9.5 CLIMATE CHANGE UPDATE

Information Only - No Decision Required

Report To:	Strategy and Policy Committee
Meeting Date:	9 March 2023
Report Author:	Anna Gerraty, Senior Community & Reserves Policy Advisor; Barbara Lewando, Senior Climate Change Advisor; Neil Lindsay, Graduate Community Policy Advisor
Report Number:	RSPC23-03-6

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1.1 This report provides:

- a quarterly update on implementation of the current Tasman Climate Action Plan (2019); and
- climate change updates in brief at the regional, national and international levels.

2 Draft Resolution

That the Strategy and Policy Committee receives the Climate Change Update report RSPC23-03-6.

3 Update on progress with implementing the Tasman Climate Action Plan

3.1 An internal working group comprising 16 staff from across Council meets bi-monthly to ensure the current Tasman Climate Action Plan (TCAP) progresses. Highlights from the last quarter (November 2022 to February 2023) are presented in this section.

Onboarding of Senior Climate Change Policy Advisor

3.2 In mid-November 2022 we welcomed Barbara Lewando to our team, who has taken on the newly established 'Senior Climate Change Policy Advisor' role. This has boosted the team capacity substantially as, in addition to this full-time role, Anna Gerraty continues to provide climate leadership as part of her role. This means we now have a total of 1.5 FTE in place for climate leadership.

Council's carbon footprint

3.3 In January, we calculated Council's second greenhouse gas emissions inventory for 2021/2022. An independent auditor is verifying this inventory, which will be reported to the Strategy and Policy Committee at the 20 April meeting.

Community carbon footprint

- 3.4 Together with Nelson City Council (NCC), the Nelson Tasman Climate Forum and Nelson Regional Development Agency, we have prepared a baseline inventory of greenhouse gas emissions for the Tasman District for the 2018/2019 and 2019/2020 periods. The data is currently being independently audited and the report will be presented to the Strategy and Policy Committee at the 20 April meeting.
- 3.5 We wish to extend a big thank you to NCC staff member Daniela Ramirez for undertaking the bulk of the work in preparing this initial report on our behalf.
- 3.6 Our intention is to update the community carbon footprint every two years.

Transport improvements

- 3.7 A \$23.1m programme to improve walking and cycling in the District is underway through Streets for People and Transport Choices funding.
- 3.8 The Streets for People programme will create separated cycleways on Hill Street, Upper Queen Street, Salisbury Road, Champion Road, and Wensley Road in Richmond and Aranui Road in Māpua. This programme is 90% funded by Waka Kotahi and 10% funded by Better Off funding. It is due to be completed by July 2024. Attachment 1 shows the improvements the Council is making in Richmond, noting that it is a work in progress and is subject to change.
- 3.9 The Transport Choices programme will improve cycling infrastructure, intersections, and roundabouts in Motueka. The programme will involve significant improvements to the town centre, Tudor Street, High Street, Whakarewa Street, and Old Wharf Road. This programme is also 90% funded by Waka Kotahi and 10% funded by Better Off funding.
- 3.10 A revised public transport service will be starting in July 2023, with new connections to Motueka (via Māpua and Tasman) and Wakefield (via Brightwater and Hope) alongside an increased frequency of service. The new service will replace the existing bus fleet with one where 80% of the buses used are electric. This will be the first mostly electric bus service outside of major urban centres in New Zealand.

Other TCAP project updates

- 3.11 In the next few months, the Council will start implementing a new Fleet Vehicle Decarbonisation Plan. The full five year plan will transition 66% of the Council's fleet to electric vehicles and abate a total of 354 tonnes of CO₂e over the five years. The existing budget for replacing vehicles over the next few years is \$600,000. A total of 26 vehicles will be replaced and, of these, 17 will be electric vehicles.
- 3.12 Approximately 12,500 native trees and shrubs were planted in Teapot Valley from July to September 2022. Another 500 wetland plants also planted as part of the wetland restoration programme.
- 3.13 The Council contributes funding to Warmer Healthier Homes Te Tau Ihu Charitable Trust, who administers subsidies (along with central government's Warmer Kiwi Homes programme) to retrofit insulation into qualifying homes. Between July and November 2022, 52 properties have been insulated.
- 3.14 The Coastal Management Project is now working through a Phase 3 work programme which is focusing on how we can respond to sea level rise and coastal hazards by identifying high-level options that enable us to adapt. The options are grouped into four categories accommodate, protect, avoid, and retreat. A work programme will be developed to consider specific options and planning responses at the local level and will involve preparing an 'issues and options' paper for discussion with the community later in 2023 as part of development of the Aorere ki uta, Aorere ki tai Tasman Environment Plan.

4 Regional update

Nelson-Tasman Regional Climate Change Risk Assessment project

- 4.1 As outlined in previous 'Climate Change Update' reports, we are working together with NCC and iwi partners to undertake a <u>Regional Climate Change Risk Assessment</u> (RCCRA) for both the Tasman and Nelson regions.
- 4.2 This work will be led by consultant <u>Urban Intelligence</u>. The project aims to assess and interactively communicate climate change risks in the region, as well as cascading risks and impacts¹. The outcome is a 'living' platform called the 'Risk Explorer' that can be used by councils, iwi, businesses, organisations, and communities for climate adaptation planning, asset and spatial planning, and emergency planning.
- 4.3 Risks relating to five wellbeing domains will be evaluated: natural environment; human; built environment; economic; and governance. The project will use existing regional hazard and risk data and information and incorporate expert input from iwi partners and a wide range of stakeholders to identify and assess risks across each of the domains.
- 4.4 The final Risk Explorer and report is anticipated to be delivered by the end of September 2023.

Nelson City Council (NCC) update

Nelson Climate Change Strategy

4.5 NCC is developing a Climate Change Strategy to establish long-term goals and short-term priorities to guide action and investment by the Council and community on climate change.

¹ Cascading impacts from extreme weather/climate events occur when an extreme hazard generates a sequence of secondary events in natural and human systems that result in physical, natural, social or economic disruption, whereby the resulting impact is significantly larger than the initial impact (IPCC).

An Advisory Group of community members and technical experts has been established to support the development of the Strategy. The Group met for the first time in February 2023.

Community carbon footprint

4.6 NCC has compiled an inventory of greenhouse gas emissions for the Nelson region. The data is currently being independently audited before it is published. The community carbon footprint was developed by NCC with support from a regional working group, which included Tasman District Council, the Nelson Tasman Climate Forum and Nelson Regional Development Agency. The results of the footprint has been used to develop a city carbon model that provides emission projections under a range of different scenarios through to 2048 and will be used to inform decisions about the most impactful actions to take to reduce emissions.

Electric vehicle car sharing

4.7 NCC is initiating the establishment of a primarily electric vehicle car sharing scheme by replacing some of its own fleet vehicles with car sharing subscriptions. The scheme will also be available to businesses and members of the public to use and NCC intends to work with businesses and community groups to encourage uptake. The car sharing scheme will be launched on 1 July 2023.

Nelson Tasman Climate Forum / community update

- 4.1 In December 2022, <u>Mission Zero</u> held an end of year celebration event to highlight the achievements of the first batch of business mentor programme participants.
- 4.2 Staff and Councillor representatives have continued to attend monthly Leadership Group hui. In December a half day strategy session was held for this group.
- 4.3 Upcoming events being hosted by the Forum include:
 - Our Regenerative Future on 9 March 2023 from 6.00 pm to 8.00 pm at the Moutere Hills Community Centre, 1539 Moutere Highway, Upper Moutere. Hawkes Bay sheep farmer, Greg Hart, will outline his transition from traditional sheep and cattle farming to a more economic and biologically resilient farm;
 - the second Nelson-Tasman Climate Action week will be held from 26 May to 3 June;
 - School Strike 4 Climate on 3 March 2023 from 3.00 pm to 5.00 pm, Cathedral Steps/Top of Trafalgar Street, Nelson - Event organised by School Strike 4 Climate NZ and Nate Wilbourne, who is also an active member of our Forum.

Tūpuna Pono Summit: Being Good Ancestors

- 4.4 As a follow on from the Te Tauihu Intergenerational Strategy, Wakatū Incorporation and others are organising a summit to be held on 20-21 March 2023 to gather again as a region to:
 - hold the inaugural Te Tauihu debate on what it means to be good ancestors;
 - launch Tūpuna Pono Ao Ora the Climatorium, a proposal for a world leading centre for climate resilience partnership;
 - celebrate Te Tauihu initiatives and impact stories that align with the Te Tauihu Intergenerational Strategy;
 - welcome the Danish delegation and learn about climate adaptation initiatives in Denmark; and

• hear insights from the youth climate hackathon event.

5 National update

Guidance for local government on implementation of NAP and ERP

- 5.1 On 30 November 2022, it became a legal requirement for local government to have regard to the <u>National Adaptation Plan (NAP)</u> and the <u>Emissions Reduction Plan (ERP)</u> when preparing or changing Resource Management Act 1991 (RMA) regional policy statements, regional plans, and district plans. This requirement is to ensure that planning nationwide is in line with New Zealand's long-term climate strategies and goals.
- 5.2 The government has released a <u>guidance document</u> for councils on how to meet the requirements when developing or changing plans under the RMA, which are now in force. Consents for large projects can be declined if they will have significant climate change implications that are inconsistent with the Zero Carbon Act.

Resource management reform

5.3 The Environmental Policy team collated the Council's submission on the Spatial Planning and National and Built Environment Bills, which included some commentary on climate change.

Funding managed retreat report

- 5.4 To address the unprecedented challenge of increasingly severe weather-related disasters, the Government proposed a new piece of legislation in 2020: the Climate Change Adaptation Act. This Act is intended to address the complex and distinctive issues associated with managed retreat such as funding, compensation, land acquisition, liability and insurance. It is considered necessary because other proposed legislation, such as the new Natural and Built Environment Act and Spatial Planning Act, and the existing Public Works Act, are inadequately tooled to enable people and infrastructure to be moved out of harm's way.
- 5.5 The Ministry for the Environment (MFE) produced a consultation document on managed retreat in April 2022, which the Council submitted on. Government is expecting to introduce a Climate Adaptation Bill into Parliament by the end of 2023.
- 5.6 The Environmental Defence Society's (EDS) *Aotearoa New Zealand's Climate Change Adaptation Act: Building a Durable Future Project* is developing recommendations for the content of the new Climate Adaptation Act. The project commenced in June 2022 and will produce three working papers followed by a final synthesis report in December 2023.
- 5.7 The EDS has recently released the first working paper in the series: <u>Principles and Funding</u> for Managed Retreat: Working Paper 1. It focuses on conceptualising managed retreat, exploring what principles might underpin a new system, and considering how it might be funded. This <u>article</u> provides an overview of some of the options raised in the Working Paper.
- 5.8 The EDS report assesses the case for, and possible design of, a publicly funded scheme to compensate residential property owners for (at least some of) their losses. The EDS states that policies for the protection of at-risk properties are largely ineffective, both economically and technically, leaving managed retreat as the only feasible policy option when the public interest is to be protected.

Extreme weather events impacting the North Island

- 5.9 By mid-February 2023, the upper North Island had been impacted by two cyclones, two atmospheric rivers and additional storms. Before Cyclone Gabrielle arrived, nearly 300 homes in Auckland were red-stickered and more than 1,600 homes had a yellow-placard. The widespread damage from Cyclone Gabrielle prompted the Government to declare a national state of emergency (this is only the third time one has been declared, with the others being the Christchurch earthquakes and Covid-19 pandemic).
- 5.10 The Government's contribution to the Auckland Mayoral Relief Fund for the January 2023 flooding event included an immediate \$100,000 contribution, then \$1 million on 31 January. Financial contributions to councils' Mayoral Relief Funds are typically made in the immediate aftermath of an emergency with the expectation that the local authority distributes funding to the community as it sees fit. The previous highest was \$300,000, given to Nelson-Tasman in 2022 (for comparison, a total of 91 homes in Nelson-Tasman were red-stickered and 103 homes given a yellow-placard after the August 2022 event). By mid-October 2022, the Insurance Council reported that 1,248 claims totalling just under \$22 million had been lodged for the Nelson-Tasman regions following the August event.

Housing and Property							
Building assessments							
	White Placards	Yellow Placards	Red Placards	Total			
NCC (1400 on 31 August	514	90	88	692			
2022)							
TDC (1530) 29 August	48	13	3	64			
Total	562	103	91	756			

White placards relate to buildings that were assessed for damage after the event but deemed safe for people to return to within a few days / after any work required to rectify issues was completed.

Vulnerable communities exposed to flood hazard

- 5.11 A report, '<u>Vulnerable Communities Exposed to Flood Hazard</u>' by the Department of Internal Affairs (DIA) has identified 44 communities across 12 regions in New Zealand that are at serious risk of flooding. Nelson city was listed, but no communities in Tasman District are identified in the report. The report's purpose is to provide details on how many communities are experiencing a relatively high level of socio-economic vulnerability, potential exposure to flood hazard, a lack of flood risk reduction infrastructure, and potential constraints on wider district community ability to fund flood risk reduction.
- 5.12 The 44 lower socio-economic communities are not planning to build flood protection infrastructure according to council Long-Term Plans (LTPs), and communities in the wider district may have limited financial capacity to fund responses to flood risk. South Waikato, Waitomo, Buller, Gisborne, Opotiki, Rotorua, and the Far North all have a significant proportion of their population in vulnerable communities that are potentially exposed to flood hazard.
- 5.13 The DIA report comes after the Government in August released NZ's first <u>national</u> <u>adaptation plan</u>, which aims to 'build a climate resilient NZ', bringing Government efforts to help to build climate resilience together in one place.

5.14 A <u>Reserve Bank NZ report</u> recently looked at how climate change-related risks could affect banks' residential lending portfolios. The largest financial impact of coastal flooding would occur in Christchurch, with 22% of the national lending. Additionally, preliminary analysis showed that flooding caused by rivers and surface water could pose an even bigger risk to banks' residential lending portfolios than coastal flooding.

Disclosure of natural hazards for property LIMS

5.15 Governance and Administration Select Committee consultation on the Local Government Official Information Act Amendment Bill (changes to disclosure of natural hazards for property LIMs) closed on Friday 3 February. Staff lodged an officer-level submission on this Bill.

Government makes changes to farm-level emissions pricing plan

- 5.16 A report released on 21 December 2022 outlines several changes to the proposed emissions pricing system announced last October that give greater certainty for farmers and better recognise on-farm sequestration. However, the report does not represent final decisions. The pricing system is a legislated requirement of the Climate Change Response Act (CCRA). The proposed changes include:
 - a five year price pathway for levy rates from 2025, giving farmers the price certainty as requested, until 2030;
 - oversight of the levy-setting system will rest with the Climate Change Commission, but a board with representatives from the agriculture sector and Māori will provide advice and act as an avenue for sector input;
 - the farming sector will have input into the decisions around recycling income raised by the levy back out to the sector; and
 - the Government is working with the sector to develop a process to recognise on-farm carbon sequestration, that is fair, cost-effective, and scientifically robust, and on the use of collectives to simplify reporting and payment obligations.
- 5.17 Following further consultation in early 2023, cabinet will make final policy decisions on the agricultural emissions pricing system, followed by legislation to give effect to those decisions.

Regulating offshore renewable energy development

- 5.18 The Ministry of Business, Innovation and Employment (MBIE) is seeking feedback on proposed approaches to managing feasibility activities for offshore renewable energy development in Aotearoa New Zealand. Proposed regulatory approaches to managing feasibility activities for offshore renewable energy development have been mooted in a recently published paper for consultation.
- 5.19 MBIE defines such resources as energy generated in or on the sea from reusable, infinite natural sources such as wind, ocean currents, light or heat from the sun, rain and geothermal heat. Together, they present 'an opportunity to reduce our reliance on fossil fuels and support the transition to net zero by 2050'.
- 5.20 The objectives of the regulatory settings will be to:
 - enable selection of both the developer and the development to meet NZ's national interests, including appropriate safeguards and benefits for the environment;
 - enable Māori participation in offshore renewable energy development;

- provide certainty for developers to invest in the short term; and
- ensure NZ remains competitive and can secure access to offshore renewable energy technology in a timely way.
- 5.21 <u>Submissions</u> close on Friday 14 April 2023. There will be a second consultation in 2023 on the broader regulatory settings for how infrastructure will be constructed, operated and decommissioned.

Equitable Transition Strategy

- 5.22 Preventing climate change by reducing our greenhouse gas emissions will bring changes to how we live and what we do for work. Transition to a low emissions future will bring opportunities, including higher-wage jobs, as well as challenges and disruptions, such as retraining people for low-emissions work and changing the way we get around. Some people and communities will be affected more than others.
- 5.23 The Government is developing an <u>Equitable Transitions Strategy</u> to enable a transition to a low emissions future is fair and inclusive. The content of the Strategy will be informed by engagement with the public and will include actions and policies to address challenges and seize opportunities. A draft Strategy will be released in June 2023 and the final Equitable Transitions Strategy will be published by June 2024.
- 5.24 Currently the Ministry for Business, Innovation and Employment (MBIE) is promoting a public <u>online survey</u>, to understand how such a transition may impact on communities and to shape the new strategy.

Household carbon footprint

- 5.25 A nation's carbon footprint or 'consumption-based emissions', is estimated to include all domestic or overseas production processes throughout entire supply chains and use by the final consumer. According to Stats NZ, <u>household consumption was the largest contributor of total emissions</u>, with 69% (39,674 kilotonnes). This reflects households' consumption and lifestyle choices.
- 5.26 In 2020 the household carbon footprint decreased 6.3% (2,677 kilotonnes of carbon dioxide equivalent) compared to the previous year, largely driven by decreases in household transport emissions. The key movements in 2020 compared to 2019 were:
 - transport emissions, down 26% (4,019 kilotonnes) due to Covid-19;
 - food and non-alcoholic beverages, up 5.7% (596 kilotonnes);
 - restaurants and hotels, up 13% (231 kilotonnes);
 - household contents and services, up 13% (222 kilotonnes);
 - housing and household utilities emissions, up 3.8% (204 kilotonnes); and
 - recreation and culture, up 5.9% (115 kilotonnes).

PCE report – forestry offsetting for agricultural methane

- 5.27 In October 2022, Parliamentary Commissioner for the Environment, Simon Upton, published a research note '<u>How much forestry would be needed to offset warming from agricultural</u> <u>methane</u>' that questions the rationale behind having a net target for long-lived greenhouse gases and a gross target for biogenic methane.
- 5.28 The headline results of the research were that a one-off upfront planting of 0.6 hectares per animal for dairy cattle, 0.4 hectares per animal for beef cattle, 0.2 hectares per animal for

deer, and 0.08 hectares per animal for sheep would be needed. These numbers are for pine plantation forest with a 30 year rotation. At the national level, planting around 770,000 hectares of pine plantation forest between now and 2050 achieves a similar change in temperature as reducing methane emissions from the national dairy, sheep, beef and deer herds by 10% over the same time period.

5.29 The report noted if forest planting were to be used to offset livestock methane, it would have to be in addition to – not instead of – reducing national gross emissions of biogenic methane by 24–47% by 2050.

National Ticketing Solution

5.30 New Zealanders will soon be able to use a single payment system across Aotearoa for busses, trains and ferries. The development of the <u>National Ticketing Solution (NTS)</u> is a key milestone to make public transport more attractive. The payment system will be convenient, easy to use, and offer a consistent customer experience. A participation agreement has been finalised between Public Transport Authorities, Auckland Transport, Greater Wellington Regional Council, Environment Canterbury, and a Regional Consortium of ten smaller councils, including TDC and NCC, to deliver the solution. The National Ticketing Solution will be rolled out in a stage process across the different public transport authorities, starting with Environment Canterbury in 2024.

Budget Policy Statement 2023

- 5.31 The <u>Budget Policy Statement 2023 (BPS)</u> sets out the Government's priorities for the 2023 Budget. It explains the approach being used to develop the Budget and the broad parameters within which decisions will be made. The BPS 2023 has three overarching goals:
 - continuing to keep New Zealand safe from Covid-19;
 - accelerating the recovery and rebuild from the impacts of Covid-19; and
 - laying the foundations for the future, including addressing key issues such as our climate change response, housing affordability, and child poverty.
- 5.32 The wellbeing approach looks beyond traditional measures of success, such as gross domestic product (GDP), and towards broader indicators of wellbeing. This Budget Policy Statement is the first to use the Treasury's updated <u>Living Standards Framework</u>, released in October 2021. The Public Finance Act 1989 requires the Government to set wellbeing objectives through the Budget Policy Statement and explain how they are intended to support long-term wellbeing.
- 5.33 The wellbeing objectives for Budget 2023 are:
 - 1) Just Transition: supporting New Zealanders to transition to a climate-resilient, sustainable, and low-emissions economy.
 - 2) Physical and Mental Wellbeing: supporting improved health outcomes for all New Zealanders, particularly the mental wellbeing of our young people.
 - 3) Future of Work: equipping New Zealanders and enabling New Zealand businesses to benefit from new technologies, and lift productivity and wages through innovation.
 - 4) Māori and Pacific Peoples: lifting Māori and Pacific peoples' incomes, skills, and opportunities, including through access to affordable, safe, and stable housing.
 - 5) Child Wellbeing: reducing child poverty and improving child wellbeing, including through access to affordable, safe, and stable housing.

6 International update

Shell's board sued for failing to manage climate risk

- 6.1 Simpson Grierson have published <u>an article</u> about the recent lawsuit against Shell's board, explaining why directors must turn their mind to climate-related issues, and offering some practical steps that directors can take to manage liability.
- 6.2 Lawsuits relating to climate change are among the fastest growing areas of litigation worldwide. The range of targets is expanding just as rapidly. In a landmark development with significant consequences for those involved in corporate governance, shareholders have sued the board of Shell personally. The claim alleges that the directors have put the company at risk by failing to make a quick enough shift away from fossil fuels.
- 6.3 The prospect that directors could be sued personally in relation to climate harm has long been recognised but to date no such lawsuits have been brought in Aotearoa New Zealand. It is likely that it is only a matter of time before claims of this nature hit our shores. The Shell case is a striking reminder that directors need to turn their mind to climate issues when making governance decisions.
- 6.4 Key takeways:
 - directors owe wide duties to their companies, including to act in the best interests of the company and to exercise reasonable skill and care;
 - these duties require directors to identify and manage climate-related risks;
 - directors who fail to do so are at risk of legal action by shareholders leading to awards of damages against them personally;
 - climate activists are increasingly making strategic share purchases in order to exert pressure on boards; and
 - now, more than ever, directors must ensure that they have climate plans in place and are actively managing risks.

United Nations updates

- 6.5 At <u>27th Conference of the Parties</u> (COP 27) in Egypt, countries successfully negotiated a long-sought agreement to establish a suite of funding arrangements, including a new 'Loss and Damage' facility to help compensate developing economies suffering from the devastating effects of climate change. The UN Secretary-General's launch of the Early Warnings for All. The urgent need for early warning systems was so widely appreciated at COP 27 that, for the first time and figured prominently in the cover decision, known as the Sharm el-Sheikh Implementation Plan.
- 6.6 The Intergovernmental Panel on Climate Change reminded COP27 participants of the estimate that greenhouse gases must be <u>reduced by 45% by 2030 to limit global warming to</u> <u>1.5 degrees Celsius</u>, and the importance of action towards mitigating further warming.
- 6.7 The <u>One Ocean Summit</u> in Brest, France, the <u>Our Ocean Conference</u> in Palau, and the <u>UN</u> <u>Ocean Conference</u> in Portugal all featured the ocean in 2022. These conferences demonstrated the ocean's importance in food security, climate adaptation, and mitigation. Highlights included renewed efforts to combat illegal fishing, protect and restore marine and coastal ecosystems, and promote ocean-based climate action like decarbonizing shipping

and increasing offshore renewable energy. Ocean-based solutions to climate change, food security, and energy stability will receive greater recognition in 2023.

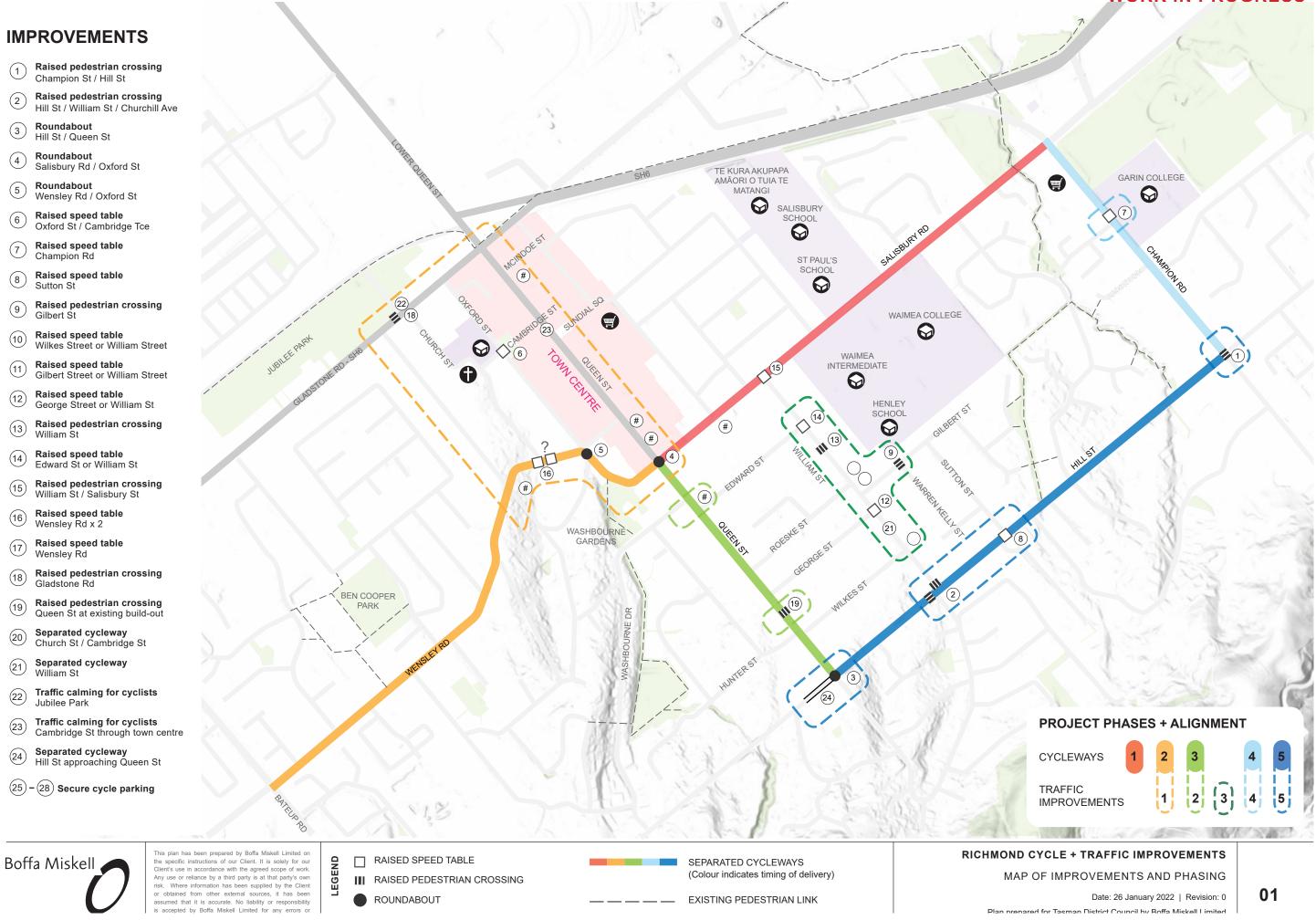
- 6.8 There also were major milestones in at the <u>UN Environment Assembly</u>, which agreed to begin negotiations for a binding global treaty to end plastic pollution.
- 6.9 One space to watch closely will be the <u>Global Stocktake</u>, mandated under the Paris Agreement to take place every five years to evaluate implementation progress against the agreement's goals.

Other global news in brief

- 6.10 The United States enacted its first-ever US climate legislation. Australia elected a proclimate-action government that quickly raised climate targets and passed legislation. In Brazil, President Luiz Inácio Lula da Silva won on a platform that included halting and reversing Amazonian deforestation.
- 6.11 At the same time, however, emissions are rising at an alarming rate, worsening the climate crisis. This year, catastrophic flooding in Pakistan and China, record-breaking heat waves in the U.S. and Europe, severe drought in Africa, and record ice melt at the poles were daily reminders of the increasingly severe and irreversible consequences of breaking the 1.5°C warming threshold over preindustrial times.
- 6.12 It is clearer than ever that climate change is interwoven with other great crises the world is facing by fueling them and playing a critical role in how we work to resolve them. Russia's invasion of Ukraine is forcing Europe to make short-term decisions with long-term consequences. This caused a global food crisis. Rising energy prices, climate-driven droughts, and Ukrainian agricultural export restrictions put a fragile global food system at risk.
- 6.13 The climate emergency is now the biggest economic, social, and environmental threat facing the planet and humanity. It is essential to manage the risks inherent in this change to ensure that no one is left behind. The world has arrived at a crucial turning point with the inception of three major global frameworks dedicated to climate change adaptation, sustainable development, and disaster risk reduction. A coordinated response is now needed from all relevant stakeholders. At the local level, strong convergence of climate change, sustainable development, and disaster risk reduction calls for greater action, coordination, and collaboration.

7 Attachments

1.1. Richmond Cycle and Traffic Improvements





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