Update on the recommendations of the Citizen’s Assembly

- In response to a query from a Board member, Mark noted that the timing for purified recycled drinking water is 2040. This is the water source after the Waikato River, and we have an obligation to Waikato Tainui to reduce our reliance on the Awa. However, to reach this point, we need to take the community and regulator on a journey. In particular, regulatory changes will need to be done in three tranches which involves working with Taumata Arowai, Auckland Council, and Community.
- Watercare meets regularly with the Taumata Arowai, and at a high level discusses purified recycled drinking water as a potential future water source option. It is expected that conversations will become more focused as our 10-15 year recycled water programme advances. In the meantime, there are “stepping stones” to get to this point, including non-potable recycled water reuse/non-contact use of recycled water.

Non-RMA related legal action

- In relation to the \$1.2m damages claim, a mediation is scheduled for December 2023. Further update should therefore be available in early 2024.

Non-compliance with resource consents at Army Bay wastewater treatment plant

- In relation to a UV non-compliance at Army Bay wastewater treatment plant (WWTP), Mark noted that this was the non-compliance he is most concerned about. The non-compliance occurs when there are high flows, in particular in wet weather. The AMP covers an interim screen upgrade in

	<p>2024, but the final upgrade is not scheduled in the AMP until 2030. In the meantime, there remains a public health risk and a risk that the upgraded screens do not address the issue, and that a full upgrade is required to achieve consent compliance.</p> <p>Statement of Intent measures</p> <ul style="list-style-type: none"> • Controllable cost target is red. However, if we exclude reform, flood and WDC costs the result is favourable to budget YTD. • The correct numbers for debt to revenue ratio are – target: ≤ 3.35, and September 2023 result: 3.38. The Ōrākei Sewer Main break and delay in insurance revenue for the flood events have placed pressure on our cash position. We are currently determining the right corrective action as part of our Q1 forecast process. • The Chair requested that the methodology for the SOI target on ‘reactive maintenance spend v’s proactive renewals spend’ be addressed as a matter of urgency. <p>People dashboard</p> <p>Sarah Phillips noted that:</p> <ul style="list-style-type: none"> • Hiring is slightly down for the month; staff turnover continues to trend down; and average leave liability remains high. • Our next staff engagement survey is scheduled for November. <p>Water quality</p> <p>Mark noted that:</p> <ul style="list-style-type: none"> • We have achieved 100% compliance for all parameters for all water treatment plants and distribution zones. • The repeat complaints are down for September 2023. • Backflow testing is a regulatory requirement. We have a robust process in place. The test results are not concerning. <p><i>The Board noted the report.</i></p>
10.	<p>Health, safety and wellbeing update</p> <p>The CE and Paula Luijken noted the following key topics:</p> <ul style="list-style-type: none"> • An independent reviewer has been appointed. A report with actionable recommendations is expected before Christmas. • While our number of incidents is higher than 2022, the number of days of incapacity per injury is down. • Our ACC costs are down. Lost time injury frequency rate is decreasing slightly. • All incidents are reported at executive huis. • The Chair noted that our messaging to staff, ahead of Christmas, should be to stay focused on their wellbeing rather than rushing to get things done. • Paula noted that the BOD scalar machine was a desktop sampling machine. A machine is awaiting review from maintenance contractor. • Digger control instrument broke off during use on job site. The team stopped work straight away and met at the safe area. All other diggers were checked for similar issues.

	<ul style="list-style-type: none"> • The targets for leadership walks for each business units have been established and will be reported to the board from next month. • Reward and Recognition programme has been launched. This will be reported from next month. • Training-Safety Leadership in Action is a half day training course for all of our people leaders, done in conjunction with Fletchers. 18.99% of people leaders have done the course, and the target is 100%. • The contractor who returned a non-negative drug and alcohol has been enrolled in a rehabilitation programme to help them stay safe at work. • In relation to the incident involving traffic management, Watercare liaised with the school staff and the parents. The school has also brought up road safety and traffic awareness at the school's assembly. <p><i>The Board noted the report and Critical Risk Review deep dive on Working at Height.</i></p>
11.	<p>Asset management committee meeting update</p> <p>Graham Darlow, the Chair of Asset Management Committee (AMC), provided an update to the Board on the AMC meeting held on 20 October 2023. He noted that the AMC discussed:</p> <ul style="list-style-type: none"> • AMP financials and funding envelope; • The AMP run rate, which needs to lift if we are to meet our budget for the year; • Traffic light reporting, including the projects that are “red” on time and cost; • The recommendation to go to the Board for approval for ‘Archboyd Ave PS and associated pipelines – WW0001357’; • The Assets Upgrades and Renewals programme; • Deep dive on Enterprise Model and Major projects ; • Lessons learnt from the Southwest Scheme; and • Statement of Intent measure on capital programme.
12.	<p>Board planner</p> <p>The Chair and Nicki Crauford will visit the Papakura Water Treatment Plant on 8 November 2023.</p> <p>The CCO Direction and Oversight Committee visit to Watercare previously scheduled for 3 November 2023 will be rescheduled for 2024.</p> <p>The Board asked Governance Team to reschedule the 21 November 2023 Asset Management Committee meeting.</p> <p>The Board will hold both public and confidential Board meeting on 12 December 2023 with a lighter public meeting agenda.</p> <p><i>The Board noted the Board planner.</i></p>
13.	<p>Directors’ committee membership and meeting attendances</p> <p><i>The Board noted the report.</i></p>

14.	Disclosure of Directors' and Executives' interests <i>The Board noted the report.</i>
15.	General business <p>Trudi Fava confirmed that a workshop on Long Term Plan process is scheduled on 9 November 2023. Trudi noted that she is confirming whether the Board Chair's attendance is required.</p> <p>Luke Niue confirmed he did not wish to make any comments.</p> <p>The public session closed at 11:46am.</p>

CERTIFIED AS A TRUE AND CORRECT RECORD

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Margaret Devlin, Chair

Attachment 1

Introductions

Watercare/NZ Steel Co-location Opportunities



MEDIA RELEASE



Date:

21 May 2023

New Zealand Steel partners with Government in \$300M co-investment to shrink carbon footprint of Glenbrook steel mill

Renewably generated electricity and local scrap steel supply are core to the plan to almost halve New Zealand Steel's carbon emissions and secure the future of domestic steel making in New Zealand.

800,000 tonnes of carbon eliminated – equivalent to approximately 300,000 cars off the road or 1% of NZ's total emissions.

New Zealand Steel will build a new \$300M Electric Arc Furnace at its steelworks at Glenbrook within the next three years as part of the move to lower carbon production.



**New Zealand
Steel**

Water - An Essential Resource

At the Glenbrook Steel Mill each day around 1 million tonnes of water is in circulation throughout the steelmaking and finishing operations.

Typically each day, 20,000 tonnes of fresh water is added to these water circuits to replace discharged water. To achieve maximum conservation, water is cleaned, cooled and recirculated many times in each process. Much of the water used in the steelmaking and finishing processes is drawn from the Waikato River, 18 kilometres away. River water is supplemented by the large volume of stormwater collected from across the industrial site. Water is vital for two operations: the transportation of ironsand from the Waikato North Head mine to Glenbrook Mill and for the steelmaking processes at the Glenbrook Mill.

- Transporting the ironsand requires around 7,000 tonnes of water each day. The Waikato River water is mixed with the ironsand to form a slurry which is pumped to Glenbrook 18 km away through an underground pipe.
- At the Glenbrook Mill water is used for cleaning waste gases, producing steam in the boilers, cooling, spraying and rinsing product, conveyance of solid wastes and general plant cleaning.

<https://www.nzsteel.co.nz/sustainability/our-environment/water-an-essential-resource/>



Returning Water To The Environment

Without recycling the Glenbrook operation would require a massive 1 million tonnes of fresh water each day, with a similar volume being discharged into adjacent waterways. However, of the total volume of water in the steel mill's water circuits, less than 2% is discharged to the Waiuku Estuary each day.

Exploring Alternative Water Supplies

New Zealand Steel has undertaken extensive research into the possibility of obtaining water from other sources. However, the studies showed that none of the proposed options would be able to be successfully implemented and would result in greater adverse environmental effects than the current abstraction of Waikato River water. Alternatives considered were -

<https://www.nzsteel.co.nz/sustainability/our-environment/returning-water-to-the-environment/>

Where does NZ Steel get secondary water from?

- Waikato River via slurry line ca. 7000 m³/day.
- Recycled Secondary water.
- This water is transported by a DN200 pipe ca. 18 km in length.
- Considerable electrical power is required for pumping.
- NZ Steel requires regular consents to take this water from the river.

Co-generation at NZ Steel

- 112 MW of co-generation located on the NZ Steel site.
- Cogen facility burns low-pressure waste gases from the Iron Plant.
- Cogen facility uses large quantities of water.
- When NZ Steel commissions the new arc furnace 50% of cogen's fuel will disappear.



Waste Energy Recovery

New Zealand Steel has developed a way of using one of the by-products of the ironmaking process, to provide an electrical energy source. This reduces its reliance on electricity purchased from the national grid. Hot waste gases are produced by the multi-hearth furnaces in the ironmaking process. New Zealand Steel has since the late 1970s taken advantage of this hot waste gas to produce energy for the production process, in what is called a Cogeneration plant. The Cogeneration process involves the multi hearth furnace waste gas being burnt in an afterburner to provide heat for the boilers. This superheated steam from the boilers drives two steam turbines to produce electricity. The Cogeneration plant provides approximately 20% of the site electricity requirements. In 1997 the company commissioned a second Cogeneration plant, taking waste hot gases from another part of the ironmaking process, the rotary kilns. This now means up to 60% of the steel mill's electricity is generated on site. The Cogeneration facility is an example of how New Zealand Steel makes better use of resources and by products. New Zealand as a whole benefits from Cogeneration at the steel mill as emissions from thermal power stations, such as Huntly and New Plymouth, are reduced and there are savings of coal and gas.

Struvite

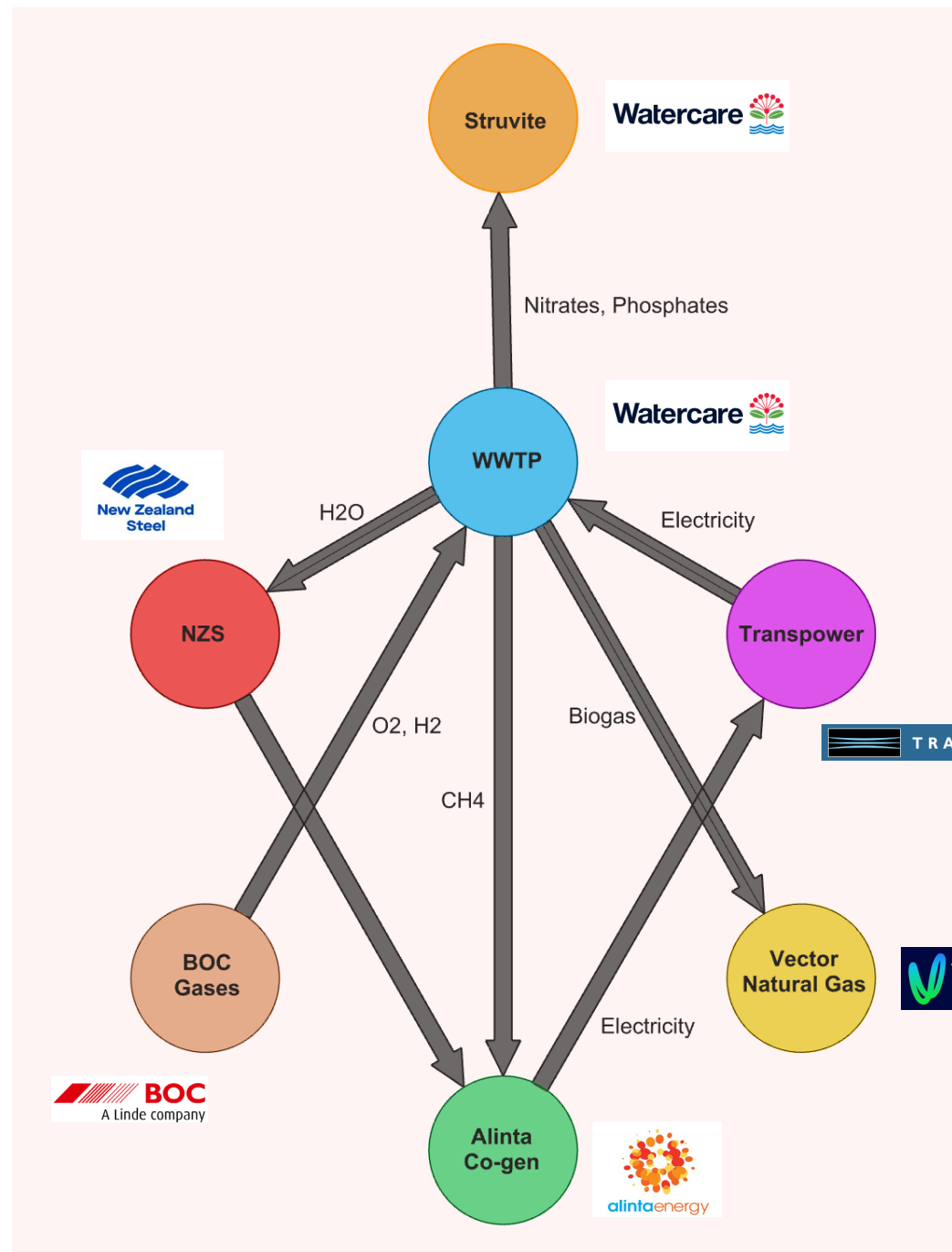
Nitrogen cap guidance for arable cropping, forestry and horticulture

Explaining sections 32–36 of the National Environmental Standards for Freshwater 2020

Biological and mixed fertilisers

Biological nitrogen fertilisers are not covered by the nitrogen cap. These are any solid or liquid substance applied to plants or land in which the nitrogen comes from animals or plants. Or humans?

Synergy



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Services Available to/from New Zealand Steel to Watercares Waiuku WWTP

Map overlays © Mark 4 Design Ltd 2023

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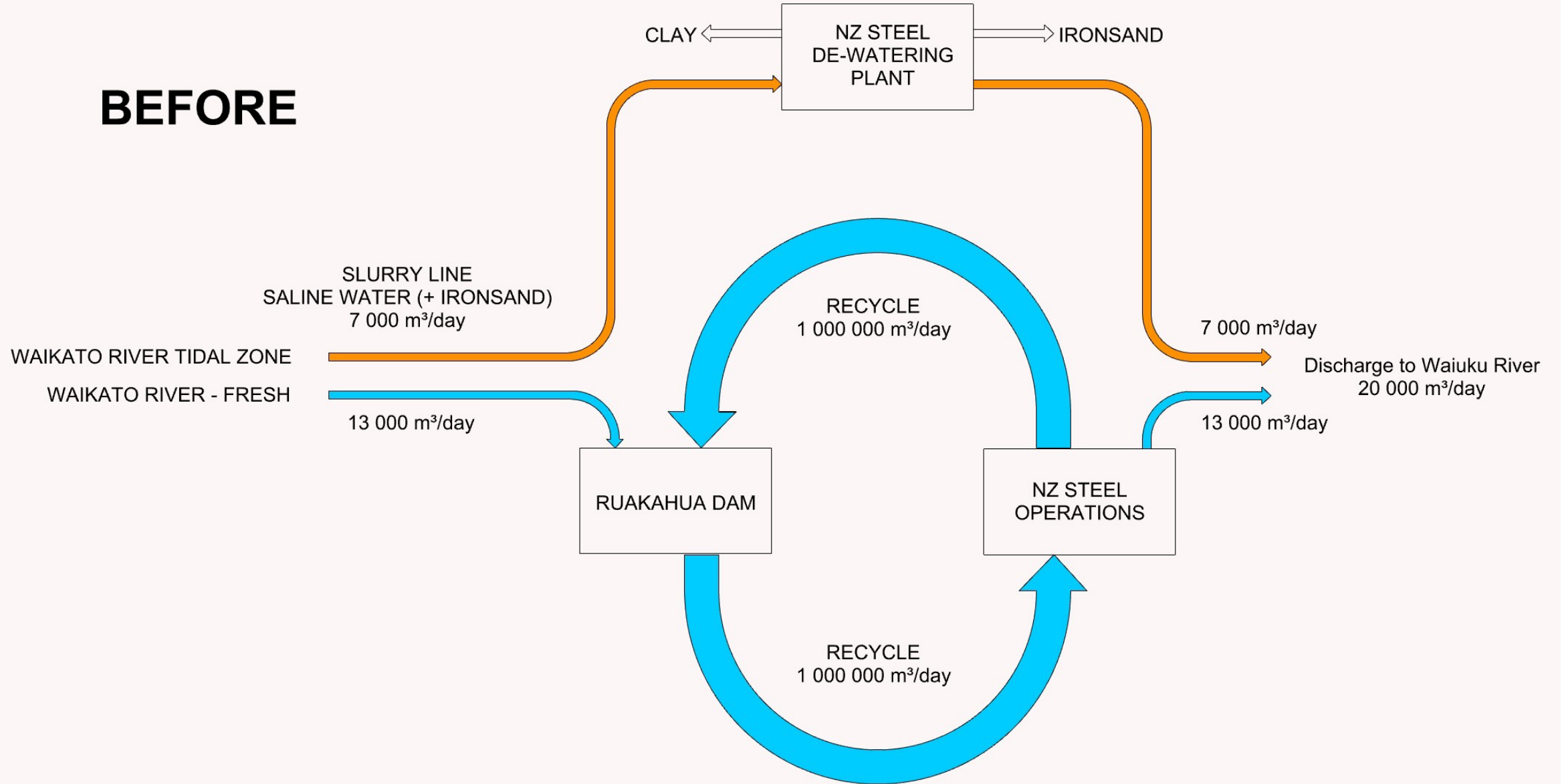
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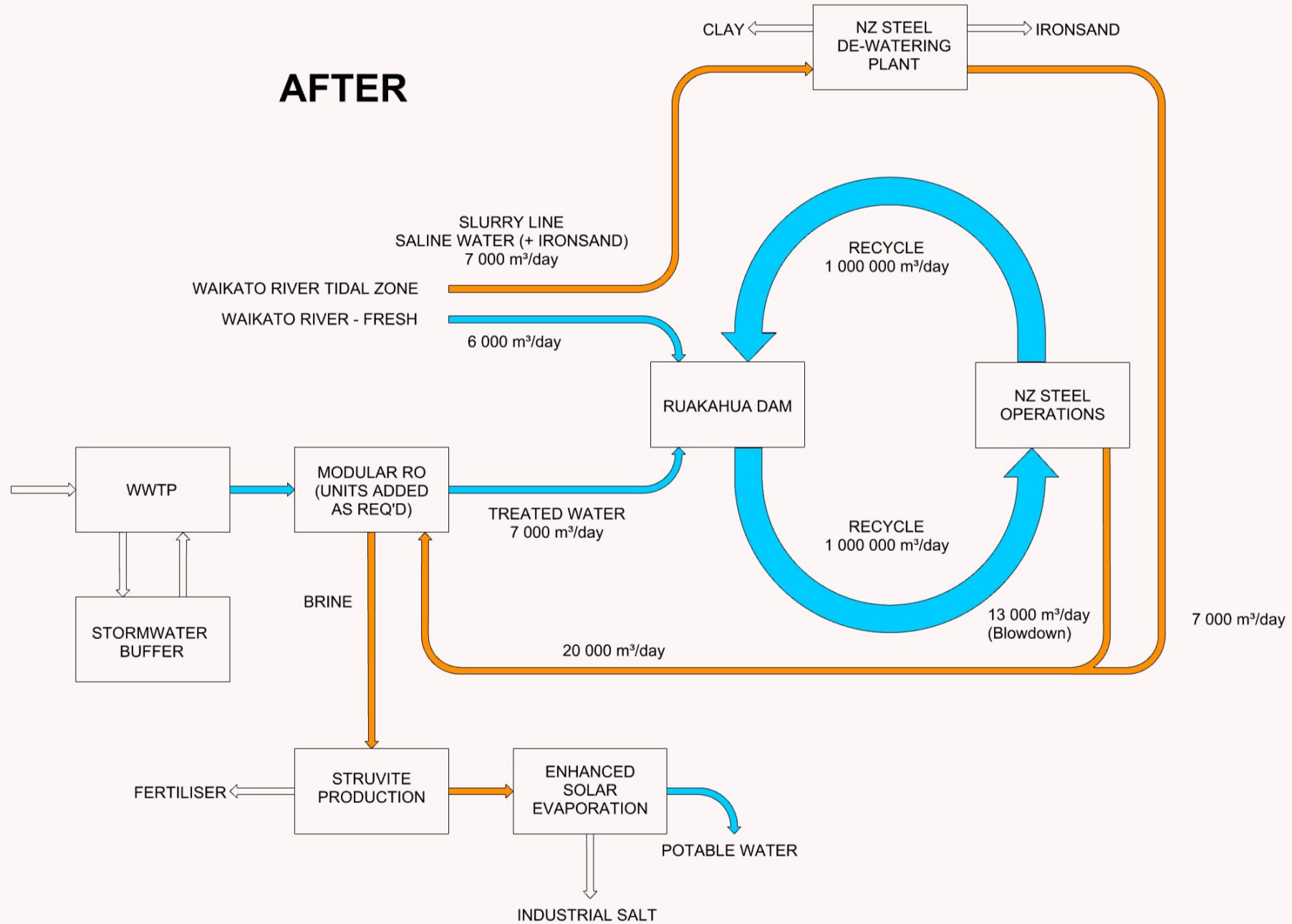
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BEFORE



AFTER



Decarbonisation road map

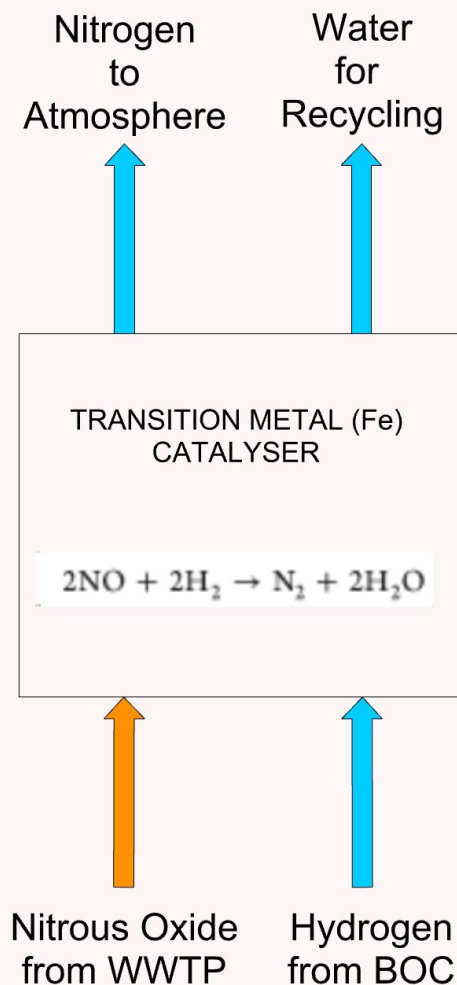
To meet our target of 50 per cent reduction in operational emissions (scope 1 and 2) by 2030, a Decarbonisation Roadmap was established in June 2022. This comprises of a list of 39 projects, as well as enabling factors, and was developed through a combination of internal value streams and external support from consulting partners Beca. The roadmap will change as the feasibility of projects is further developed and new projects are identified. At present, the roadmap requires more projects, higher emissions reductions or a lower projection to meet the target and this is being actively worked on. The roadmap considered five potential reduction scenarios based on abatement potential, marginal abatement cost, resourcing, certainty and existing projects in planning or feasibility phase. Scenario 5 was selected to use as the Watercare roadmap as shown in Figure 3.

The roadmap acknowledges that emissions will grow without intervention. The primary drivers for this are population growth, leading to the delivery of more services, and more stringent environmental discharge requirements which lead to more intensive technology solutions that increase emissions.

Join Chris Thurston and Kevan Brian to hear Watercare's emerging learnings in the management of nitrous oxide, a greenhouse gas produced by wastewater treatment processes.

Nitrous oxide is a greenhouse gas with a global warming potential of over 270 times that of carbon dioxide and is predicted to be the most dominant ozone-depleting substance in the twenty-first century¹. It is often generated as a bi-product of centralised wastewater treatment, however the quantum varies significantly. Understanding the amount of emissions generated, the complex interactions that drive them, and how they can be reduced is an area of emerging science globally.

Here in Aotearoa New Zealand, Watercare have embarked on a journey to better understand and manage nitrous oxide emissions from their wastewater treatment plants. This webinar will be hosted by, Watercare Innovation and Sustainability managers Kevan Brian and Chris Thurston. They will cover how nitrous oxide emissions fit within Watercare's broader sustainability journey, work underway to understand and manage them, and emerging learnings.



1. Mechanistic Study of Nitric Oxide Reduction by Hydrogen on Pt(100) (I): A DFT Analysis of the Reaction Network

Yunhai Bai and Manos Mavrikakis
The Journal of Physical Chemistry B **2018** 122 (2), 432-443
 DOI: 10.1021/acs.jpcc.7b01115