



Notice is hereby given that a Meeting of the Community and Strategy Committee will be held on:

Date: Wednesday, 9 December 2020
Time: 1pm
Meeting Room: Council Chamber
Venue: 15 Forth Street, Invercargill

Community and Strategy Committee Agenda OPEN

MEMBERSHIP

Chairperson	Julie Keast Mayor Gary Tong
Councillors	Don Byars John Douglas Paul Duffy Bruce Ford Darren Frazer George Harpur Ebel Kremer Christine Menzies Karyn Owen Margie Ruddenklau Rob Scott

IN ATTENDANCE

Group Manager - Community and Futures	Rex Capil
Committee Advisor	Alyson Hamilton

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Full agendas are available on Council's Website

www.southlanddc.govt.nz

Note: The reports contained within this agenda are for consideration and should not be construed as Council policy unless and until adopted. Should Members require further information relating to any reports, please contact the relevant manager, Chairperson or Deputy Chairperson.

Terms of Reference – Community and Strategy Committee

TYPE OF COMMITTEE	Council committee
RESPONSIBLE TO	Council
SUBCOMMITTEES	None
LEGISLATIVE BASIS	Committee constituted by Council as per schedule 7, clause 30 (1)(a), LGA 2002. Committee delegated powers by Council as per schedule 7, clause 32, LGA 2002.
MEMBERSHIP	The Community and Strategy Committee is a committee of the whole Council. The mayor and all councillors will be members of the Community and Strategy Committee.
FREQUENCY OF MEETINGS	Six weekly or as required
QUORUM	Seven
SCOPE OF ACTIVITIES	<p>The Community and Strategy Committee is responsible for:</p> <ul style="list-style-type: none"> • providing advice to Council on the approaches that it should take to promote the social, economic, environmental and cultural well-being of the District and its communities and in so-doing contribute to the realisation of Council's vision of one District offering endless opportunities • to provide leadership to District communities on the strategic issues and opportunities that they face • to develop relationships and communicate with stakeholders including community organisations, special interest groups and businesses that are of importance to the District as a whole. • assessing and providing advice to Council on: <ul style="list-style-type: none"> - key strategic issues affecting the District and Council - community development issues affecting the District and Council - the service needs of the District's communities and how these needs might best be met - resource allocation and prioritisation processes and decisions. • developing and recommending strategies, plans and policies to the Council that advance Council's vision and goals, and comply with the purpose of local government as specified in the Local Government Act 2002 • monitoring the implementation and effectiveness of strategies, plans and policies • developing and approving submissions to government, local authorities and other organisations • advocating Council's position on particular policy issues to other organisations, as appropriate

	<ul style="list-style-type: none"> considering recommendations from community boards and Council committees and make decisions where it has authority from Council to do so, or recommendations to Council where a Council decision is required. <p>It is also responsible for community partnerships and engagement. This includes:</p> <ul style="list-style-type: none"> monitoring the progress, implementation and effectiveness of the work undertaken by Great South in line with the Joint Shareholders Agreement and Constitution. allocations of grants, loans, scholarships and bursaries in accordance with Council policy international relations developing and overseeing the implementation of Council's community engagement and consultation policies and processes. <p>The Community and Strategy Committee is responsible for overseeing the following Council activities:</p> <ul style="list-style-type: none"> community services district leadership.
DELEGATIONS	<p>Power to Act</p> <p>The Community and Strategy Committee shall have the following delegated powers and be accountable to Council for the exercising of these powers:</p> <ol style="list-style-type: none"> approve submissions made by Council to other councils, central government and other bodies approve scholarships, bursaries, grants and loans within Council policy and annual budgets approve and/or assign all contracts for work, services or supplies where those contracts relate to work within approved estimates. monitor the performance of Great South.. <p>Power to Recommend</p> <p>The Community and Strategy Committee«name of entity» has authority to consider and make recommendations to Council regarding strategies, policies and plans.</p>
FINANCIAL DELEGATIONS	<p>Council authorises the following delegated authority of financial powers to Council committees in regard to matters within each committee's jurisdiction.</p> <p>Contract Acceptance:</p> <ul style="list-style-type: none"> accept or decline any contract for the purchase of goods, services, capital works or other assets where the total value of the lump sum contract does not exceed the sum allocated in the Long Term Plan/Annual Plan and the contract relates to an activity that is within the scope of activities relating to the work of the Community and Strategy committee

		<ul style="list-style-type: none"> accept or decline any contract for the disposal of goods, plant or other assets other than property or land subject to the disposal being provided for in the Long Term Plan <p>Budget Reallocation.</p> <p>The committee is authorised to reallocate funds from one existing budget item to another. Reallocation of this kind must not impact on current or future levels of service and must be:</p> <ul style="list-style-type: none"> funded by way of savings on existing budget items within the jurisdiction of the committee consistent with the Revenue and Financing Policy
LIMITS DELEGATIONS	TO	<p>Matters that must be processed by way of recommendation to Council include:</p> <ul style="list-style-type: none"> amendment to fees and charges relating to all activities powers that cannot be delegated to committees as per the Local Government Act 2002 and sections 2.4 and 2.5 of this manual. <p>Delegated authority is within the financial limits in section 9 of this manual.</p>
STAKEHOLDER RELATIONSHIPS		<p>This committee will maintain and develop relationships with:</p> <ul style="list-style-type: none"> Community Boards Great South Milford Community Trust Destination Fiordland. <p>The committee will also hear and receive updates to Council from these organisations as required.</p>
CONTACT WITH MEDIA		<p>The committee chairperson is the authorised spokesperson for the committee in all matters where the committee has authority or a particular interest.</p> <p>Committee members do not have delegated authority to speak to the media and/or outside agencies on behalf of Council on matters outside of the board's delegations.</p> <p>The group manager, community and futures will manage the formal communications between the committee and the people of the Southland District and for the committee in the exercise of its business. Correspondence with central government, other local government agencies or official agencies will only take place through Council staff and will be undertaken under the name of Southland District Council.</p>

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Apologies

At the close of the agenda no apologies had been received.

1 Leave of absence

At the close of the agenda no requests for leave of absence had been received.

2 Conflict of Interest

Committee Members are reminded of the need to be vigilant to stand aside from decision-making when a conflict arises between their role as a member and any private or other external interest they might have.

3 Public Forum

Notification to speak is required by 12noon at least one clear day before the meeting. Further information is available on www.southlanddc.govt.nz or phoning 0800 732 732.

4 Extraordinary/Urgent Items

To consider, and if thought fit, to pass a resolution to permit the committee to consider any further items which do not appear on the Agenda of this meeting and/or the meeting to be held with the public excluded.

Such resolution is required to be made pursuant to Section 46A(7) of the Local Government Official Information and Meetings Act 1987, and the Chairperson must advise:

- (i) the reason why the item was not on the Agenda, and
- (ii) the reason why the discussion of this item cannot be delayed until a subsequent meeting.

Section 46A(7A) of the Local Government Official Information and Meetings Act 1987 (as amended) states:

"Where an item is not on the agenda for a meeting,-

- (a) that item may be discussed at that meeting if-
 - (i) that item is a minor matter relating to the general business of the local authority; and
 - (ii) the presiding member explains at the beginning of the meeting, at a time when it is open to the public, that the item will be discussed at the meeting; but
- (b) no resolution, decision or recommendation may be made in respect of that item except to refer that item to a subsequent meeting of the local authority for further **discussion."**

5 Confirmation of Minutes

6.1 Meeting minutes of Community and Strategy Committee, 11 November 2020



Community and Strategy Committee

OPEN MINUTES

Minutes of a meeting of Community and Strategy Committee held in the Council Chamber, 15 Forth Street, Invercargill on Wednesday, 11 November 2020 at 1.03pm.

PRESENT

Chairperson	Julie Keast	
	Mayor Gary Tong	
Councillors	Don Byars	1.03pm to 2.30pm
	John Douglas	
	Paul Duffy	
	Bruce Ford	
	Darren Frazer	
	George Harpur	
	Ebel Kremer	
	Christine Menzies	
	Karyn Owen	
	Margie Ruddenklau	
	Rob Scott	

IN ATTENDANCE

Group Manager - Community and Futures	Rex Capil
Committee Advisor	Alyson Hamilton

1 Apologies

There were no apologies.

2 Leave of absence

There were no requests for leave of absence.

3 Conflict of Interest

Cr Karyn Owen declared a conflict of interest in relation to item 7.3 - Riverton Heritage and Tourist Centre Trust funding application to the District Heritage Fund and advised she would take no part in discussion or voting on this matter.

Cr John Douglas declared a conflict of interest in relation to item 7.2 - Mossburn Golf Club funding application to the District Initiatives Fund and advised he would take no part in discussion or voting on this matter.

4 Public Forum

Jackie Flutey (General Manager) and Trish Boyle (Chairperson) for Community Trust South addressed the meeting outlining the financial activity and strategic focus of Community Trust South.

The Chair thanked Trish Boyle and Jackie Flutey for their attendance and presentation to the committee.

5 Extraordinary/Urgent Items

There were no Extraordinary/Urgent items.

6 Confirmation of Minutes

Resolution

Moved Cr Ruddenklau, seconded Cr Frazer and resolved:

That the minutes of Community and Strategy Committee meeting held on 9 September 2020 be confirmed as a true and correct record of that meeting.

Reports

7.1 Chairperson's Report

Record No: R/20/10/64041

Chairperson Keast presented this report.

Councillors Menzies and Scott provided a brief update on their attendance at the recent Zone 5 and 6 meeting.

Resolution

Moved Chairperson Keast, seconded Cr Menzies and resolved:

That the Community and Strategy Committee:

- a) **Receives the report titled “Chairperson's Report” dated 30 October 2020.**

7.2 District Initiatives Fund September 2020 Allocations

Record No: R/20/10/62755

Community liaison Officer - Megan Seator was in attendance for this item

Mrs Seator advised the purpose of this report is to give the Community and Strategy Committee a summary of the applications received for the District Initiatives Fund, and staff recommendations for the funding amounts to be allocated based on the criteria and amount available to be granted.

Resolution

Moved Cr Kremer, seconded Cr Scott recommendations a to c and d with changes (as indicated with ~~striketrough~~ and underline) and resolved:

That the Community and Strategy Committee:

- a) **Receives the report titled “District Initiatives Fund September 2020 Allocations” dated 27 October 2020.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) Approves the allocation of funds from the District Initiatives Fund as follows:

Cr Douglas declared a conflict of interest on the application - Mossburn Golf Club and took no part in discussions or voting on this item.

1	Southern REAP Incorporated	\$6,000
2	Mossburn Golf Club Incorporated	\$2,454.15 <u>Decline</u>
3	Southland Softball Association	\$15,000 <u>\$2,500</u>
4	Volleyball Southland Incorporated	\$10,000 <u>\$1,500</u>
5	Southland Pony Club	\$1,500
6	Northern Southland Community Resource Centre Charitable Trust	\$1,500
7	Parenting Place Charitable Trust	\$2,500
8	South Coast Environment Society Incorporated	\$2,500
9	Waimea Plains Ploughing Championship	\$4,500
10	Northern Southland Riding for the Disabled	\$1,500

7.3 District Heritage Fund Application Summary and Financial Report

Record No: R/20/10/61268

Community liaison Officer - Tina Harvey was in attendance for this item.

Ms Harvey advised the purpose of this report is to give the committee a summary of the applications to the Southland District Council Heritage Fund for the September 2020 round.

The committee noted the applications seek grants to assist with the day to day running of local museums, heritage centre.

Resolution

Moved Cr Ford, seconded Cr Harpur and resolved:

That the Community and Strategy Committee:

- a) **Receives the report titled "District Heritage Fund Application Summary and Financial Report" dated 2 November 2020.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not

require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.

- d) Approves the allocation of funds from the District Heritage Fund as follows:

Cr Owen declared a conflict of interest on the application - Riverton Heritage and Tourist Centre Trust and took no part in discussions or voting on this item.

1	Thornbury Vintage Tractor Club Inc	\$3,500
2	Riverton Heritage and Tourist Centre Trust	\$19,000
3	Waikawa District Museum Inc	\$6,500
4	Switzers Museum Waikaia	\$6,500
5	Wyndham and Districts Historical Society	\$2,000

- e) Approves the financial summary for the District Heritage Fund.

7.4 Sport NZ Rural Travel Fund Application Summary and Financial Report - September 2020 Round

Record No: R/20/10/62785

Community Liaison Officer - Kathryn Cowie was in attendance for this item.

Mrs Cowie advised the Southland District Council administers funding on behalf of the Sport New Zealand Rural Travel Fund and the purpose of this fund is to assist with transport expenses associated with participating in regular local competitions. Sports clubs and school-based clubs with young people between five and 19 years are eligible to apply.

The committee noted four applications have been received for this round of funding, which closed on 30 September 2020. The amount for distribution for the 2020/2021 year is \$18,717. The remainder will be carried forward to the March 2021 funding round.

Resolution

Moved Cr Ruddenklau, seconded Cr Menzies and resolved:

That the Community and Strategy Committee:

- Receives the report titled "Sport NZ Rural Travel Fund Application Summary and Financial Report - September 2020 Round" dated 2 November 2020.**
- Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.

d) Approves the allocation of funds for the Sport NZ Rural Travel Fund as follows:

1	Fiordland Athletics Club	\$1,200
2	Otara Pony Club	\$1,200
3	Riversdale Tennis Club	\$400
4	Te Anau Tennis Club	\$1,200

e) Approves the financial report up to 30 September 2020.

7.5 Creative Communities Funding Scheme Summary of Grants Awarded

Record No: R/20/11/64485

Cr Ruddenklau presented this item.

Resolution

Moved Cr Ruddenklau, seconded Cr Owen and resolved:

That the Community and Strategy Committee:

a) **Receives the report titled “Creative Communities Funding Scheme Summary of Grants Awarded” dated 3 November 2020.**

7.6 Review of the Stewart Island/Rakiura Visitor Levy - Update and Timeline

Record No: R/20/10/60863

Intermediate Policy Analyst - Carrie Adams and Community Partnership Leader - Karen Purdue were in attendance for this item.

Ms Adams and Mrs Purdue advised that the purpose of this report is to provide the Community and Strategy Committee with an update on the review of the Stewart Island/Rakiura visitor levy.

The meeting noted it is recommended that the committee endorse the proposed work plan and timeline for completion of this work.

Resolution

Moved Mayor Tong, seconded Cr Owen and resolved:

That the Community and Strategy Committee:

a) **Receives the report titled “Review of the Stewart Island/Rakiura Visitor Levy - Update and Timeline” dated 30 October 2020.**

b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.

- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) Endorses the plan and timeframe proposed to complete the review of the Stewart Island/Rakiura Visitor Levy Policy and the Stewart Island/Rakiura Visitor Levy Bylaw.
- e) Notes that formal consultation regarding any change to the levy quantum is proposed to occur in line with the 2022-2023 Annual Plan process.
- f) Notes that staff will report back to the Community and Strategy Committee to provide an update on progress at its April 2021 meeting.

7.7 Southland Regional Development Agency Letter of Expectation

Record No: R/20/10/61960

Governance and Democracy Manager - Melissa Brook was in attendance for this item.

Ms Brook advised that the purpose of the report is to present to the Community and Strategy Committee the letter of expectation sent to the Southland Regional Development Agency (Great South) from the Mayoral Forum on behalf of the four Southland local authorities.

Resolution

Moved Cr Kremer, seconded Cr Frazer and resolved:

That the Community and Strategy Committee:

- a) **Receives the report titled “Southland Regional Development Agency Letter of Expectation” dated 30 October 2020.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) Notes that the letter of expectation has been provided to Great South and that by 1 December 2020, Great South will provide Council with a draft Statement

of Intent to consider and provide comment on in accordance with the
Southland Regional Development Agency's constitution.

7.8 Milford Opportunities Project Update

Record No: R/20/11/64662

Community Partnership Leader - Simon Moran and Communications Manager - Louise Pagan were in attendance for this item.

Mr Moran advised the purpose of the report is to provide the committee with a general update on the Milford Opportunities Project.

Resolution

Moved Cr Owen, seconded Cr Harpur and resolved:

That the Community and Strategy Committee:

- a) **Receives the report titled "Milford Opportunities Project Update" dated 3 November 2020.**

Cr Don Byars left the meeting at 2.30pm.

7.9 Public Service Reform Agenda Update

Record No: R/20/10/60974

Group Manager Community and Futures - Rex Capil was in attendance for this item.

Mr Capil advised the purpose of the report is to provide the committee with recent happenings in the broader subject area of the public service reform agenda.

Resolution

Moved Cr Frazer, seconded Cr Ford and resolved:

That the Community and Strategy Committee:

- a) **Receives the report titled "Public Service Reform Agenda Update" dated 30 October 2020.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.

- d) Notes the central government activity that is occurring in the public service reform may have some form of impact on local government and its function, and therefore form, in the future.

7.10 Update on Council's Strategy Development Programme

Record No: R/20/10/61863

Strategy and Policy Manager - Michelle Stevenson and Policy Analyst - Robyn Rout were in attendance for this item.

Ms Stevenson and Ms Rout advised that the purpose of this report is to update the Community and Strategy Committee on work that has been completed on the strategy development work programme and outline that staff believe more information is required **on a district vision, before staff complete Council's internal strategy development work.**

Resolution

Moved Cr Kremer, seconded Cr Douglas and resolved:

That the Community and Strategy Committee:

- a) **Receives the report titled "Update on Council's Strategy Development Programme" dated 30 October 2020.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) Notes that on 8 July 2020, the Community and Strategy Committee endorsed a strategy development work programme to be undertaken from 2020 through to 2024.
- e) Notes the work staff have been doing on the strategy development work.
- f) Notes that staff believe the development of a district vision and wider community input is necessary to progress strategy development and **implementation plans, and to amend Council's strategic framework.**
- g) **Notes that a report on this agenda, 'Our Southland district community – Vision 2050 Project', proposes facilitating the development of a 2050 vision for the district.**

- h) Notes that if Council endorses the Vision 2050 Project, it is anticipated staff **would be able to continue progressing the development of Council's internal** strategy development programme, late in 2021.

7.11 Our Southland District Community - Vision 2050 Project

Record No: R/20/10/59879

Strategy and Policy Manager - Michelle Stevenson, Corporate Performance Lead - Jason Domigan, Communications Manager - Louise Pagan and Community Partnership Leader - Kelly Tagg were in attendance for this item.

Ms Stevenson advised the purpose of this report is to seek endorsement from the Community and Strategy Committee for Council staff to undertake the facilitation and **development of the "Our Southland District Community – Vision 2050" project for the** district as a whole.

Resolution

Moved Mayor Tong, seconded Cr Owen and resolved:

That the Community and Strategy Committee:

- a) **Receives the report titled "Our Southland District Community - Vision 2050 Project" dated 30 October 2020.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) Notes the benefit in the **development of the "Our Southland District Community – Vision 2050" project to assist in leading an intergenerational,** community wide, collaborative approach to long term planning for the district as a whole.
- e) **Recognises the value in the development of the "Our Southland District Community – Vision 2050" project** in assisting to position and support the alignment of future council and community aspirations; and will foster increased partnership opportunities with communities and collaboration between agencies.
- f) Endorses Council staff undertaking the facilitation and development of the **"Our Southland District Community – Vision 2050" project as part of the** strategy and policy, communications and engagement and community

leadership teams' work programmes; and being integral for the development
of the Long Term Plan 2024-2034.

7.12 Community Well-beings and Strategic Issues Overview - October 2020

Record No: R/20/10/61186

Group Manager, Community and futures - Rex Capil was in attendance for this item.

Resolution

Moved Cr Scott, seconded Cr Frazer and resolved:

That the Community and Strategy Committee:

- a) **Receives the report titled "Community Well-beings and Strategic Issues Overview - October 2020" dated 27 October 2020.**

The meeting concluded at 3.06pm.

CONFIRMED AS A TRUE AND CORRECT RECORD AT A
MEETING OF THE COMMUNITY AND STRATEGY
COMMITTEE HELD ON WEDNESDAY, 11 NOVEMBER
2020.

DATE:.....

CHAIRPERSON:.....

Chairperson's Report

Record No: R/20/11/69179
Author: Alyson Hamilton, Committee Advisor
Approved by: Rex Capil, Group Manager Community and Futures

☐ Decision ☐ Recommendation ☒ Information

Purpose of report

Kia ora and welcome to the Community and Strategy Committee meeting.

Items of interest that I have been involved in are as follows:

- attended a public meeting regarding the future of the Fortrose hall
- attended a multi-generational workplace seminar by Steph Holloway at Great South
- along with Councillor Paul Duffy and Councillor Christine Menzies attended the Waihopai Toetoe Community Board meeting
- along with Councillor Christine Menzies attended the Wallace Takitimu Community Board meeting
- attended the Southland Murihiku Event Strategy Hui at Great South
- attended the Mihi Whakatau Welcome for chief executive Cameron McIntosh
- Thriving Southland's Strong Catchment Groups Strong Communities event with Roger Dalrymple from Rangitikei speaking at Tokanui Tavern. Good turnout with 40 + engaged attendees
- attended the Whakamana te Waituna trust meeting
- attendance at the Tourism Industry Aotearoa summit at Te Papa
- attended a Southland Youth Futures Employer Recognition evening run by Great South at Bill Richardson Transport World
- attendance at the Gore Counselling Services executive meeting
- advice that I have been selected as the chair of the Southland Youth Futures Advisory Group
- attended a recent Fonterra community meeting
- attended the Citizens Advice Board meeting.

Recommendation

That the Community and Strategy Committee:

- a) **Receives the report titled "Chairperson's Report" dated 30 November 2020.**

Attachments

There are no attachments for this report.

Stewart Island/Rakiura Future Opportunities Project Update

Record No: R/20/11/66958
Author: Karen Purdue, Community Partnership Leader
Approved by: Rex Capil, Group Manager Community and Futures

☐ Decision ☐ Recommendation ☒ Information

Purpose

- 1 This is an update on the Rakiura Future Opportunities Project. A future focused strategic development and planning project for Stewart Island/Rakiura so that the island in partnership with local, regional and central government, iwi and other strategic partners, can proactively plan its future.

Executive Summary

- 2 A funding application was originally made to Ministry of Business, Innovation and Employment (MBIE) to engage a project manager to lead future focused strategic development and planning on Stewart Island/Rakiura. The application was for \$835,000.
- 3 MBIE offered a one-off allocation of \$100,000 with a requirement for co-funding by Council of 10% (\$10,000) and a revised scope.
- 4 Southland District Council engaged Sandra James (Connecting People Ltd) to deliver the outcomes as agreed with MBIE.
- 5 A community meeting was held on the island on 11 September 2019 to launch the project. Several stakeholders (DOC, Great South, SDC, Stewart Island Promotions, Commerce South, Environment Southland and Predator Free Rakiura) presented on what they are doing on the island and what is planned in the future. The meeting, was attended by over 70 residents and it was noted that the community were supportive and positive about the project.
- 6 The Future Leaders Development Programme was designed to build leadership capacity and capability on the island. This was co-created in collaboration with Commerce South, who facilitated the program.
- 7 In November 2019, 11 of the 16 graduates formed a group, Future Rakiura, who collaborated with other groups and organisations on the island to develop the plan.
- 8 Future Rakiura developed a six-month programme of work to move the group towards having a robust structure, good engagement with the community and a future opportunities plan.
- 9 The original strategic plan had five goals, however this was modified to three to ensure a strategic focus was kept and the groups were manageable and sustainable with a small and busy population, and the logistical reality of getting strategic partners to the island.
- 10 A hangi was held on Waitangi Day 2020 as the 'official' launch event for Future Rakiura. Very good feedback was received from the wider community about the event with wide support for Future Rakiura's kaupapa. The event met Future Rakiura's goal of bringing the community together to connect and build stronger relationships.

- 11 A community meeting to promote better communication and connectedness on the island was planned for 26 March 2020. This was an opportunity to update the community on progress and plans and other key stakeholders had been invited to do the same. Unfortunately, the meeting was cancelled due to the Covid-19 lockdown.
- 12 While Future Rakiura had made very good progress since it formed in November, it would have still been ‘forming’ when the MBIE contract was due to finish at the end of June. This may have left the group vulnerable to ‘finding their way’ and perhaps failing. Lack of support and resources have been a contributing factor on two past occasions with work like this on Stewart Island/Rakiura.
- 13 It was agreed with MBIE that, due to Covid-19, the timeframe for delivery of the project would not be achievable.
- 14 The timeline was extended to August (or possibly September/October) and was dependent on when “gatherings” were able to start again. MBIE also agreed that the plan may look different to what was originally agreed as expected outcomes.
- 15 Covid-19 significantly changed things for Future Rakiura. As a community-led project they had to re-orientate their plans to rethink their kaupapa and respond to the new challenges and opportunities for the Island.
- 16 Covid-19 provided an opportunity for Future Rakiura to promote collaboration on the island between key stakeholders – Stewart Island/Rakiura Community Board, Stewart Island Promotions Association, the Halfmoon Bay School and the Stewart Island Health Committee to seek to bring a united voice to post-covid recovery on the island.
- 17 Future Rakiura conducted a community survey, receiving 91 responses about how the community fared during Covid-19 Level 4, and ideas for the future of Stewart Island/Rakiura.
- 18 Future Rakiura developed a summary of survey results and reported them back to the Stewart Island community via various mediums – Future Rakiura Facebook page, Stewart Island News and other Facebook pages based on the island and, in addition, they presented to the community board, Stewart Island Promotion Association, and other interested groups to seek commitment to work jointly on collaborative ideas.
- 19 The Stewart Island/Rakiura Community Board were invited to co-host with Future Rakiura, a community workshop/meeting to engage with the wider community on future plans.
- 20 The meeting was finally able to go ahead on Wednesday 28 October 2020. The meeting was well attended and was led by community board chair Jon Spraggon. Several local organisations, Future Rakiura and the community board presented at the meeting.
- 21 The Department of Internal Affairs (DIA) has been aware of the development of Future Rakiura and the foundational work it has been doing. Discussions are progressing about Future Rakiura applying to be part of the DIA’s Community Led Development Programme in 2021.
- 22 This programme is a five-year commitment by DIA to support by way of advice, guidance, mentoring as well as financial support, if appropriate, provided.
- 23 Future Rakiura is actively working with the DIA regional advisor, based in Invercargill to put forward an application. Acceptance into this programme would greatly benefit Future Rakiura’s sustainability.
- 24 Future Rakiura has become an incorporated society and their inaugural AGM will be held on 26 November 2020.

- 25 Progress has been slower than was hoped but there is a commitment by those involved into making Future Rakiura work. This is to be commended in the current environment.
- 26 Future Rakiura has developed a strategic plan for 2020-2023 which outlines their longer-term goals, which are to be considered and progressed by the Inaugural Future Rakiura Committee.
- 27 The final report to MBIE was submitted on Tuesday, 10 November 2020.

Recommendation

That the Community and Strategy Committee:

- a) **Receives the report titled “Stewart Island/Rakiura Future Opportunities Project Update” dated 2 December 2020.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.

Background

- 28 The Stewart Island/Rakiura Community Planning Report, completed by Sandra James in March 2018 identified four key priorities for the island: Sustainable affordable electricity, Predator Free Rakiura and wharves and strategic leadership. These priorities were discussed with the community, community board, jetties subcommittee, Predator Free Rakiura representatives and were endorsed by Council.
- 29 An application was subsequently made to Ministry of Business, Innovation and Employment (MBIE) to engage a project manager to lead future focused strategic development and planning for Stewart Island/Rakiura. The application was for \$835,000.
- 30 In December 2018, MBIE advised that the original application had been unsuccessful for the total funding applied for, however had approved a one off allocation of \$100,000 with a requirement of co-funding by Council of \$10,000 which resulted in a revised project scope.
- 31 Southland District Council engaged Sandra James (Connecting People Ltd) to deliver the outcomes as agreed with MBIE.
- 32 A community meeting was held on the island on 11 September 2019 to launch the project. The meeting involved stakeholders (DOC, Great South, SDC, Stewart Island Promotions, Commerce South, Environment Southland and Predator Free Rakiura) giving an update on what they are doing on the island and what is planned in the future. The meeting was attended by over 70 residents and they had an opportunity to ask questions. It was noted that the community were supportive and positive about the project.
- 33 The Future Leaders Development Program was designed to build leadership capacity and capability on the island. This was co-created in collaboration with Commerce South, who facilitated the program. There were 25 applications received for the 16 available places.
- 34 In November 2019, 11 of the 16 graduates formed a group, Future Rakiura, who collaborated with other groups and organisations on the island to develop the plan.
- 35 Future Rakiura also included the five “community champions” (identified and respected leaders on the island).
- 36 Future Rakiura developed a six-month programme of work to move the group towards having a robust structure, good engagement with the community and a Future Opportunities plan.
- 37 Since November they have:
- developed a vision – ensuring a bright, sustainable future
 - and their purpose – to connect and support the Stewart Island/Rakiura community to navigate towards our sustainable future
 - identified their values
 - kaitiakitanga -guardianship and protection
 - manaakitanga – leading with moral purpose
 - humility, resilience, self-determination, integrity
 - honesty, openness, transparency, inclusiveness
- 38 The original strategic plan had five goals, however as with any new community project/group initial plans and aspirations change as the group develops.

The goals have now been modified to three to ensure a strategic focus is kept and the groups are manageable and sustainable with a small and busy population, and the logistical reality of getting strategic partners to the island. The three goals are:

Development	Working together for managed growth and a sustainable future
Community	Strengthening community connectedness, cohesion and communication
Governance	Continuing to develop Future Rakiura as an effective organisation

- 39 Sub-groups were formed from the stewardship group to form the three working parties.
- 40 A hangi was held on Waitangi Day as the ‘official’ launch event for Future Rakiura. They prepared approximately 280 meals and had a very large turnout despite bad weather. The group outlined Future Rakiura’s purpose and objectives for the future. Very good feedback was received from the wider community about the event with wide support for Future Rakiura’s kaupapa. The event met Future Rakiura’s goal of bringing the community together to connect and build stronger relationships.
- 41 A Community meeting to promote better communication and connectedness on the island was planned for March 26. This was an opportunity to update the community on progress and plans and other key stakeholders had been invited to do the same. The speakers invited were:
- Future Rakiura
 - Stewart Island Community Board
 - Rakiura Maori Lands Trust
 - Rakiura Marine Guardians
 - Great South
 - Ngai Tahu Fisheries Ltd
- 42 Unfortunately the meeting was cancelled due to the Covid-19 lockdown.
- 43 While Future Rakiura had made very good progress since it formed in November, it would have still been ‘forming’ when the MBIE contract was due to finish at the end of June. This would leave the group vulnerable to ‘finding their way’ and perhaps failing. Lack of support and resources have been a contributing factor on two past occasions with work like this on Stewart Island/Rakiura.
- 44 This type of work requires recognition and a commitment that these types of processes take time and ongoing support. This is a major risk for the long-term success of the project.
- 45 Subsequently, it became obvious that the timeframe for delivery of this project would not be achievable.
- 46 It was agreed with MBIE that, due to Covid-19 that the timeframe for delivery would be extended to August (or possibly September/October). This was dependent on when “gatherings” were able to start again. MBIE also agreed that the plan may look different to what was originally agreed as outcomes.
- 47 Covid-19 provided an opportunity for Future Rakiura to promote collaboration on the Island between key stakeholders – Stewart Island Rakiura Community Board, Stewart Island Promotions Association, the Halfmoon Bay School and the Stewart Island Health committee to seek to bring a united voice to post-covid recovery on the Island.
- 48 Future Rakiura conducted a community survey, receiving 91 responses about how the community fared during Covid-19 Level 4, and ideas for the future of Stewart Island Rakiura.

- 49 Future Rakiura have developed a summary of survey results and reported them back to the Stewart Island community via various mediums – Future Rakiura Facebook page, Stewart Island News, other Facebook pages based on the Island.
- 50 The results of the survey were presented to the Community Board, Stewart Island Promotion Association, and other interested groups to seek commitment to work jointly on collaborative ideas.
- 51 The Stewart Island Rakiura Community Board was invited to co-host a Community Workshop/meeting to engage with the wider community on future plans.
- 52 The meeting was held on Wednesday 28 October 2020. The meeting was well attended and was led by Community Board chair Jon Spraggon. Several local organisations, Future Rakiura and the Community Board presented at the meeting.
- 53 Future Rakiura has become an Incorporated Society. Their inaugural AGM will be held on 26 November 2020.
- 54 The Department of Internal Affairs (DIA) has been aware of the development of Future Rakiura and the foundational work it has been doing. Discussions are progressing about Future Rakiura applying to be part of the DIA's Community Led Development Programme in 2021.
- 55 This programme is a five-year commitment by DIA to support by way of advice, guidance, mentoring as well as financial support, if appropriate, provided.
- 56 Future Rakiura is actively working with the DIA Regional Advisor, based in Invercargill to put forward an application. Acceptance into this programme would greatly benefit Future Rakiura's sustainability.
- 57 Covid-19 has significantly changed things for Future Rakiura. As a community-led project they have re-oriented their plans to rethink its kaupapa and respond to the new challenges and opportunities for the island.
- 58 Progress has been slower than was hoped but there is a commitment by those involved into making Future Rakiura work. This is to be commended in the current environment.
- 59 Future Rakiura has developed a strategic plan for 2020-2023 which outlines their longer term goals, which are to be considered and progressed by the Inaugural Future Rakiura Committee.
- 60 The final report to Ministry of Business, Innovation and Employment was submitted on Tuesday, 10 November 2020.

Attachments

- A Final report Future Opportunities 20200811 [📄](#)

FINAL REPORT

Future Opportunities Stewart Island Rakiura

23 OCTOBER 2020

OVERVIEW

This is the final report to the Provincial Growth Fund for the Future Opportunities Stewart Island Rakiura project. The Provincial Growth Fund provided a very welcome funding contribution to: -

'lead strategic development and planning for Stewart Island Rakiura so that the island, in partnership with local, regional and central government, iwi and other strategic partners, can proactively plan its future'.

Southland District Council was the other partner in this project.

This funding has enabled a community-led development process on Stewart island Rakiura that has seen several important milestones achieved that will support the continuation of future focused strategic planning on the Island.

This is the final report that details the process and results of the project to date. It is important to note that community-led development takes time and the work completed to date is foundational. The group that has been formed during this process, Future Rakiura has become an Incorporated Society and developed a foundational plan (see Appendix 1) to continue to work towards their vision, which is *'ensuring a bright, sustainable future'* for Stewart Island Rakiura.

BACKGROUND

In 2018 the Southland District Council (Council) and The Ministry of Business, Innovation and Employment (MBIE) joined forces to support a community consultation process with Stewart Islanders to determine short, medium and long term visions to identify opportunities for the sustainability and development of Stewart Island Rakiura.

Priorities identified through that process were:-

1. Sustainable, affordable electricity

The community rates electricity as the number one barrier to living on Stewart Island Rakiura. It is expensive and the current diesel generation is not seen as sustainable and does not fit with the community's environmental values. It is also seen as a barrier to attracting new businesses to the Island. Islanders would like to see options for a renewable, sustainable, affordable energy to be explored and pursued.

Currently, with funding from MBIE, the Stewart Island Wind Power project is exploring if wind is a viable option to reduce the reliance on diesel and provide some stability around the cost of electricity to the island.

2. Predator Free Rakiura

The community is fiercely passionate about the special and unique natural environment of Rakiura and the influence that nature has on all facets of Island life and protecting this environment for future generations. Predator Free Rakiura is an important project in achieving their aspiration of being a world leader in conservation and sustainability. The Department of Conservation (DOC) have committed funding of \$1million over 12 months, with up to \$5million on the table over the next five years for this project.

3. Wharves

The community knows that the wharves are critical to those who live on and visit Stewart Island Rakiura and want wharves that are fit for purpose and well maintained. They are to them what bridges and roads are to people who live on the mainland. The replacement of the Ulva Island wharf is progressing and is in council's Long-Term Plan for completion in the 2021/22 year. The replacement of Golden Bay wharf is more complex as the funding options available place a burden on the island community and their ability to fund this replacement.

4. Strategic Leadership

Looking forward, and planning for the future of Stewart Island was seen as important by many to protect the community values and to progress appropriate development. A funded role with a strategic development focus, guided and supported by a strategic governance board was important to ensure that this work progressed at the right level. A 5-year time frame was supported to secure long-term community buy-in, partnership development and sustainable outcomes.

Sandra James from Connecting People conducted the community consultation and a report was produced. The final report is available on request, however this has previously been submitted to MBIE.

Both the Council and MBIE (through the Provincial Growth Fund) were interested in continuing to support ongoing thinking and planning about the future sustainability and development of Stewart Island Rakiura and provided further funding in 2019 to progress the work that had begun and to develop a plan that would help the Community take steps towards meeting its aspirations. Southland District Council agreed to be the fundholder and take responsibility for the delivery of the project, as well as providing partnership funding to support this work.

Sandra James from Connecting People (The facilitator) was re-engaged to continue to work with the community as a contract facilitator to: -

- Get more people involved in future focused conversations and action on Stewart Island/Rakiura
- Build better awareness and communication of future focused planning on the island and with and between key stakeholders
- Establish a future focused governance mechanism, based on the Island, to guide this work
- Build strong, trusted and productive strategic relationships within the Stewart Island Rakiura community and with local, regional and central government and organisations
- Develop a Stewart Island Rakiura Future Opportunities Plan

The facilitator reported directly to the Southland District Council and they allocated a staff member, Karen Purdue, to provide support and guidance to the project and to ensure accountability measures were met.

STAGES OF THE PROJECT

1. Community Engagement to seek community ideas on how to progress the project

The facilitator met with a number of key organisations and individuals on the Island, including the Community Board and Maori leaders to explain the project's purpose and to seek advice on how to best progress this project. Reports on progress of the project to the Stewart Island Rakiura Community Board took place in August and November 2019. There was a mixed response on the Island. Some Islanders were very excited about the opportunity, others felt 'we'd been here before' and no-one would be interested in going here yet again'. Some others on the Island didn't think the project was necessary as there were already a lot of community groups on the Island doing good work e.g. the Stewart Island Museum Trust, SIRCET and the Stewart Island Rakiura Community Board. These reactions were not unexpected, as this is not the first time these issues have been discussed on Stewart Island. Community planning processes have taken place in 1994 and 2011 with wide community buy-in and plans developed. The resulting implementation has been difficult to maintain with such a small population, that has huge seasonal demands on it. Therefore there was some hesitancy to repeat this process unless there was a different, more sustainable approach with a supported governance mechanism and paid strategic worker based on the Island to lead this work and establish a more detailed plan with actions and outcomes, in conjunction with the community and stakeholders.

Throughout the conversations on the Island people were asked to identify community leaders/champions.

In addition, the facilitator also met with key stakeholders to socialise the project and gain their support for being involved in the planning process going forward including Rakiura Maori Lands Trust, Predator Free Rakiura, Stewart Island Promotions Association (SIPA) Southland District Council, Department of Conservation (DOC), Department of Internal Affairs (DIA), Environment Southland, Community Trust South, Great South.

A well-attended community meeting (130 attendees) was held on 11th September 2019 to update the community on the new stream of funding from MBIE and Southland District Council and expected outcomes.

2. Overall Plan

Through one-on-one conversations by the facilitator on the Island it was clear that there were a number of people on the Island that were passionate and committed to Stewart Island Rakiura's future. A common theme identified was that it was difficult to get traction with ideas and plans as a lone voice, and that there would be value in building leadership capability and capacity on the Island.

Local ownership and community-led development were key principles that were valued by those spoken to and it was agreed that building community leadership, capacity and cohesion seemed to be the most logical place to start. 'More doing and less talk' was also a key message! Islanders wanted to see something happening!

Southland District Council made a connection between the project and the Southland Chamber of Commerce 'Southland Leadership Academy' aimed at providing leadership skills and training to emerging business leaders throughout Southland. An initial meeting was held with the Chamber to discuss whether the programme could be amended to focus on strategic community-led thinking and planning and a programme was put together with the Islands goals and aspirations in mind and speakers were arranged. It was also important that the programme was delivered on the Island and was no or low-cost so it could be accessible to everyone.

It was planned that during this capacity building programme (1/2 hour each session weekly) group members would be asked to co-design the next steps for the Future Opportunities project, with the facilitator with the view of a community-led outcome.

3. Leadership Academy

The Leadership Academy was launched at a Public meeting on the Island on 11th September 2019 and advertised through Stewart Island News (SIN) and the Stewart Island Facebook page. See Appendix 2 for the programme.

Funding was secured from the following sources, to allow the programme to be offered at no charge to all participants. (Usual cost is \$1,500 + GST per participant)

- the Future Opportunities project provided \$17,182.61 (excl GST),
- \$6,000 was secured from Community Trust South, and the
- Southland Chamber of Commerce offered 2 free places

The programme ran from the 8th October to 19th November 2019. (7 sessions in total).

The Chamber of Commerce developed and led the application process. A total of 25 Islanders applied for 16 spaces on the Leadership Academy.

Both the Chamber of Commerce and the facilitator were aware of the desire for this work to be community led and driven. With that in mind they enlisted the help of the community leaders/champions (identified by Islanders during the initial consultation for this project) to review and complete a scoring matrix that would allow participants to be selected for the Academy.

As a way of acknowledging the vast breadth of leadership within the community Leader/champion group they were invited to support the Leadership Academy by attending one of the sessions and telling their own leadership story, giving tips and encouragement and also to become wider community 'cheer leaders' for the project. They also hosted the speaker on the Island for dinner and introduced them at the beginning of the session.

Community Champions, identified by the community and who chose to participate were: - – Margaret Hopkins, Bruce Ford, Gwen Neve, Stu Newton, Jill Skerrett, Anita Geeson.

Below is the final list of participants for the 2019 Leadership Academy.

Lania Edwards	Charlotte Jenkinson	Josephine Shepard	Cherie Hemsley
Leah Rudin-Jones	Samual Jenkinson	Rakiura Herzhoff	Megan Cowley
Kylie Bakker	Melanie Miller	Kirten Hicks	Teri McCracken
Mary Chittenden	Letitia McRitchie	Bridget Carter	Edward Small

Strong relationships were formed with the speakers, many of whom have been called upon by the group for further guidance, support and advice.

A graduation function was held at the South Seas Hotel on 19th November 2019. Each participant received a certificate and was able to celebrate this achievement with their peers.

Leadership Academy Programme

7 inspirational speakers ‘fired’ up the locals to dream and believe in the power of ‘doing’.

Some of what they heard included: -

- ✓ Penny Simmonds Chief Executive of the Southern Institute of Technology reminded the group to never be frightened to dream big (she told how the Zero fees idea was written on the back of a napkin on Stewart Island!) but to always take others with you! She also challenged participants to not forget the power of collaboration and to have ‘Yes, and’ and ‘Yes, but’ conversations – to help think outside the square.
- ✓ Dean Addie, Chief Executive of EIS showed them the infamous ‘lone’ dancer video – and they learnt that all it takes is one person to start a movement and that they need to make it easy to be followed and nurture other followers. Dean shared with the group the two books he reads every year – ‘Oh, the Places you’ll go’ by Dr Seuss and ‘How to win friends and influence people’ by Dale Carnegie. He also introduced participants to the 5 P’s to success – people, passion, principles, progress, process.
- ✓ Clare Hadley Chief Executive Invercargill City Council told the group about the PRES acronym. My *point* is, the *reason* is, my *example* is, in *summary*. Claire also encouraged participants to acknowledge the contribution of those that have gone before and to find room for what we want now in a changing world and of the need to work to find what’s in the centre so that it’s comfortable for all. She also encouraged participants to be clear about what they want and what they need from others.
- ✓ The wonderful story of South Alive inspired the group to believe in community-led action! Robyn Hickman, Chairperson of South Alive reminded the group not to underestimate small wins and to take the time to work out the format for a forming group. She encouraged them to think about getting a brand – something catchy! She also encouraged the group to be ‘strategic’ in a clever way so that it is successful. And that by focussing on the assets in the community.
- ✓ Jason Tibble, Regional Commissioner, Ministry of Social Development ‘wowed’ the group with stories of focus, passion and getting s**t done – he shared lots of tools, resources and books that have fuelled his leadership journey from beer (working for Speights!) to care. He wasn’t afraid to take the hard news and learn from it – a great lesson!
- ✓ And the Academy participants learnt from Company Director Errol Millar the difference between governance and management and what some of the essentials of both are! Most importantly that a little bit of structure can get things working well.

- ✓ Aimee Kaio, Programme Manager, Tribal Economies, Tokona te Ao of Te Rūnanga of Ngai Tahu talked to the group about future focused planning frameworks and steps, challenges, reality checks and living breathing examples from the Bluff community. She gave them advice about building collaborative higher-level support and getting really good about telling your story, over and over again. She reminded us that these things take time, and it is time well spent – getting the foundation right helps to build a strong whare.



Stewart Island Leadership Academy participants with speaker Jason Tibble, Regional Commissioner, MSD

The Southland Chamber of Commerce is committed to support Southland Leadership Academy Alumni in their ongoing leadership journey and have worked with the Stewart Island Leadership Academy Alumni and Future Rakiura, to plan ongoing capability opportunities on the Island - unfortunately three workshop planning sessions organised for the first quarter of 2020 had to be cancelled due to Covid-19. The Chamber of Commerce was able to reschedule the public workshop *“Ideas to Reality”* facilitated by COIN South to the 23 July 2020 on Stewart Island.

This was well attended, and one on one sessions held the following day were very popular. There are plans for COIN South to return to the Island to continue working with businesses and entrepreneurs on the Island.

The Stewart Island Rakiura Leadership Academy Alumni have also been invited to join the Southland Leadership Academy private Facebook group. This is a place for members to connect with each other and guest speakers, keep up to date with latest events and opportunities.

4. **Future Rakiura**

During the 7 weeks of the Leadership Academy the group took half an hour each week to think about how future-focused opportunities for Stewart Island Rakiura, identified during the earlier community engagement process, might be progressed. In addition, they also met at other times outside of this schedule to hold a series of conversations that considered

- if there was a need,
- what the benefits would be,
- how any future thinking, planning and action could compliment what is happening already on the Island, and
- what it would take to move this idea forward.

The Leadership Academy participants wanted to continue the future-focused conversations at the conclusion of the Leadership Academy so continued to meet as an informal group to keep discussing these ideas and get clear what such a group would achieve, what kind of entity it would become etc.

Future Rakiura have met regularly to progress a programme of work. They have made very good progress in a short amount of time considering initially they were faced with their very busy summer season and then COVID-19. Work that is transformational takes time and care. It also takes the right people with drive and determination to establish and maintain the effort required to progress change in communities.

Future Rakiura Achievements

Strategic tactic	Achievements
Group Formation	<p>Between November 2019 and March 2020, the group: -</p> <ul style="list-style-type: none"> ✓ Chose a name – Future Rakiura ✓ Developed a vision – ensuring a bright, sustainable future ✓ Developed a purpose – to connect and support the Rakiura community to navigate towards our sustainable future ✓ Identified group values <ul style="list-style-type: none"> – Kaitiakitanga -guardianship and protection

	<ul style="list-style-type: none"> – Manaakitanga – leading with moral purpose – Humility – Resilience – Self-determination – Integrity – Honesty – Openness – Transparency – Inclusiveness <p>✓ Elected co-leaders – Josephine Shepard and Rakiura Herzhoff</p>
Foundational planning	<p>Future Rakiura developed a plan to move the group towards having a robust governance structure, good engagement with the community and a number of working groups to progress strategic objectives for Future Rakiura. (See Appendix 1)</p> <p>Future Rakiura has an active membership of 11 committed, passionate Islanders who have developed the project this far. The group meets regularly – at least monthly and are committed to the kaupapa of leading strategic thinking and planning on the island.</p>
Community Awareness raising	<p>A flyer about Future Rakiura was sent to every letterbox on the Island explaining its establishment and future aspirations. (See Appendix 3).</p>
Community engagement/ Community building/Fundraising	<p>Future Rakiura was officially launched at a Hangi held on Waitangi Day. Over 280 meals were served, and the event attracted a large number of residents despite poor weather. Feedback both formally and anecdotally has been that there is wide support for Future Rakiura's kaupapa. The event met Future Rakiura's goal of bringing the community together to connect and build stronger relationships. \$1,000 has been secured from Sanford Salmon Grant to hold the Hangi in 2021. (See Flyer Appendix 4)</p>
Strategic relationship development	<p>A Community meeting to promote better communication and connectedness on the Island had been planned for March 26th, 2020. Future Rakiura wanted to take the opportunity to update the community on progress and plans and has invited other key stakeholders to do the same.</p>

Community engagement and connections	<p>Confirmed speakers were: -</p> <ul style="list-style-type: none"> • Future Rakiura • Stewart Island Community Board • Rakiura Maori Lands Trust • Rakiura Marine Guardians • Great South • Ngai Tahu Fisheries Ltd <p>This meeting did not go ahead due to COVID-19. Due to ongoing alert level restrictions the meeting is scheduled to take place in late October.</p>
Community capacity building	<p>Future Rakiura in conjunction, with the Chamber of Commerce had planned to host a workshop on Stewart Island on 30th April where CoinSouth would have presented '<i>Idea to Reality</i>'- a two-hour workshop. Aimed at taking a business idea and using the COIN Canvas to create a one-page business plan. This free workshop was rescheduled to the 19th July and was open to all Stewart Island residents.</p> <p>8 people attended the workshop, and a further 8 attended one on one sessions with the facilitator the following day. A repeat visit to the Island is planned.</p>
Strategic Relationship Building	<p>Future Rakiura has presented to the Southland District Council, the Stewart Island Rakiura Community Board, and the Stewart Island Promotions Association about its purpose and goals and its desire to develop ongoing strategic relationships.</p>
Community Needs Assessment Strategic Relationship Building Community Engagement	<p>COVID-19 provided an opportunity for Future Rakiura to promote collaboration on the Island between key stakeholders – Stewart Island Rakiura Community Board, Stewart Island Promotions Association, the Halfmoon Bay School and the Stewart Island Health committee to seek to bring a united voice to post-covid recovery on the Island.</p> <p>Future Rakiura conducted a community survey, receiving 91 responses about how the community fared during COVID-19 Level 4, and ideas for the future of Stewart Island Rakiura. (See Appendix 5 for a summary).</p> <p>Future Rakiura have:</p> <ul style="list-style-type: none"> • Developed a summary of survey results and reported them back to the Stewart Island community via various mediums – Future Rakiura Facebook page, Stewart Island News, other Facebook pages based on the Island • Presented the survey results to the Community Board, Stewart Island Promotion Association, and other interested groups to seek commitment to work jointly on collaborative ideas • Invited the Stewart Island Rakiura Community Board and the Stewart co-host a Community Workshop/meeting to engage with the wider community on future plans
Foundational	<p>Future Rakiura has become an Incorporated Society – in order to do this, they had to write and approve the constitution, get a</p>

Development	<p>membership of 15 to become incorporated and work with Southland Community Law to check for accuracy</p> <p>An inaugural AGM will be held on 26 November 2020.</p>
Strategic Relationship Building Capacity and capability building on the Island	<p>The relationship with the Chamber of Commerce is ongoing and Future Rakiura and the Chamber have worked to put together a programme of capability and capacity building projects for 2021. Three workshops are planned on the Island, as follows: -</p> <ul style="list-style-type: none"> • Strategic relationships – the value and benefits of forming strong relationships with key strategic organisations, mapping strategic relationships, how to maintain and keep relationships alive, developing an action plan • Cultural Awareness – story telling history of Stewart Island Rakiura, expanding cultural awareness • Marketing – supporting local businesses develop their marketing strategy and providing guidance around their marketing activities <p>Funding will be sought from the Stewart Island Rakiura Community Board Community Partnership Fund to support this training to be delivered at low or no cost on the Island.</p>
Strategic Relationship building Sustainability	<p>The Department of Internal Affairs (DIA) has been aware of the development of Future Rakiura and the foundational work it has been doing.</p> <p>Discussions are progressing about Future Rakiura applying to be part of the DIA's Community Led Development Programme in 2021. This programme is a five-year commitment by DIA to support by way of advice, guidance, mentoring as well as financial support, if appropriate, provided.</p> <p>Future Rakiura is actively working with the DIA Regional Advisor, based in Invercargill to put forward an application. Acceptance into this programme would greatly benefit Future Rakiura's sustainability.</p>

COVID-19

COVID-19 has significantly changed things for Future Rakiura. As a community-led project they have re-oriented their plans to rethink its kaupapa and respond to the new challenges and opportunities for the Island.

Progress has been slower than was hoped but there is a commitment by those involved into making Future Rakiura work. This is to be commended in the current environment.

SUMMARY OF FUNDING

The summary of funding is as follows: -

- \$100,000 received from The Ministry of Business, Innovation and Employment
- \$10,000 received from Southland District Council
- \$ 6,000 was secured from Community Trust South, and the
- Southland Chamber of Commerce offered 2 free places on the Leadership Academy (\$3,000 in kind)

TOTAL NUMBER OF JOBS CREATED

Total number of jobs created 1 (possibly 1 more if the action plan is achieved)

MEDIA, MARKETING AND COMMUNICATION EFFORTS

- Stewart Island News articles on a regular basis
- Future Rakiura Facebook page
- Chamber of Commerce Facebook page and website
- Presentations from Future Rakiura to the Stewart Island Rakiura Community Board, Southland District Council and Stewart Island Promotions
- Community meetings held (and associated notices around the Island advertising them)

Appendix 1: Future Rakiura Plan

Future Rakiura

Strategic Plan

2020 – 2023

Ensuring a bright, sustainable future

Approved October 2020

1. Introduction

Future Rakiura is a community-led strategic planning group. It focuses on determining short, medium- and long-term goals that will identify opportunities for the sustainability and managed development of Stewart Island Rakiura in partnership with the community and stakeholders including government, local government and other agencies and organisations.

It builds on information gathered through community leadership planning process to engage the Stewart Island community in a discussion about its future carried out in 2018 and also on successful community planning efforts in 1994 and 2011 that had comprehensive plans and wide community buy-in.

2. Background

A community consultation carried out in 2018 (as part of an initiative that was rolled out by the Southland District Council to support communities to determine short, medium and long-term visions that identified opportunities for sustainability and development identified the following strategic opportunities for Stewart Island:

- The need to preserving the natural environment and landscape now and for future generations
- The need for fit for purpose infrastructure, that is environmentally sustainable
- The need for cheaper electricity, that fits more with the Islands environmental values
- The exploration of opportunities for Stewart Island to find its niche tourism market and work collectively towards enhancing the visitor experience
- The wish to proactively manage Stewart Island's future so that growth is managed and sustainable - develop a community plan that captures goals and objectives for the social, economic, environmental and cultural development on the Island
- The need for better connection between community groups/projects on the Island to join up efforts and prioritise activities and consolidate efforts
- The opportunity to build community leadership that encourages a more connected, cohesive community and forms more trusted and productive relationships/partnerships with external agencies and organisations to progress strategic opportunities, priorities, issues or risks
- The opportunity for better engagement and communication with the community – residents and ratepayers
- The need for more permanent accommodation for seasonal and permanent workers on the Island

In addition, the Stewart Island Rakiura Sustainability Review¹ commissioned by the Southland District Council in 2019 and carried out by Morrison Low identified the strategic challenges for the community as: -

¹ Southland District Council – Stewart Island Rakiura Sustainability Review September 2019

- No common view on what a prosperous and sustainable Stewart island looks like
- Lack of agreement on the Island about tourism
- Cost of electricity
- Water Supply
- The Ageing population
- Getting young people to stay (or come back)
- Keeping families on the Island
- Information exchange/communication with Council
- Getting young people involved in the strategic direction and decision making on the Island
- Ageing Infrastructure – roading, three waters, solid waste, power, wharves and jetties

In 2019 a successful application was made to the Provincial Growth Fund to progress the work begun and explore the establishment of a Future Opportunities project for Stewart Island Rakiura.

A Leadership Academy programme was run on the Island to develop local leadership capability in partnership with the Southland Chamber of Commerce. Funding from the Provincial Growth Fund meant that community members got to attend the training at no cost, with the commitment to co-designing the next stages of the Future Opportunities project. A group of identified local champions with significant local community experience were involved in the Academy selection process and also sharing their leadership journeys with Academy participants.

During the co-designing sessions group members/and the Community champions discussed: -

- a) If there was a need for future focused strategic thinking and planning on Stewart Island?
- b) What benefit it would bring?
- c) How it would differ from work already happening on the Island?
- d) How it would be progressed?

The Leadership Academy members formed a group called Future Rakiura to progress strategic future focused thinking, planning and action on the Island in November 2019.

3. Stewart Island Rakiura – our community

Rakiura is located approximately 30 km south of the South Island and is part of the Southland District. The island measures 64 km by 40 km at its widest points with a total of 174 600 ha and is surrounded by over 95 small islands including several that have been cleared of introduced mammalian predators (e.g. Whenua Hou, Taukihepa, Bench and Ulva Islands).

Approximately 90% of the island is public conservation land that is administered by the Department of Conservation, including 80% that sits within the Rakiura National Park. Eight per cent is Māori Land administered by the Rakiura Māori Lands Trust, and the remaining 2% is largely private land centred on the town of Oban. Rakiura National Park, the most southerly of New Zealand's 13 National Parks, was gazetted in 2002.

Tourism is the main industry on Stewart Island, although fishing is also economically important for the Island. During the tourism season, the Island is also visited by cruise ships, although they are currently not visiting due to COVID-19 restrictions. Tourist numbers on the Island are significant with around 44,000 tourists visiting in 2018, a 50% growth in tourism numbers from the year ended 30 June 2015. The Island was recently recognised as a Dark Skies Sanctuary, which is expected to result in increased tourism during the winter months.

Table 1 Growth in visitor number on Stewart Island²

Year ended	Total visitors	Change on previous year	Cruise ship visitors ³	Change on previous year
June 2015	30,648	-	2,083	-
June 2016	36,457	+18.9%	2,492	+19.6%
June 2017	36,656	+0.5%	2,187	-12.2%

² Source: key Issues and Option – Draft Stewart Island/Rakiura Visitor Levy Policy and Bylaw R/18/11/27001

³ Included in visitor numbers

June 2018	44,423	+21.2%	6,839	+212.7%
June 2019	43,991	-0.97%	4024	-41%
June 2020 * COVID impact	36,609	-16.78%	6074	+33.75

[Stewart Island Flights](#) links Oban and [Invercargill Airport](#) with several flights a day. A regular passenger ferry service runs between [Bluff](#) and Oban.

2.1 2018 Census Results

According to the 2018 census, the Island had a permanent population of 408 people, residing in and around the town of Oban. It has a small ratepayer base of 451 ratepayers (with a number of these being absentee ratepayers), which represents just over 2% of Southland District's total ratepayers (20,607)

Stewart Islands population has stayed fairly static over the past 20 years.

- There is a population approximately 400 people
- 93% of Islanders identified as European and 19.9% identified as Maori.
- 22% of the population are aged 65 years and over, compared with 13.6% of the total Southland District population
- 13% of the population are aged under 15 years in Stewart Island, compared with 22.1 percent for all of Southland District
- 25.1% of people aged 15 years and over in Stewart Island have an annual income of \$20,000 or less, compared with 28.3% of people for Southland District as a whole
- For people aged 15 years and over, the median income (half earn more, and half earn less, than this amount) in Stewart Island is \$33,500. This compares with a median of \$32,100 for all of Southland District

- Tourism numbers have been steadily increasing (with 44,000 tourists visiting in 2018), however *COVID-19 has had an impact on the July 19/June 20 year with 36,609 visitors to the Island. Autumn/Spring 2020 has been busier than previous years with many New Zealand tourists visiting.
- Stewart Island Rakiura is recognised as an International Dark Skies Sanctuary
- Like many small islands, infrastructure is limited and expensive to develop and maintain – affordability of infrastructure is a real issue for residents and for the Southland District Council, the bulk of whose ratepayers reside in rural communities off Stewart Island. Stewart Island has 1.3 percent of Southland District's population
- Electricity on the island is nearly three times the cost of the mainland
- Some of the wharfing infrastructure is run down and in need of urgent repair or replacement
- There are 97 business located on Stewart Island – a 17.1% decrease from the last census in 2013
- 73% of the population are employed full or part time.

Some of these stats are not dissimilar to other regional areas of New Zealand that show: -

- Static population
- Declining youth population
- Ageing population
- Ageing infrastructure

Stewart Islanders value the special and unique place that Stewart Island is and residents' value the relaxed lifestyle and way of life.

This is a community that has long put value into self-determination and the fact that there are 10 -15 community groups, as well as a number of informal groups shows that Stewart Islanders care about their community, and when focused on a common goal, work together to take action.

The community has the following community assets: -

Stewart Island Community Centre	Used for a variety of purposes including community events, hosting visitors (schools etc), sports, arts, plays, gym, sauna, kitchen and stage/lighting. Can accommodate up to 200 people
Rakiura Heritage Trust (Museum) and Rakiura Heritage Centre Trust (Future Museum)	New Heritage Centre nearing completion and will open in 2020

Department of Conservation – Rakiura National Park Visitor Centre	Provides up to date advice for visitors to the Island. Has two display rooms and a retail area. It has a conference room with an approximate 50-person capacity
Halfmoon Bay School	Year 1 – 8 co-educational school, has approximately 35 students
Oban Volunteer Fire Brigade	A Volunteer brigade situated in the Oban township
Library and Council Service Centre	Basic Council services with link to the Main office. Library and interloan service
Halfmoon Bay Police Station	Staffed by a single police officer
Bunkhouse Theatre	Long standing local movie ‘a local’s tale’ that runs continuously (narrated by the local dog). Movie festivals, art stall
Churches	There are two churches, the Oban Presbyterian Church and the St Andrew’s Anglican Church
RSA Pavilion	Holds events. Houses the Stewart Island Lions Club
Environment Centre	Run by SIRCET, information centre. Includes information on rat trapping, nurseries, projects and groups
Medicinal and Edible Plant Garden	Run by SIRCET
Community Garden	Run by volunteers
Rakiura Rugrats – Stewart Island Early Childhood Education Centre	Has one paid helper and a number of parent volunteers

4. Future Rakiura – who we are, what we'll do and how we'll work

Future Rakiura is a community-led group leading future-focused strategic discussion, thinking, planning and action for Stewart Island Rakiura. We see ourselves as a 'Stewardship Group' which brings together the community and stakeholders to take action on the things that are important for Rakiura's long-term sustainable future.

We will: -

- Be a connector, catalyser and advocate for Stewart Island Rakiura
- Invite all residents/ratepayers on Stewart Island Rakiura to get involved in Future Rakiura
- Form a stewardship group to lead future-focused planning on Stewart Island Rakiura – we'll consider our structure as we grow
- Partner with community groups and organisations/agencies and key local, regional and national stakeholders to take action on the things that are important for Rakiura's long-term sustainable future
- Focus on the unique assets of our community and our natural environment
- Establish project groups to progress community goals and aspirations

5. Vision

Ensuring a bright, sustainable future

6. Purpose

To connect and support the Rakiura community to navigate towards our sustainable future

7. Values

- Kaitiakitanga – guardianship and protection
- Manaakitanga -leading with moral purpose
- Humility, Resilience, Self-determination, Integrity
- Honesty, openness, transparency, inclusiveness

8. Future Rakiura Strategic Goals (general end point that you want to reach, based on identified need)

DEVELOPMENT	COMMUNITY/COMMUNITY LEADERSHIP	GOVERNANCE
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Managed growth and a sustainable future for Stewart Island Rakiura incorporating economic, cultural, social and environmental aspirations	<p>A connected, cohesive community</p> <p>Excellent communication between groups and organisations on and off the Island</p> <p>Strong future-focused community leadership and capability on Stewart Island Rakiura</p>	Future Rakiura as an effective and well-run community-led organisation
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STRATEGIC GOAL 1: DEVELOPMENT – Managed growth and a sustainable future for Stewart Island Rakiura incorporating economic, social, cultural and environmental aspirations

Short term Goals to JUNE 2021

	GOALS	ACTIVITIES	MILESTONES BY JUNE 2021	RESOURCES NEEDED
1.1	Identify and engage strategic partners in Future Rakiura's vision and strategic priorities	<p>Identify key strategic partners/stakeholders who can support community-led development on Stewart Island Rakiura</p> <p><i>(Attend Chamber of Commerce workshop on Island)</i></p> <p>Develop a stakeholder engagement plan to inform strategic partners of Future Rakiura's plans and how they can be</p>	<p>Partner/Stakeholder mapping completed April 2021</p> <p>Stakeholder Engagement Plan in</p>	Workshop fees for Future Rakiura members if needed

		involved <i>(Attend Chamber of Commerce Workshop on Island)</i>	place by June 2021	
1.2	Excellent communication between groups and organisations on and off the Island	<p>Continue to develop a strong working relationship with the Stewart Island Rakiura Community Board to align priorities</p> <p>Continue to develop a strong working relationship with Stewart Island Promotions Association and other Island based community groups to align priorities</p> <p>A good relationship with Southland District Council continues and is further developed</p>	<p>Future Rakiura updates the Stewart Island Rakiura Community Board bi-monthly on progress (at least 4 x per annum)</p> <p>Future Rakiura actively seeks to work in partnership with Island based community groups on activities that are future-focused</p> <p>Future Rakiura updates Southland District Council at least once annually on progress</p>	<p>Future Rakiura Chair/member attend meetings</p> <p>220.00 (Airfare/Taxis Invercargill)</p>
1.3	Islanders are aware of and able to contribute to plans/consultations/decisions that affect them and the Island	Facilitate opportunities to make sure the Islanders have information about how to contribute to plans/consultations/meetings	Opportunities advertised in Stewart Island News publication/Facebook when they arise	N/A
Longer term goals 2021 – 2023 (to be considered and progressed by the Inaugural Future Rakiura Committee)				

	GOALS	ACTIVITIES	MILESTONES BY 2023	RESOURCES NEEDED
1.4	Establish a Future Rakiura Strategic Development working group that is tasked with facilitating future focused thinking, planning and action that includes community members and key stakeholders/organisations	<p>Map community and strategic membership for the Future Rakiura Development project group</p> <p>Develop a Terms of Reference for the group</p> <p>Establish the Future Rakiura Development project group comprised of community individuals and strategic partner agencies and organisations that will work together to better understand the key issues and opportunities for managed growth and a sustainable future for Stewart Island <i>Rakiura</i> and agree a collective approach to addressing these issues.</p>	<p>Group membership identified</p> <p>Terms of reference developed</p> <p>Future Rakiura Development project group established, inducted and meeting 6x per annum</p> <p>Group leader identified</p>	To be decided when detailed plans are developed
1.5	Analyse reports/reviews that have identified current and future social, economic, cultural, environmental development issues and opportunities for Stewart island <i>Rakiura</i>	Review documents that identify current and future social, economic, cultural and environmental strategic issues and opportunities for Rakiura	Rakiura current and future social, economic, cultural and environmental strategic issues and opportunities document produced	To be decided when detailed plans are developed
1.6	Research success factors for small island development and sustainability	Research social, cultural, economic and environmental management, sustainability and development of other small island communities	Document produced that captures success factors for small island development	

1.7	Share results with the community and engage the Rakiura residents and ratepayers in conversations to determine priority areas for action	<p>Engage and consult with the Rakiura community to get their input into current and future social, economic, cultural, environmental strategic issues and opportunities</p> <p>Engage with Rakiura business owners to better understand current and future social, economic, cultural, environmental strategic issues and opportunities</p> <p>Engage with key partner agencies to understand current and future social, economic, cultural, environmental regional/local strategic issues and opportunities for Rakiura</p>	Rakiura residents and ratepayers, business community and key partners are engaged in conversations to determine priority areas for action	To be decided when detailed plans are developed
1.8	Develop a 3-year Future Rakiura Development plan in conjunction with the wider community and stakeholders	<p>Future Rakiura Development project group to develop a three-year delivery plan that will identify individual and collective activity and the resources required to deliver on shared priorities</p> <p>Engage and consult with the wider community, seek input and feedback on the draft plan</p>	<p>Develop a 3-year Future Rakiura Development plan</p> <p>Rakiura community engaged and consulted on draft Future Rakiura</p>	To be decided when detailed plans are developed

		Present final plan to Future Rakiura for endorsement and support	Development plan Future Rakiura endorses and supports plan Resourcing requirements identified; funding applications made/secured if needed	
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STRATEGIC GOAL 2: COMMUNITY - Strengthen community connectedness, cohesion and communication and build future-focused community leadership and capability on Stewart Island *Rakiura*

Short term goals to April 2021

	GOALS	ACTIVITIES	MILESTONES BY JUNE 2021	RESOURCES NEEDED
2.1	Build future-focused community leadership and capability on Stewart Island / Rakiura	<p>Work with Southland Chamber of Commerce o develop a programme of training opportunities for the Island.</p> <p>Workshop/training topics (speakers to be confirmed)</p> <ul style="list-style-type: none"> • Strategic relationships • Cultural awareness • Business Development • Marketing 	<p>Calendar of workshop/training/events to further develop community leadership and capability confirmed by 31 October 2020</p> <p>Funding application to Stewart Island Rakiura Community Partnership Fund for \$4,000 by 31 October 2020</p>	<p>\$8,000</p> <p>(Chamber of Commerce \$3,000 Contra, Stewart Island Rakiura Community Board \$4,000, Workshop Attendance Fees/Sponsorship \$1,000)</p>
2.2	Create a community events calendar	Create a community events calendar to include community events, meetings, etc, find appropriate 'host', keep up to date	Calendar created and live by 30 June 2021	\$500.00 (for IT expertise)
2.3	Waitangi Day Hangi	Plan and host Hangi with community partners. Wide community input in	Hangi held on 7 th February 2021	\$1,500

		planning and hosting		(\$1,000 secured from Sandford Salmon Grant)
2.4	IT Education	Work with SIT/Halfmoon Bay School to develop IT Training programme to be held on the Island. Plan, advertise and deliver education sessions	3 IT education sessions held before 30 April 2021.	\$500.00 (travel/accommodation)
2.5	Island day	Plan, advertise and host a community day on the Island that brings locals together to trade goods and services (with no money changing hands) Plan, advertise and host a birdman competition in conjunction with the community day	Island Day held by 30 th April 2021	\$500.00 (Advertising, materials)
2.6	Phone tree	Work with Health Committee/School develop a phone tree of Island residents. Consider storage of date and privacy issues.	Meet with Health Committee/School by 31 st March 2021 to progress	No budget required
Longer term goals 2021 – 2023 (to be considered and progressed by the Inaugural Future Rakiura Committee)				
	GOALS	ACTIVITIES	MILESTONES BY 2023	RESOURCES NEEDED
2.7	Establish a Future Rakiura Strategic Community working group that is tasked with facilitating community connectedness, cohesion and	Map community and strategic membership for the Future Rakiura Community project group	Group membership identified	To be decided when detailed plans are developed

	communication and building community leadership on the Island that includes community members and key stakeholders/organisations	<p>Develop Terms of Reference for the Future Rakiura Community project group</p> <p>Establish a Future Rakiura Strategic Community working party to better understand the key issues and opportunities to strengthen community cohesion, connectedness and communication, and grow and build future-focused community leadership and capability for Stewart Island <i>Rakiura</i> and agree a collective approach to addressing these issues.</p>	<p>Terms of reference developed</p> <p>Future Rakiura Community working party established, inducted and meeting 6 x per annum</p> <p>Group leader identified</p>	
2.8	Engage the Rakiura residents and ratepayers in conversations to determine priorities and strategies for action	<p>Engage and consult with the Rakiura residents and ratepayers to get their input into what the community connectedness, cohesion, communication and future-focused community leadership strategic issues are and what they think are the opportunities to do things differently.</p> <p>Engage with Rakiura business owners to community to get their input into what the community connectedness, cohesion, communication and future-focused community leadership strategic</p>	<p>Community consultation carried out</p> <p>Issues and opportunities document produced</p>	To be decided when detailed plans are developed

		<p>issues are and what they think are the opportunities to do things differently.</p> <p>Engage with key partner agencies to understand best practice connectedness, cohesion, communication and community leadership strategies</p>		
2.9	Develop a 3-year Future Rakiura Community Development Strategy in conjunction with the wider community	<p>Future Rakiura Community project group to develop a three-year delivery plan that will identify strategies and activities to increase connectedness, cohesion and communication and the resources required to deliver on shared priorities</p> <p>Engage and consult with the wider community on the draft plan, seek feedback</p> <p>Present final plan to Future Rakiura for endorsement and support</p>	<p>3-year plan developed</p> <p>Rakiura community engaged and consulted on draft Future Rakiura Community Development plan</p> <p>Future Rakiura endorses and supports plan</p>	To be decided when detailed plans are developed

			Resources needed identified, funding secured to support the groups goals	
2.10	Develop a Community Leadership Strategy in conjunction with the Chamber of Commerce, Southland District Council and Department of Internal Affairs	Work with Department of Internal Affairs, Southland Chamber of Commerce and Southland District Council to develop a leadership capability plan – should include the Leadership Academy, and other opportunities for building capability of current and future leaders on the Island	<p>3-year Leadership Capability plan in place</p> <p>2 x Speaker opportunities on the island annually, open to all</p> <p>3 x events planned to bring together Rakiura residents/ratepayers to build cohesion, connection and better communication ultimately leading to a united vision and voice for Stewart Island</p>	To be decided when detailed plans are developed

STRATEGIC GOAL 3: GOVERNANCE – Future Rakiura is an effective and well-run community-led organisation				
Short Term Goals to June 2021				
	GOALS	ACTIVITIES	MILESTONES BY JUNE 2021	RESOURCES NEEDED
3.1	Ensure wide community input and participation into Future Rakiura	<p>The residents/ratepayers of Stewart Island / Rakiura are formally consulted at least once a year on the progress of Future Rakiura and have an opportunity to contribute new project ideas</p> <p>Community meetings held six monthlies to update the community on Future Rakiura's work (invite other key stakeholders to be involved)</p> <p>Bi- Monthly update in Stewart Island News publication/Facebook</p>	<p>Annual survey</p> <p>2 Workshops held annually</p> <p>6 x updates in SIN per annum, also posted to Facebook to reach a wider audience</p>	<p>\$250.00 (Survey Monkey software)</p> <p>\$600.00 (Hall hire, catering, advertising)</p> <p>No Budget needed</p>
	Ensure community is kept up to date with Future Rakiura activities			

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3.2	Future Rakiura becomes an incorporated society and holds its first AGM	A Future Rakiura Incorporated Society is formed	Future Rakiura is incorporated 30 October 2020	\$195.00 (Incorporation Fee)
		Inaugural AGM held and officers elected	Inaugural AGM held by 15 December 2020	\$200.00 (Venue Hire, Catering, Advertising)
3.3	Future Rakiura has a communication plan so that the community and stakeholders have a clear understanding of its role and the activities it plans to carry out	Future Rakiura develops a communications plan	Communication plan developed by 30 November 2020	No budget required
		Future Rakiura has clear branding and clearly articulates its vision and purpose and planned activities to the community and key stakeholders	Logo developed and agreed on	\$300
		Establish a website for Future Rakiura	Website developed and live	\$5,000 (development) \$ 900 (hosting and maintenance)
3.4	Establish effective processes and systems so that Future Rakiura is competent, capable, compliant and accountable to the community	Future Rakiura has a strategic plan, and an annual plan which is reviewed and monitored	Strategic Plan and Annual plan are in place and monitored and updated annually	

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		Understand funding requirements for Future Rakiura and develop robust budgets that align with priority areas	Understanding of funding opportunities and successful funding applications made	
			Develop and maintain relationships with key funders	
			Continue to explore new funding sources	
		Future Rakiura complies with all legal and financial obligations, according to the Incorporated Society Trust Deed including holding AGM's, election of officers, annual report, audited accounts	Future Rakiura is legally and financially compliant in line with their legal constitution	\$250 (Auditors)
3.5	Ensure Future Rakiura has sufficient skills, and is representative of the community	Identify Future Rakiura Committee skill gaps and seek assistance from agencies such as the Southland Chamber of Commerce/Department of Internal Affairs or the Southland District Council about appropriate training	At least one training held annually	\$1,500.00
Longer term goals 2021 – 2023 (to be considered and progressed by the Inaugural Future Rakiura Committee)				
	GOALS	ACTIVITIES	MILESTONES BY 2023	RESOURCES NEEDED
	Develop a community engagement plan to ensure wide community input and	Future Rakiura is 'launched' and the community has a clear understanding of	Future Rakiura has clear branding and clearly articulates its vision and	To be decided when detailed plans are

	participation into Future Rakiura	<p>its role and tasks</p> <p>Community engagement plan developed to ensure wide community participation in Future Rakiura and the priority focus areas</p> <p>The residents/ratepayers of Stewart Island <i>Rakiura</i> are formally consulted at least once a year on the priorities for Future Rakiura and have an opportunity to contribute new project ideas</p> <p>Networking with other community groups takes place regularly</p> <p>Community meetings held six monthly to update the community on Future Rakiura's work (invite other key stakeholders to be involved)</p>	<p>purpose to the community and key stakeholders</p> <p>A community engagement plan is in place. Consultation takes place by means determined by Future Rakiura each year</p> <p>2 Workshops held annually</p>	developed
	Map, identify and engage strategic partners in Future Rakiura's vision and strategic priorities	Partners/Stakeholders that can support community-led strategic development mapped	<p>Stakeholder matrix completed</p> <p>Future Rakiura identifies, with the Stewart Island Community Board a</p>	To be decided when detailed plans are developed

		<p>Develop a strong working relationship with the Stewart Island Community Board to align priorities</p> <p>Identify key strategic partners/stakeholders who can support community-led development</p> <p>A good relationship with Southland District Council continues and is further developed</p>	<p>way of working that aligns priority areas</p> <p>Future Rakiura updates the Community Board bi-monthly on progress</p> <p>Updates Southland District Council at least 1 x annually on progress</p> <p>Relationships developed and maintained</p>	
	Develop a robust funding plan that will enable Future Rakiura to carry out work in its priority areas	<p>Understand funding requirements for Future Rakiura and its working parties</p> <p>Develop robust budgets and clearly articulate priority areas</p> <p>Develop and maintain relationships with key funders</p> <p>Continue to explore new funding sources</p>	<p>Work with Southland District Council to develop a funding plan</p> <p>Understanding of funding opportunities</p> <p>Successful funding applications made</p>	To be decided when detailed plans are developed

	Establish effective processes and systems so that Future Rakiura is competent, capable and accountable to the community	<p>Review membership and plan for membership succession annually</p> <p>Future Rakiura has a strategic plan which is reviewed and monitored</p> <p>The group has a current Terms of Reference</p>	<p>Strategic Plan is in place and monitored and updated annually</p> <p>Terms of Reference in place</p>	To be decided when detailed plans are developed
	Establish monitoring mechanisms so that Future Rakiura's goals/outcomes are being measured	<p>Databases and/or other appropriate tools exist to gather, collate and analyse information relating to the performance measures in this plan</p> <p>Research is carried out to gauge the impact and perceptions of Future Rakiura</p> <p>Financial systems and processes are developed, if necessary, to comply with standard for reviewed accounts</p>	<p>Databases established and being used</p> <p>Research is carried out annually</p> <p>Financial policy systems and processes are developed</p>	To be decided when detailed plans are developed
	Explore the establishment of an overarching entity to umbrella strategic thinking, planning and action on the	Explore successful models for the establishment of an overarching entity in conjunction with the wider community and with help from the	Research on successful models completed	To be decided when detailed plans are developed

	island	Southland District Council and the Department of Internal Affairs	Legal entity established	
	Ensure Future Rakiura has sufficient skills, and is representative of the community	Work with Department of Internal Affairs/Southland District Council to enhance and strengthen our Governance capability	Review membership annually Succession planning in place At least one training held annually	To be decided when detailed plans are developed

Appendix 1

BUDGET			
Strategic Goal 1			
Goal	Activity	Total budget needed	Possible funding sources (if any)
1.3	Present to Southland District Council annually	220	
		220	
Strategic Goal 2			
	Activity	Total budget needed	Possible funding sources (if any)
2.1	Leadership and capacity building programme in conjunction with the Chamber of Commerce	8,000	\$3,000 Southland Chamber of Commerce Contra \$4,000 Stewart Island Rakiura Community Board Partnership Fund \$1,000 Workshop fees/sponsorship
2.2	Calendar of Events	500	
2.3	Hangi	1,500	\$1,000 Grant Sanford Salmon Grant (secured)
2.4	IT Education	500	
2.5	Island Day	500	

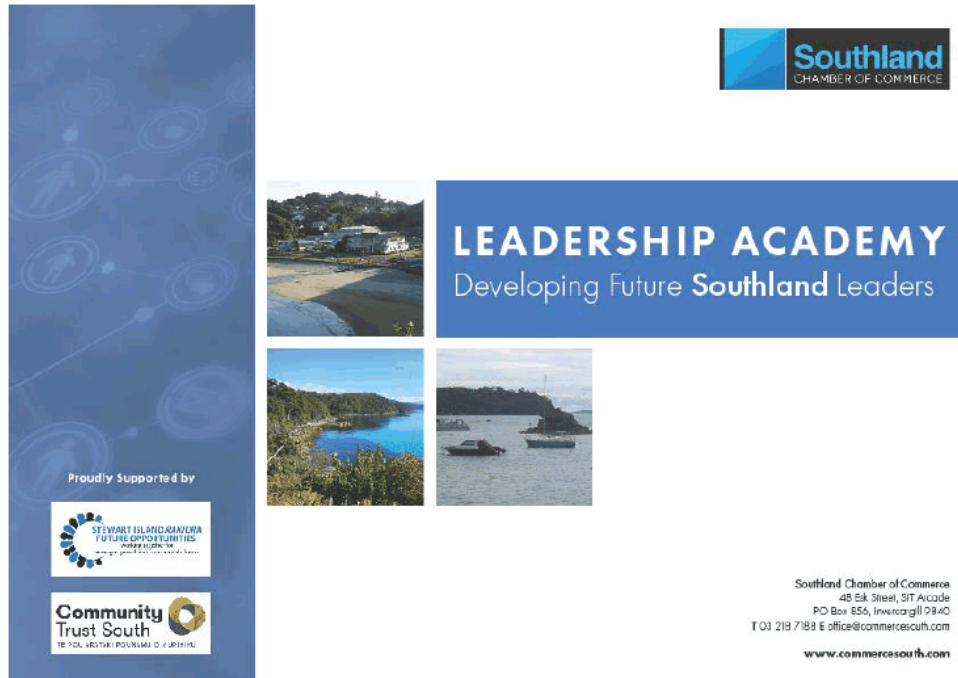
		11,000	8,000 (applied for) 1,000 (secured)
Strategic Goal 3			
	Activity	Total budget needed	Possible funding sources (if any)
3.1	Community Input & Participation	250	
	2 x community meetings	600	
3.2	Incorporated Society	195	\$195 Future Opportunities Project (secured)
	Inaugural AGM	200	\$200 Future Opportunities Project (secured)
3.3	Logo development	300	
	Website development	5,000	
	Website hosting	900	
3.4	Auditors	250	
	Future Rakiura Annual training	1,500	
		9195	395 (secured)

Total budget

Total Budget needed to complete the activities to June 2021	20,415
Funding secured	1,395

Funding applied for	7,000
Workshop Fees/sponsorship	1,000
FUNDING NEEDED TO PROGRESS ACTIVITIES to June 2021	11,020

Appendix 2: Leadership Academy Programme



The poster for the Leadership Academy Programme is primarily blue. On the left, a vertical blue bar contains the text 'Proudly Supported by' above two logos: 'STEWART ISLAND KAIWERA FUTURE OPPORTUNITIES' and 'Community Trust South'. The main body of the poster features the 'Southland CHAMBER OF COMMERCE' logo at the top right. Below it, the title 'LEADERSHIP ACADEMY' is in large white letters, followed by the subtitle 'Developing Future Southland Leaders'. Three small photographs are arranged below the title: a coastal town, a bay with a boat, and a harbor with several boats. At the bottom right, contact information for the Southland Chamber of Commerce is provided.

Southland
CHAMBER OF COMMERCE

LEADERSHIP ACADEMY
Developing Future Southland Leaders

Proudly Supported by

STEWART ISLAND KAIWERA
FUTURE OPPORTUNITIES

Community
Trust South

Southland Chamber of Commerce
48 Esk Street, SIT Arcade
PO Box 656, Invercargill 9840
T 03 218 7188 E office@commercesouth.com
www.commercesouth.com



Leadership Academy

Developing future Southland leaders...

The purpose of this programme, which is completed over seven sessions, is to provide Stewart Islanders with the opportunity to build leadership capabilities through their own development and by learning from the experience of others.

The Leadership Academy is for people looking at developing leadership experience and who have the passion to get involved in future focused planning on the Island.

The participant, at the completion of the experiential and reflective learning sessions, will be better equipped and have a good understanding of what is required to be a leader in their own organisation and/or in the wider community.

Each two-hour session is led by an experienced senior leader from a variety of Southland-Otago organisations or businesses. The participant will benefit from the opportunity to interact with the presenter and build an ongoing connection with them, and other participants.

At the end of the programme, participants will graduate and be invited to become a member of the Southland Leadership Academy Alumni.

For more information call Joanne O'Connor on 03 218 7188 email joanne.oconnor@commercesouth.com | www.commercesouth.com

Guest Speakers:

Guest Speakers:**Dean Addie**

Chief Executive
EIS

What is leadership anyway?

- How to be a leader in my community
- What makes a good leader?
- Why leadership is important?

**Robyn Hickman**

Chairperson
South Alive

Asset-based community development

- Understand the power of social capital to bring about positive economic, social and environment change
- How to draw on the unique wisdom, passions, skill and interest of residents to get people involved
- Explore a range of tools and methodologies that will inspire and empower people to believe, behave and act like citizens in control of their community and their destiny

**Penny Simmonds**

Chief Executive
Southern Institute of Technology

The power of collaboration and good relationships

- The value of strategic relationships
- What good collaboration looks like?
- Funding our 'united voice'
- How to develop good working relationships - local, national and international

**Jason Tibble**

Regional Commissioner
Ministry of Social Development

Future focused thinking

- Thinking strategically – where to start
- Understanding and prioritising future needs
- Embracing reality
- Creating clarity in the grey



Clare Hadley
Chief Executive
Invercargill City Council

Understanding Government - national, regional and local

- Central, regional and local government – roles and responsibilities
- The importance of regional development
- How a community can successfully interact with big structures
- Engagement with media



Errol Millar
Chairman/Director

Governance vs Management

- Defining governance and why its important
- How it is different from leadership or management
- The essential requirements for good governance
- The risks in being a director of an organisation or business
- Preparation required for a governance meeting



Amiee Kaio
Programme Manager
Tribal Economies - Tokona te Ao of Te Rūnanga o Ngai Tahu

Future focused planning

- Creating a vision, purpose and values
- Developing a plan for 2030 and beyond
- Embracing change
- Inspiring others
- The importance of clear communication
- Building strong working relationships in community's

Times and dates

Seven weeks, Tuesday evenings
8 October - 19 November 2019
7pm - 9.30pm

Venue

RSA Stewart Island/Rakiura

Group

Limited to a maximum of 14 participant registrations

Schedule:

Date	Time	Topic	Speaker	Role
Tuesday 8 October	7pm - 9pm	The power of collaboration and good relationships	Penny Simmonds	Chief Executive Southern Institute of Technology
Tuesday 15 October	7pm - 9pm	What is leadership anyway?	Dean Addie	Chief Executive EIS
Tuesday 22 October	7pm - 9pm	Understanding Government - Central, regional and local	Clare Hadley	Chief Executive Invercargill City Council
Tuesday 29 October	7pm - 9pm	Asset-based community development	Robyn Hickman	Chairperson South Alive
Tuesday 5 November	7pm - 9pm	Future focused thinking	Jason Tibble	Regional Commissioner Ministry of Social Development
Tuesday 12 November	7pm - 9pm	Governance vs Management	Errol Millar	Chairman/Director
Tuesday 19 November	7pm - 9pm	Future focused planning	Amiee Kaio	Programme Manager Tribal Economies - Tokona te Ao of Te Rūnanga o Ngai Tahu
		Graduation		

Note. The order of sessions may change from the above, and further leaders may be invited to present to the Leadership Academy.

Appendix 3: Inaugural Future Rakiura flyer distributed to every letterbox on the Island January 2020



Background

Stewart Island/Rakiura has a proud history of thinking about and planning for its own future. Passionate locals have over the years achieved great outcomes for the Island – the Community Centre, the Heritage Centre, SIRCET, Predator-free Rakiura and many other things started from people getting together, talking and taking action to enhance life on Stewart Island/Rakiura.

In 2018 a community consultation report identified that the community wanted to be actively involved in working together with key strategic partners for managed growth and a sustainable future. The Leadership Academy held in late 2019 brought together a group of locals who have formed Future Rakiura to progress the community's ideas and thoughts from that report.

What is Future Rakiura?

Future Rakiura is a locally led project made up of a group of passionate locals focused on leading future-focused discussions, thinking and planning for Stewart Island/Rakiura.

We will: -

- Be a connector, catalyser and advocate for Stewart Island/Rakiura
- Focus on the unique assets of our community and our natural environment
- Invite everyone on the Island to have their say on priority focus areas
- Establish project groups to build partnerships, make plans and take action to progress community goals and aspirations
- Partner with community groups and organisations/agencies and key local, regional and national stakeholders to help us meet our goals

We see ourselves as a 'Stewardship Group' which brings together the community and stakeholders to take action on the things that the community thinks are important for Rakiura's long-term sustainable future.

Who is part of Future Rakiura?

Part of what we're doing going forward is considering our governance structure. For now, the inaugural Future Rakiura group is made up of the following people.

Josephine Shepard (co-leader)	j.shepard237@gmail.com	Rakiura Herzhoff (co-leader)	r.herzhoff@hotmail.com
Mel Miller	Mel.miller@hotmail.com	Kylie Bakker	Kylie.bakker@gmail.com
Cherie Hemsley	Cherie.hemsley@hotmail.com	Charlotte Jenkinson	Samcha.jenkinson@gmail.com
Mary Chittenden	Chittenden05@xtra.co.nz	Kirsten Hicks	Kirsten.hicks@southlanddc.govt.nz
Bridget Carter	bridget.carter@southlanddc.govt.nz	Sam Jenkinson	Sam.jenkinson@yahoo.co.nz
Margaret Hopkins	Margandcolin@xtra.co.nz	Bruce Ford	Bruce.ford@southlanddc.govt.nz
Gwen Neave	gwenneavenz@gmail.com	Stuart Newton	Stuart.newton@police.govt.nz
Jill Skerrett	Jillskerrett417@hotmail.com		

How Future Rakiura differs from the Community Board

The Stewart Island/Rakiura Community Board is an entity under the Local Government Act and is bound by the same rules as Council. It is the link between Council and the community, and it has a mandate to focus on relevant and timely management of Council assets and services for the island. The community board represents and supports our community's interests and connects us with the wider Southland District.

Future Rakiura is different in that it is community-led and independent of Council. In essence it will work with a wide range of people and organisations to progress issues/opportunities for Stewart Island/Rakiura's future that have been identified by the community. Locally established project groups will decide priorities and what action to take.

We plan to work very closely with the Stewart Island/Rakiura Community Board and see them as a key partner in our work.

What we've done to date

We're at the very early stages of forming Future Rakiura and we're keen to get community input as we continue!

So far, we've developed:

- A name – Future Rakiura
- A vision – ensuring a bright, sustainable future
- A purpose – to connect and support the Rakiura community to navigate towards our sustainable future
- Values – Kaitiakitanga -guardianship and protection
 Manaakitanga – leading with moral purpose
 Humility, Resilience, Self-determination, Integrity
 Honesty, openness, transparency, inclusiveness
- Project areas (from the 2018 Consultation report)

Development	Working together for managed growth and a sustainable future
Community	Strengthening community connectedness, cohesion and communication
Environment	Preserving our pristine environment for future generations

We've elected Josephine Shepard and Rakiura Herzhoff to co-lead our group and we're meeting with key stakeholders on and off the Island.

And we're organising the hangi on Waitangi Day to bring our community together!

What we're planning to do?

We will work hard to engage/consult/involve the Stewart Island/Rakiura community in Future Rakiura.

We will establish project groups to progress thinking and planning in our project areas – made up of locals/local groups and organisations and other key organisations.

We will develop strategic partnerships with local groups/organisations and with key local, regional and national stakeholders that can help us plan for a sustainable future.

We will develop plans and take action to help us plan for a sustainable future for Stewart Island/Rakiura.

How you can you get involved?

Express interest in joining a project group – let one of the Future Rakiura group know you're keen/or signup at the Hangi!

Join the Facebook page to be kept up to date and to provide feedback/comment – sign up at the hangi!

Come to a public meeting being planned for March 26th at the recreation centre to hear more!

Appendix 4: Hangi flyer



Appendix 5: COVID-19 Survey Summary



Stewart Island Rakiura Visitor Levy Funding Decisions 2020

Record No: R/20/11/67185
Author: Megan Seator, Community Liaison Officer
Approved by: Rex Capil, Group Manager Community and Futures

☐ Decision ☐ Recommendation ☒ Information

Purpose

- 1 The purpose of this report is to inform the Community and Strategy Committee of the funding decisions made by the Stewart Island Rakiura Visitor Levy Subcommittee in the 2020 funding round.

Background

- 2 The Southland District Council (Stewart Island/Rakiura Visitor Levy) Empowering Act 2012 empowers Council to set and collect levies and obtain revenue from visitors to Stewart Island/Rakiura. Under the act, funds must be used to better provide services, facilities, amenities for island visitors, or mitigate environmental effects.
- 3 The Stewart Island Rakiura Visitor Levy Subcommittee is a subordinate decision-making body of the Community and Strategy Committee and has the delegated authority to approve funding from the Stewart Island Rakiura Visitor Levy Fund.
- 4 Pursuant to section 10 of the Stewart Island Visitor Levy Policy, the Community and Strategy Committee will be informed of funding decisions made by the Stewart Island Rakiura Visitor Levy Subcommittee.

Funding decisions

- 5 Allocations for the Stewart Island Visitor Levy were considered on 30 June 2020. This meeting was due to be held earlier in the year but was delayed due to Covid-19.

Total amount allocated **\$181,754**

1 **Rakiura Heritage Trust**

Funding allocated to assist with operational costs.

Amount granted **\$30,000**

2 **Stewart Island Promotion Association**

Funding allocated to assist with printing costs for the Stewart Island street map.

Amount granted **\$1,797.57**

- | | |
|------|--|
| 3 | Stewart Island/Rakiura Community Board
Funding allocated for signage at the cemetery and Bathing Beach.
Amount granted \$750 |
|
 | |
| 4 | Stewart Island/Rakiura Community Board
Funding allocated to assist with the Ulva Island wharf re-build (subject to a signed memorandum of understanding between the Hunter family and DOC guaranteeing a minimum of 20 years access)
Amount granted \$100,000 |
|
 | |
| 5 | Stewart Island/Rakiura Community Board
Funding allocated to assist with upgrading of the Bathing Beach track.
Amount granted \$18,000 |
|
 | |
| 6 | Stewart Island/Rakiura Community Board
Funding allocated to assist with the upgrade of the footpath from the DOC Visitor Centre to the corner of Dundee Street.
Amount granted \$31,206.43 |
|
 | |
| 7 | Stewart Island/Rakiura Community Board
Funding not allocated to part two of the three stage project to create a walking track from Halfmoon Bay to Butterfield Beach.
Amount granted Declined. |

Recommendation

That the Community and Strategy Committee:

- a) **Receives the report titled “Stewart Island Rakiura Visitor Levy Funding Decisions 2020” dated 23 November 2020.**

Attachments

There are no attachments for this report.

Covid-19 recovery - Social wellbeing indicator report

Record No: R/20/11/67484

Author: Shannon Oliver, Planning and Reporting Analyst

Approved by: Rex Capil, Group Manager Community and Futures

☐ Decision

☐ Recommendation

☒ Information

Purpose

- 1 The purpose of the report is to provide the committee with six monthly updates on the Covid-19 recovery and the associated social indicator statistics for the Southland region. It is envisaged that this information will assist the organisation with one of the strategic risks being a lack of data leads to bad decision making.

Background

- 2 On 11 March 2020, the World Health Organisation (WHO) declared Covid-19 as a global pandemic. The government devised a series of alert levels with associated restrictions ranging from 1 to 4 with 4 being the most severe. New Zealand was in alert level 4 for the period of 25 March to 27 April with only essential services running and the majority of New Zealanders staying at home to help reduce the spread of Covid-19. The country then moved to alert level 3 for 16 days before moving to alert level 2.
- 3 There have since been a low number of cases but these have been managed sufficiently and it is believed there will continue to be a small number of cases as people return from overseas. At the time of writing the borders remain closed to all except New Zealand residents and citizens.
- 4 With the borders closed there are significantly limited international tourists which has a flow on impact on the economy and social wellbeing.
- 5 This report is largely sourced from the Covid-19 Ministry of Social Development (MSD) website and provides statistical information showing southland as a region in comparison to NZ. It is a snapshot of how Southland communities are doing during the Covid-19 recovery period. Council makes decisions every day that effect people within its communities so it is important to have as much information as possible to aid in the decision-making process.
- 6 Additional data for this report is sourced from Ministry of Business Innovation and Employment (MBIE) Treasury and the dot loves data website.

Issues

Data lag

- 7 There is a normal lag in the availability of data because it takes time to collect the information. However monthly updates are available. This report captures the most recent data available being October 2020. There is still a high level of uncertainty around the long-term impact of the Covid-19 on Southland communities so up to date data will be required to assist Council in its short and long term decision making.

Fiordland

- 8 The data suggests that Fiordland has been disproportionately impacted by the loss of international tourists due to Covid-19. This came on the back of the February 2020 flood event which had closed the Milford road and track.
- 9 The Milford road was reopened within three weeks of the flood event. The Milford Track officially re-opened on Monday 30 November 2020, allowing trampers to complete the full 54 kilometres for the first time since it was damaged in the February floods. Bookings sold out within the first hour it was open.

Covid-19 Lockdown recovery compared to the evolving Covid-19 global pandemic

- 10 The New Zealand Covid-19 recovery is due to the national impact of locking down the country to prevent the spread of cases.
- 11 The global pandemic is still evolving but there have been large numbers of cases within most countries in the world. As at 1 December 2020 there have been 62,844,837 confirmed cases of Covid-19 and 1,456,144 deaths reported to the World Health Organisation.

Next Steps

- 12 This report will be presented to the committee as a watching brief on the indicators at a six monthly interval to monitor impacts of Covid-19 on the Southern district. Staff will report back to the committee in June 2021 or prior if any significant changes occur.

Recommendation

That the Community and Strategy Committee:

- a) **Receives the report titled “Covid-19 recovery - Social wellbeing indicator report”** dated 2 December 2020.

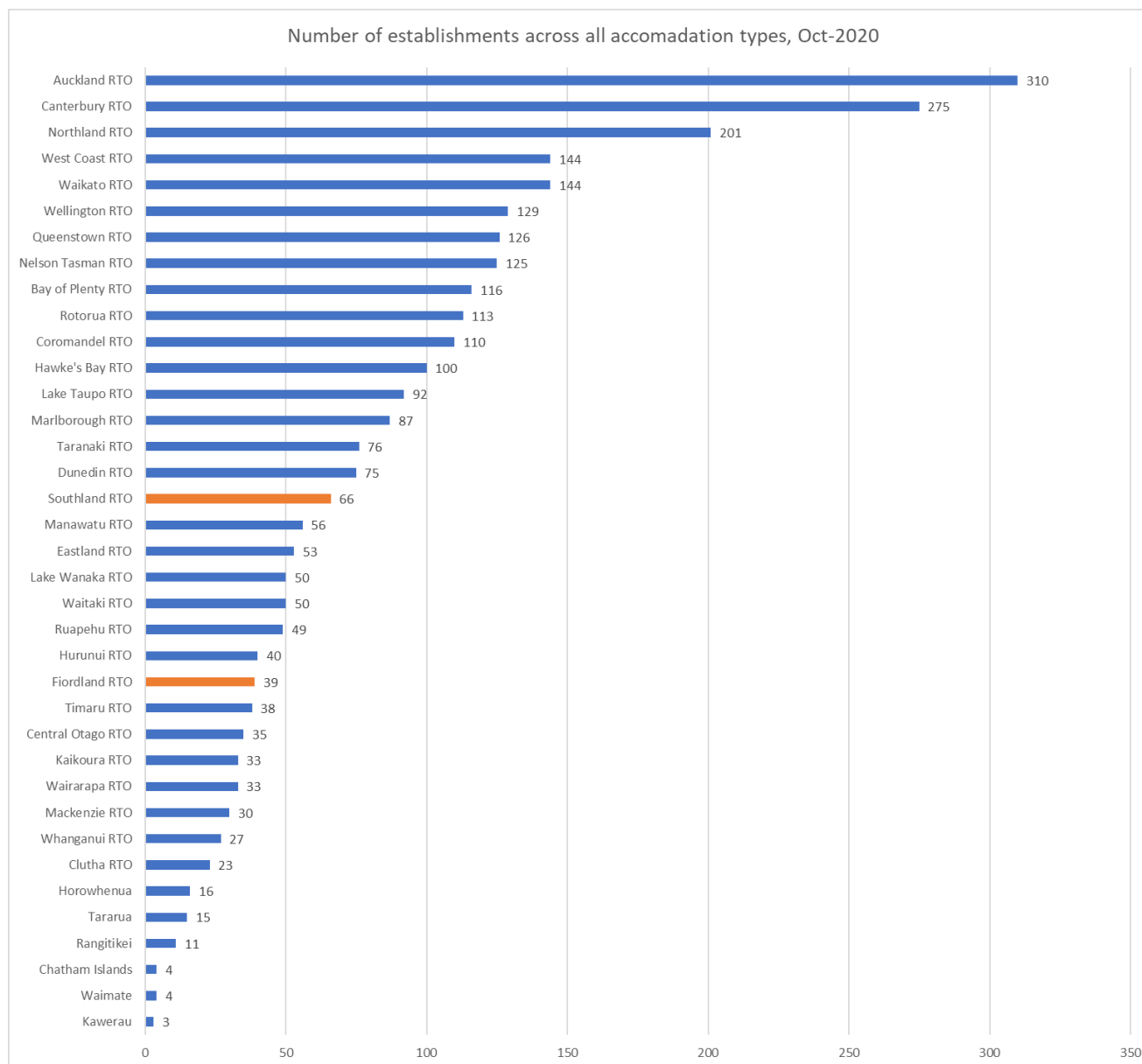
Attachments

- A Covid-19 recovery - Social wellbeing indicator report [📄](#)

Tourism Data

Source: Ministry of Business, Innovation and Employment (MBIE)

Regional Tourism organisations (RTO) are responsible for destination marketing and the promotion of their regions to potential domestic and international visitors.



There are a total of 2,898 establishments throughout the country of which, Southland has 66 and Fiordland has 39.









Measures for all accommodation types in Southland RTO, Oct-2020

Measure	Southland RTO	New Zealand	Southland RTO as a percentage of NZ
Number of establishments ?	66	2898	2.3%
Number of stay units ?	1.9K	127.6K	1.4%
Average stay units per establishment ?	28	44	
Monthly stay unit capacity ?	57.4K	4.0M	1.4%
Available monthly stay unit capacity ?	47.7K	3.4M	1.4%
Percentage of stay unit capacity available ?	83.1%	85%	
Stay unit nights occupied ?	23.0K	1.5M	1.5%
Capacity utilisation rate ?	40%	37.7%	
Occupancy rate ?	48.1%	44.4%	
Total guest nights ?	38.7K	2.8M	1.4%
Domestic guest nights ?	37.2K	2.6M	1.4%
International guest nights ?	1.4K	173.5K	0.8%
Guest arrivals ?	21.0K	1.3M	1.7%
Average guests per stay unit night ?	1.7	1.9	
Average nights stayed per guest ?	1.8	2.2	
Data quality ?	★★★☆☆	★★★★★	

Measures for all accommodation types in Fiordland RTO, Oct-2020

Measure	Fiordland RTO	New Zealand	Fiordland RTO as a percentage of NZ
Number of establishments ?	39	2898	1.3%
Number of stay units ?	2.2K	127.6K	1.7%
Average stay units per establishment ?	55.2	44	
Monthly stay unit capacity ?	66.8K	4.0M	1.7%
Available monthly stay unit capacity ?	58.9K	3.4M	1.8%
Percentage of stay unit capacity available ?	88.2%	85%	
Stay unit nights occupied ?	12.3K	1.5M	0.8%
Capacity utilisation rate ?	18.4%	37.7%	
Occupancy rate ?	20.8%	44.4%	
Total guest nights ?	26.7K	2.8M	1%
Domestic guest nights ?	25.6K	2.6M	1%
International guest nights ?	1.0K	173.5K	0.6%
Guest arrivals ?	15.2K	1.3M	1.2%
Average guests per stay unit night ?	2.2	1.9	
Average nights stayed per guest ?	1.8	2.2	
Data quality ?	★★★★★	★★★★★	

Measures for all accommodation types in Southland District, Oct-2020

Measure	Southland District	New Zealand	Southland District as a percentage of NZ
Number of establishments 	60	2898	2.1%
Number of stay units 	2.7K	127.6K	2.1%
Average stay units per establishment 	44.3	44	
Monthly stay unit capacity 	82.4K	4.0M	2.1%
Available monthly stay unit capacity 	68.8K	3.4M	2%
Percentage of stay unit capacity available 	83.5%	85%	
Stay unit nights occupied 	15.4K	1.5M	1%
Capacity utilisation rate 	18.8%	37.7%	
Occupancy rate 	22.4%	44.4%	
Total guest nights 	32.1K	2.8M	1.2%
Domestic guest nights 	30.5K	2.6M	1.2%
International guest nights 	1.6K	173.5K	0.9%
Guest arrivals 	18.1K	1.3M	1.4%
Average guests per stay unit night 	2.1	1.9	
Average nights stayed per guest 	1.8	2.2	
Data quality 	★★★☆☆	★★★★★	

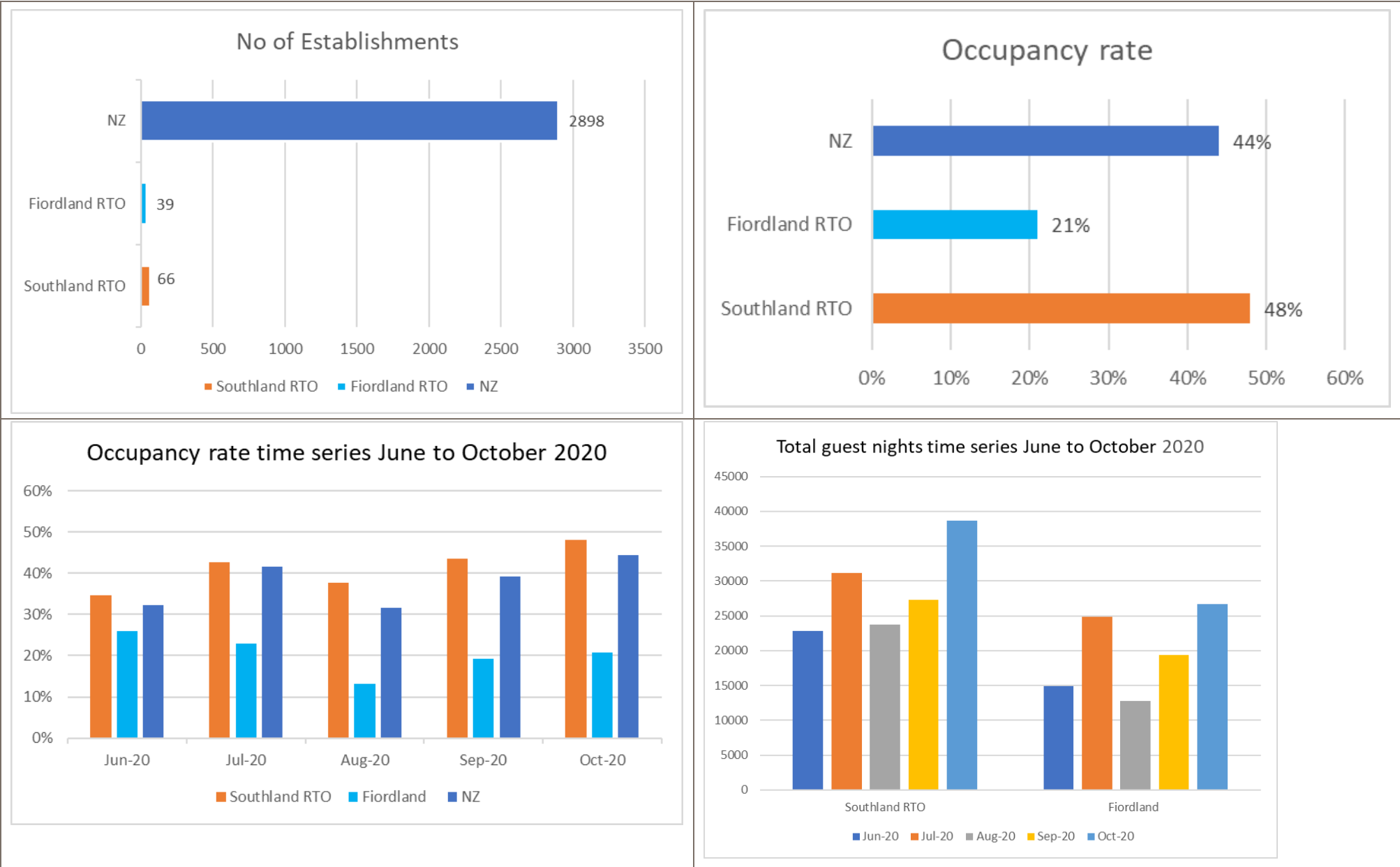
New Zealand wide October results

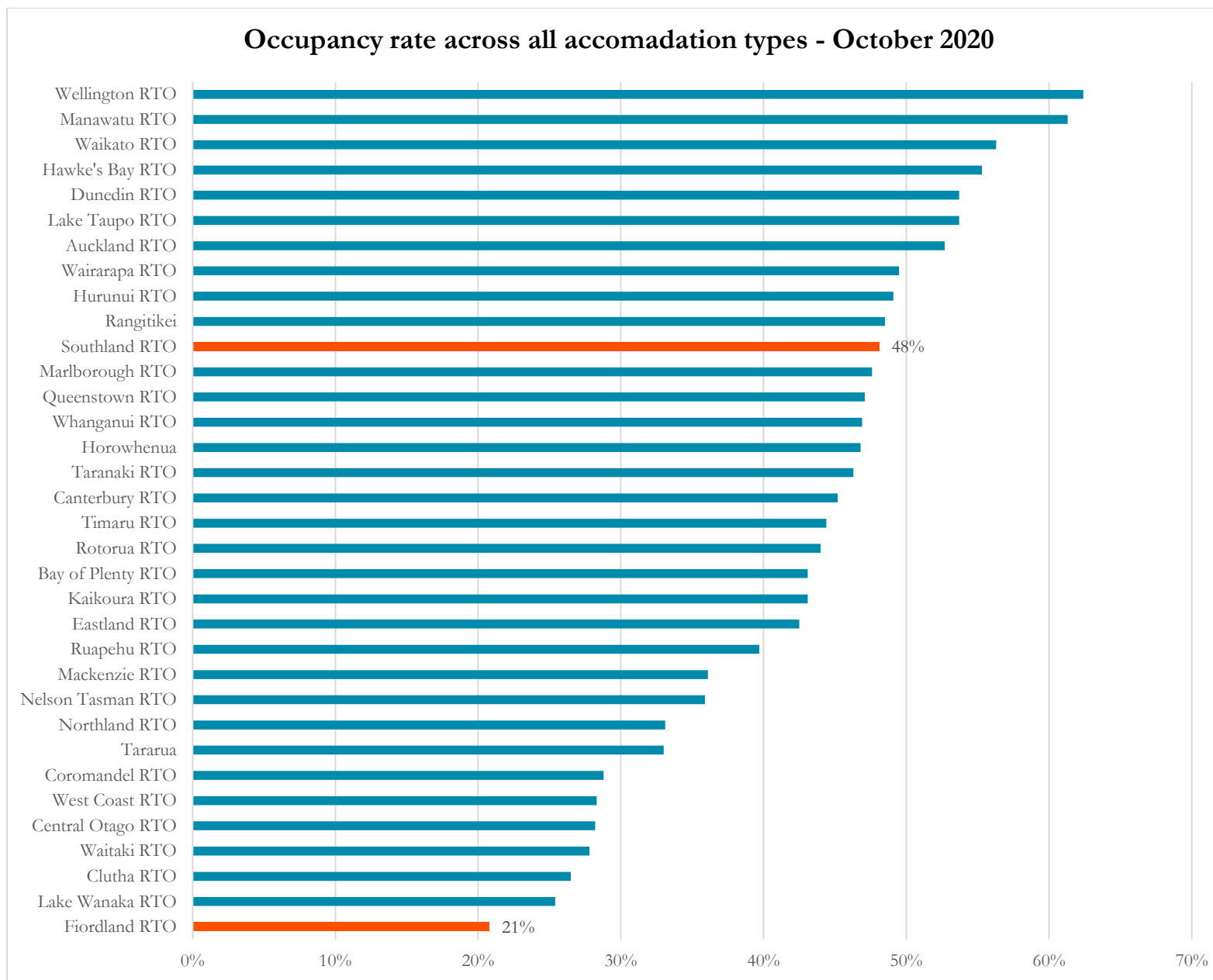
Results show that there were an estimated 2.8 million guest nights recorded in core tourism accommodation properties in October 2020 (including managed isolation and quarantine guests), representing an average occupancy rate of 44% for available stay units.

Based on provisional estimates, around 9% of core tourism accommodation properties were closed or had no guests during October. This is due to a combination of seasonal closures and the effects of Covid-19 on guest numbers.

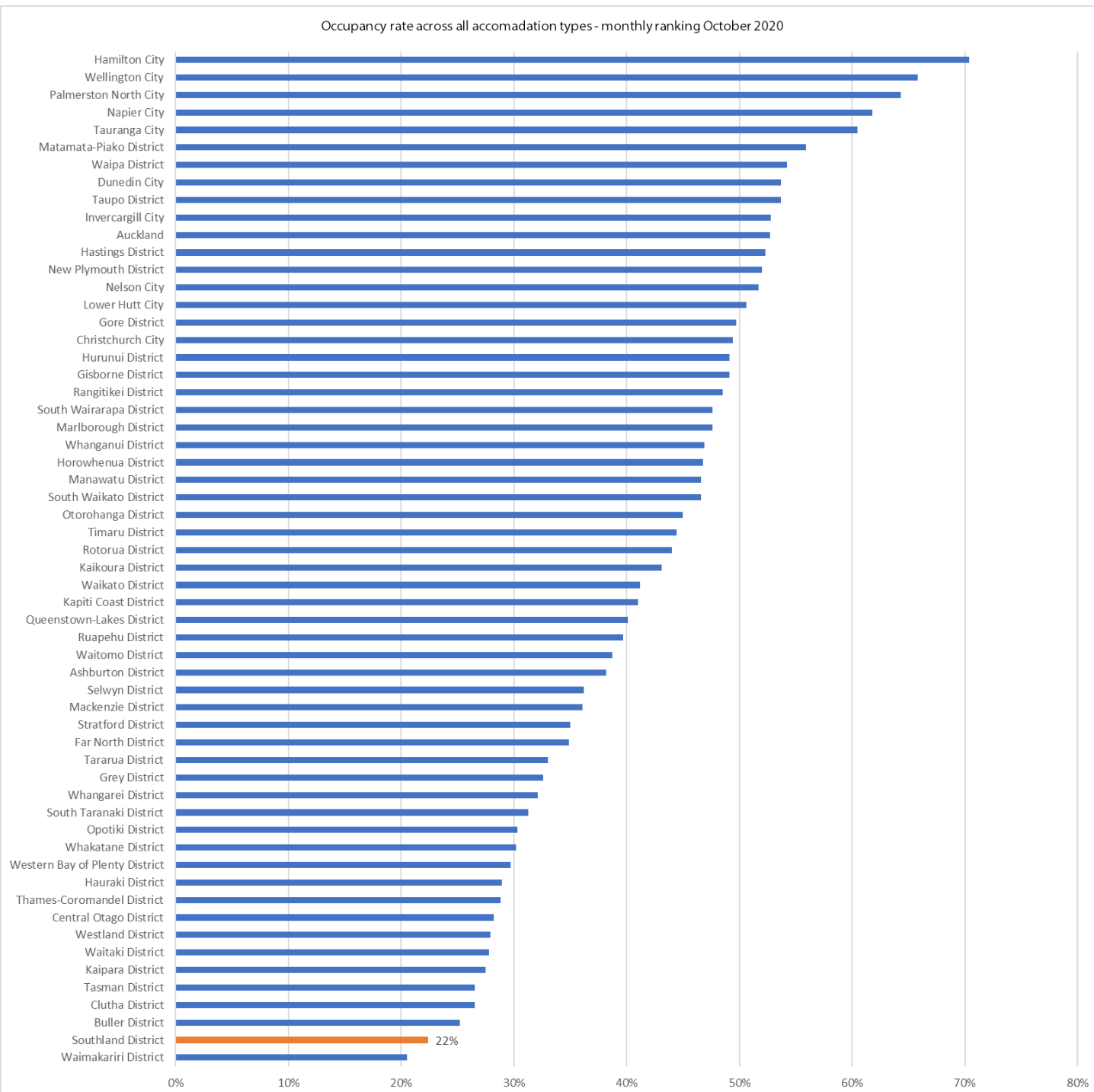
The proportion of inactive properties was lowest among holiday parks and campgrounds at 3%.

An estimated 94% of all guest nights were domestic travellers in October.

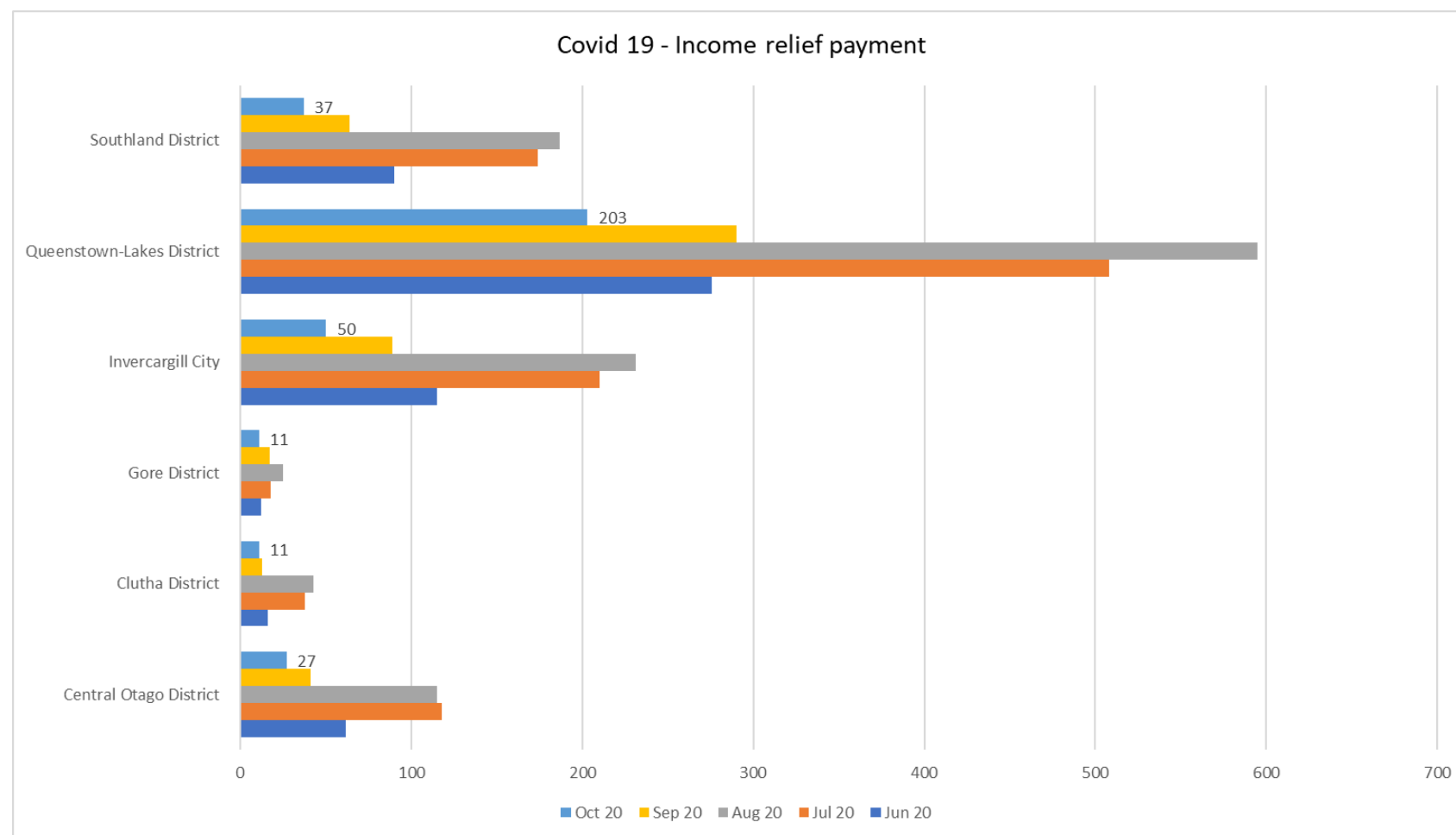




Please note that Kawerau, Waimate and Chatham Islands information is excluded as the data is confidential. Fiordland is ranked the lowest in the country.



Ministry of Social Development (MSD) data



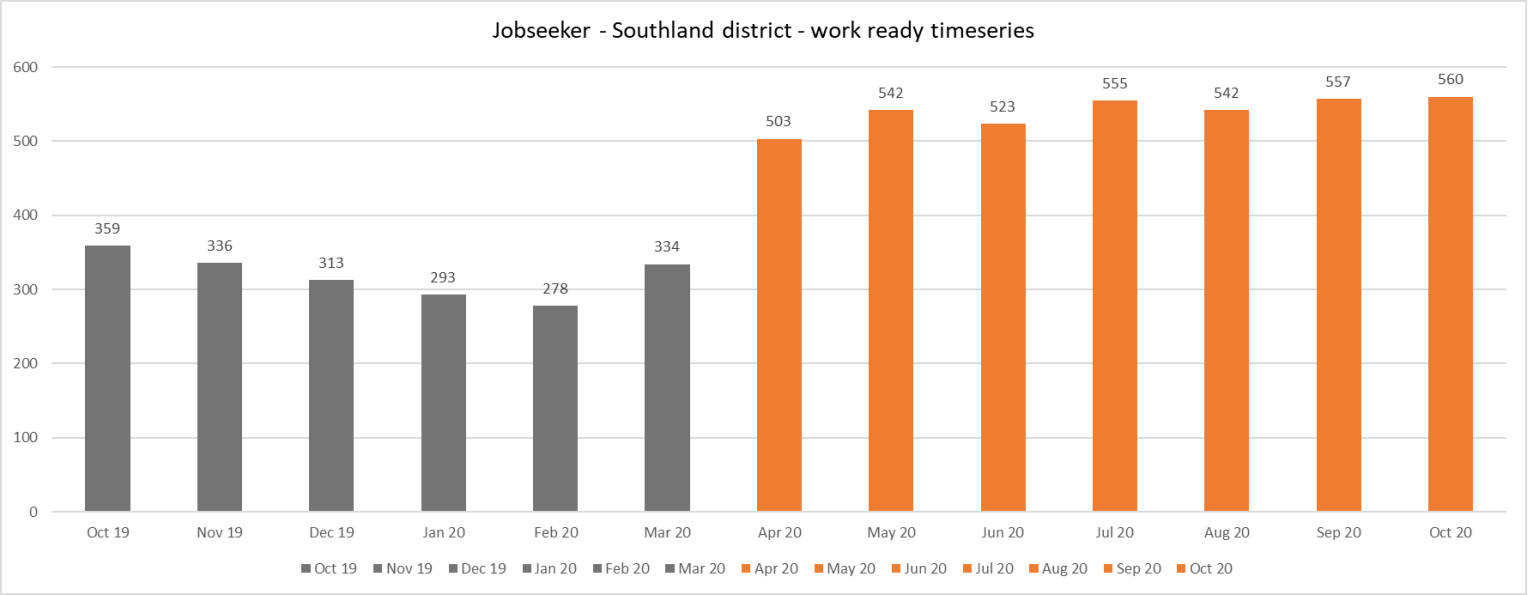
As part of the recovery phase, one of the measures the government provided for was economic assistance to those people who had lost their job due to Covid-19 lockdown. They created a 12-week payment called the Covid-19 Income relief payment (CIRP). Anyone who lost their job between 1 March to 30 October was eligible. Applications closed on 14 November 2020. The Southland District territorial authority area had 37 people in October who received this payment compared with 64 in September. Within the whole of New Zealand in October there were 8,995 people who received this payment.

Jobseeker Support sub-categories and other main benefits, by Territorial Authority, timeseries

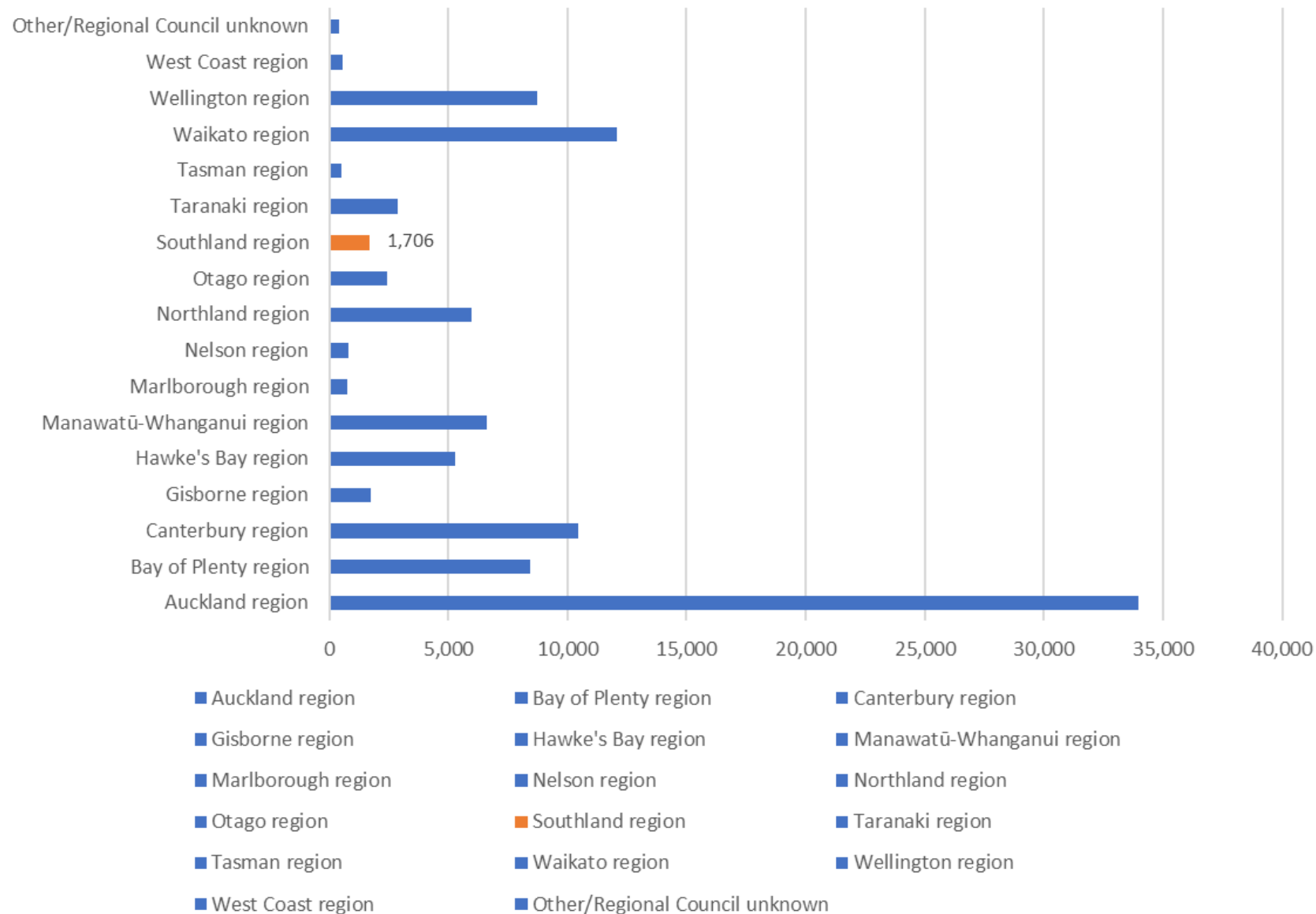
Working-age data

October 2020

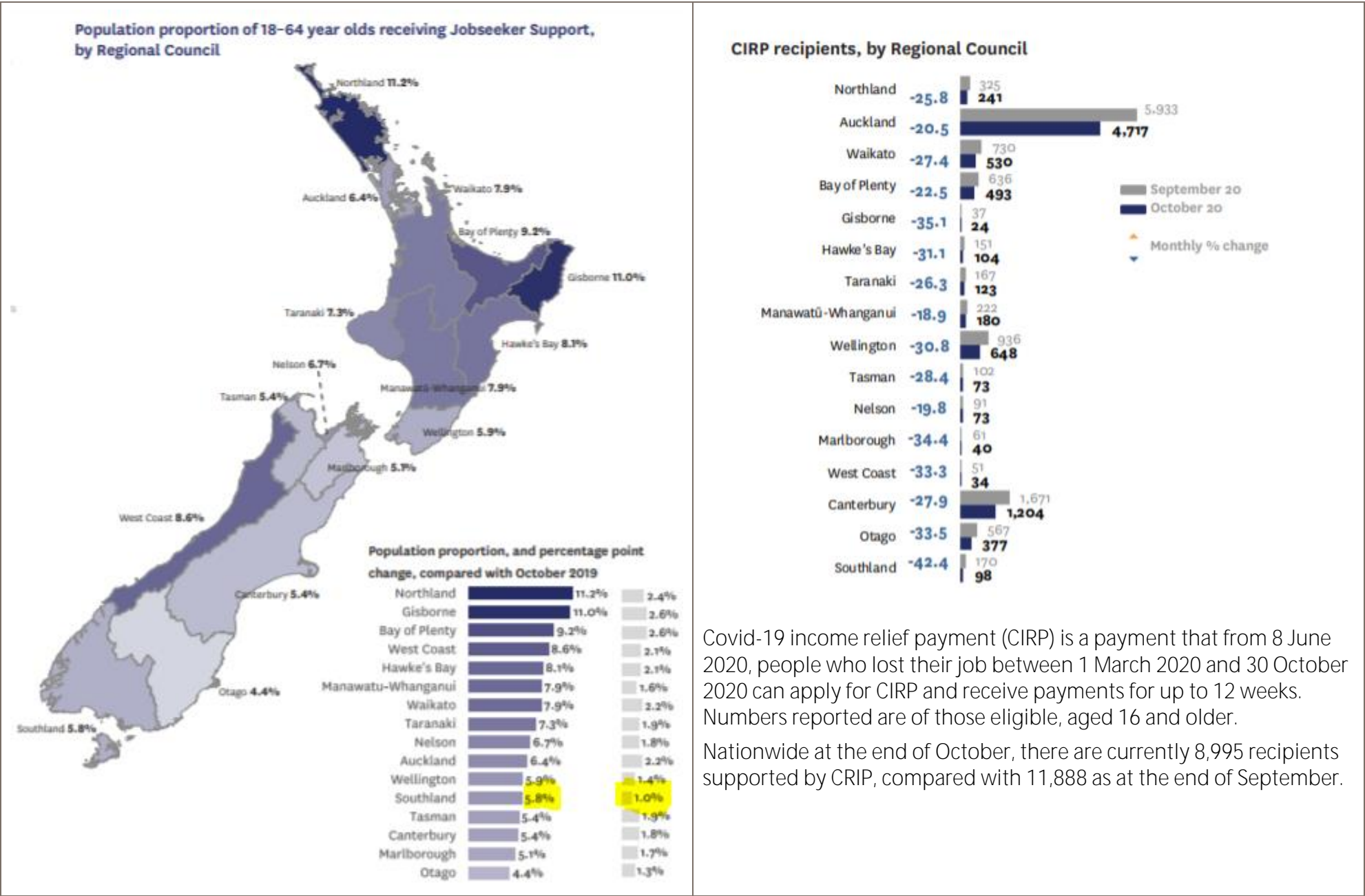
Jobseeker Support – Work Ready													
Territorial Authority	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20
Central Otago District	72	78	77	80	85	115	253	276	263	249	249	257	233
Clutha District	347	330	334	315	283	289	356	373	386	460	503	540	439
Gore District	258	232	238	227	217	238	298	311	307	326	328	347	333
Queenstown-Lakes District	44	35	41	37	29	73	472	525	465	405	401	486	479
Southland District	359	336	313	293	278	334	503	542	523	555	542	557	560
Jobseeker Support – Health Condition and Disability													
Territorial Authority	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20
Central Otago District	111	112	113	109	105	104	113	116	112	113	122	126	143
Clutha District	108	110	118	116	119	119	125	126	128	136	144	147	145
Gore District	104	98	93	93	94	102	98	100	102	104	113	119	119
Invercargill City	573	564	569	554	524	534	551	562	557	595	594	631	646
Queenstown-Lakes District	77	78	81	76	73	78	82	81	89	88	90	103	113
Southland District	138	138	149	144	132	127	130	134	143	141	146	160	166
All other main benefits													
Territorial Authority	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20
Central Otago District	314	323	322	313	310	307	320	330	337	341	339	337	340
Clutha District	435	439	451	443	429	434	441	439	440	445	455	456	458
Gore District	391	389	401	401	398	406	415	418	422	431	427	417	420
Invercargill City	2,166	2,250	2,302	2,262	2,144	2,169	2,209	2,221	2,245	2,249	2,260	2,279	2,307
Queenstown-Lakes District	158	155	164	158	156	164	194	212	216	218	225	243	261
Southland District	482	483	501	503	495	505	525	533	546	545	542	540	543



Special Needs Grants for food, by Regional Council - October 2020



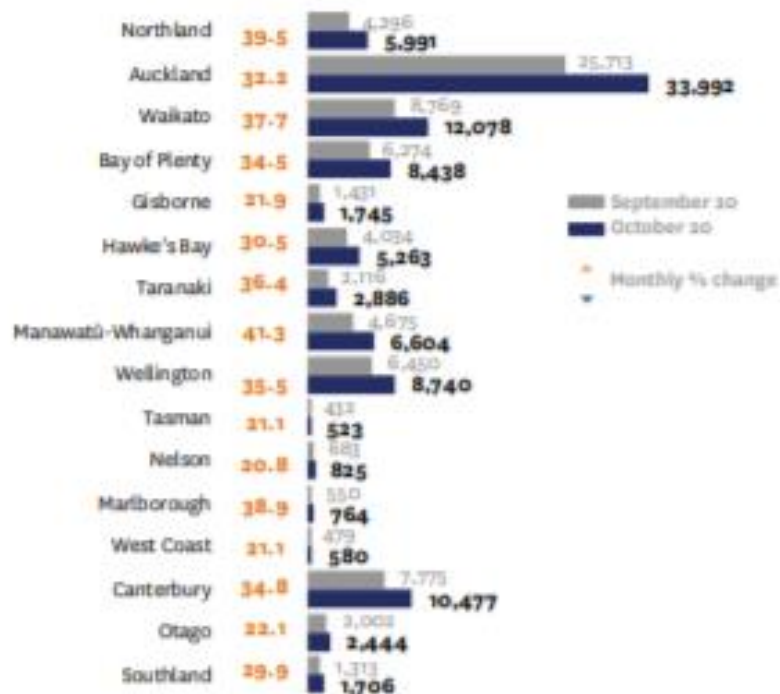
In October 2020, the southern regional council area (ICC, GDC & SDC) had given out 1,706 special needs grants for food which was higher than September which had 1,313.



Covid-19 income relief payment (CIRP) is a payment that from 8 June 2020, people who lost their job between 1 March 2020 and 30 October 2020 can apply for CIRP and receive payments for up to 12 weeks. Numbers reported are of those eligible, aged 16 and older.

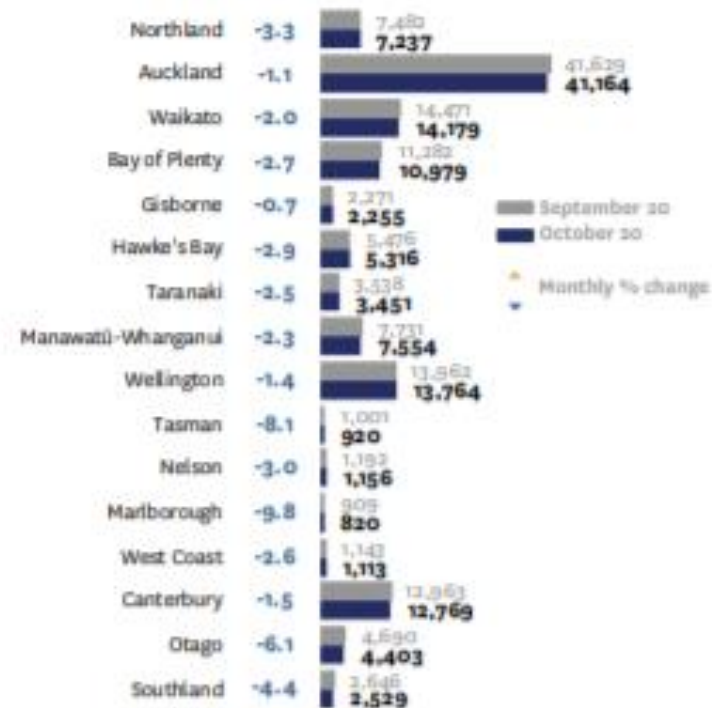
Nationwide at the end of October, there are currently 8,995 recipients supported by CRIP, compared with 11,888 as at the end of September.

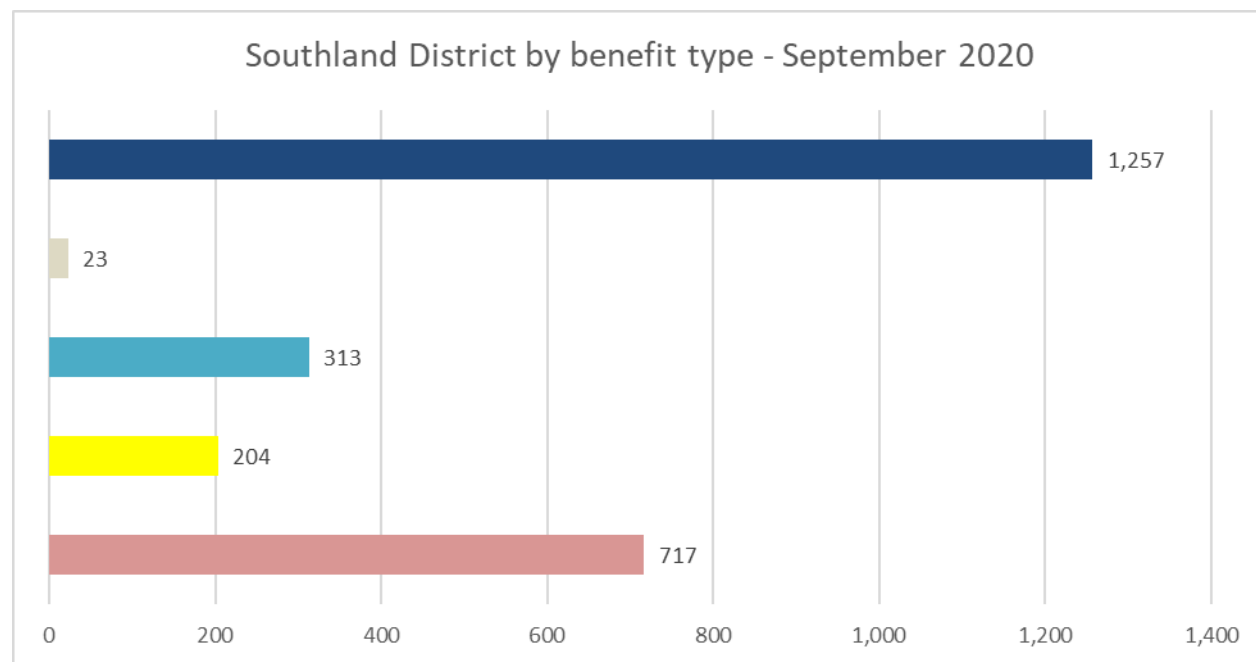
Special Needs Grants granted for food, by Regional Council



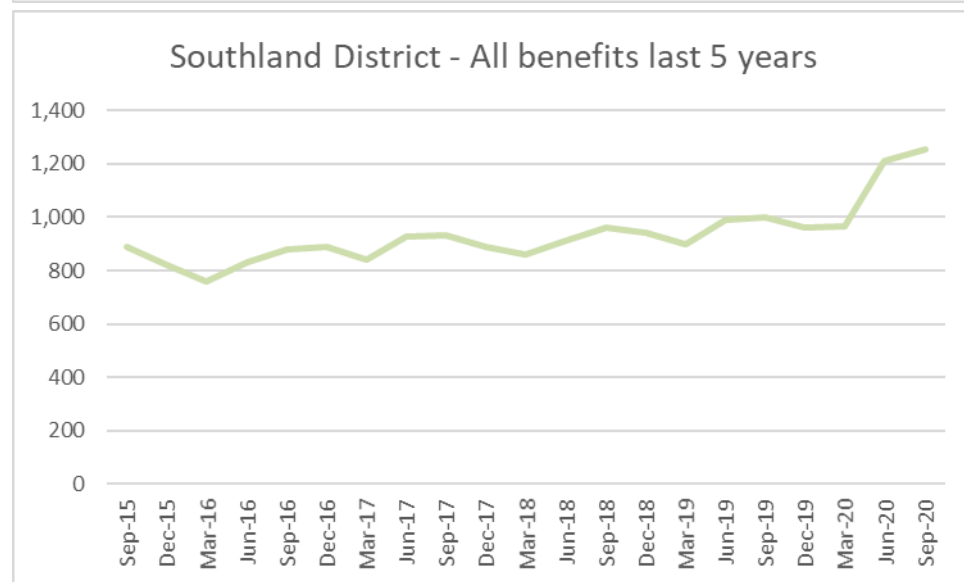
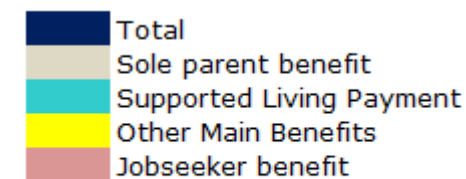
Jobseeker Support – Work Ready, by Regional Council and ethnicity

JS – WR by Regional Council (total)





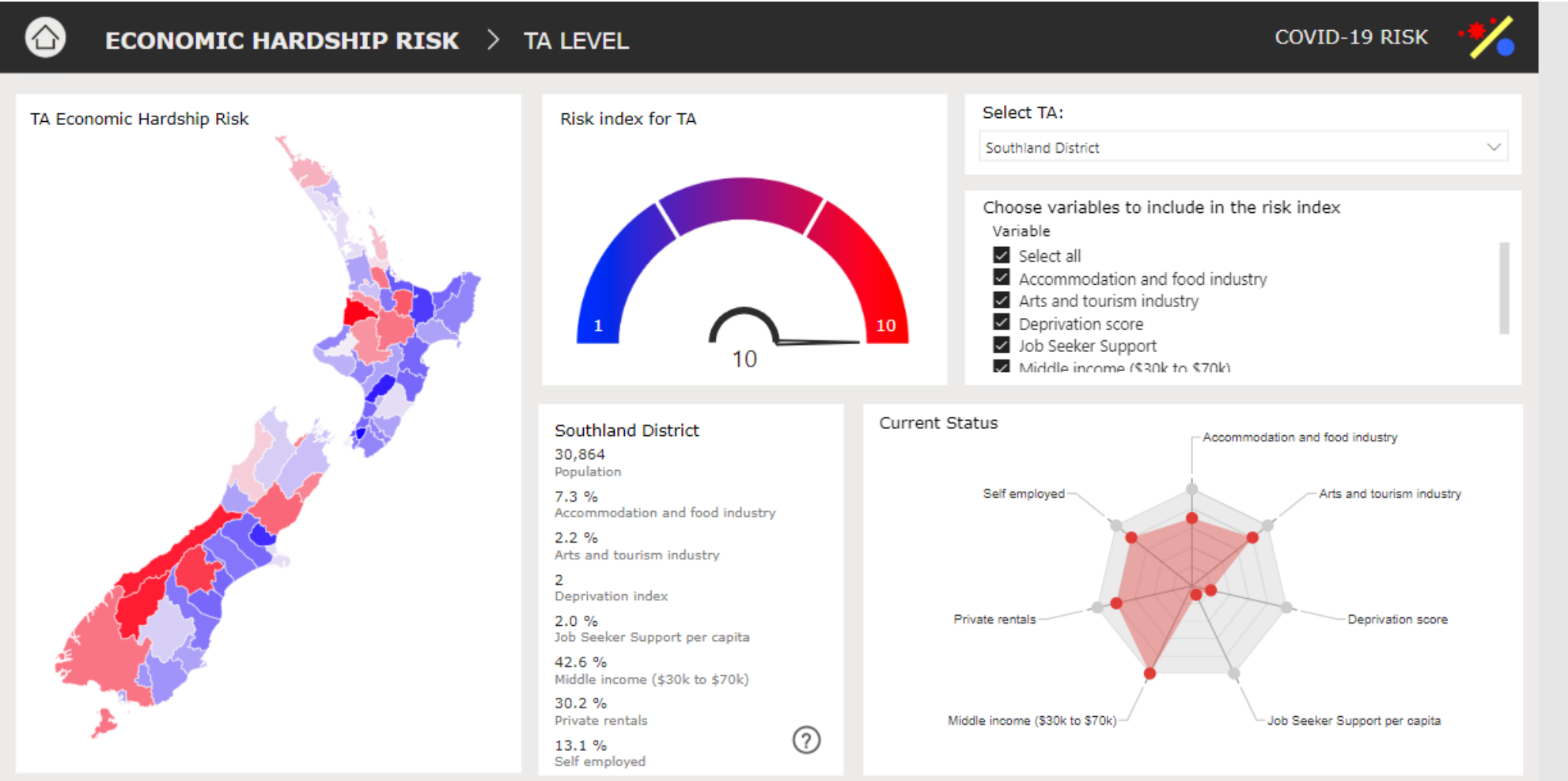
Key



As at September 2020, there were 1,257 people within the southland district that were on a benefit. This compares with 966 in March 2020 which is an increase of 291 people.

DOT LOVES DATA

Source: Dot loves data <https://products.dotlovesdata.com/dashboards/>



At Southland district level the risk index result was 10. The reason for the high level is the reliance on tourism and hospitality and a high level of self-employed people.

Extract from Summary report Southland November 2020

Source: Ministry of Business, Innovation and Employment



Summary Report Southland

November 2020



Indicator	Year	Southland	Invercargill	Queenstown-Lakes	Central Otago	New Zealand
GDP per capita	2019	\$72,000	\$59,000	\$80,000	\$63,000	\$62,000
Population	2019	32,100	56,200	41,700	23,100	4,917,000
Māori share of population	2013	10%	15%	5%	8%	15%
Employees	2017	17,865	30,396	28,977	13,893	2,587,995
Participation rate	2020	75%	71%	82%	69%	70%
Employment rate	2020	75%	67%	80%	69%	67%
Unemployment rate	2020	-	5%	-	-	4%
Employment growth (CAGR 2007-2017)	2017	2.5%	-0.3%	4.1%	2.8%	1.3%
Annual average household income	2018	\$85,700	\$74,900	\$116,800	\$90,600	\$104,400
Average house value	2020	\$395,688	\$354,684	\$1,214,027	\$615,816	\$725,408
Average weekly rent	2020	\$276	\$294	\$643	\$440	\$482
Net migration	2018	128	429	707	151	61,751
NCEA level 2 attainment	2018	80%	88%	92%	87%	85%

Treasury economic support information

Source: The Treasury

COVID-19 Economic Package at a Glance

He Waka Eke Noa

We Are All Working Together

We are working across government, and particularly closely with the Reserve Bank, Ministry of Business, Innovation and Employment, the Ministry of Social Development, and Inland Revenue.

Our advice aims to cushion whanau and families, workers, businesses and communities against COVID-19's impacts, position New Zealand for recovery, and help us to reset and rebuild our economy to support long-term recovery.

Businesses are being helped by **\$2.8 billion** in business tax changes, including an increase in the provisional tax threshold, writing off interest on late tax payments, bringing forward R&D refundability and reintroducing depreciation charges for commercial buildings. An initial **\$600 million** is being spent on support for the aviation industry, to protect our supply chains, and a **\$900 million** low interest loan is being provided to Air New Zealand.



Keeping workers connected to their jobs:

An estimated **\$12.2 billion** wage subsidy scheme is helping to keep workers connected to their jobs. The scheme has rolled up an earlier sick leave scheme and has also been extended to provide sick leave for essential workers who are vulnerable, sick or otherwise unable to work, so they can isolate at home.



Health: An initial allocation of **\$500 million** was made to the health sector.

Māori and Pasifika: \$40 million of this funding has been directed to support Māori communities, along with a further \$16.5 million reprioritised from other funding sources. This package is aimed at helping cushion Māori communities and businesses from the health and economic impacts of the virus. A further \$17 million has been directed to bolstering the Pasifika health response.

Tariffs on medical and hygiene imports needed for the pandemic response have been temporarily removed.

Businesses are being supported by a **\$6.25 billion** Business Finance Guarantee Scheme, with the government bearing 80% of the risk of these loans and banks the rest. Supporting this scheme, the RBNZ has introduced the Term Lending Facility for banks, providing low interest funding for up to three years.

Insulating our most vulnerable: A **\$2.8 billion** increase in benefit payments has lifted core benefit payments by \$25 (gross) per week, and doubled the winter energy payment (to \$1400 (gross) for couples, \$900 (gross) for singles). The In-Work Tax Credit threshold has been removed.

Community groups providing social services: A **\$27 million** package is helping community groups to bolster essential services, support disabled people in lock-down, and strengthen local resilience.



Homeowners and small-medium sized businesses:

A support package for homeowners and businesses includes a six-month interest and principal payment deferral for mortgage holders and SMEs who have lost income because of the economic disruption caused by the virus. The RBNZ will help banks to put this scheme in place with appropriate bank capital rules.



Businesses facing insolvency due to COVID-19 are being supported to remain viable and keep people in jobs, through temporary "safe harbour" changes to the Companies Act. Other changes include being able to "hibernate" debts, allowing electronic signatures, and temporary extensions to filing deadlines and compliance requirements.

Businesses and particularly small-medium sized businesses affected by COVID-19 will also benefit from greater flexibility in statutory tax deadlines. Changes to the tax loss continuity rules, a tax loss carry-back scheme, measures to support commercial tenants and landlords, and further business consultancy support have also been announced.

More Treasury COVID-19 economic information and commentary at treasury.govt.nz/covid-19

More information on government initiatives at www.beehive.govt.nz

More information on government financial support at www.covid19.govt.nz



TE TAI ŌHANGA
THE TREASURY

New Zealand Government

Prepared by the Treasury and released on 15 April 2020 at <https://treasury.govt.nz/covid-19-economic-response-package>
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Sport NZ Rural Travel Fund - Menzies College additional applications to September 2020 round

Record No: R/20/11/67634

Author: Kathryn Cowie, Community Liaison Officer

Approved by: Rex Capil, Group Manager Community and Futures

☒ Decision

☐ Recommendation

☐ Information

Purpose

- 1 The purpose of this report is for Council to approve additional applications from Menzies College to the September 2020 round of the Sport NZ Rural Travel Fund.

Executive Summary

- 2 Additional applications have been received for the September 2020 round of the Sport NZ Rural Travel Fund from Menzies College.
- 3 Menzies College submitted their application on the 24 September 2020, but it was not received by staff as the email address had been entered incorrectly.
- 4 Given that the application had been submitted before the closing date, staff felt that it would be fair for Council to consider this application.
- 5 A summary of the applications are as follows:

- 1 **Menzies College Cricket**

To assist with the cost of students travelling around the district for various cricket competitions.

Km travelled: 1,280	Recommendation as per travel formula	\$400
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- 2 **Menzies College Volleyball**

To assist with the cost of students travelling around the district for various volleyball competitions.

Km travelled: 1,512	Recommendation as per travel formula	\$800
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Recommendation

That the Community and Strategy Committee:

- a) **Receives the report titled “Sport NZ Rural Travel Fund - Menzies College additional applications to September 2020 round” dated 23 November 2020.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) Approves the allocation of funds for the Sport NZ Rural Travel Fund as follows:

1	Menzies College Cricket	\$400
2	Menzies College Volleyball	\$800

Background

- 6 Sport NZ Rural Travel Fund applications are open twice a year with closing dates of 31 March and 30 September.
- 7 Four applications were received for the September 2020 round, with \$4,000 allocated at a Council meeting on 11 November. Currently there is approximately \$14,717 left to distribute for the March 2021 round. This includes carry over from the previous financial year.
- 8 On 18 November, staff spoke to a Menzies College staff member enquiring about their applications, and it was determined that the applications, while submitted before the closing date on 24 September, were not received due to a misspelling of the email address submitted to.
- 9 Given that the applications were submitted before the closing date, staff feel that it would be fair to consider these applications now. The applications submitted are for summer sports teams so it would not be preferable to defer them to the next funding round.

Issues

- 10 The applicants have met the requirements of the fund.
- 11 A travel formula based on the number of kilometres travelled has been applied to the applications.

Factors to Consider

Legal and Statutory Requirements

- 12 The fund is administered in accordance with the Sport NZ/Southland District Council investment schedule, including terms and conditions, for 2020/2021.

Community Views

- 13 The fund subsidies are appreciated by sports and school-based clubs within the district.

Costs and Funding

- 14 Grants are covered by the funding provided by Sport NZ.

Policy Implications

- 15 The process meets Sport NZ requirements.

Analysis

Options Considered

- 16 The options for consideration are to either award grants to the applicants to assist with travel costs or decline the applications.

Analysis of Options

Option 1 – award grants to recipients

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">• fulfil Southland District Council's agreement to administer the Sport NZ rural travel fund on behalf of Sport NZ.	<ul style="list-style-type: none">• Southland District Council will not fulfil its obligation to administer the Sport NZ Rural Travel Fund as per the investment schedule.

Option 2 – Not award grants to applicants

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">• there are no advantages.	<ul style="list-style-type: none">• Southland District Council would not fulfil its obligation to administer the Sport NZ rural travel fund as per the investment schedule.

Assessment of Significance

- 17 Under Council's Significance and Engagement Policy, this is not considered to be significant.

Recommended Option

- 18 Option 1 – award grants to applicants.

Next Steps

- 19 Applicants will be advised of the outcome of their application and payment of grants arranged.

Attachments

There are no attachments for this report.

Southland Murihiku Events Strategy 2020-2025

Record No: R/20/11/67989

Author: Karen Purdue, Community Partnership Leader

Approved by: Rex Capil, Group Manager Community and Futures

☒ Decision

☐ Recommendation

☐ Information

Purpose

- 1 The purpose of this report is for the Community and Strategy Committee to consider whether or not to endorse the Southland Murihiku Events Strategy.

Executive Summary

- 2 The strategy reflects a regional commitment and desire to maximise the benefit of events for the region, the community, and its people. It has been developed by Great South in consultation with key partners, including Southland District Council, and aligns with regional strategic planning including the Southland Regional Development Strategy 2015 and the Southland Murihiku Destination Strategy.
- 3 The 5-year Strategy and its vision has four guiding principles:
- **TOGETHER:** we believe that it is essential to have a regional, co-ordinated, collaborative and inclusive approach
 - **DIVERSITY:** we believe our diversity is a strength and our uniqueness should be highlighted and celebrated
 - **MANAAKITANGA:** we want to welcome residents and visitors and share our region and its unique stories
 - **KAITIAKITANGA:** we see ourselves as guardians of our special place and have a responsibility to protect our land, sea, air, living creatures, traditions and communities - for the Southland communities of the future.
- 4 It outlines a suggested implementation framework and suggests that success will be determined by a multi stakeholder partnership approach considering those who fund, deliver, leverage and attend events.
- 5 The vision statement for this strategy is:
- A supported, dynamic and sustainable event sector that encourages community participation and drives visitation to the region by building on unique points of difference.**
- 6 It is intended that the strategy will be translated into Te Reo Māori before the strategy is signed off.
- 7 The strategy has four key goals:
- attract, retain, grow and enhance sustainable events
 - maximise community wellbeing (economic, social, cultural and environmental)

- encourage excellence in event management
 - provide a balanced events calendar.
- 8 In order to achieve these goals, a review of current practices and resources was undertaken to identify which areas require further focus.
- 9 The following areas were identified as essential to the success of this strategy and includes the establishment of a:
- regional events forum
 - event funders group
 - event organisers network
 - key stakeholders.
- 10 Great South as the regional development agency for Southland, is tasked to leverage the benefits of events for the region, ensure alignment with domestic visitation activity and provide resource.

Recommendation

That the Community and Strategy Committee:

- a) **Receives the report titled “Southland Murihiku Events Strategy 2020-2025” dated 1 December 2020.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.
- d) Endorses the Southland Murihiku Events strategy 2020-2025.

Background

- 11 In early 2020, an audit of Southland events was undertaken by Great South, involving contacting event organisers, regional sporting organisations, event funders, facility providers and searching promotional sites online.
- 12 This audit provided key insights into the sector and allowed a strategic assessment of the current situation and future opportunities. It also allowed events to be categorized and informed recommendations in the strategy.
- 13 At the time of finalising the strategy (late 2020), New Zealand was responding to the Covid-19 pandemic. This has resulted in many events not being able to be held and pressure for event organisers. The full impacts are not yet understood and the insights listed in the strategy document only relate to the past four years, up to early 2020.
- 14 Events can be looked at from different perspectives.
 - they are important to Southlanders, contributing to the quality of life on offer in the region
 - they play a key role in attracting people to the region to both live and visit
 - they can define what it is to be a Southlander and represent various aspects of the Southland Story.
- 15 Overall, it is agreed that they can create a sense of place, belonging and resident satisfaction adding to the liveability of a place.
- 16 In response to Covid-19, connection for locals to each other and their community will be of even greater importance.
- 17 Events, more than ever before, are highly valued because of their role in driving and stimulating domestic tourism. For this to be achieved, there is a need for alignment with overall destination development and attraction activities.
- 18 The strategy reflects a regional commitment and desire to maximise the benefit of events for the region, the community and its people. It has been developed by Great South in consultation with key partners, including Southland District Council, and aligns with regional strategic planning including the Southland Regional Development Strategy 2015 and the Southland Murihiku Destination Strategy.
- 19 The 5-year Strategy has four guiding principles:
 - **TOGETHER:** We believe that it is essential to have a regional, coordinated, collaborative and inclusive approach
 - **DIVERSITY:** We believe that our diversity is a strength and our uniqueness should be highlighted and celebrated
 - **MANAAKITANGA:** We want to welcome residents and visitors and share our region and its unique stories. We understand that as good hosts we need to make sure visitor's needs are addressed as well as our own

- **KAITIAKITANGA:** We see ourselves as guardians of our special place and have a responsibility to protect our land, sea, air, living creatures, traditions and communities - for the Southland communities of the future.

- 20 It outlines a suggested implementation framework and suggests that success will be determined by a multi stakeholder partnership approach considering those who fund, deliver, leverage and attend events.
- 21 Southland events can be categorised into four main categories – community, regional, special interest and premier based on each event’s social and economic benefits.
- 22 There are a significant number of events in the region with 1612 identified, 1523 are community events, 57 are regional events, and 31 special interest and three premier events.
- 23 Many events have been delivered for Southlanders and not to attract people from out of the region to visit.
- 24 Events are well spread throughout the year with the summer months very busy (February especially). There is an opportunity to grow more events in the shoulder or off-peak times.
- 25 Invercargill hosts two thirds of all events in the region including almost all conferences and most special interest and premier events. Gore hosts 9% and Te Anau 8% respectively.
- 26 The vision statement for this strategy is:

A supported, dynamic and sustainable event sector that encourages community participation and drives visitation to the region by building on unique points of difference.

- 27 It is intended that the strategy will be translated into Te Reo Māori before the strategy is signed off.
- 28 The strategy has four key goals:
- **attract, retain, grow and enhance sustainable events**
Stimulate Southland’s economy by supporting, promoting and growing existing events and attracting new events that bring visitors and encourage spending in Southland.
 - **maximise community wellbeing: economic, social, cultural and environmental**
Event organisers, business and community working together to ensure maximum economic, social, cultural and environmental benefits are achieved. Events will celebrate and showcase Southland’s people, places and unique selling points.
 - **encourage excellence in event management**
Southland’s event sector will be strengthened with regional event organisers’ skill and capabilities developed and improved.
 - **provide a balanced events calendar**
Provide a balanced, all-season calendar of premier, special interest, regional and community events that celebrate Southland’s key attributes and industries.

- 29 In order to achieve these goals, a review of current practices and resources was undertaken to identify which areas require further focus. The following areas were identified as essential to the success of this Strategy and includes the establishment of a:
- **regional event forum**
Involves the partnership of stakeholders who play a role in the development of events in the region as outlined in this Strategy (e.g. Councils, funders, facility providers, Iwi, Air NZ, Great South, Sport Southland, premier event organisers).
 - **event funders group**
Relevant funders of events in Southland interested in strategically assessing funding opportunities for events in the region.
 - **event organisers network**
Collaboration and connection of the regions event organisers providing the opportunity to share learnings and support each other.
 - **great south**
As the regional development agency for Southland, tasked to leverage the benefits of events for the region, ensure alignment with domestic visitation activity and provide resource.
 - **key stakeholders**
Arts Murihiku, Business Events Forum, Gore District Council, Invercargill City Council, Iwi, Southland District Council, Te Anau Events Trust, venue providers.

Issues

- 30 The committee needs to make a decision whether to endorse the strategy or not.

Factors to Consider

Legal and Statutory Requirements

- 31 This strategy has been developed by Great South on behalf of the regional stakeholders and has been completed outside Council processes.

Community Views

- 32 Stakeholders have been involved in the development of the strategy.

Costs and Funding

- 33 Council will incur no costs or be required to provide any funding.

Policy Implications

- 34 There are no policy implications.

Analysis

Options Considered

- 35 To endorse or not endorse the Southland Murihiku Events strategy.

Analysis of Options

Option 1 – To endorse the strategy

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">supporting a regional, co-ordinated, collaborative and inclusive approach to the event management	<ul style="list-style-type: none">none identified

Option 2 – Not endorse the strategy

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">none identified	<ul style="list-style-type: none">Council is seen as not supporting a regional, collaborative and inclusive approach to the events strategy

Assessment of Significance

- 36 This is not significant in terms of Council's Significance and Engagement Policy.

Recommended Option

- 37 Staff recommend Option 1 because a regional, co-ordinated, collaborative and inclusive approach is desirable.

Next Steps

- 38 Advise Great South that Council have endorsed the strategy.

Attachments

- A DRAFT Southland Murihiku Events Strategy 2020-2025 [↓](#)



Southland Murihiku Events Strategy

2020 - 2025

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2 Southland Murihiku Events Strategy 2020 - 2025



Credit for images that appear in this document: Great South, 2D Photography, Civic Theatre, Gore District Council, ILT Stadium Southland, Immigraton NZ, Jeremy Pierce, Neat Places, Sam Deuchrass, Sean Beale, Videocopter





Introduction

Home to the famous Bluff Oyster & Food Festival, Tussock Country Music Festival, the Burt Munro Challenge and many more iconic events, it is clear that Southland embraces the vibrancy and social wellbeing that events can deliver.

Events can be looked at from different perspectives...

- They are important to Southlanders, contributing to the quality of life on offer in the region.
- They play a key role in attracting people to the region to both live and visit.
- They can define what it is to be a Southlander and represent various aspects of the Southland Story.

Overall, it is agreed that they can create a sense of place, belonging and resident satisfaction adding to the liveability of a place.

In response to COVID-19, connection for locals to each other and their community will be of even greater importance. Events, more than ever before, are highly valued because of their role in driving and stimulating domestic

tourism and vibrancy within the Invercargill and Gore CBDs. For this to be achieved, there is a need for alignment with overall destination development and attraction activities.

This Strategy reflects a regional commitment and desire to maximise the benefit of events for the region, the community and its people. It has been developed by Great South in consultation with key partners and aligns with regional strategic planning including the Southland Regional Development Strategy 2015 and the Southland Murihiku Destination Strategy. Great South has a clear mandate from its shareholders to leverage opportunities for Southland in the areas of economic and business development, tourism and events.

The 5-year Strategy and its vision is focused on achieving 4 key goals. It outlines a suggested implementation framework and suggests that success will be determined by a multi stakeholder partnership approach considering those who fund, deliver, leverage and attend events.



EVENT DEFINITION

For the purpose of this Strategy, events are described as:

"A planned and organised occasion, activity, gathering, display that is open to the public and occurs for a period of time."

"A formal meeting of people with a shared interest, typically one that takes place over several days, with speakers and seminars"

Note - Privately hosted events fall outside of these definitions and are therefore not included in this Strategy.

Our Guiding Principles

1

TOGETHER

We believe that it is essential to have a regional, coordinated, collaborative and inclusive approach.

2

DIVERSITY

We believe that our diversity is a strength and our uniqueness should be highlighted and celebrated.

3

MANAAKITANGA

We want to welcome residents and visitors and share our region and its unique stories. We understand that as good hosts we need to make sure visitor's needs are addressed as well as our own.

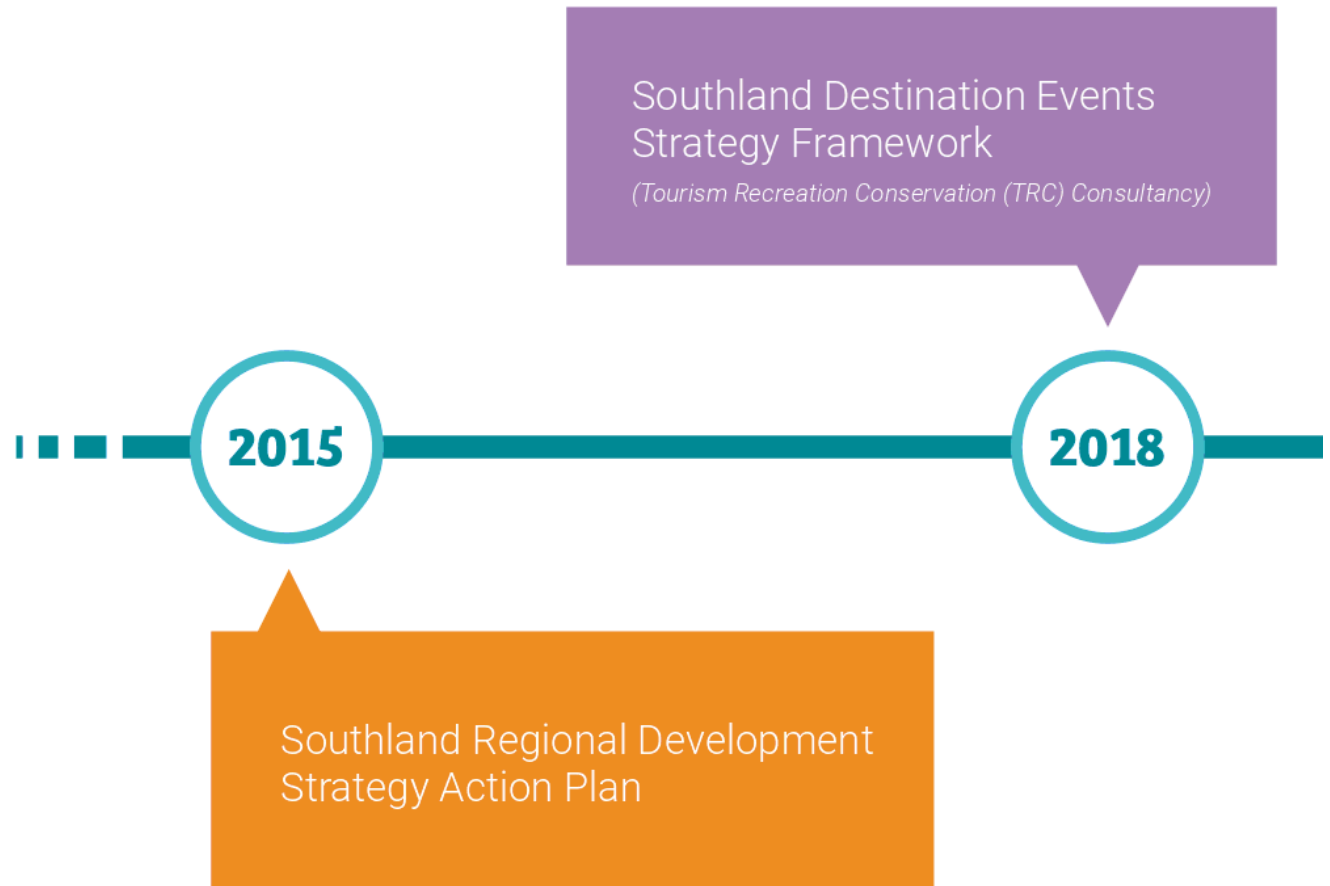
4

KAITIAKITANGA

We see ourselves as guardians of our special place and have a responsibility to protect our land, sea, air, living creatures, traditions and communities - for the Southland communities of the future.



Journey To Date





Southland Events Sector Snapshot

In early 2020, an audit of Southland events was undertaken by Great South, involving contacting event organisers, regional sporting organisations, event funders, facility providers and searching promotional sites online.

This audit provided key insights into the sector and allowed a strategic assessment of the current situation and future opportunities. It also allowed events to be categorized and informed recommendations in this Strategy.

At the time of finalising this Strategy (late 2020), New Zealand was responding to the COVID-19 pandemic. This has resulted in many events not being able to be held and pressure for event organisers. The full impacts are not yet understood and the following insights only relate to the past four years, up to early 2020.

8 Southland Murihiku Events Strategy 2020 - 2025

There are a significant number of events in the region with 1612 identified. Most events identified in the audit are delivered by community groups.

Southland events can be categorised into 4 main categories – community, regional, special interest and premier based on each event's social and economic benefits. The audit found 1523 community events, 57 regional events, and 31 special interest and premier events.

There are 3 premier events: Burt Munro Challenge, Tussock Country Music Festival, and the Southern Field Days.



There are approximately 25 multi day conferences each year (categorised as 'special interest' events).

Many events have been delivered for Southlanders and not to attract people from out of the region to visit.

Events are well spread throughout the year with the summer months very busy (February especially). There is an opportunity to grow more events in the shoulder or off peak times.

Invercargill hosts two thirds of all events in the region including almost all conferences and most special interest and premier events. Gore hosts 9% and Te Anau 8% respectively.

SWOT ANALYSIS

The following analysis of the current internal and external factors in relation to Southland events was provided by TRC (in the 2018 Southland Destination Events Strategy Framework). It includes the current events calendar, accessibility and connectivity, consumer trends, market opportunities, event facilities and infrastructure. It provides useful context alongside the insights gained from the audit of 1612 events in early 2020. Additional factors have been added in purple.

STRENGTHS

USPs/Competitive advantages of Southland

- Reputation for southern hospitality
- Sporting and industry prowess
- Natural assets (coast, conservation estate)
- Built assets (sporting, conference)
- Parochial and passionate communities with strong interests and heritage
- Food proposition (kaimoana/seafood, traditional and alternative horticulture and agriculture)
- Active community funding
- Developing connectivity (particularly air)
- Geographic difference and proximity to NZ icon locations (Milford Sound, Stewart Island, The Catlins, Queenstown)

OPPORTUNITIES

Trends

- Growth in recreation, adventure racing, commercialised sport (darts, wrestling), special interest - particularly motoring, team sports (alternative), popular culture and technology (comicon, gaming), food and beverage (craft beer, kaimoana/seafood)
- Markets: baby boomers/silver surfers, motorhomes, independent professionals
- Coordinated events community and communication
- Potential to add unique cultural/heritage dimension to events; infusing local flavour into events, unique venues, safety, security
- Fostering sustainability
- Getting away - unplug/mindfulness
- Capitalise on new connectivity
- Enhanced use of under-utilised venues

WEAKNESSES

Constraints for Southland events

- Relatively small population base (100,000)
- Relatively small business base for event funding support
- Distance from large population bases (travel time and cost)
- Multiple and fragmented sources of event information
- Negative perceptions of colder climate for outdoor events compared with competitive destinations
- Seasonality of events (high peak of Feb and low of Sept)
- Lack of regional connection and collaboration between events
- Have attracted events and then lost to bigger centres
- Accommodation based on capacity and seasonality a challenge in parts of the region

THREATS

Obstacles/Competition for Southland

- Competition for event funding from other regions
- Competition for domestic event visitors from other regions (particularly tier 2 destinations and new venue development)
- Lack of strong positioning as an events destination (generically)
- Progress of event development in smaller versus larger areas in the region
- Lack of understanding/appreciation of the impact of events by local residents
- Duplication/replication/acquisition of events
- COVID-19 impacting confidence of event organisers
- Closure/natural ending of a number of significant events for Invercargill City at a time of major construction, represents a threat to vibrancy in the Invercargill city centre



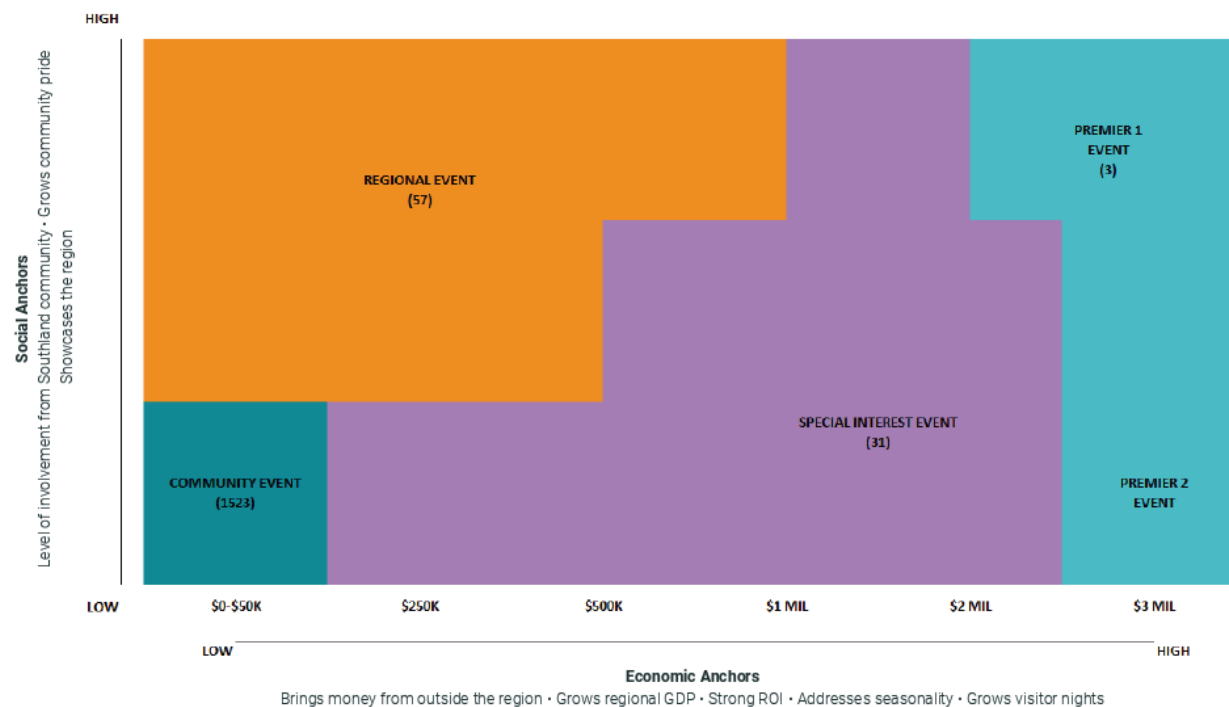
Event Categories & Framework

Events can be looked at in terms of both their social and economic value and it is acknowledged that this varies from event to event. The framework below provides a visual snap shot of Southland's event landscape measuring both the social and economic anchors of events and also suggests five key event categories.

During the process to develop the Strategy, an event audit was undertaken and all events were able to be plotted into this framework.

From a social perspective this includes measuring the level of involvement from the Southland community, ability of the event to grow community pride and showcase the region to those outside of the region.

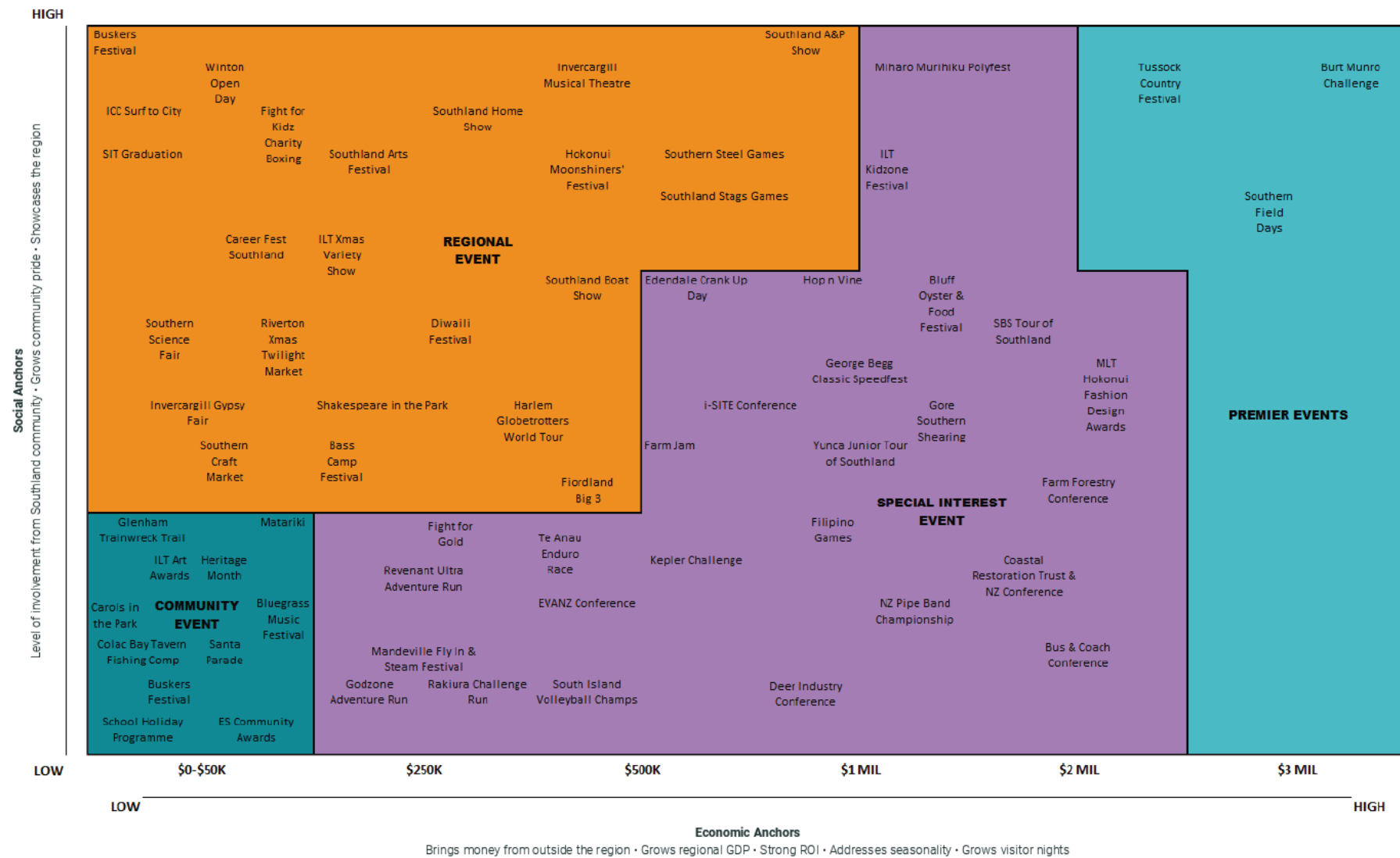
Economically, this includes measuring the ability of an event to attract investment and spend from outside of Southland; to help grow regional GDP and offer strong Return on Investment (ROI); address seasonality and grow overnight visitation (domestic and international).



SOUTHLAND EVENTS CATEGORIES

CATEGORY	NUMBER	ATTENDEES	ATTENDEES' ORIGIN	SOCIAL BENEFITS	ECONOMIC BENEFITS	MEDIA INTEREST
Premier 1	3	Over 5,000	Local, national and international	High (compared to Premier 2)	High (multi day)	High out of region
Premier 2	0	Over 5,000	National and international	Low (lower than premier 1)	High (multi day)	High out of region
Special Interest	29	Up to 5,000	Local, national and international	Varies depending on special interest e.g. Low = Bus & Coach Conference High = ILT Kidzone	Varies e.g. Low = One-Day Conference High = Multi-Day Conference	Varies – some events of high interest e.g. MLT Hokonui Fashion Awards
Regional	57	Over 2,000	Mostly local, with some from neighbouring regions	High – often represents element of Southland identity and has high local involvement e.g. Southland A&P Show	Varies but more often low e.g. Low = ICC Surf to City, Buskers Festival; High = Southern Steel Netball Game	Mostly local interest as events targeted at locals
Community	1523	Less than 2,000	Local	Varies – specific to the event and purpose	Low and often not the purpose of holding the event	Local interest only

SOUTHLAND EVENTS FRAMEWORK *With a sample placement of events*





Part B: The Strategy

14 Southland Murihiku Events Strategy 2020 - 2025

Vision

A supported, dynamic and sustainable event sector that encourages community participation and drives visitation to the region by building on unique points of difference.

Note: This vision will be translated into Te Reo Māori before the Strategy is signed off.

Goals

This Strategy has four key goals:

ATTRACT, RETAIN, GROW & ENHANCE SUSTAINABLE EVENTS

Stimulate Southland's economy by supporting, promoting and growing existing events and attracting new events that bring visitors and encourage spending in Southland.

MAXIMISE COMMUNITY WELLBEING: ECONOMIC, SOCIAL, CULTURAL & ENVIRONMENTAL

Event organisers, business and community working together to ensure maximum economic, social, cultural and environmental benefits are achieved. Events will celebrate and showcase Southland's people, places and unique selling points.

ENCOURAGE EXCELLENCE IN EVENT MANAGEMENT

Southland's event sector will be strengthened with regional event organisers' skill and capabilities developed and improved.

PROVIDE A BALANCED EVENTS CALENDAR

Provide a balanced, all-season calendar of premier, special interest, regional and community events that celebrate Southland's key attributes and industries.

ATTRACT, RETAIN, GROW & ENHANCE SUSTAINABLE EVENTS

Stimulate Southland's economy by supporting, promoting and growing existing events and attracting new events that bring visitors and encourage spending in Southland.

16 Southland Murihiku Events Strategy 2020 - 2025

FOCUS	DESIRED OUTCOME
Funding Considerations	Robust funding policies are established which reflect the dynamic nature of events including levels of profitability and acceptable losses
Regional Promotion Alignment	Events are used to promote the region
Grow Attendance	Increase attendance to Southland events
Regional Identity	Events are used to share the Southland Story, strengthening the profile and position of Southland
Grow Existing Events	Existing special interest events grow to become premier events
Facilities & Venues	Partnership approach with Councils to increase utilization of existing facilities and venues for conferences and sporting events
Activating Our Spaces & Places	Quality events activate and showcase the region's spaces and places

ACTION	WHO	BUDGET	TIME CONSIDERATION
Event Funders Group established and meets regularly	Great South, Event Funder Group	TBC	October 2020
Complete a review of funders' current policies to investigate establishing a set of over arching guiding principles	Great South, Event Funder Group	None	July 2021
A minimum of 20 events are identified each year to support promotion of the Southland destination including alignment and inclusion in the region's marketing plan and activations	Great South	Great South Operational	20 events each year
Within 5 years, identify 3 clusters of events and develop and implement promotional plans	Great South	TBC	TBC
Promote 10 events each year which drive visitation in the off peak and shoulder periods	Great South	Great South Operational	10 events each year
Deliver a campaign and subsequent activations which promotes the Southland Regional Events Calendar (SouthlandNZ.com) and aligns with domestic visitation activity and marketing	Great South, Event Organisers Network	Great South Operational	December 2020
Encourage event organisers (through the Event Organisers Network) to consider how to reduce barriers making events more accessible to all	Event Organisers Network	None	Priority once the Network is formed
Development and promotion of the online regional Southland brand portal (Brandkit) which will consist of imagery and copy content to be shared	Great South	Great South Operational	November 2020
Encourage events to use the regional Southland brand, sharing Southland's places, spaces and people	Great South, Ngā Rūnaka, Event Organisers Network	TBC	August 2021
Identify and provide additional support for at least 10 community event organisers each year to deliver their events which each represent a unique aspect of the Southland identity	Great South	TBC	10 events each year
Identify opportunities to develop new events which showcase a unique aspect of the Southland identity	Great South, Regional Event Forum	TBC	Annual review of event opportunities
Partner with 10 special interest event organisers within 5 years to investigate evolving their event to a premier event	Great South, Event Organisers Network	Great South Operational	10 events partnered with within 5 years
Promote Southland's venues and facilities to attract quality events all year round via an upgrade on the SouthlandNZ website which includes creation of copy, promotional video, images, connectivity	Great South, Business Events Sector Forum, Councils	Great South Operational	July 2022
Test collaborative models to achieve efficient use of venues and under utilized spaces	Great South, Regional Event Forum	TBC	TBC
Assess and track available accommodation and facility capacity and align to drive visitation through a shared industry calendar	Business Events Sector Forum	None	Assessed each year
Develop a Business Events Strategy including the Regional Conference Bid template document and Business Events Toolkit	Business Events Sector Forum	TBC	December 2021
Develop a coordinated approach to marketing and event attraction that builds on the competitive advantages of the Southland region - link to Southland Regional Spaces & Places Strategy	Great South, Ngā Rūnaka, Invercargill City Council, Sport Southland	TBC	TBC

MAXIMISE COMMUNITY WELLBEING: ECONOMIC, SOCIAL, CULTURAL & ENVIRONMENTAL

Event organisers, business and community working together to ensure maximum economic, social, cultural and environmental benefits are achieved. Events will celebrate and showcase Southland's people, places and unique selling points.

18 Southland Murihiku Events Strategy 2020 - 2025

FOCUS	DESIRED OUTCOME
Economic Value	There is greater regional reporting and understanding of the economic benefits of funded events
Southern Hospitality	The role of events acknowledged in welcoming and connecting newcomers, visitors and local people
Quality of Life	A wide range of community and regional events (particularly those which are family friendly and showcase quality of life opportunities) continue to be delivered across the year
Longer Length of Stay	Events encourage and maximise longer length of stay and repeat visitation
Culture & Heritage	Southland culture and heritage is represented and celebrated through events
Invercargill Inner City Rebuild	Events are a critical part of the future strategic framework for the Invercargill inner city rebuild and transition period while construction is underway
Fiordland Focus	Events are a key driver of domestic visitation for Fiordland considering the significant impact which this area has experienced due to international borders being closed
Gore & Districts Focus	Gore continues to welcome a number of visitors to the region through the provision of well supported special interest and premier events
Play, Active Recreation & Sport	Events with a focus on physical activity that provide a great experience, contribute to a vibrant lifestyle, are inclusive and develop positive community connectedness

ACTION	WHO	BUDGET	TIME CONSIDERATION
Explore and introduce statistical tools to provide insights on the regional economic benefits of events relating to expenditure and attendance	Great South	Great South Operational	November 2020
Complete economic impact assessments for each of the 10 identified special interest events (identified to be grown to premier) and all premier events	Great South	TBC	From 2022
Prepare and share an annual report which provides a snapshot of the economic value of events	Great South	Great South Operational	End of financial year
Key principles of inclusion, welcoming etc as identified in the MBIE Welcoming Communities programme are endorsed and shared	Councils, Ngā Rūnaka, Event Organisers Forum	None	TBC
Identify and support a minimum of 50 community and regional events each year focussing on those which are family friendly and showcase quality of life opportunities	Great South, Regional Event Forum	TBC	50 events each year
Develop and promote the Famil and Itinerary Information resource (which provides additional information on pre and post conference attractions)	Great South	Great South Operational	June 2021
Create packages/deals for at least 5 events each year which encourage attendees to stay longer	Great South	Great South Operational	5 events per year
Explore and support the delivery of cultural event opportunities for Southland alongside local stakeholders and communities, with a particular focus on creative arts	Great South, Ngā Rūnaka, Arts Murihiku	Great South Operational	June 2023
Identify and deliver a range of events and activations to be delivered during the construction of the rebuild and intended to stimulate economic activity, create vitality and align with wider destination marketing and activity	Great South, Invercargill City Council	Great South Operational, Invercargill City Council	Now - December 2023
Ensure events are included within the future strategic framework for the Invercargill inner city rebuild acknowledging their key role in activating the redevelopment	Great South, Invercargill City Council	TBC	Now - December 2023
Create a clear plan to maximise the value of events to drive domestic visitation considering alignment to destination promotion, opportunities for new events and building capability and capability in relation to the delivery of events	Great South, Southland District Council, Te Anau Events Trust	TBC	TBC
Create a clear plan to maximise the value of events to drive domestic visitation considering alignment to destination promotion, opportunities for new events and building capability and capability in relation to the delivery of events	Great South, Gore District Council	TBC	TBC
Network of event providers supported in order to provide quality physical activity events, to develop their capability and to encourage working collaboratively	Great South, Sport Southland	TBC	TBC
Identify and support physical activity events with the use of participant voice to develop more quality experiences	Great South, Sport Southland	TBC	TBC

ENCOURAGE EXCELLENCE IN EVENT MANAGEMENT

Southland's event sector will be strengthened with regional event organisers' skill and capabilities developed and improved.

20 Southland Murihiku Events Strategy 2020 - 2025

FOCUS	DESIRED OUTCOME
Regional Networking	Event organisers have the opportunity to meet and learn from each other, and to share information
Capability Building	Event organisers are motivated, encouraged and inspired to increase their expertise and knowledge
Regional Resources	Great South Event Toolkit is a valued resource for event organisers
COVID-19 Support	Event organisers are supported to organise and manage their event/s in a COVID-19 environment
Local Supplier Support	Event organiser's knowledge of local event resources and suppliers is improved
Volunteer Sector	The volunteer sector's role in event delivery is understood, acknowledged and supported
Environmentally Friendly Practices	The principles of environmental sustainability in relation to operating events are identified and shared with event organisers

ACTION	WHO	BUDGET	TIME CONSIDERATION
Establish an Events Organisers Network which meets regularly	Event Organisers Network	TBC	October 2020
Identify and promote one educational and professional development opportunity a year	Regional Event Forum	TBC	1 event each year
Review and update the Great South Event Toolkit (providing advice, links and resources i.e. waste management, financial management)	Great South	Great South Operational	April 2021
Deliver resources and training opportunities aiming to upskill and educate event organisers on social distancing and other issues related to a COVID-19 environment	Great South, Event Organisers Network	TBC	TBC
Create a share point directory database of event suppliers, bands, volunteers, venues etc. and ensure event organisers can access this	Great South	Great South Operational	March 2021
Seek to understand the role of the volunteer sector and support accordingly	Event Funders Group	TBC	June 2023
Develop resources and tools to support event organisers to operate events in sustainable ways and considering the impact on the environment and communities	Great South, Invercargill City Council, Southland District Council, Gore District Council	TBC	TBC

PROVIDE A BALANCED EVENTS CALENDAR

Provide a balanced, all-season calendar of premier, special interest, regional and community events that celebrate Southland's key attributes and industries.

22 Southland Murihiku Events Strategy 2020 - 2025

FOCUS	DESIRED OUTCOME
Digital Calendar on southlandnz.com	Improved usability and functionality of the regional events calendar
Awareness & Promotion	Increased awareness of the regional events calendar
Scheduling	Improved scheduling of events throughout the year
	Calendar awareness and promotion of calendar of destination events

ACTION	WHO	BUDGET	TIME CONSIDERATION
Complete the upgrade of the existing regional events calendar (SouthlandNZ.com) considering user awareness and accessibility	Great South	Great South Operational	July 2021
Develop a plan encouraging event providers to promote their event via the regional events calendar	Great South	Great South Operational	December 2020
Investigate opportunities to promote the calendar of destination events	Great South	Great South Operational	December 2020
Assess the monthly events e-newsletter featuring upcoming events	Great South	Great South Operational	December 2020
Review the schedule of proposed events in the region for each year to ensure a balanced, all season calendar	Regional Event Forum	None	Completed each year
Work with neighbouring regions to understand the timing of recurring events in order to avoid scheduling conflicts	Great South	None	December 2021
Support a balanced, connected and collaborative events network	Regional Event Forum, Event Organisers Network	None	December 2023





Part C: Implementation

Key Stakeholders



Hokonui Rūnanga

Waihōpai
Rūnaka

Ōraka Aparima Rūnaka

Awarua Rūnanga

Southland Murihiku Events Strategy 2020 - 2025 25

Implementation Plan

The Southland Murihiku Events Strategy 2020 - 2025 describes the vision to create a supportive, dynamic and sustainable events sector that encourages community engagement and drives visitation to the region by building on unique points of difference.

This will be achieved with the following goals:

- Attract, retain, grow and enhance sustainable events
- Events are utilised to maximise community wellbeing: economic, social, cultural and environmental
- Encourage excellence in event management
- Provide a balanced events calendar

In order to achieve these goals, a review of current practices and resources was undertaken to identify which areas require further focus. The following areas were identified as essential to the success of this Strategy and

includes the establishment of a:

Regional Event Forum

Involves the partnership of stakeholders who play a role in the development of events in the region as outlined in this Strategy (e.g. Councils, funders, facility providers, Iwi, Air NZ, Great South, Sport Southland, premier event organisers).

Event Funders Group

Relevant funders of events in Southland interested in strategically assessing funding opportunities for events in the region.

Event Organisers Network

Collaboration and connection of the regions event organisers providing the opportunity to share learnings and support each other.

Great South

Councils have allocated funding to Great South as the Regional Development Agency for Southland, to enable the activation of this Strategy. Great South is tasked to leverage the benefits of events for the region and ensure alignment with domestic visitation activity.

Key Stakeholders

Arts Murihiku, Business Events Forum, Gore District Council, Invercargill City Council, Ngā Rūnaka, Southland District Council, Te Anau Events Trust, Venue Providers



Summary of Desired Outcomes

	OUTCOME	WHO
ATTRACT, RETAIN, GROW & ENHANCE SUSTAINABLE EVENTS	Robust funding policies are established which reflect the dynamic nature of events including levels of profitability and acceptable losses	Great South, Event Funder Group
	Events are used to promote the region	Great South
	Increase attendance to Southland events	Great South, Event Organisers Network
	Events are used to share the Southland Story, strengthening the profile and position of Southland	Great South, Ngā Rūnaka, Event Organisers Network, Regional Event Forum
	Existing special interest events grow to become premier events	Great South, Event Organisers Network
	Partnership approach with Councils to increase utilization of existing facilities and venues for conferences and sporting events	Great South, Business Events Sector Forum, Regional Event Forum, Councils
	Quality events activate and showcase the region's spaces and places	Great South, Ngā Rūnaka, Invercargill City Council, Sport Southland
MAXIMISE COMMUNITY WELLBEING: ECONOMIC, SOCIAL, CULTURAL & ENVIRONMENTAL	There is greater regional reporting and understanding of the economic benefits of funded events	Great South
	The role of events acknowledged in welcoming and connecting newcomers, visitors and local people	Councils, Ngā Rūnaka, Event Organisers Forum
	A wide range of community and regional events (particularly those which are family friendly and showcase quality of life opportunities) continue to be delivered across the year	Great South, Regional Event Forum
	Events encourage and maximise longer length of stay and repeat visitation	Great South
	Southland culture and heritage is represented and celebrated through events	Great South, Ngā Rūnaka, Arts Murihiku
	Events are a critical part of the future strategic framework for the Invercargill inner city rebuild and transition period while construction is underway	Great South, Invercargill City Council
	Events are a key driver of domestic visitation for Fiordland considering the significant impact which this area has experienced due to international borders being closed	Great South, Southland District Council, Te Anau Events Trust
	Gore continues to welcome a number of visitors to the region through the provision of well supported special interest and premier events	Great South, Gore District Council
ENCOURAGE EXCELLENCE IN EVENT MANAGEMENT	Events with a focus on physical activity that provide a great experience, contribute to a vibrant lifestyle, are inclusive and develop positive community connectedness	Great South, Sport Southland
	Event organisers have the opportunity to meet and learn from each other, and to share information	Event Organisers Network
	Event organisers are motivated, encouraged and inspired to increase their expertise and knowledge	Regional Event Forum
	Great South Event Toolkit is a valued resource for event organisers	Great South
	Event organisers are supported to organise and manage their event/s in a COVID-19 environment	Great South, Event Organisers Network
	Event organiser's knowledge of local event resources and suppliers is improved	Great South
	The volunteer sector's role in event delivery is understood, acknowledged and supported	Event Funders Group
PROVIDE A BALANCED EVENT'S CALENDAR	The principles of environmental sustainability in relation to operating events are identified and shared with event organisers	Great South, Invercargill City Council, Southland District Council, Gore District Council
	Improved usability and functionality of the regional events calendar	Great South
	Increased awareness of the regional events calendar	Great South
	Improved scheduling of events throughout the year	Regional Event Forum
	Calendar awareness and promotion of calendar of destination events	Great South



📍 143 Spey Street, PO Box 1306, Invercargill 9840, New Zealand
✉ info@greatsouth.nz ☎ +64 3 211 1400

Customer Satisfaction Survey Report July - October 2020

Record No: R/20/11/68287
Author: Sandra McLean, Customer Support Manager
Approved by: Trudie Hurst, Group Manager Customer Delivery

☐ Decision ☐ Recommendation ☒ Information

Purpose

- 1 To provide the Community and Strategy Committee with results of the Customer Satisfaction Survey and Net Promoter Score (NPS) for July – October 2020.

Executive Summary

- 2 As part of the 2018-2028 Long Term Plan, it was identified by staff that there was the opportunity to have an independent research company complete the Request for Service (RFS) customer satisfaction and NPS surveys.

Recommendation

That the Community and Strategy Committee:

- a) **Receives the report titled “Customer Satisfaction Survey Report July - October 2020” dated 30 November 2020.**

Analysis

Findings and Opportunities

- 3 The reporting period has been changed to align with CAMMs reporting so this report covers July, August, September and October. We have achieved a positive Net Promoter Score of 36 for this period. (July 25.9, August/September 33.9 and October 50).
- 4 Customer satisfaction at first point of contact remains good at 70%. While this is down on our last score, this is still a positive result.
- 5 This data confirms the trends we have noticed in the past. Data has shown the NPS to be lower in the months where there are bulk payments due for rates and dog registration. Julys’ result was down but this coincided with dog registration. Due to the change in the reporting period and subsequent updating of our contract with Public Voice, the months of August and September have been combined and only one score reported. Rates were due in August so this will have impacted on this score. The rise in the score during October supports this trend.
- 6 The commentary provided by respondents is indicative to the pressure being experienced by many departments, however it was also very pleasing to see a number of positive responses from people very happy with Council services.
- 7 Customer Support will continue to monitor feedback from the report and engage with all activity managers as we strive together to deliver consistent customer service excellence across Council.

Attachments

A SDC Customer Satisfaction Report November 2020 [↓](#)



PublicVoice

Customer Satisfaction Survey

Overview

PublicVoice has been contracted by Southland District Council (SDC) to carry out a customer satisfaction survey for the SDC call centre. The research findings will enable SDC to deliver a positive and consistent service to its customers.

Methodology

Sampling

- A random stratified sampling of customers is used to select prospective customers.
- Stratification uses the 'Department' variable to ensure even representation across departments.
- Measures have been put in place to ensure that a contact is only called once within a 12-month period.

Calls

- Telephone calls are conducted between the hours of 10:00am and 7:00pm.
- No messages are left. If the call goes unanswered two further attempts will be made to complete the survey.
- All calls are made from the PublicVoice office by trained PublicVoice staff.

Contact Requested

- Survey customers will be asked if they would like a follow up call from Council. Requests for follow up calls are directly emailed to SDC.



Customer Satisfaction Survey

- **Start Date:** 1st July 2020
- **End Date:** 31st October 2020

Participants

Total number of customer responses: 119

Project Management

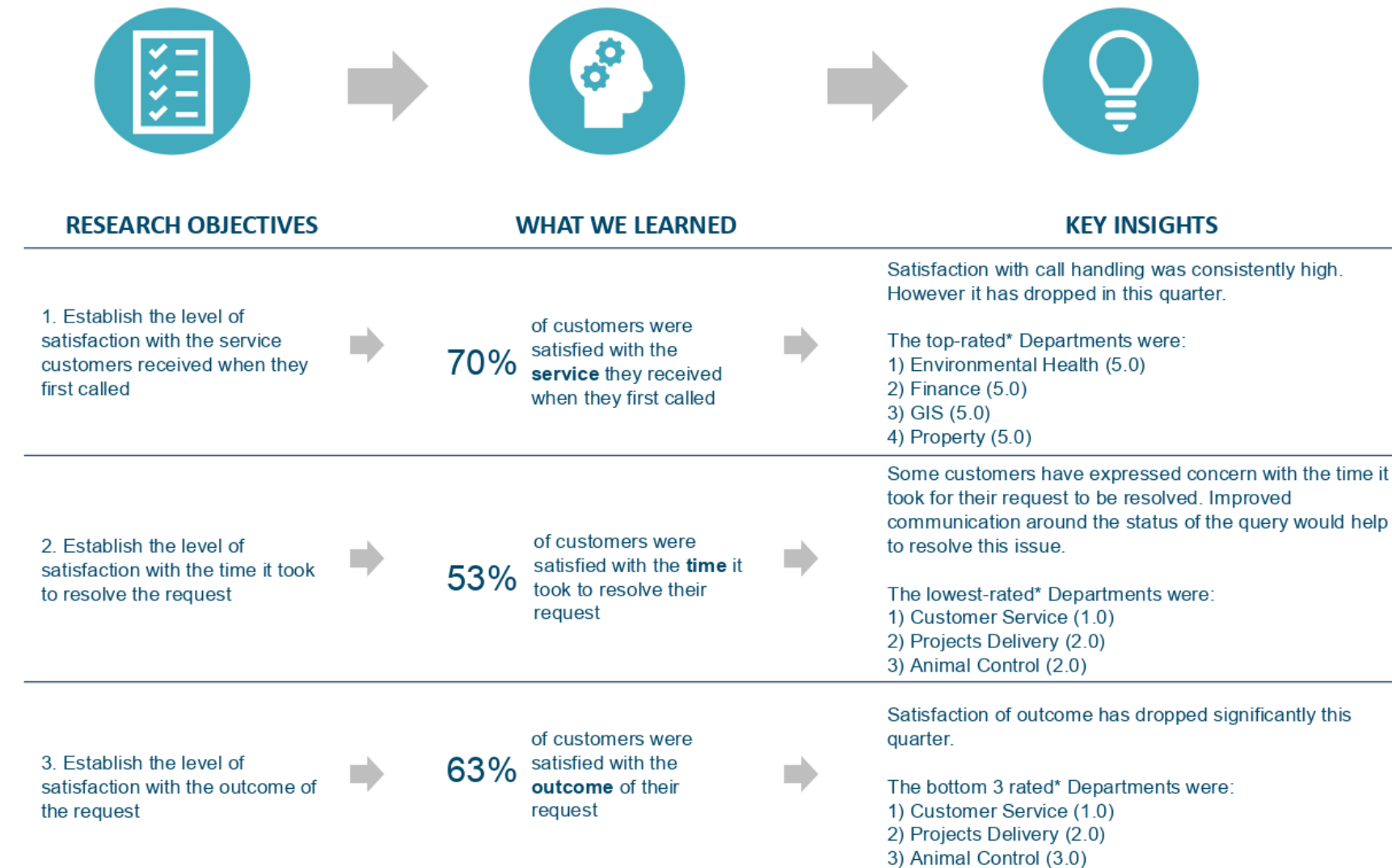
The survey has been managed by PublicVoice Ltd. Any queries regarding this report can be addressed to:

Jared Bothwell
PublicVoice
Account Director
04 589 5552
jared@publicvoice.co.nz

Response Overview

Department Talked To	%	n
Transport	36%	43
Building Control	18%	21
Waste & Water Services	17%	20
Resource Planning	11%	13
Community Facilities	8%	9
Finance	3%	4
GIS	2%	2
Animal Control	2%	2
Commercial Infrastructure	1%	1
Property	1%	1
Customer Service	1%	1
Projects Delivery	1%	1
Environmental Health	1%	1
All Departments	100%	119

KEY FINDINGS



KEY FINDINGS



RESEARCH OBJECTIVES

WHAT WE LEARNED

KEY INSIGHTS

4. Measure the Net Promoter Score (NPS)



NPS Overall
36

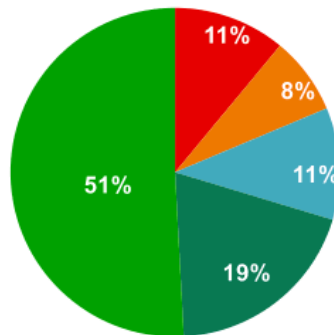


The top 3 NPS scores by Department were:
1) Environmental Health (100)
2) GIS (100)
3) Property(75)

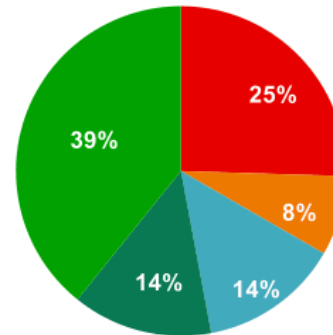
The bottom 3 NPS scores by Department were:
1) Customer Service (-100)
2) Commercial Infrastructure (0)
3) Animal Control (0)

KEY FINDINGS

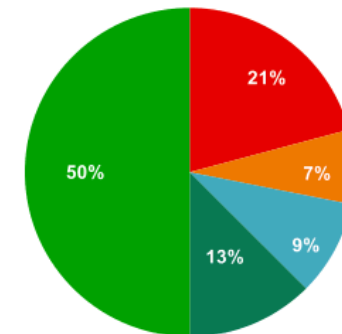
How satisfied were you with the service you received when you first called?



How satisfied were you with the time it took to resolve your request?



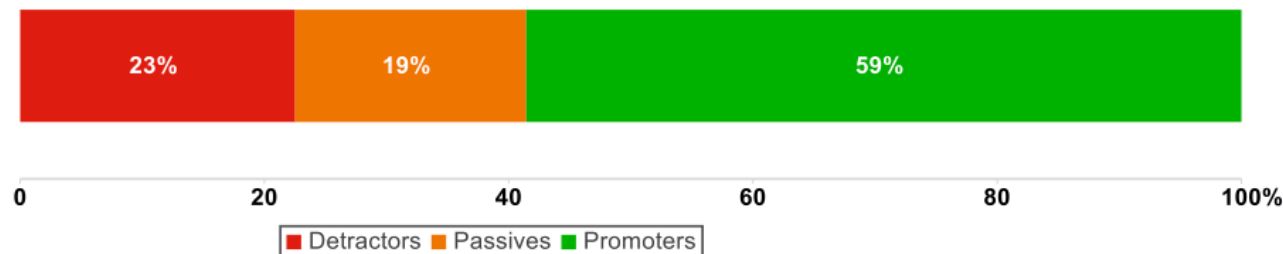
How satisfied were you with the outcome of your request?



■ Very satisfied
 ■ Somewhat satisfied
 ■ Neither satisfied or dissatisfied
 ■ Somewhat dissatisfied
 ■ Very dissatisfied

On a scale of 0 being not at all likely and 10 being extremely, how likely is it that you would recommend this service to a friend or colleague?

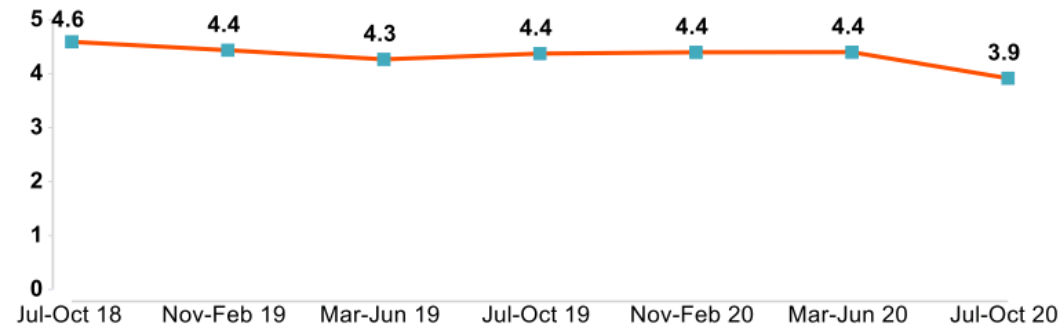
NPS Overall*



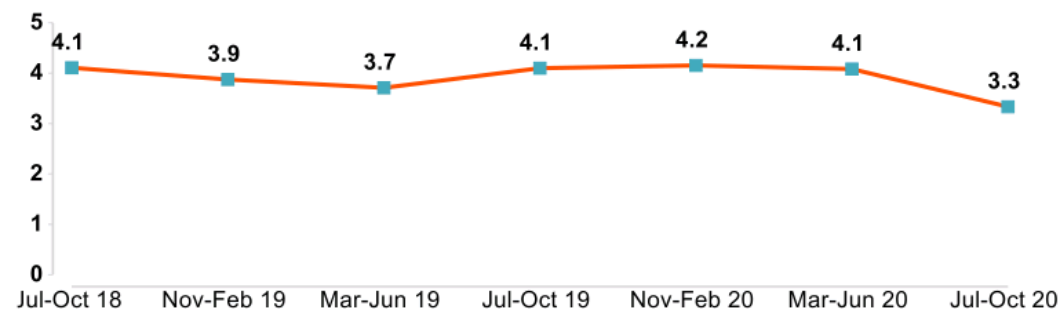
* Net Promoter Score (NPS) is a measure of how likely a person is to recommend your business or services. customers are classified based on their rating into 3 categories: detractors (0-6), passives (7-8) and promoters (9-10). The NPS is calculated by subtracting the percentage of those who are detractors from the percentage of those who are promoters. A positive NPS above 0 is considered good, a NPS of +50 is excellent and anything over +70 is considered exceptional.

KEY FINDINGS

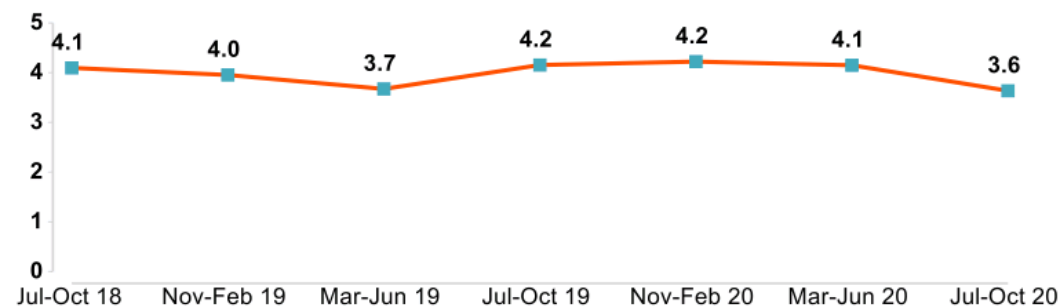
How satisfied were you with the service you received when you first called?



How satisfied were you with the time it took to resolve your request?

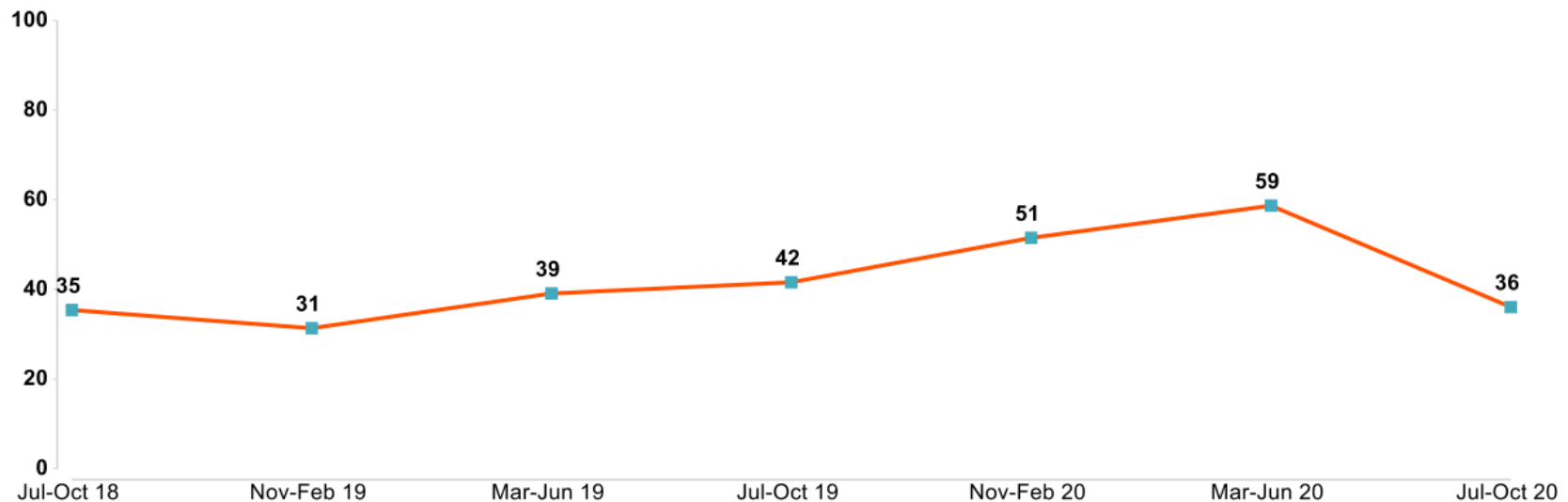


How satisfied were you with the outcome of your request?



KEY FINDINGS - TRIANNUAL

On a scale of 0 being not at all likely and 10 being extremely, how likely is it that you would recommend this service to a friend or colleague?



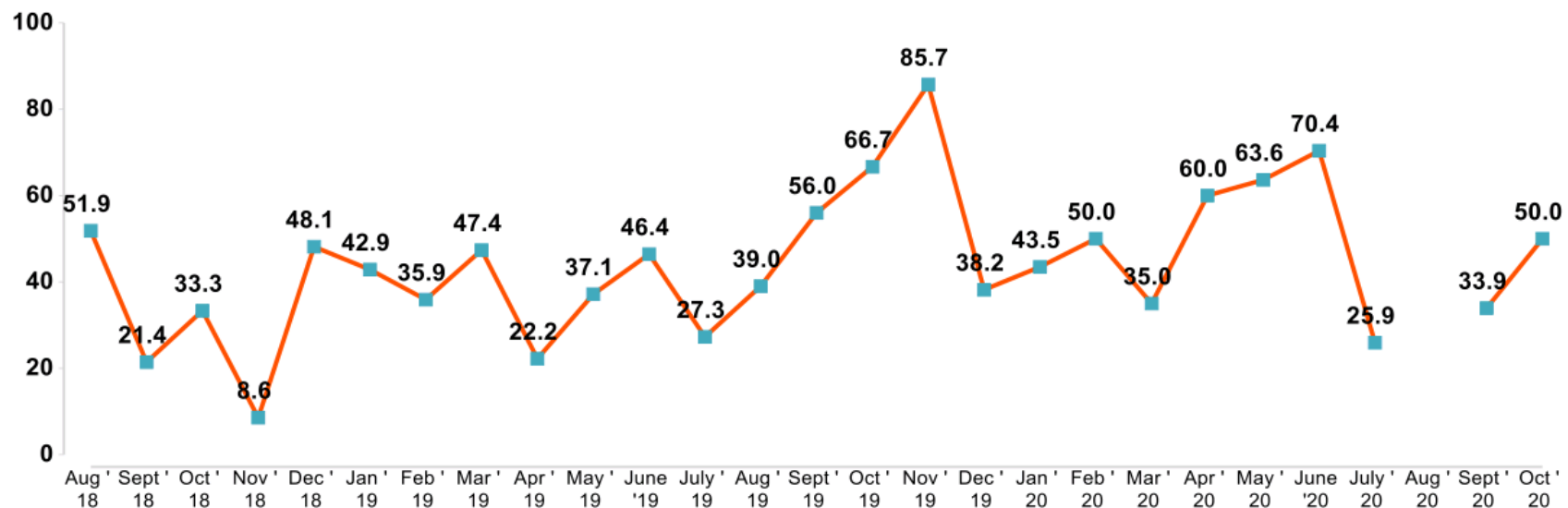
NPS Overall*

36

* Net Promoter Score (NPS) is a measure of how likely a person is to recommend your business or services. customers are classified based on their rating into 3 categories: detractors (0-6), passives (7-8) and promoters (9-10). The NPS is calculated by subtracting the percentage of those who are detractors from the percentage of those who are promoters. A positive NPS above 0 is considered good, a NPS of +50 is excellent and anything over +70 is considered exceptional.

KEY FINDINGS - MONTHLY

On a scale of 0 being not at all likely and 10 being extremely, how likely is it that you would recommend this service to a friend or colleague?

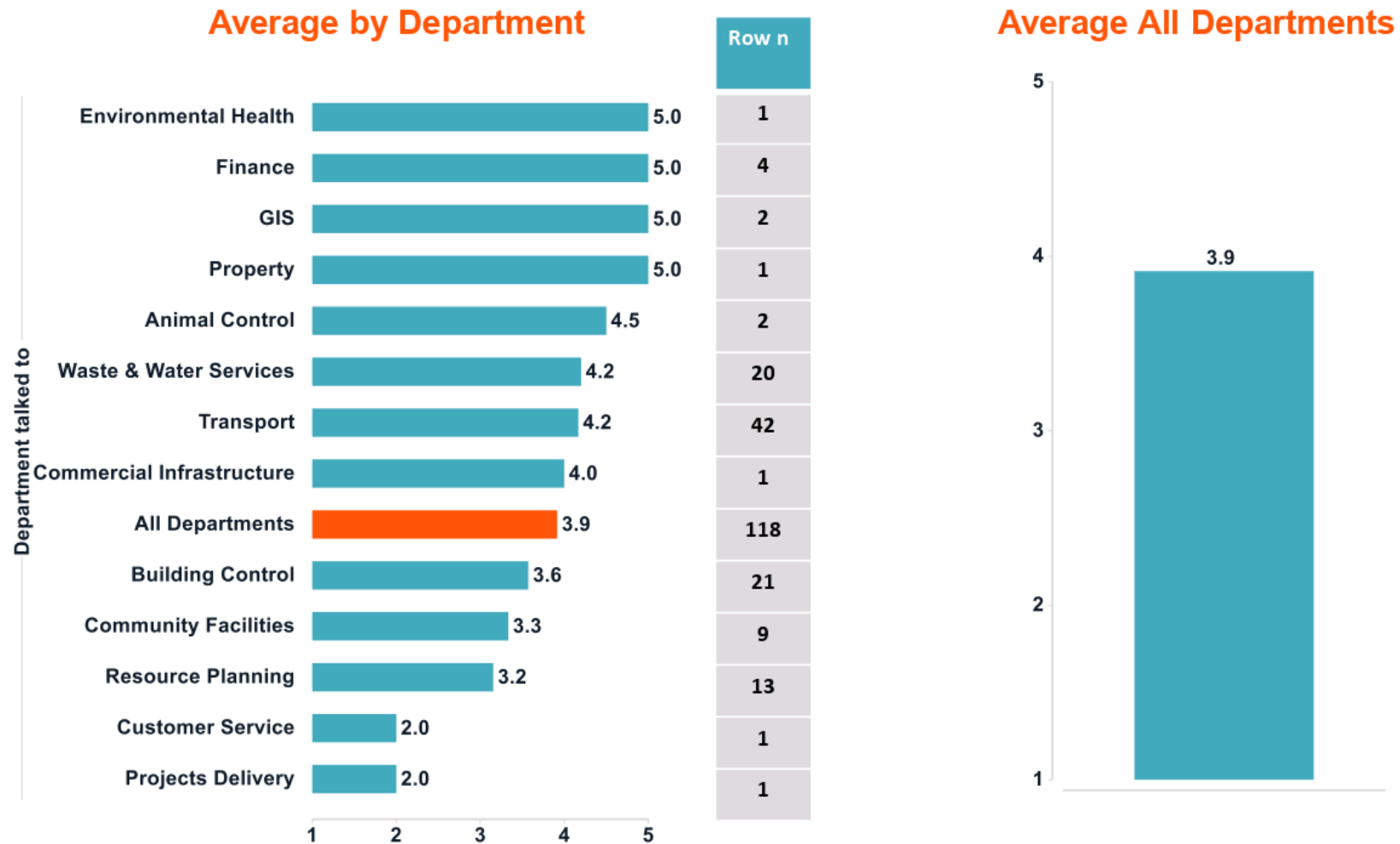


* Net Promoter Score (NPS) is a measure of how likely a person is to recommend your business or services. customers are classified based on their rating into 3 categories: detractors (0-6), passives (7-8) and promoters (9-10). The NPS is calculated by subtracting the percentage of those who are detractors from the percentage of those who are promoters. A positive NPS above 0 is considered good, a NPS of +50 is excellent and anything over +70 is considered exceptional.

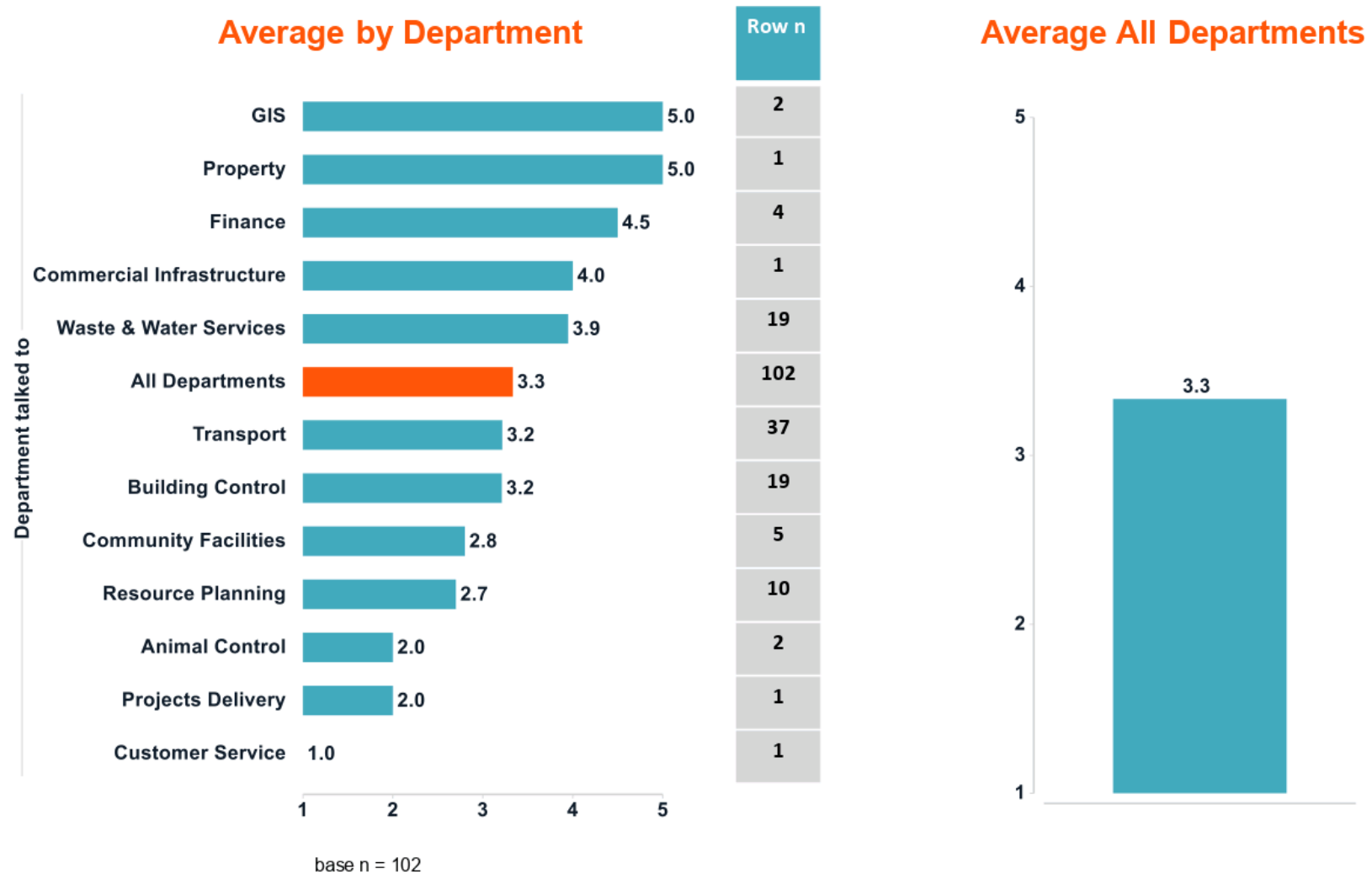


Photo credit: <http://naylorlove.co.nz>

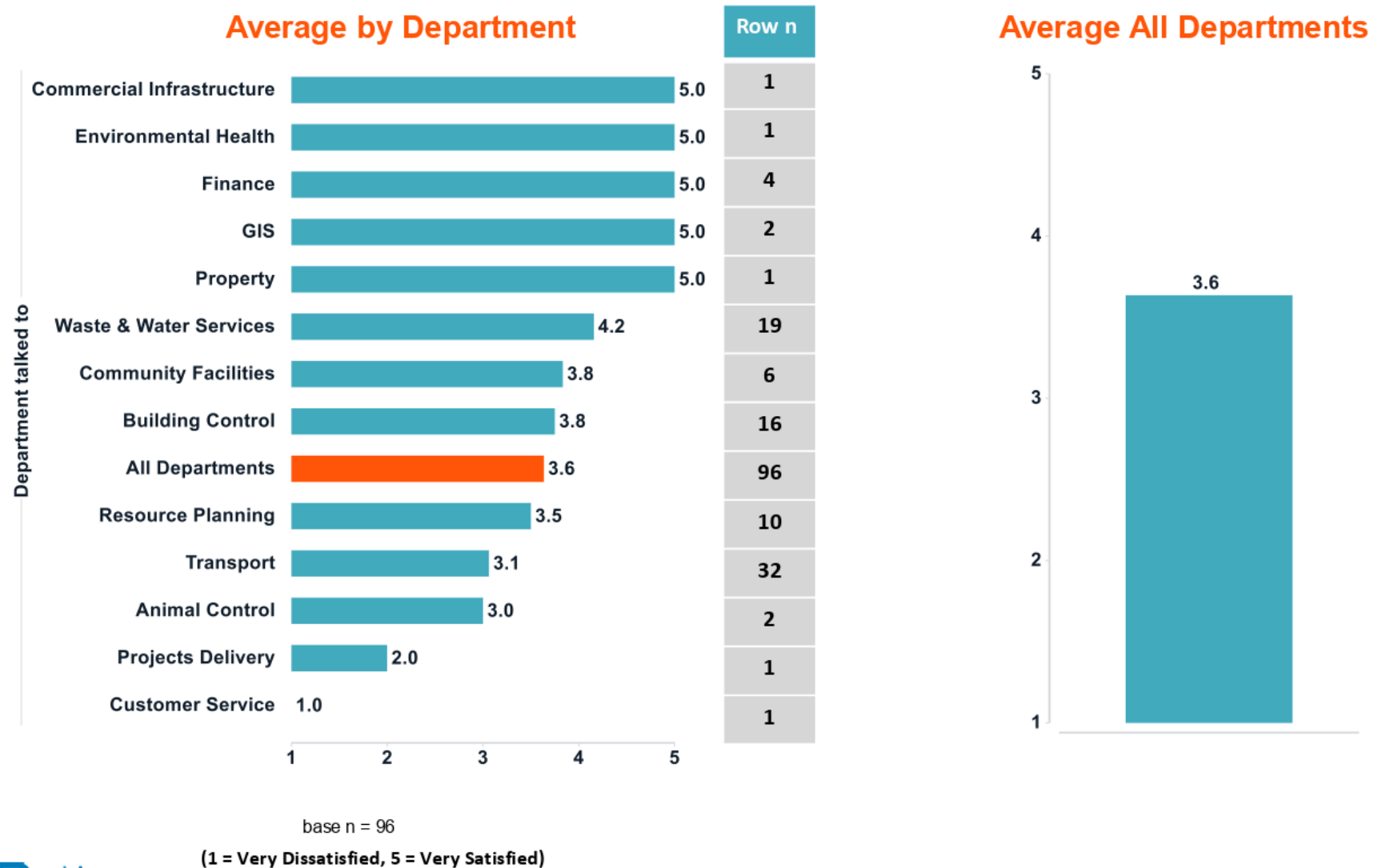
How satisfied were you with the service you received when you first called?



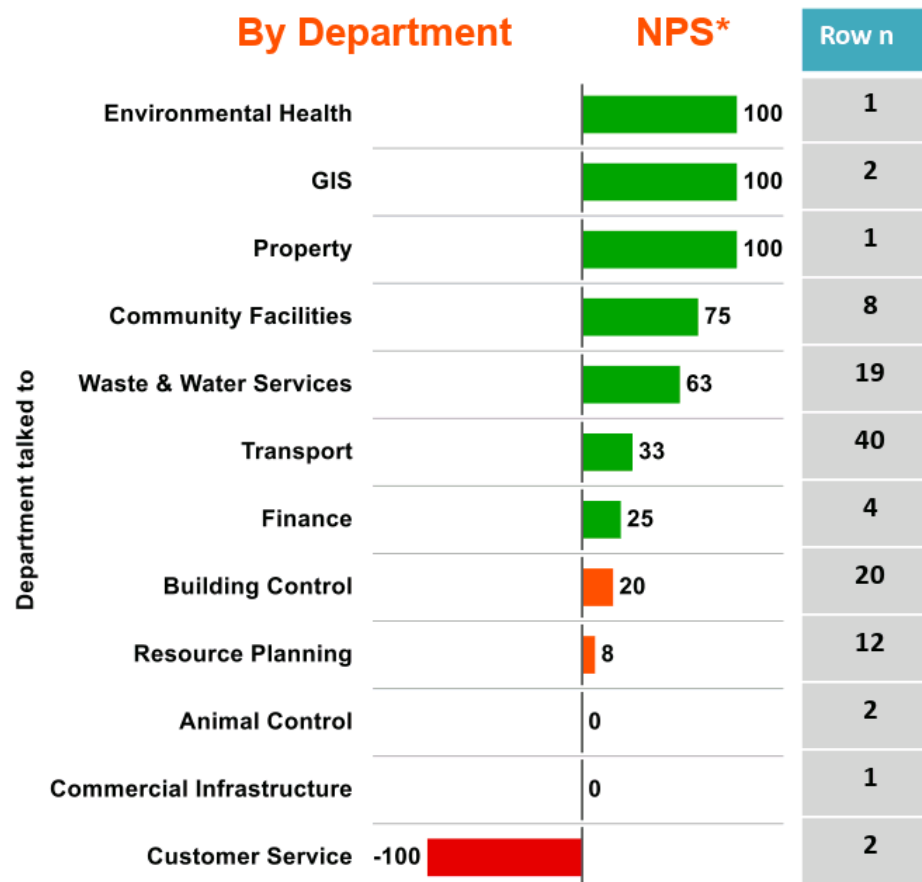
How satisfied were you with the time it took to resolve your request?



How satisfied were you with the outcome of your request?



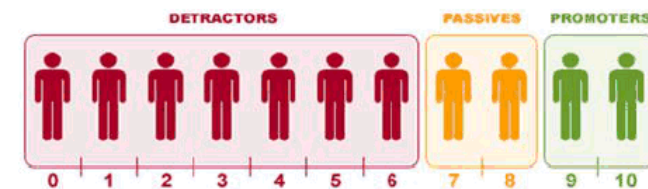
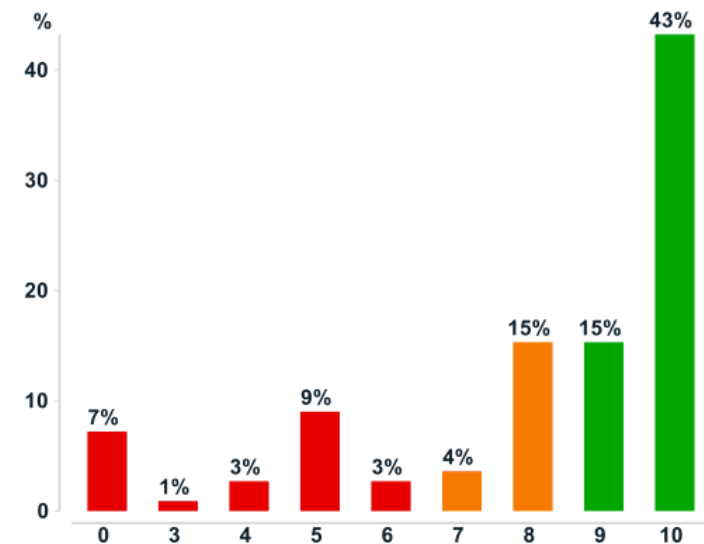
On a scale of 0 being not at all likely and 10 being extremely likely, how likely is it that you would recommend this service to a friend or colleague?



* Net Promoter Score (NPS) is a measure of how likely a person is to recommend your business or services. customers are classified based on their rating into 3 categories: detractors (0-6), passives (7-8) and promoters (9-10). The NPS is calculated by subtracting the percentage of those who are detractors from the percentage of those who are promoters. A positive NPS above 0 is considered good, a NPS of +50 is excellent and anything over +70 is considered exceptional.

NPS Overall*

36



Net Promoter Score = % Promoters - % Detractors



Photo credit: <http://naylorlove.co.nz>

Total sample; Unweighted; base n = 818; total n = 861; 43 missing

15

Welcoming Communities Update

Record No: R/20/11/68666

Author: Megan Seator, Community Liaison Officer

Approved by: Rex Capil, Group Manager Community and Futures

☐ Decision

☐ Recommendation

☒ Information

Background

- 1 Welcoming Communities is a programme led by Immigration New Zealand working in partnership with the Office of Ethnic Communities and the New Zealand Human Rights Commission.
- 2 It was developed in recognition that communities are healthier, happier and more productive when newcomers are welcomed, and participate fully in society and the local economy.
- 3 The Welcoming Communities programme officially defines newcomers as being either (i) former refugees, (ii) working migrants, or (ii) international students.
- 4 Councils are recognised as having a leadership role supporting their communities to advance inclusion and diversity.

National context

- 5 In October 2019, cabinet approved a further \$6.6 million funded from the immigration levy (a fee charged on visa applications) over the next four years towards Welcoming Communities specifically for the expansion of the programme. Using this funding, Immigration New Zealand have set a goal of bringing 30 new councils into the Welcoming Communities programme over the next four years.
- 6 Additional funding has also been directed to the Office of Ethnic Communities which has included the appointment of a diversity and engagement advisor for Southland, Nicholas Latty, who is Christchurch-based and making his first visit to Southland in January.
- 7 The Office of Ethnic Communities and the Human Rights Commission have identified a 30% increase in reported racially motivated instances of abuse and discrimination towards people of Asian descent (or perceived to be of Asian descent) since the Covid-19 outbreak. This response has been associated with heightened national stress during this time and an association with newcomers bringing foreign problems in to New Zealand.
- 8 As a result of this surge in race-related unrest, the “community voices” campaign has been launched by the Office of Ethnic Communities which shares the stories of newcomer experiences in New Zealand in wake of Covid-19.

Local context

- 9 Following the handover of Welcoming Communities from Great South to Southland District Council, staff have commenced research to better understand the newcomers in the Southland District.
- 10 As at 30 June 2020 there were 1,124 individuals on Employer Assisted Work Visas (EAWV) in the Southland region. On 21 November 2020, this number was reduced to 1,042. Despite the drop in total number of people in Southland on EAWVs, the number of individuals working in the dairy sector on EAWVs increased by 68 individuals.

- 11 These statistics identify newcomers in Southland on EAWVs as being predominately from the Philippines, followed by India, Nepal, Chile, and Sri Lanka.
- 12 Staff have been working to build relationships with agencies such as the Southland Multicultural Council, English Language Partners, DairyNZ and other key groups to assist in understanding the perspectives and needs of newcomers living in the Southland District as well as to identify opportunities for partnership and the possibility of the shared delivery of initiatives.

Southland District Council Welcoming Plan

- 13 The Southland Murihiku Welcoming Plan developed by Venture Southland in 2018 with a three-year lifespan and is due to expire in 2021. MBIE has informed Southland's councils that in 2021 each council will need to begin to develop their own welcoming plans.
- 14 This is an opportunity for Southland District Council to develop a plan that reflects its communities needs and unique circumstances.
- 15 The first stage of this process involves the establishment of an advisory group in early 2021 to guide the process for the development of the new welcoming plan.

Southland Newcomer Leadership Project

- 16 Staff have been working alongside Invercargill City Council, Gore District Council, MBIE and the Southland Chamber of Commerce on an initiative called the "Southland Newcomer Leadership Project".
- 17 The purpose of this initiative is to address the lack of newcomers in leadership positions in the community and business sectors.
- 18 The Southland Newcomer Leadership Project involves the creation of a contestable fund where newcomers can apply to access funding to participate in the Southland Chamber of Commerce's Leadership Academy. The newcomer, at the completion of the programme will have the skills, connections, and confidence to be leaders in their community.
- 19 Following completion of the Leadership Academy, the graduate will be better positioned for leadership positions in their business and community, be able provide leadership and mentorship to other newcomers, and provide the councils with an avenue to enhance civic engagement with our newcomer community.
- 20 This was developed in response to feedback from the Chamber of Commerce that there have been few newcomers attending previous intakes of the leadership academy and anecdotal stories that there have been newcomers who have expressed interest in attending but the financial barrier has prevented them from doing so.
- 21 The funding to set up the contestable fund will be coming from MBIE's migrant participation funding which is accessible to councils in the Welcoming Communities programme to set up initiatives that directly support the enhancement of newcomer participation in their receiving community.
- 22 Staff are in the final stages of confirming the details of the project with MBIE and the other stakeholders for delivery in 2021.

Recommendation

That the Community and Strategy Committee:

- a) **Receives the report titled “Welcoming Communities Update” dated 26 November 2020.**

Attachments

There are no attachments for this report.

Community Well-beings and Strategic Issues Overview - November 2020

Record No: R/20/11/68517
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☐ Decision ☐ Recommendation ☒ Information

Report Purpose

- 1 This community well-beings and strategic issues overview report is prepared and presented to the Community and Strategy Committee as part of its standard order paper each meeting, as far as is practicable.
- 2 This report is intended to inform the Committee of recent developments, points of interest and points for consideration as part of the overall strategic context and community well-beings (social, economic, environmental, and cultural) discussions that Council is part of – nationally, regionally and locally.
- 3 This report recognises the purpose of local government, as per section 10(1)(b) of the Local Government Act 2002, is to promote the social, economic, environmental, and cultural well-being of communities in the present and for the future.
- 4 The report is also used to provide insight of ‘happenings’ nationally and/or from other regions that maybe of interest and relevance to the District. This provides a wider strategic context on a national and regional scale to assist in Council’s understanding of issues and topics of impact occurring elsewhere.
- 5 Importantly, the report aims to initiate discussion and conversation amongst councillors and communities to support the opportunity to participate and contribute to Council’s direction setting and positioning with regards to the multi stakeholder environment it operates in.
- 6 The format and content of the report is divided into five headings – reflecting the four well-beings plus other national/regional happenings. The topics covered under each of the headings are a selection of recent articles and publications and are summarised with the associated link attached from where the information is sourced and/or the full document attached when relevant.

Social Well-being

- 7 For the purpose of this report we consider social well-being to reflect topics related to how people and communities engage in work, study and social activities.
- 8 The following is a summary of a selection of recent articles and publications relating to the social well-being topic.

Housing’s haves and have-nots threaten social stability

- 9 An opinion piece from Dr Eric Crampton, the chief economist at The New Zealand Initiative, who considers issues related to housing supply and demand, Reserve Bank policy and implications related to financial stability and market factors.

https://www.newsroom.co.nz/housing-have-nots-threaten-social-stability?utm_source=Friends+of+the+Newsroom&utm_campaign=428f39918c-Daily+Briefing+11.11.20&utm_medium=email&utm_term=0_71de5c4b35-428f39918c-97842367

Brave politics for a better future

- 10 An opinion piece from Rod Oram looking at how the Prime Minister can invest her political capital to build on the election result.
- 11 Oram discusses how the things we have done well as a society during the pandemic response have to be applied now to solve the pre-existing and interdependent social, economic and ecological challenges ahead.

https://www.newsroom.co.nz/rod-oram-brave-politics-for-a-better-future?utm_source=Friends+of+the+Newsroom&utm_campaign=ad1a42d489-Daily+Briefing+27.10.20&utm_medium=email&utm_term=0_71de5c4b35-ad1a42d489-97842367

The Simpson Health and Disability Review

- 12 Peter McKinlay discusses the the recommendations of the Simpson Review of the Health and Disability System being a top priority for the labour government - something it has already made clear.
- 13 The government's pre-election response to the Review was more than just a suggestion that the recommendations will be taken seriously. Change is clearly on the way across the entire system including how it relates to the communities it serves with a major theme of the Review being the need to move towards more of a community-led health and disability system.
- 14 McKinlay's paper titled "Local Government and Public Health: Natural Partners in a Covid-19 World" prepared for Local Government New Zealand (LGNZ) is attached as attachment A to this report.

<https://www.linkedin.com/pulse/simpson-review-peter-mckinlay>

Enhancing democratic well-being

- 15 LGNZ has recently released public feedback on its localism discussion paper, "Reinvigorating Local Democracy."
- 16 The findings follow on from LGNZ's position paper on localism that was published in 2018, the subsequent Localism Symposium, and the release of "Reinvigorating Local Democracy" at LGNZ's annual conference in July 2019.
- 17 The findings from the public feedback on LGNZ's discussion paper "Reinvigorating Local Democracy" are attached as attachment B to this report.

Economic Well-being

- 18 For the purpose of this report we consider economic well-being to reflect topics related to how financial and human made physical assets impact on how people live, deliver services and work together as a society.
- 19 The following is a summary of a selection of recent articles and publications relating to the economic well-being topic.

What will bring success for New Zealand following Covid-19?

- 20 A new report out of Auckland University's Kōi Tu: Centre for Informed Futures identifies that the country needs to refresh many aspects of its economic strategy, including giving greater focus to innovation and the knowledge economy.
- 21 The report shares the opinion that it is time for fresh thinking about how we do business. Given the geographical isolation and the need to reduce the impact of extractive industries, it states the most important asset will be knowledge applied in all sectors, including the digital and agricultural sectors.

<https://itbrief.co.nz/story/what-will-bring-success-for-new-zealand-following-covid-19>

<https://www.stuff.co.nz/business/123308699/focus-on-innovation-and-the-knowledge-economy-needed-in-postcovid-world>

Small business support and jobs top priorities

- 22 Prime Minister Rt Hon Jacinda Ardern presented to Business NZ early in November and provided an overview of the government's position based on two overarching priorities: to continue the health response to keep New Zealanders safe from Covid-19, and to drive the economic recovery and ensure we take the opportunity to build back better.

<https://www.beehive.govt.nz/speech/small-business-support-and-jobs-top-priorities>

We need to learn from Korea, fast

- 23 An opinion piece from Murat Ungor discussing the need to focus on long term productivity and take lessons from how South Korea has achieved this. Its government has spent decades committing to expenditure on sectors to enhance its productivity and nation branding, resulting in a remarkable catch up over the past 50 years in comparison with New Zealand's decline.

https://www.newsroom.co.nz/we-need-to-learn-from-korea-fast?utm_source=Friends+of+the+Newsroom&utm_campaign=fed072be14-Daily+Briefing+23.10.20&utm_medium=email&utm_term=0_71de5c4b35-fed072be14-97842367

Tourism Futures: Time for a 'whole of government' approach?

- 24 A thought piece written by University of Canterbury's Professor Girish Prayag asks, is it time for a 'whole-of-government' approach to tourism?

Is the current tourism governance structure adequate? What would it take to improve the situation? The Covid-19 pandemic continues to highlight some of the major stresses and strains in governing tourism in Aotearoa.

Arguably, key requirements of a functional tourism system are to facilitate the movement of people through various transport modes, provide accommodation and a quality experience, and manage economic, socio-cultural and environmental impacts, among others. Yet important decisions relating to these, including infrastructure development, often occur outside of the immediate sphere of tourism decision-making.

Governmental decisions are usually made for reasons of which tourism is only a part. Government agencies that have “tourism” attached to them, including Tourism New Zealand, the Department of Conservation and MBIE, only have a limited – albeit significant mandate – usually marketing, and specialist areas such as events, access, statistics, and policy-making. The various climate change initiatives and (sustainable) tourism strategies do not talk to each other.

In an inter-dependent economy, it is actually hard to find a single government entity that does not interface with the tourism system. The challenge for effective and strategic decision-making that recognises the importance of tourism is to develop a whole-of-government approach to tourism.

This does not mean that decision-making is conducted just for tourism, but it does mean that all parts of government become tourism-aware with respect to the impact of their decisions. The existing structure to govern tourism has been mainly successful because the volume-driven approach was focused on getting as many international visitors as possible to visit. This approach gave insufficient consideration to repeat visitation and getting tourists to visit non-traditional tourism areas but more importantly, it ignored the domestic market. With Covid-19, the limitations of the current structure to understanding and capitalising on domestic tourism have come to the fore.

A whole-of-government approach forces decision-makers to think of tourism as a system and highlights inadequacies in governance. An effective governance structure must occur over different scales, so that it operates not just at the national level but also becomes a part of how regional and local government think about tourism.

At the regional level this becomes important with respect to planning and, arguably, the renewed emphasis on domestic tourism as a result of the pandemic only makes attention to good planning that encourages domestic visitation even more significant.

At the local level many of the services that are central to the domestic and international visitor experience, such as art galleries, museums, parks, public space, camping grounds, event centres and stadia have local and regional government as a major stakeholder and provider. Yet, are those stakeholders coordinated in an effective manner to sing the changing “tourism” song of a value-driven approach? Do they understand the song in the first instance? What does value mean at the local level?

Answers to these questions are probably not well articulated for both government and industry. While the “upper” tier of decision-making recognises the need for a “new” type of tourism in this country, how this vision will inform and be informed by regional and local governments, and what changes will be brought to existing mandates of agencies and structures to implement this new strategy remain unclear.

There is a need to develop a stronger win-win mentality in the implementation of this new strategy and the post-Covid decision-making environment – one that seeks to satisfy local and tourist aspirations. This means that there needs to be improved conduits for both top-down and bottom-up approaches for tourism development, implying a stronger connection between communities, local government and members of the tourist industry including the development of new relationships in areas such as public transport and mana whenua. If we are serious about sustainability and inclusiveness the current structure will need stronger anchors that facilitate and support grass root initiatives.

Improved communication between the tourism industry, government and communities is a significant challenge for the industry and peak bodies such as Tourism Industry Aotearoa. There are many businesses that benefit from tourism and, for all intents and purposes, are part of the industry but who are not members of TIA.

This is a major issue for effective tourism governance. How are these “other” voices brought into the picture? Does silence mean agreement? The answer is both yes and no. In some cases such businesses may be free-riding off the efforts of TIA as well as marketing and branding initiatives, but there is clearly a need to find out why businesses do not join TIA or other umbrella groups.

For tourism governance to be effective there must be improved inter-sectoral communication and understanding as well as encouragement for smaller businesses to become involved in industry policy-making and strategy. The greater the involvement, the stronger the industry voice will be, as will be the quality of policy-making in the long-term.

Partial track closures leave million dollar hole – Destination Fiordland

- 25 An article in Tourism Ticker identified issues being faced in Fiordland.

The ongoing partial closures of the Milford and Routeburn tracks has left the Fiordland economy \$1m out of pocket, says Destination Fiordland manager Madeleine Peacock.

Speaking to the *Ticker*, Peacock said there was no sense of urgency on a national level to open the region's natural assets.

Two of its biggest attractions, the Milford and Routeburn tracks, were damaged by a storm in February but were close to fully opening for the summer.

"We're stoked [the tracks] will be open in a couple of weeks, however, they should have been open at the end of October, and during the month of November with those two tracks being out of action, we've lost a million dollars out of our economy," she said.

"And for a region that is looking at experiencing 40% unemployment against a national average of 7.5%, these things really make a difference."

Peacock said while there was a "great goodwill, intent and hard work from our local Department of Conservation, and hats off to them for the work they have done, from a national perspective we perceive there hasn't been a sense of urgency around getting our assets open, or to help our flailing economy and community".

"It's just causing an incredible amount of frustration because we feel so helpless," she said.

Other regions were getting a lot more attention and were better represented than Fiordland.

"Southland as a region is not showing really disparate economic issues, because the rural sector masks some of the effects we are seeing in Fiordland, so it's not being perceived as actually that much of a problem," she said.

"And central government would say that they have invested money into Fiordland by way of funding to get the Homer Tunnel safety upgrade done, the tracks repaired, getting fibre into Milford Sound, and this all great, but when it comes to procurement, there's no guarantee that this money is going to go back into the local economy because the contracts are awarded to out-of-region businesses."

Peacock said there needed to be more emphasis on the relationship between conservation and tourism.

“What’s often lost in conversation is that conservation, particularly in Fiordland, is really reliant on tourism businesses who outside of the normal concession fees that they pay, put an immense amount of investment into conservation,” she said.

“Things like running trap lines to helping develop predator free islands – these things all come at a great cost, and they are only viable when businesses are viable, and at the moment there is so much pressure on businesses that we know conservation will take a hit from that.

“That has to be a good solid relationship and I think there is work to be done in that space.”

The region’s Great Walks – Milford, Routeburn, and Kepler – were full for the peak summer period.

“That will mean an extra 140-odd people every night coming through the town, so we are anticipating a really strong pulse of people through,” she said.

“We are nervous about how we are going to manage that in terms of staff because it’s difficult for businesses who are dead quiet three or four days of the week, and then all of sudden they’re overrun, it’s hard to get the balance.

“The highs are high and the lows are low at the moment.”

Environmental Well-being

- 26 For the purpose of this report we consider environmental well-being to reflect topics related to how the natural environment impacts on how communities align resources and support resource allocation and usage required to live a sustainable life.
- 27 The following is a summary of a selection of recent articles and publications relating to the environmental well-being topic.

Farmers must lead regen ag debate

- 28 New Zealand farmers risk having regenerative agriculture defined for them if they do not take ownership of the debate around its meaning. Alpha Food Labs founder Mike Lee speaking at an NZX-Beef + Lamb NZ webinar says the debate over what regenerative agriculture is must be a producer led movement.
<https://farmersweekly.co.nz/section/agribusiness/view/farmers-must-lead-regen-ag-debate>

New report shows significant changes to New Zealand’s climate

- 29 The Ministry for the Environment and Stats NZ report ‘Our atmosphere and climate 2020’ discusses climate change and its impact on future generations of New Zealanders. The report is attached as attachment C.

<https://hail.to/sewn/publication/wmsgYv5/article/Sr8Sf7Q>

Climate change will shape Jacinda Ardern's legacy

- 30 An opinion piece from Marc Daalder which considers the environmental matters and the impact of climate change on past, current and future issues impacting on our communities.

<https://www.newsroom.co.nz/the-hard-truth-about-climate-changewhat-the-climate-needs-from-jacinda-ardern>

My message to Jacinda

- 31 An adaptation of a three minute presentation by Dr Mike Joy at an event where he and others were invited to give government leaders, including Prime Minister Jacinda Ardern, and 'elevator pitch' on how they should spend Covid-19 recovery money.

<https://www.newsroom.co.nz/ideasroom/mike-joy-my-message-to-jacinda>

Ardern's plan is not the urgent strategy we need

- 32 An opinion piece from Rod Oram looking at the government's plans dealing with short term objectives to support a prosperous and sustainable future.

https://www.newsroom.co.nz/rod-oram-arderns-plan-is-not-a-strategy?utm_source=Friends+of+the+Newsroom&utm_campaign=5d50e93351-Daily+Briefing+9.11.20&utm_medium=email&utm_term=0_71de5c4b35-5d50e93351-97842367

Enough is enough: why Ngai Tahu is suing the Crown over its waterways

- 33 In a legal first, Ngai Tahu has lodged a statement of claim in the High Court seeking recognition of its rangatiratanga over its awa and moana, to address the ongoing degradation caused by environmental mismanagement. Chair of Te Runanga o Ngai Tahu, Lisa Tumahai, provides an insight into the rationale for the statement of claim.

https://thespinoff.co.nz/atea/04-11-2020/enough-is-enough-why-ngai-tahu-is-suing-the-crown-over-its-waterways/?fbclid=IwAR3JcQSJlBfqZ_ynVkYaxRVDndUhM1O7IQvD_9EKNgnHxj7dLRKh8Ipe21U

https://nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12378528

Cultural Well-being

- 34 For the purpose of this report we consider cultural well-being to reflect topics related to how people live and work together and includes cultural and community identity, traditions and customs and common values and interests.

- 35 The following is a summary of a selection of recent articles and publications relating to the cultural well-being topic.

Net migration is at six month high

- 36 Berl provides an insight into the net migration figures and associated implications.

<https://berl.co.nz/economic-insights/exports-and-tourism-migration-and-population/net-migration-six-month-high>

Up to half a million Kiwi expats could return home in next few years to escape Covid-19

- 37 A new survey by expat Kiwi network Kea shows 250,000 Kiwis plan on returning home within the next two years, while a further 250,000 could follow in the years after.
- 38 While returning Kiwis could potentially place further pressure on infrastructure and the housing market, around 20% are planning to invest in business and a higher than normal percentage are looking to return to regional New Zealand.
- <https://www.tvnz.co.nz/one-news/new-zealand/up-half-million-kiwi-expats-could-return-home-in-next-few-years-escape-covid-19-survey?fbclid=IwAR1hFVnrg64fplOdPoUpsePTeiTCorRkDZNGpEWRCEYYETbUIKwHjhHmUwU>

Navigating identity as an urban Maori

- 39 Rachel Peters provides a commentary on the challenges of growing up without te reo and all that it brings.
- <https://www.newsroom.co.nz/navigating-identity-as-an-urban-maori>

National/Regional Happenings

- 40 This section aims to provide information recently highlighted relating to an area/region elsewhere in New Zealand or a topic or initiative of national interest.
- 41 The first area of focus is looking at the latest information available from the Ministry of Business, Innovation and Employment Provincial Development Unit detailing funding from the Provincial Growth Fund. The Southland/Murihiku Provincial Growth Fund Dashboard is attached as attachment D to this report.
- 42 The overall details of all funding announcements is available at the link
<https://www.growregions.govt.nz/media-centre/funded-projects/>
- 43 The second area of focus is related to considering the impacts of Covid-19 and how the pandemic may have changed New Zealand forever and also another more global view of ten trends to watch for in the coming year – 2021.
- <https://thespinoff.co.nz/society/vodafone/20-10-2020/covid-19-has-changed-new-zealand-forever-the-experts-explain-how/>
- https://www.economist.com/the-world-ahead/2020/11/16/ten-trends-to-watch-in-the-coming-year?utm_campaign=the-economist-today&utm_medium=newsletter&utm_source=salesforce-marketing-cloud&utm_term=2020-11-17&utm_content=article-link-1&etear=nl_today_1

Recommendation

That the Community and Strategy Committee:

- a) **Receives the report titled “Community Well-beings and Strategic Issues Overview - November 2020” dated 2 December 2020.**

Attachments

- A Local-Government-and-Public-Health-Natural-Partners-in-a-Covid-19-world-V3 - Copy [↓](#)
- B Enhancing-Democratic-Well-being-Feedback-on-Reinvigorating-Local-Democracy-1 [↓](#)

- C our-atmosphere-and-climate-2020-report [↓](#)
- D pgf-dashboard-southland [↓](#)

Local Government and Public Health: Natural Partners in a COVID-19 World

Background prepared by: Peter McKinlay, Director, Local Government Think Tank

Introduction

The economist Shamubeel Eaqub, reflecting on the impact of COVID-19, recently observed “the future will not have the kind of neat organised consensus that shaped recent decades (albeit with many tensions, including the Cold War era). Instead, we are living through regime change.”

In doing so he was endorsing what is almost becoming a consensus about the impact of COVID-19. There is no return to business as normal. Instead every society will be faced with building a new normal to cope with dramatically changing circumstances including, among other things, serious on-going restrictions on exchange between nations and, internally, greatly increased inequality.

Inequality and the Global Response

Globally, this has seen a much stronger focus on how to enable empowered communities. There is almost a consensus that a necessary element in mitigating the impact on inequality is community empowerment, and the involvement of communities in decisions which affect their place:

- From the *UCLG Manifesto on Open Government* “There is a clear lack of trust of communities in the institutions that represent them, and governing systems are being challenged. The local and territorial level is critical to rethink, and to reshape the governance systems into more participatory, accountable and transparent ones.” (United Cities and Local Governments is the largest organisation of local and regional governments in the world.)
- From the Carnegie UK Trust’s publication *Revisiting the Route Map to an Enabling State* “not everyone who wishes to play a more active role in improving their own or their community’s well-being has an equal opportunity to do so. One key role of the enabling state is to level the playing field, but it should do so by supporting community capacity to self-organise, not by replacing community efforts with more professional services.” (The Carnegie UK Trust is the pre-eminent non-governmental researcher and practitioner of well-being internationally.)
- From the *Interim Report of the IPPR¹ Environmental Justice Commission* “The Environmental Justice Commission’s approach will ensure the transition is owned and driven by communities: people must be at the heart of the economic transformation, which must be shaped by those most affected.”

New Zealand

It is expected that COVID-19 will impact most seriously on inequality in areas such as health and disability unless there is a strong commitment to being creative in finding new ways for providers and communities to work and collaborate together. The need for a new and different approach was signalled, before the outbreak of COVID-19, by the Simpson review of the Health and Disability System

¹ The Institute for Public Policy Research is one of the U.K.’s more highly regarded think tanks. The Environmental Justice Commission is leading IPPR’s substantial work program on transition to a carbon neutral economy with a work programme which combines IPPR’s policy making expertise with deliberative democracy processes and working with communities.

which makes the case for a shift to a community-led health and disability system. From a local government perspective, this is an open invitation to reassert local government's central role in working with communities.

Putting community-led in a current New Zealand context

Put the Simpson review into context: Seen in isolation, the emphasis on a community-led system looks out of kilter with New Zealand's long-standing practice of top down government with communities, however defined, having little or no involvement in shaping the direction of major policy initiatives which affect them. Taken out of isolation, the emphasis on a community-led system, even before the pandemic struck, is entirely consistent with changing understandings of the place of communities in governance, and the importance of enabling empowered communities both in jurisdictions such as the UK and the US where the emphasis on working with communities was already quite strong, and increasingly in New Zealand as can be seen for example in:

- Local Government New Zealand adopting Localism as the strategic direction for the local government sector, arguing that instead of government making decisions for communities it is time to empower councils and communities.
- The Government's adoption of well-being as the primary purpose of public policy. Currently, well-being policy is being implemented through a top-down approach with little or no endeavour to engage councils or communities. An international comparison of well-being practice makes it very clear that an effective well-being strategy requires working in partnership with communities (for example, look to practice in Wales since the enactment of the Well-being of Future Generations (Wales) Act, and to Scotland through community planning partnerships). Whether it knows it or not, central government has set out down a path which leads naturally and inevitably to a partnership approach in working with communities, facilitated by local government, as long as central government remains attached to an objective of improving well-being.
- The emphasis in the public sector reforms on a more joined up and collaborative approach to service delivery is expected to underpin closer working between the public sector and communities, as stated in this extract from a State Services Commission fact sheet "Public servants will be further supported and empowered to respond to what they see in their communities".
- The growing assertion by Mana Whenua of their rights under Te Tiriti o Waitangi which is driving government towards, at the very least, a co-governance approach in the design, targeting and delivery of policies whose intended beneficiaries are Māori. It is difficult to see how a co-governance approach with Māori communities and (and even more how a self-governance approach) could co-exist with a top-down, "Wellington knows best" approach with non-Māori communities.

Some international examples

As with shifts in New Zealand in recognition of the place of communities, a number of trends in empowerment were already emerging elsewhere prior to COVID-19. In England, a number of leading think tanks working in the areas of local government and inequality were already arguing the case for a stronger community voice. The Commission on the Future of Localism, established by the think tank Locality, and chaired by a former head of the home civil service, had argued for a radical transfer of

power from Whitehall, past councils to communities, stating the issue as: “Localism must be about giving voice, choice and control to communities who are seldom heard by our political and economic institutions. Localism should enable local solutions through partnership and collaboration around place, and provide the conditions for social action to thrive. Localism is about more than local governance structures or decentralising decision-making. It is about the connections and feelings of belonging that unite people within their communities. It is about how people perceive their own power and ability to make change in their local area alongside their neighbours.”

In a later report, *Power Partnerships: Learning on Localism with Four Local Authorities*, Locality successfully stress tested four principles for localism:



The Carnegie UK Trust has adopted democratic outcomes as one of the four well-being domains it uses in its work. Its reasoning? That from all of the work it has done, the ability for communities to have voice, choice and control over what happens in their place is an important ingredient in improving community well-being.

In recent decades the US has seen a proliferation of different approaches to community involvement. One approach is the establishment of place-based community bodies able to represent the interests of their place to the local authority and agree on local initiatives. The best known of these is Portland Oregon's network of 94 self-identifying residents' associations (see <https://www.portlandoregon.gov/civic/28380>). For more information see Wikipedia's entries for neighbourhood associations and residents' associations.

Other initiatives result from the activities of nationwide NGO's committed to building local democracy. Two of the better-known examples are the democracy collaborative (<https://democracycollaborative.org/>), and participatorybudgeting.org (<https://www.participatorybudgeting.org/>). The democracy collaborative describes itself as turning “ideas of systemic design and community wealth into visions and models that demonstrate new principles of a democratic economy...” One of its best-known initiatives is leveraging anchor institutions, creating a national movement of anchor institutions

working together to build community wealth. It has been a key enabler of major anchor institution initiatives such as Cleveland's greater Cleveland University Circle.

Participatorybudgeting.org is the leading NGO promoter of participatory budgeting globally. Participatory budgeting is now becoming recognised as the single most significant and effective tool for building community engagement and community decision-making. This 10-minute TED talk provides a very good overview: <https://www.participatorybudgeting.org/ted/>.

Public Health and communities

One of the most significant pieces of research on public health undertaken in recent years was commissioned by the Secretary of State for Health as an independent review to be chaired by Prof Sir Michael Marmot². The purpose of the review was "to propose the most effective evidence-based strategies for reducing health inequalities in England from 2010." The resultant report, *Fair Society, Healthy Lives*, more commonly known as the Marmot report, is credited as being responsible for what is now the widespread recognition that some 80 per cent of the determinants of health are place-based. Addressing these social determinants of health requires action by institutions and others who influence the conditions in a place, rather than action through the health system itself. Emphasising this, the key messages from the Marmot review included the statements about the importance of local delivery systems and empowerment:

- National policies will not work without effective local delivery systems focused on health equity in all policies.
- Effective local delivery requires effective participatory decision-making at a local level. This can only happen by empowering individuals and local communities.

This view has been echoed in New Zealand in "Public health, ethics, and the Aotearoa New Zealand context", prepared by the Public Health Association of New Zealand which amongst its principles includes making sure public health actions:

- Provide opportunity for community input;
- Give everyone the same access to opportunities to enjoy a healthy life; and
- Empower communities that do not have the same access to resources, to make decisions to live long, healthy lives.

Local Government and Public Health: The Partnership Opportunity

Background: health and disability

Working closely with communities has not traditionally been part of the core focus of either local government or the health and disability system (although there have always been elements of this, especially with the work of a number of NGO's). For the health and disability system this has very much reflected the top-down approach typical of central government entities and, in more recent years, the reality that DHB's, rather than being impartial purchasers of services to achieve the optimal

² Sir Michael had previously chaired the World Health Organisation's review of the Social Determinants of Health

mix of outcomes for the communities they serve, have tended to default to being primarily hospital managers³.

Background: local government

For local government, the two decades since the enactment of the Local Government Act 2002 have seen quite major variations in central government's expressed understanding of the role of local government, variations which have had a major impact on how many of the people involved with councils themselves see the role of local government.

The Act has been consistent through this period in stating the first purpose of local government as enabling local democratic decision-making by and on behalf of communities, but the main emphasis on councils' understanding of the role has been the way the second purpose has swung back and forth. In 2002 it was promoting community well-being. In 2012 the then National-led government removed that purpose and replaced it with the provision of "good quality local infrastructure, public services and regulatory functions at the least possible cost to households and business".

Councils were in effect to be local infrastructure companies with some associated regulatory and arts, culture and recreational activity. The discussion paper, which the then Minister, had released made it clear this was not just intended to strengthen the focus on basic infrastructure and related services, but was also a strong signal from the government for local government to downplay any emphasis on the promotion of community well-being.

In 2019 the pendulum swung again: the Labour-led government amended the Act to restore the purpose of promoting community well-being and remove the purpose of providing infrastructure and related services (that remained of course a function of local government, but no longer a primary purpose).

Changing attitudes: health and disability

This paper takes the very clear statements in the Simpson Review about the place of community as indicative of changing understandings within the health and disability system of how best to ensure that the needs of New Zealand's many and diverse communities are best met within available resources.

In a section entitled "communities and their need to drive the system" the Review considers three changes are required for a responsive system:

- Give communities a real say in the system;
- Get people and communities better involved; and
- Partner with other sectors to respond to the economic, environmental and social impacts on health.

³ Recent media discussion of the situation of Public Health Units suggests that another factor explaining the lack of working with communities may have been persistent underfunding, meaning that Public Health Unit simply lacked the required resources to work in that way.



The stated rationale includes “International evidence shows that when health systems are open and transparent, and give a real say to communities, they achieve better population health outcomes and make more progress towards health equity.”

This is a population health rationale focused on how best to ensure that needs are identified and adequately addressed. There are at least three other rationales for giving a *real say* to communities which would add very real value to the public health endeavour. These are:

1. Enhancing community understanding: Discussion with and within communities can raise public understanding of what works and what does not, build public support for public health initiatives and increase awareness of the challenges of managing with an imbalance between exponential demand and limited resources.
2. Providing an actual advocate for changing the way in which councils influence social determinants of health: Councils as place makers have a major impact on the social determinants of health. Building community understanding has the potential to enable communities to act as more effective advocates for initiatives which will promote better and more equitable health outcomes (such as equitable access to recreational facilities).
3. Building a potential co-production resource: There is growing evidence communities, treated as partners in determining how best to meet health and disability needs, can themselves become both solution developers, and implementors through a co-production approach (a well-known example is communities in Wiltshire responding to the needs of partners caring for people with dementia by establishing dementia cafés).

Changing attitudes: local government

The views of the Simpson Review on giving communities a *real say*, and for that matter the key messages from the original Marmot Review, speak directly to the widely recognised role of councils as place makers for their districts and, within that role, enablers of communities of place or of interest as partners in a co-governance, co-decision-making approach to place making.

Local Government New Zealand (LGNZ) as the sector leader, has been moving to put a much stronger emphasis on councils working with communities. Concerned at the relative lack of influence of councils within their communities, in 2018 LGNZ began its Localism project with the rationale: “Instead of relying on central government to decide what is good for our communities it is time to empower councils and communities themselves to make such decisions. Strengthening self-government at the local level means putting people back in charge of politics and reinvigorating our democracy. We are calling for an active programme of devolution and decentralisation.”

Two years on, LGNZ released the findings from its extensive consultation on the Localism proposal. Major feedback included this statement: “That local outcomes are improved, and democratic well-being enhanced, when local government undertakes meaningful engagement with its communities, invests in local and neighbourhood governance and works with communities to co-produce and co-design local services.”

A Partnership Opportunity?

The logic looks strong. The reality may be less so, because such an approach involves new ways of working. A more optimistic interpretation would accept that change is virtually inevitable, and a partnership approach may well prove to be a very effective means of taking control of the change process.

Neither the health and disability system nor local government in the sense of individual councils has either great experience, or a committed culture, of seeking to work in partnership with communities. In each case, experience of practice over the years suggests a relative unwillingness to move towards a community engagement/co-decision-making approach.

There is a variety of reasons for this, most of which have to do with a lack of understanding both of what would be involved in practice, and of the benefits both for communities and the organisations which serve them.

For the moment, there is the added complication that both the health and disability system, and the local government sector, are under very considerable pressure.

Both are still dealing with the impact of COVID-19; both are labouring under significant resource constraints; both face uncertain futures in the sense of major system change. For the health and disability system, this is what is certain to be major restructuring as the recommendations of the Simpson Review are considered and in all likelihood, for the most part, implemented. For local government it is the impact of a series of major government policy initiatives including the ongoing endeavour to re-structure the management and quite likely ownership of water and wastewater infrastructure, major changes in land use planning and resource management, and a new emphasis on the provision of affordable housing amongst others.

Now to the positives

First, the public health literature is very consistent in arguing the importance of genuine engagement with communities. It is not just the importance of getting good information about the nature of needs and how they vary within and between communities. It is also the realisation that much of what public health interventions are intended to achieve does, amongst other things, require behavioural changes which will only result when people themselves take ownership of the need to change.

Next, there is good evidence that public health interventions can generate not just beneficial health outcomes, but very significant fiscal benefits.

What about local government? An immediate reaction is likely to be; why take on an additional task when many councils are overstretched in dealing with the impacts of COVID-19, as well as a number of major policy demands from central government?

There is a different, and what should be a persuasive argument. Like it or not, it is increasingly clear that communities of place (as well as communities of interest and of course mana whenua) want to have a greater say in decisions which affect them. It is also clear that much of government policy, not just in New Zealand, but internationally, is increasingly focused on working with communities. One reason is the realisation dealing with the so-called “wicked issues” means moving from trying to deliver “solutions” based on a one-size-fits all approach, to developing bespoke interventions matched to the needs and circumstances of individual communities.

Working with communities' means developing both the capability and the capacity to engage in ways which involve co-decision-making and co-governance. This means being present locally, having the trust and confidence of communities, and having the capability to put in place different ways of engagement appropriate to the needs and preferences of different communities.

There are very good arguments from scale, capability and transaction costs which make it clear that working effectively with communities demands both local presence and a sense within communities of local ownership of the entity seeking to engage. All of this points to the role of local government as pivotal.

Recognition of this is one reason why in jurisdictions such as Wales and Scotland, actively implementing well-being policy, both well-being assessment and developing well-being plans or their equivalent (in Scotland the approach is through what are known as community planning partnerships), is undertaken by local government/government collaborations led by local government.

Comparison between the New Zealand approach to well-being policy and practice on the one hand and the Welsh and Scottish approaches on the other, strongly supports an argument that New Zealand, sooner rather than later, will shift more towards the Welsh and Scottish approach of implementing well-being initiatives under the umbrella of local authority led consortia of public agencies.

A partnership between local government and public health is not just a good idea. When examined against experience of what works with communities, it is an essential prerequisite to achieving the community-led health and disability system envisaged by the Simpson Review and embraced by government in its reception of that review. It is also a pointer to the larger question from central governments' perspective, of how best to implement its well-being objectives in a way which genuinely enhances the well-being of individual communities.

Some Practical Considerations

The relative strengths and roles of public health on the one hand and local government on the other, suggests it is local government rather than public health which should take the lead in enabling empowered communities. It fits naturally with local government's place making role as building the soft infrastructure needed to ensure place making, across all of the different interests of communities, reflects the needs and priorities of those communities.

The public health role will be more one of working with local government as a key contributor to the well-being of its communities, determining how best public health can utilise the soft infrastructure of local government enabled empowered communities and doing so under the umbrella of local governments' purpose of promoting community well-being.

From a local government perspective, there are a number of considerations to take into account/recognise. They include that communities are not determined by drawing lines on a map. It is important that people in communities of place genuinely feel a sense of belonging. This helps build the sense of commitment which encourages people to be actively involved. There are different approaches to recognising communities for empowerment purposes but all of them have in common the importance of communities recognising themselves. This is something well-developed in a number of different council initiatives perhaps the best-known of which is Portland Oregon's network of 94 self-identifying residents' associations.

Enabling empowered communities is something very different from the conventional consultation most councils are used to. In contrast with consultation, which is typically a project related expense, enabling empowered communities is an investment in building a valuable capability which the council can draw on again and again. It is about communities as dialogue partners, rather than as respondents to a council proposal. As examples:

- Communities can be a council's eyes and ears on what is happening in the neighbourhood, including being an early warning system on any problems which are best learnt about before dealing with them becomes expensive.
- Strong community relationships build trust and confidence in the council, increasing its social licence to operate. Wiltshire Council through its community engagement strategy⁴ found that respect for the council increased, and communities were often prepared to get actively involved in taking ownership of issues, developing their own solutions, and not always relying on the council to do so.
- Communities are typically more parsimonious about expenditure, so dialogue with communities can provide a very useful approach to fine tuning service delivery standards of ten in ways which result in significant savings.
- Enabling empowered communities increases social capital and reduces social dysfunction.

There are some hurdles to making an empowered communities strategy work. Firstly, communities need some kind of structure both to have dialogue with the council and other entities seeking to work with communities including public health, and to enable dialogue within the community itself. Communities should be able to choose their own structure but, if they are to be recognised by councils and others as dialogue partners, those structures must satisfy some criteria such as open entry, means for ensuring that views expressed are generally representative and not just a variant on "usual suspects" and at least some administrative capability.

Next, councils which are successful in working with communities will provide some financial and other support (capability building, governance training etc). Typically, communities will have available access to people who are specialists in supporting community groups⁵ to help sustain their viability over time.

Perhaps most importantly for councils themselves, the strategy of enabling empowered communities will be integral to councils being accepted by central government as an essential partner in promoting community well-being, especially if central government adopts more of a Welsh/Scottish approach to well-being policy and practice.

⁴ See the article *Local by Default* in the New Zealand local government magazine for more background. It is available at: <https://localgovernmentmag.co.nz/local-by-default/>

⁵ Interestingly a very similar point is made in a recent article, *Resources, relationships, and systems thinking should inform the way community health promotion is funded* in the Australian Journal, Critical Public Health, whose authors state "A clear conclusion from our reflections to date is that funders would be wise to provide salaries for constant 'on-the-ground' workers whose job it is to connect agencies, build relationships, identify assets, and align and coordinate activity. That is, someone whose job it is to attend to the building and management of soft infrastructure and the coaching and reporting on system change."

Finally, it is important to be able to ask the question, why would people want to be involved? Over recent years a number of different initiatives have been developed which have proved effective at getting people engaged, and building community capability. They include:

- Participatory budgeting which for the moment is regarded as the most effective tool for encouraging people to come together as communities. In Scotland, the Scottish government and the Convention of Scottish Local Authorities have adopted policy that at least 1 per cent of the budget, each council should be allocated through participatory budgeting with the specific purpose of promoting community engagement.
- Social procurement/anchor institutions/community wealth building. This goes well beyond social procurement as currently understood in New Zealand, bringing together leading local institutions in a common endeavour to build strong local economies in ways which counter increasing inequality (Preston City Council is the UK exemplar).
- Civic crowdfunding: The mayor of London has allocated £1 million year for grants to support community initiatives which are primarily funded through crowdfunding. Crowdfund London works with Spacehive.com, an NGO specialising in civic crowdfunding, as its specialist provider of crowdfunding services. The mayor's office has made it very clear to Spacehive.com that the outcome expected is not just a successful crowdfunding project, but the development of community capability which will endure over time.
- Delegation/empowerment of communities as decision-makers on matters which primarily affect their place. The best-known example is Wiltshire's area boards. Legally they are council subcommittees made up of the ward councillors for the area but in practice taking decisions through a modern variation of town hall decision-making.

Next Steps

First, some further work substantiating the rationale for a partnership approach.

Incentives for the two potential partners differ. Local government, as the sector pivots to more of an emphasis on working with communities, has a natural incentive to roll out enabling empowered communities across the entire sector. This is strengthened to the extent that central government understands and acts on the importance of shifting more towards the Welsh/Scottish approach to implementing well-being. Moving relatively quickly to a focus on empowered communities will strengthen local government's claim to be central government's natural partner in promoting community well-being.

Public health literature and research is very clear on the importance of working closely with communities especially in addressing the social determinants of health. From a public health perspective though, the need is not so much one of actually enabling empowered communities, as one of being able to work with empowered communities. This will give public health practitioners an interest in process, including how public health can interact with local government, and with individuals directly involved on behalf of or with local government in supporting empowered communities. Currently, there are 12 public health units whose coverage more or less matches the regions of local government. It is likely that different public health units (or whatever may play their current role within the reformed health and disability system) will have different priorities in terms of when and how and on what issues they wish to work with communities. This may point to establishing some form of regional

collaboration, an approach which could also bring other stakeholders such as iwi/hapu and philanthropic trusts.

In summary:

- Local government has the principal interest in enabling empowered communities, especially in establishing its credibility with central government as a partner in advancing well-being.
- Public health's interest lies more in understanding the nature of empowered communities, and building relationships with local government at a national, regional and local level to facilitate partnering with communities.
- Taken together the two have a common interest in encouraging central government both to facilitate/encourage enabling empowered communities, and to move well-being practice more in line with the Welsh/Scottish approach.

In parallel with further work on establishing the rationale for a partnership approach the following are suggested as part of next steps:

- Local Government New Zealand, on behalf of the sector, developing a guide to enabling empowered communities which will include linkages to practical experience of different initiatives, including practitioners/think tanks and others who could provide assistance. (Experience suggests that offshore think tanks and practitioners are very generous with their support).
- Local Government New Zealand building the case for well-being policy pivoting more towards the Welsh/Scottish approach, ideally with the support of public health in terms of the importance of being able to work directly with communities.
- Local Government New Zealand exploring options for putting in place the requisite capability to support the enablement and ongoing functioning of empowered communities.

Enhancing democratic well-being: The findings from public feedback on LGNZ's Discussion Paper "Reinvigorating Local Democracy"

September 2020



**We are.
LGNZ.**
Te Kāhui Kaunihera o Aotearoa.

LocalismNZ
Where
locals decide

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Introduction

In July 2018, LGNZ published a Position Paper calling for a shift in the way public decisions are made and a commitment from central government to adopt an active programme of devolution and decentralisation. It argued that:

"Instead of relying on central government to decide what is good for our communities it is time to empower councils and communities themselves to make such decisions. Strengthening self-government at the local level means putting people back in charge of politics and reinvigorating our democracy. We are calling for an active programme of devolution and decentralisation" (Position Statement on Localism, LGNZ July 2018)

The Position Paper was the first step in the development of a strategy and action plan for strengthening local and community governance. In the months that followed LGNZ established an inter-sectoral working party to prepare a case of localism, held a localism symposium that attracted approximately 150 participants, and published a Discussion Paper seeking public input. That Discussion Paper, "Reinvigorating local democracy: the case for localising power and decision-making to councils and communities", was released at LGNZ's annual conference in Wellington, July 2019.

In response to New Zealand's extremely high level of fiscal centralisation, the Discussion Paper called for a rebalancing of the roles of central and local government, arguing that the benefits to New Zealand included:

- More effective and efficient public services;
- More public sector innovation;
- Less public sector silos through stronger place-based governance;
- A more active citizenry and stronger democracy;
- Strengthened community resilience; and
- Stronger economy and regions.

Approximately 40 written submissions were received; with submitters ranging from individuals to national organisations, including councils and local boards. This paper summarises the main points made by submitters with regard to challenges and opportunities, and sets out key findings for consideration.

The Report's findings recognise the importance of inclusive community-based governance, noting that this is particularly urgent given New Zealand's increasing diversity. The Report also acknowledges the special role that Te Tiriti ō Waitangi plays as a framework for relationships, both locally and nationally.

This Report was prepared to assist LGNZ, councils and others, to think strategically about potential governance arrangements able to balance strong and effective governance at the centre with strong and effective governance of localities and regions. Only by doing so will a better balance in the way in which communities and the nation are governed, be achieved.

Redistributing power does not happen overnight, it happens in small iterative steps and only with the active support of the citizens of Aotearoa New Zealand.

Local Government New Zealand

September 2020

What submitters told us about localism

Feedback on the Discussion Paper covered a wide range of issues; however, some themes did emerge. The major ones included:

- That local outcomes are improved, and democratic well-being enhanced, when local government undertakes meaningful engagement with its communities, invests in local and neighbourhood governance and works with communities to co-produce and co-design local services;
- That councils which are strongly engaged with their communities are well-positioned to work with government agencies to ensure that public services provided in their rohe not only address local priorities but are delivered in a manner that is culturally appropriate;
- That some form of “regional/city deal” could be considered where a case can be made for transferring delivery of a public service to a specific council(s) to improve local outcomes where the cost is the same, or less, than incurred by the relevant department;
- That new opportunities to give effect to the partnership implicit in Te Tiriti ō Waitangi open up through the transfer of roles and responsibilities to councils and communities; in particular opportunities for co-governance and co-production with Iwi/Māori;
- That the role of sub-national government must to be strengthened and councils provided with more diverse funding sources if New Zealand is to sustainably address regional inequality and incentivise investment in future prosperity;
- That any transfer of roles and responsibilities must be contingent on councils being able to show not only that councils have the capability to undertake both its transferred and existing services, but that accountability and transparency systems must enable citizens to assess the well-being impact of any such transfers; and
- That any proposals to strengthen councils’ role in the promotion of well-being, such as decentralisation or community planning, must require evidence of authentic engagement between councils and their communities. Such engagement could take the form of devolving decision-making to local neighbourhoods and community boards as well as techniques like participatory budgeting.

< Redistributing power does not happen overnight, it happens in small iterative steps and only with the active support of the citizens of Aotearoa New Zealand. >



Short recap

LGNZ's Discussion Paper, "Reinvigorating local democracy: the case for localising power and decision-making to councils and communities", was published to stimulate discussion on the case for re-distributing public power and decision-making.

It argued that, regardless of a country's natural advantages, the way in which countries are governed has a big influence on whether or not their citizens enjoy good outcomes. It further argued that New Zealand's model of public governance inhibits community well-being by the fact that too many public decisions are made without the involvement of the communities affected by those decisions. New Zealand's highly centralised model of government prevents the country and its communities from achieving their potential – we need a new focus on "democratic well-being".

< (Disempowerment) gives rise to populism, namely that government serves only the elite that constitutes it and is too remote and uncaring about problems at the grassroots. (A C Grayling 2017) >

Although not arguing causality, the Discussion Paper made the point that fiscally decentralised countries tend to be wealthier, have higher voter turnout, a higher trust in government and participate more in community organisations than those that are fiscally centralised. The paper advanced the principle of subsidiarity and sought views on whether or not New Zealand should embrace a programme of decentralisation.

The case for localism involves the principle that power and authority should flow up from citizens and self-defined communities rather than down from central government. The argument is consistent with the principle of subsidiarity, which states that public services should be the responsibility of the level of government that is the closest to communities, to the degree, given the nature of the service, that this is feasible. The principle aligns strongly with Māori kaupapa, where power and authority increases the lower you go within the governing structures, from iwi, to hapū to whanau. Concepts like Tino Rangatiratanga and Mana Motuhake reinforce the importance of place within Māori society.

< As a council we know that the one-size-fits-all approach simply does not work. Often it fails those communities with the least voice and representation in the political system. (Whakatāne District Council) >

At its core, localism is about empowering communities to have agency. This involves having influence on the policies and programmes affecting their daily lives. One aspect of this, highlighted by LGNZ's Discussion Paper, involves the need to ensure public services are informed by, and responsive to, community needs and priorities. Suggestions for achieving this were set out in the Discussion Paper and included:

- Adopting a framework to enable departments to negotiate "city or regional deals" with councils involving the local transfer of services and associated funding where it can be shown that the transfer will result in better outcomes for citizens and communities (at no additional cost);
- Promoting the implementation of "place-based" approaches to local governance and decision-making that bring together councils, relevant government agencies, iwi/Māori and local organisations, such as those representing business, neighbourhoods and identified communities;
- Amending the existing legislative framework to reduce barriers limiting the responsiveness of councils to community needs and preferences. Suggestions included additional policy and funding powers in order to meet those needs and preferences; and
- Adopting new and innovative mechanisms for bringing councils closer to their citizens, including participatory decision-making approaches and stronger neighbourhood governance arrangements. For example, more effective community boards and other models to strengthen community voices within councils.

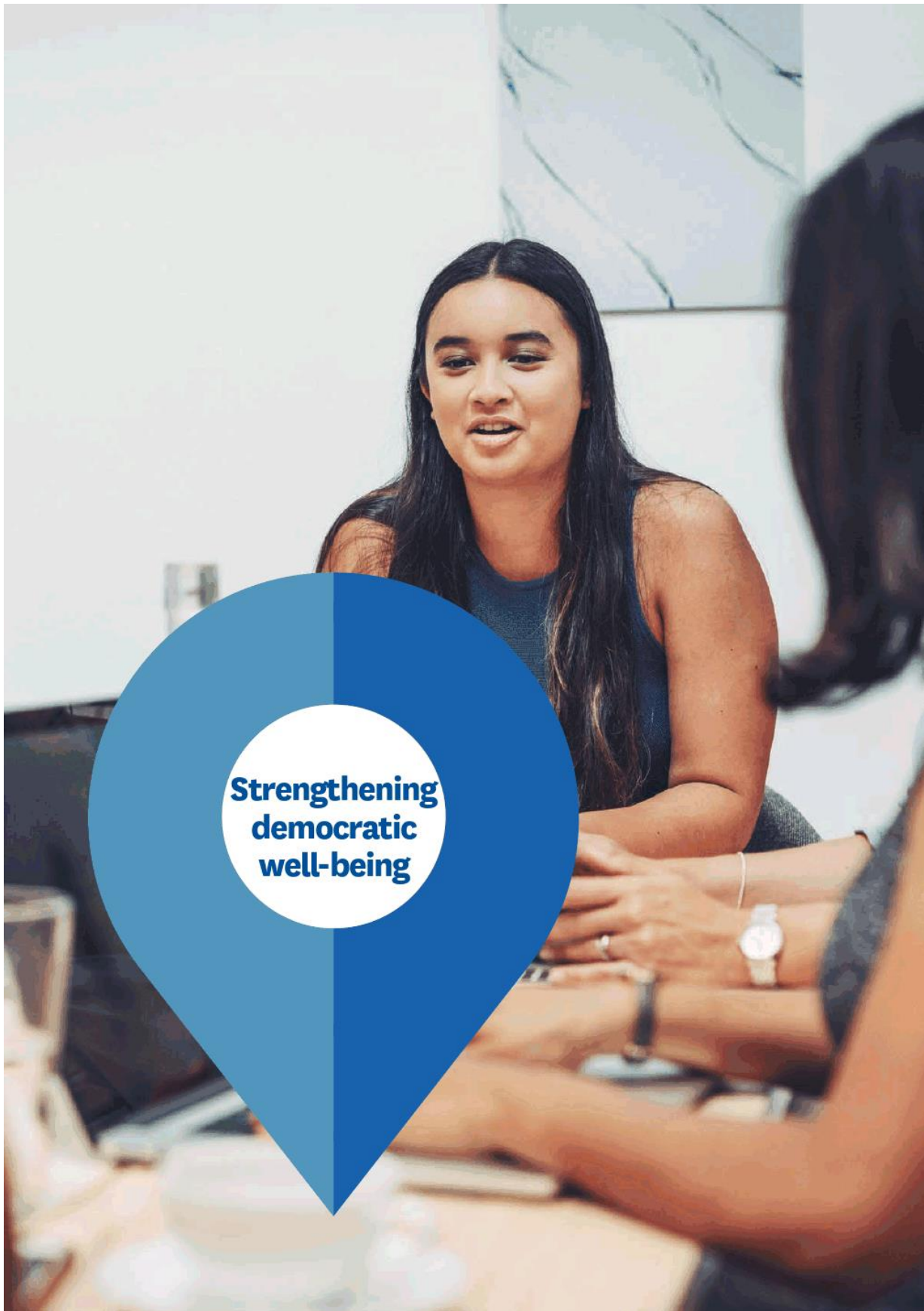
Despite the emphasis the Discussion Paper placed on strengthening community empowerment and the value of greater devolution and decentralisation, LGNZ is not seeking to undermine the role of central government.

As New Zealand's response to the COVID-19 pandemic shows, we need a strong and competent central government to properly address matters of national importance, whether climate change, pandemics or macroeconomic policy. Yet for local or regional matters, where needs and preferences of communities vary, uniform solutions are often ineffective and inefficient. As we stated in the Discussion Paper, the age of mass production, where you can have any coloured Model T Ford as long as it is black, is well past. In today's fast moving world governments need to be nimble, responsive to change and innovative. To achieve this we need to invest in community democratic well-being.

The underlying premise of Reinvigorating Local Democracy was that instead of relying on central government to decide what is good for individual communities, it is time to provide those communities with more opportunities than they currently have to be more involved in those decisions – directly or with their elected representatives.

This means strengthening local self-governance, putting people back in charge of politics, and reinvigorating democratic well-being.

< Localism in and of itself is synonymous to Te Ao Māori, both in the traditional and contemporary sense. The living Māori world actively engages with its environment, is contextual, seeks to restore and maintain balance and is holistic in its approach when addressing challenges. (Hāpai Te Hauora) >



Strengthening democratic well-being

New Zealand's response to the challenges created by COVID-19 highlighted the value of decisive action at the national level aligned with responsive local and regional collaboration.

The same is true for other challenges facing New Zealand, such as poverty, inequality and climate change. The country's success will ultimately depend on the ability of our governing arrangements to draw on the knowledge and competence of the citizens of New Zealand and the multiplicity of organisations, whether iwi/hapu, business firms or not-for-profit, that constitute civic society. Unfortunately, the degree to which power and authority is concentrated in central government makes this virtually impossible. To significantly improve the well-being of communities we need to actively redistribute power and authority so that localities and regions are more able to shape their respective futures.

< We need a 'people-centred sharing of power'; a culture of trust inside and outside government; distributed leadership; thoughtful experimentation and mainstreaming the SDGs. (The NZ Federation of Business & Professional Women) >

The existing concentration of power in central government encourages "one-size-fits-all" thinking, making it more difficult for the expression of diverse views and adoption of nuanced policy responses. What is needed are governance structures that enable new policies and programmes to emerge through co-creation processes involving all spheres of government, iwi/Māori and citizens, either as individuals or through mediating organisations – drawing on the knowledge and expertise of New Zealand's communities. This means shifting decision-making responsibilities, where relevant, to sub-national institutions, whether regional, local or sub-local.

This is not an over-night process. The following findings set out a pathway for creating the opportunities through which New Zealanders can better shape their communities while also recognising the important role that the state plays, and needs to continue to play, in the future, as most graphically illustrated by its response to the COVID-19 pandemic.

1. Strengthening community and place-based governance

New Zealand's increasing diversity calls for a new response to making policy and delivering services, a response that recognises the degree to which well-being can vary by community. Under current settings, policies and programmes designed to achieve a specific level of national well-being risks over-looking the well-being needs of many of our communities. In response to this issue there has been a growing interest in public decision-making models that build on the knowledge and insights of local people; decision-making models that are also co-designed with local people.

Governments are often criticised for their propensity to provide "one size fits all" policies and programmes. It is criticism that may be unfair, as some issues require a consistent policy response; however implementation should be tailored to local circumstances. Differentiating policy responses so that they take into account the varying needs and preferences of local communities requires a different way of working, one that is place-based, integrated and often facilitative.

Rather than thinking narrowly of the role of government, whether national or local, effective policy needs a governance approach, bringing together the multiple agencies working at the grass roots. Taking a governance approach is likely to be result in more effective services, given access to local knowledge held by community players, such as local councils, iwi/Māori organisations and others. This is an approach that addresses a question which all governments face, how to ensure public services are provided at the right level, and that there is not under or over-provision of services. Getting this right is what we call allocative efficiency, which occurs when the allocation of public resources match levels of need.

One of local government's unique strengths is its place-based democratic mandate and the legitimacy this mandate confers on councils' community leadership role. This legitimacy means that councils are well-positioned to implement a community governance approach and facilitate inter-agency dialogue about well-being priorities and how they will be achieved. However we are not there yet, changes required to increase place-based collaboration include:

- Adopting the principle of subsidiarity when determining where public decisions are made. Unless there are good reasons otherwise the default position should be to place responsibility for decision-making with the sphere of government as close to communities as practicably possible (given the nature of the decisions) or directly with communities and/or iwi/Māori;
- Promoting central government recognition of the value of local well-being plans, or community plans, prepared by councils in partnership with their communities. Such plans can help ministries and departments to assess the degree to which their programmes are addressing local needs and priorities;
- Establishing local governance institutions to facilitate coordinated responses to local problems. For example, the regular participation of government officials, such as the Police, at council committee meetings to share information, or the creation of forums to enable local coordination in specific policy arenas, such as the creation of safer community councils in the early 1990s; and
- Strengthening the active engagement of citizens and their organisations by inviting them to be co-designers in the development of local and regional policies, plans and programmes. Increasing participation not only contributes to the effectiveness of policy initiatives by ensuring they are based on local knowledge, but also enhances their legitimacy. A range of mechanisms exists to achieve this, from citizens' forums to participatory budgeting.

< Central government contracts the New Zealand Red Cross to cover refugee resettlement across the country. In Christchurch, the council works with numerous organisations involved in refugee support and believes there is an opportunity for it to take the lead with an umbrella model that better utilizes the strengths of each organisation. We believe that central government could consider the umbrella approach in similar cases in the future, rather than instituting a centrally managed contract. (Christchurch City Council) >

2. Enabling negotiated devolution

New Zealand needs central government to focus the roles and responsibilities that only it can properly undertake and not be distracted by matters that are best resolved locally. New Zealand's response to Covid 19 highlights the value of effective national government doing what it does best, facilitating a united response. At the sub-national level, however, issues and their solutions vary from place to place and effective policy responses may need to be tailored to local or regional circumstances. There are likely to be benefits from devolving decision-making in some policy arenas to specific localities or regions so that they are more responsive to local circumstances. While there are different approaches to devolution, there is a logic for a nuanced and negotiated approach. Policy should permit, and encourage, central government departments to consider devolving a responsibility to a city, district or region, by agreement where it can be shown that better outcomes will result - a city or regional deal.

< Engagement occurs when the community is and feels part of the overall governance of that community. Local governments have an important role in building stronger communities, and engaging communities is a key means to doing so. (Victoria State Government 2007) >

Asking councils to act as government agents for specific policy areas, such as skills training or pensioner housing, not only results in benefits from the involvement of those affected by the service but also from the ability of councils to facilitate a holistic approach to resolving the problems for which the services have been created. By adopting the framework of a regional or city deal, as found internationally, governments are more able to identify and evaluate whether local areas have the capability and capacity to undertake the responsibility and produce better outcomes. City deals also allow a degree of policy experimentation to take place that may not be possible at a national level, as the effects can be more easily ring-fenced. Where, after evaluation, benefits have resulted from a city

deal, then decentralisation strategies can be extended with much less risk. Because it is a negotiated approach, central government is also better placed to assess whether or not interested councils have the requisite capacity and capability to carry out additional responsibilities. Examples, even though not described as such, already exist and it is now time to actively promote the concept. To enable wider application of negotiated devolution and city/regional deals the necessary changes include:

- Putting in place legislative or regulatory mechanisms whereby government departments, as well as councils and local organisations on request, may initiate a negotiation process with the goal of establishing a city or regional deal;
- Ensuring the active support and endorsement of the Public Service Commission;
- Investing in capability building so that elected and appointed officials have the opportunity to enhance their skills and processes that allow both elected representatives and officials to assess their performance and effectiveness; and
- Requiring that all city/regional deals include an agreement setting out mutual obligations for matters like funding, expected outcomes, collaboration and evaluation. Such agreements would be negotiated upfront, be explicit, and be enforceable through the courts, giving both sides significant assurance in the process.

3. Deepening democracy, empowering communities

Turnout at local authority elections is consistently a matter of public and media comment, often framed as evidence that local democracy is failing due to a lack of interest. Yet voter turnout is influenced by multiple factors, with one of the most important being "salience" or importance. Salience refers to both the range of responsibilities a local government system undertakes and that system's level of autonomy, that is, its discretion to tailor services to meet local needs. While subject to multiple factors, such as council size, representation ratios and voting methods, turnout is positively related to higher levels of salience (level of autonomy and range of responsibilities). The greater the range of functions and autonomy the more influence councils are likely to have on community well-being and consequently the more likely it is that citizens will vote.

Just as importantly, citizens need to believe that their vote counts and that local government will be responsive to their needs and take their views seriously. Achieving this means narrowing the gap

< The alternative (to growing bureaucracy and citizen dis-engagement) is to bring power closer to ordinary people, partly by vesting more of it in local institutions that voters can really influence, but also by engaging citizens themselves more in everything from healthcare to housebuilding. (Parker 2015) >

between governments and their communities and enabling, as far as possible, members of our diverse communities to participate in their local council, as either elected or appointed members. Ensuring that councils give voice to the plurality of interests that exist in communities is vital for the future of our local democracy and the effectiveness of our public services, whether provided by central or local government. Changes required to deepen democracy include:

- Strengthening local representation by reviewing whether or not New Zealand has a sufficient number of elected members, local authorities and sub-municipal bodies to reflect community diversity, respond to community concerns, and enable active citizenship;
- Ensuring that councils' decision-making processes and structures are responsive to citizens' concerns by requiring councils to actively investigate options for devolving responsibilities to community/local boards as well as community-based governance arrangements and iwi/Māori;
- Ensuring that local government's electoral arrangements are fit for purpose and enable citizens from all communities to exercise their democratic rights; and
- Actively promoting a programme of civic education, not only through schools and educational institutions, but also through workplaces and in the public realm generally.

4. Funding decentralised governance/democracy

Strengthening local democracy requires that councils have the means to meet the needs and expectations of their communities in an effective and appropriate way. One of the biggest obstacles councils face, whether meeting expectations, addressing community issues or planning for the future, is how they will pay for services, including infrastructure. As the Productivity Commission (2019) has shown, existing funding sources, primarily property taxes and user charges, are insufficient to meet many of the new and emerging challenges facing councils, particularly challenges caused by climate change and its impact on infrastructure, as well as population and visitor growth (should that continue post Covid19).

In addition to strengthening local resilience and ensuring councils and their communities are can meet future challenges, complementary forms of income are needed to enable councils to invest further in areas necessary to drive sustainable growth, such as additional infrastructure. Changes to enable councils to meet current and future challenges, as well as decentralised services, include:

- Giving councils the ability, where they have community agreement, to introduce a local levy, or charge on exacerbators, should that be necessary to ensure the quality of life of their community. Approval could require a successful referendum;
- Adopting a revenue sharing approach to provide councils with an additional form of income complementary to property taxes. This could be achieved, for example, by providing councils with a share of the GST, whether in the form of weighted general-purpose grants or a percentage of the level of GST spent in an area;
- Requiring that the scope of Regulatory Impact Statements is broadened to include the fiscal impact of proposed regulations and legislation on local government, as well as central government and that councils are funded for the cost of new responsibilities, or at least have access to a new funding source; and
- Ensuring that every five years parliament considers a local regulatory reform bill. The purpose of the regulatory reform bill is to remove unnecessary legislative or regulatory constraints which limit the ability of councils to act in the best interest of their communities, create transaction costs and address new unfunded mandates.

5. Building partnerships with iwi/Māori

Providing local authorities with a greater say about what occurs in their towns, cities and regions provide new and more meaningful opportunities for giving effect to the intent of Te Tiriti o Waitangi, given the diversity of iwi/hapū throughout New Zealand/Aotearoa. Building relationships “on the ground” provides more opportunity to craft those relationships to take into account iwi/hapū priorities and preferences. Changes required to build and strengthen partnerships with iwi/Māori include:

- Providing opportunities for elected and non-elected members to increase their knowledge and understanding of Te Ao Māori and the place of Te Tiriti;
- Encouraging councils to explore options with iwi/hapū for strengthening relationships, such as a memorandum of understanding as well as processes to enable iwi/Māori to express views and preferences in decision-making arenas;
- Removing the option of holding a poll to reverse a council’s decision to establish a Māori ward or constituency from the Local Electoral Act 2001 or, if a poll remains, that it be a poll of Māori voters; and
- Requiring councils to pro-actively consider opportunities for empowering iwi/Māori organisations and options for exercising kāwanatanga over their interests.

< Localism in and of itself is synonymous to Te Ao Māori, both in the traditional and contemporary sense. (Hāpai Te Hauora) >

6. Creating an empowering and responsive legislative framework

Although councils are often described as simply practical mechanisms for providing local services, they are significantly more. As the first form of democratic government they are a critical element of our democracy, they are also a critical element of New Zealand’s constitutional arrangements by providing a democratic check and balance on central government. The lack of any constitutional reference to the existence of local government means that local government can be subject to legislative and regulatory changes that might diminish its democratic role, thus weakening its ability to provide the check and balance on central government and undermining the depth of our democracy itself.

Addressing this situation is difficult in a country without a written constitution or a constitutional court, however some options do exist, such as acknowledging local government and its democratic role in the Constitution Act 1986 and the creation of a Parliamentary Commissioner for Local Government, similar to the Parliamentary Commissioner for the Environment.

As both central and local government are creatures of parliament, it is vital that parliament’s interest in the existence of a system of local government (as opposed to a system of local administration serving the government of the day) is protected. A stand-alone Commissioner who reports to parliament on the issue of local government’s role and status is critical to the future of local democracy. For councils to fulfil parliament’s expectations they need a legislative framework that is fit for purpose, and provides local leaders with the ability to respond to local preferences without undue complexity. Changes required to create a more empowered and responsive framework include:

- Reviewing the core statutes that provide local government with its powers, purpose and accountability to ensure that they are fit for purpose and provide councils with the flexibility to meet community needs and preferences in an effective, efficient and timely manner;
- Amending the LGA 2002 provisions that set out the manner in which councils engage with their communities to strengthen the opportunities for communities to participate in the governance of their own areas;
- Amending the New Zealand Constitution Act 1986 to recognise the existence of local government and, in addition, entrenching the LGA 2002 to recognise its constitutional significance; and
- Establishing a Parliamentary Commissioner for Local Government.



What submitters told us

LGNZ received approximately 40 submissions on its Discussion Paper. Almost all submissions were supportive of the general principle that shifting power and decision-making closer to communities was desirable, although there was considerable variation in how this should occur and to what extent.

Some submitters qualified their support. They identified a number of challenges to overcome before a programme of localism, or decentralisation, is seriously considered. Other submitters identified potential opportunities from shifting power and decision-making to councils and communities, from better social and economic outcomes to democratic well-being.

In order to summarise the feedback received on the Discussion Paper this section is broken into two sub-sections, Challenges and Opportunities.

Challenges to be overcome

The majority of challenges identified by submitters fell within four categories. These are the capacity of councils to undertake further responsibilities; whether or not councils are sufficiently responsive to community views; the need for a commitment by central government; and the question of funding.

1. Do councils have the capacity to undertake more responsibilities?

Roughly a quarter of submitters, while supporting the principle of decentralising authority from central to local government (both local and regional), had concerns about the capacity and capability of their local council to take on further responsibilities. One submitter argued that there should be no serious consideration of localism until councils made a better job of delivering their existing services and "dramatically improving their competence and integrity". Coupled with the capability question some submitters wanted

< Unless and until there is some mechanism for dramatically improving the competence and integrity of local government, giving these organisations greater control is not a great notion. (Tony Greaves) >

to see an improvement in local government's accountability and transparency framework to "ensure additional powers would not be abused".

Submitters also had suggestions for addressing the capacity and capability concerns. Some pointed out that capability can only reflect existing responsibilities and that should those responsibilities increase so would the necessary capability. Specific suggestions to address the capability issue included:

- The adoption of introducing a contracted or negotiated devolution approach. In this approach the transfer of responsibilities would be contingent on the receiving council showing it has the capability to take on any additional service and also that it can achieve better community outcomes than achieved under the existing approach;
- The addition of more effective local government oversight arrangements to improve accountability and financial management.
- Greater recognition of council assessment processes, such as that undertaken by CouncilMark, which provides rankings for capability, accountability and engagement.

2. Will councils be responsive to community needs and preferences?

Based on their own experience, many submitters believed that councils were unresponsive to community concerns and consequently would be unsympathetic to them playing a larger role in the provision of local public services. A number expressed concern that community empowerment would be undermined by "bureaucratisation", which they associated with their local council.

While little detail on why submitters found their councils to be unresponsive to local concerns and priorities was forthcoming, some submitters argued that the unresponsive problem was a direct result of the size of the local authority and/or insufficient elected members to understand and advocate for community issues. These submitters saw democratic representation in local government as weak and, since councils represent multiple communities, there was a risk that some may not be well represented. As one submitter stated:

"My nervousness is caused by the idea that central government devolves more decision-making to local government based on the promise of better community engagement and empowerment. I acknowledge that many councils, including ours, are doing a better job at connecting with their communities, but there is still a long way to go until local government is fundamentally driven by a desire for communities to drive decision-making, at both an officer and councillor level."

A number of this group argued that the unresponsive issue stemmed from earlier amalgamations, in particular the local government reforms of 1989 and 2010. These views highlighted well-known risks with large consolidation, that policy and allocation decisions will dominate the needs and priorities of larger communities at the expense of smaller ones. Some submitters were concerned that the distance between communities and their governing bodies has increased over recent decades, as shown by increasing representation ratios. Since members of the governing body are representing so many constituents, it is difficult for them to give adequate attention to all local needs and preferences. Suggestions for addressing this challenge included:

- Establishing more community and local boards and strengthening their decision-making roles;
- Increase the role of elected members and communities in processes like the development of the Long Term Plan;
- Increase the size of governing bodies to allow for more diversity and representation;
- Making the process to apply for a de-amalgamation easier; and
- Requiring councils to introduce more participatory forms of decision-making, directly involving local citizens in community governance, including participatory budgeting.

3. Can central government be trusted not to change the rules?

While many submitters were sympathetic to localism and the argument that central government should transfer a range of responsibilities to local government, some wanted assurance that,

if this occurred, the government would not "renege" on any such transfers or agreements. As an example, Derek Stubbs noted the way in which successive governments incrementally "grabbed back" decision-making roles once held by school boards of trustees. While the transfer of responsibilities would require the agreement of the majority in parliament, no government can bind its successors and, even within a government, a change of ministers can result in very different priorities. Such changes can be costly to councils that may have invested in new infrastructure to deliver transferred services. They may also destroy the likelihood of decentralisation in the future.

Examples of ministerial and official decision-making that has had negative impacts on councils and communities is cost shifting and unfunded mandates, discussed in some length in the Discussion document. Those submitters who addressed this issue were of one view, a view that was highly critical of central government. Council commentary such as describing unfunded mandates as "damaging the political capital of councils" and "as councillors we are the ones seen to be continually raising rates to give effect to decisions made in Wellington" was not untypical. Possible solutions recommended by submitters were:

- Strengthening Regulatory Impact Statements so that they specify the costs that new legislation imposes on local authorities (currently they only estimate costs faced by central government); and
- Establishing a parliamentary convention whereby a regulatory reform bill is prepared on a regular basis to remove unnecessary regulatory costs experienced by councils.

< Devolution could be a turning point in reversing Northland's growing regional inequality. However, our support is conditional on an end to cost shifting and unfunded mandates. (Northland Regional Council) >

4. Where will the funding come from?

Without surety of funding most submitters saw limited opportunity for localism. The idea of taking on additional responsibilities without additional funding was anathema to those submitters who responded to this issue. These submissions generally argued for additional funding sources to complement property taxes and highlighted the need for equitable funding, including revenue sharing. A number of submitters pointed out that without some form of redistribution, or equalisation programme, poorer communities would be comparatively worse-off under localism as they would be unable to provide the same range or quality of services that better-off communities take for granted. A number of submitters suggested a range of new funding tools, for example:

- A fair share of GST raised in the district from visitor spending;
- Short term accommodation provider charges;
- Benefit uplift charges on property owners;
- Regional fuel taxes and congestion charges;
- More authority to apply exacerbator pays charges, e.g. in response to fuel spills; and
- Government grants to help pay for growth areas (Manawatu District Council).

One submitter made the point that “a more equitable form of tax collection and redistribution must be found before any meaningful progress can be made on localism”. This submitter also made the point that, as it currently stands, councils have zero incentive to support economic development because there is no mechanism for distributing any taxation gains in the regions from which they have been earned. Other solutions included:

- The establishment of a “well-being” fund to which councils could make applications for initiatives that improve well-being – similar in practice to the Provincial Growth Fund;
- Returning to councils the GST charged on rates with a requirement that it be invested in local infrastructure and services;
- The introduction of an equalisation programme; and
- The power, with community agreement, to apply levies to address locally specific issues, such as costs created by visitors.

5. Reducing the complexity of councils’ operating framework

The complex statutory and regulatory regimes under which councils work constrains the ability of many councils to meet the needs and preferences of their communities in a responsive manner. As creatures of statute, local authorities must not only comply with the general law as it applies to all New Zealanders but also a myriad of statutes that prescribe processes and powers, with the result that, in some cases, decision-making is unnecessarily convoluted. In other cases, councils may lack the necessary authority to properly fulfil and implement their responsibilities, as with Local Alcohol Policies. As examples, the Discussion Document highlighted the Public Transport Operating Model, which limits regional council discretion when contracting for public transport services as well as the complex processes required to adopt and amend district plans under the RMA 1991. Other issues raised included:

- Christchurch City Council highlighted their limited authority to enforce bylaws made under the LGA 2002. Although councils expected that regulations would be enacted to allow them to issue infringement fines to enforce such bylaws following passage of the LGA 2002, nearly 20 years on this has not occurred. The result is that enforcement still requires the intervention of the High Court, a system that is time consuming and expensive.

< We would like to identify the opportunity for local governments to inform the central government budget process as part of their Long Term Plan review. This would typically allow local governments the opportunity to inform national priorities and develop our own priorities at the same time, without additional burdensome reporting in the interim periods. This could also align with project timelines and finalised negotiated devolution services. (Christchurch City Council) >

- Some councils commented on their lack of powers to enforce Local Alcohol Policies (LAP). These policies allow communities to determine location and density of outlets to sell alcohol following consultation with communities, however, the grounds on which such policies can be challenged are so broad and the cost of litigation so expensive that community expectations are seldom met.
- One submitter, Alan Lodge, argued that providing mechanisms to enable councils to make exceptions to their district plans without ministerial and official approval would enhance localism. He noted that precedent has already been set by legislation that allowed central government to create “special housing areas”, regardless of the land’s status under the prevailing district plan, therefore why shouldn’t a council also be able to utilise such powers (in a transparent manner), especially if growth exceeded the urban development capacity of its existing district plan?
- Although the three core statutes governing local government (the Local Government Act 2002, Local Government (Rating) Act 2002 and Local Electoral Act 2002) were updated at the beginning of this millennium, changes made since have created an extremely complex legislative framework. Not only are there high compliance costs but flexibility and responsiveness to citizens has been diminished. Twenty years on and it is time to review that framework to make it fit for purpose and more responsive to local and regional differences.

Opportunities for improving well-being

There was broad support for the argument that giving communities a greater say about the nature of local services would be beneficial not only for those communities but for New Zealand/Aotearoa as a whole. Submitters frequently focused on the practicalities of transferring roles and responsibilities with many taking the view that change should be incremental, in order to enable councils and communities to build up the competence needed to take on additional responsibilities and also strengthen collaboration with other partners, including central government.

Whakatāne District Council summed up this argument when it noted that the discussion on localism should be focused on improved well-being for communities. The council noted that, while it was well-positioned to understand and respond to the needs of local communities, it was also important to recognise the values, relationships and strengths of the various levels of government. There is a need to work as “one government” to address the needs of our communities in a way that is most effective and appropriate.

< The Southern Initiative and the development of significant new areas like Drury are examples of a council, as the planning authority, co-ordinating with the Crown to improve the provision of central government services. >

The council, along with other submitters, argued that local government, due to its community networks, relationships with iwi, access to local knowledge, and ability to take a holistic view was ideally placed to work with central government agencies and others to help ensure services meet the most important needs in their districts.

6. Improving the effectiveness of government spending and local outcomes

While a number of submitters held the view that many councils were not yet at a stage to take on more than a marginal increase in responsibilities there was widespread support for the view that collaboration between central and local government would lead to both better local services and better outcomes for communities. Collaboration was regarded as beneficial because it had the potential to help central government agencies focus on local priorities and preferences when commissioning local services. When this occurs, allocative efficiency is enhanced. (Allocative efficiency reflecting the degree to which public resources are used in the most optimal way to address need.)

Christchurch City Council argued that local government could help to narrow the gap between central government agencies and communities and, in some cases, provide additional support for government agencies. In their view a collaborative approach would

< There is an overriding sense that central government at times makes significant decisions without first authentically engaging with the local community. (Public Libraries NZ) >

lead to improved service delivery, more accurate budget setting and superior targeting for communities most in need. Examples of successful collaboration put forward by submitters included:

- Ashburton District Council's successful tender to provide refugee resettlement support services in Ashburton on behalf of the government was an example of "negotiated devolution". The Council noted the importance of central government setting a clear strategic direction and allowing different local responses according to the circumstances of communities;
- Christchurch City Council highlighted the success of the Community Resilience Partnership Fund, a partnership between Christchurch City Council, the Ministry of Health, the Canterbury Psycho-social Governance Group and neighbouring councils. They regard it as a successful partnership delivering significant results for community well-being, including funding support in the wake of the March 15 terrorist attack.

In addition to working with public agencies that deliver or commission local services, submitters supported two further options for improving the responsiveness of public services. One was "negotiated devolution", in which central government negotiates with a council to provide a service in its locality. The other was "community governance", in which government departments draw on local knowledge (in which the council may play the role of facilitator) when setting local levels of service.

A number of submitters suggested more innovative approaches for improving local services. Hui EI, for example, proposed that councils had an important role in enabling communities to actively shape their own futures and that they were ideally placed to facilitate community understanding of the Sustainable Development Goals, the role of civil society and Te Tiriti o Waitangi. Other submitters noted the potential value of local and regional well-being plans. Such plans were seen as important for a number of reasons, including their role in enabling citizens to determine for themselves what the most significant well-being challenges facing their communities were, and to influence the planning and spending decisions of other agencies, such as government departments;

There was also support for the view that local governments should be "laboratories of innovation", a view reinforced by reference to the success of many of the social sector trials. Social sector trials were initiatives, based in small towns like Levin and Gore, supported by ministries, such as the Ministry of Social Development. Based on a local issue, such as youth employment or community safety, the trials took an innovative approach by bringing multiple agencies, government departments, iwi, NGOs and local council, together to develop a coordinated strategy, with the local mayor often acting as the chair or facilitator. Many trials were highly successful, yet once the funding finished agencies went back to their normal siloed ways of working. The lessons from the social sector trials offer a model of

place-based social service delivery that has the potential to extend throughout all communities.

Transparency International and Hāpai Te Hauora recommended that central government could act as a steward in a process to enable communities to work out the best way of achieving national priorities and suggested Whānau Ora commissioning as a model. Allowing councils to establish special innovative or economic zones in order to attract investment was another example of innovation supported by some submitters.

7. Strengthening the place of Te Tiriti o Waitangi

A question central to discussions involved with distributing power concerns the status of Te Tiriti o Waitangi. As an agreement between the Crown and iwi/hapū, justifiable concerns were previously raised to the effect that devolution might enable the Crown to escape its Treaty obligations. It is now accepted, however, that the Crown cannot delegate away its Treaty responsibilities; these accompany the transfer of responsibilities to subordinate bodies. Redistributing authority to sub-national areas has the potential to strengthen the place Te Tiriti o Waitangi in a number of ways:

- Transferring roles and responsibilities to local government creates the opportunity for double devolution, or the further transfer of responsibilities from the council to iwi/hapū. Because councils share a rohe with mana whenua and have existing relationships, double devolution is more likely to reflect the culture, circumstances and preferences of those mana whenua groups, whether as a transfer or a partnership, than a direct transfer from central government;
- Increases the possibility that local services could be further devolved to iwi/hapū depending on the way in which Māori are structured and local capacity and capability;
- Service delivery models that take a joint approach and operate at a community and neighbourhood level, such as Whānau Ora, are ideally placed to have their range and scope extended;
- The principles of placing responsibility for services as closely as practicable to those who use/benefit those services (subsidiarity) applies equally to council services, thus creating further opportunities for iwi/hapū empowerment; and
- Strengthening local government's role in place-based community governance that is inclusive and responsive to community voices gives more reason for Māori to want to invest time and effort in building Tiriti-based relationships with their local councils.

Amongst the opportunities created by taking a more localised approach is the ability to tailor local services through partnerships and encourage self-managed services in order to reflect the needs, priorities and values of mana whenua.

Network Waitangi Otautahi argued that localism is congruent with Te Tiriti by pointing out that it is an agreement between the Crown and individual hapū and that hapū had always been independently sovereign. They also pointed out that hapū are intensely place-based. Hui E! and other submitters noted that Māori social and economic indicators, such as health, education and employment, reflect many years of neglect and post-colonial racism and that strategies to address this need to include a shift in the responsiveness of local government to Te Tiriti o Waitangi. Amongst suggestions made by submitters were:

- A proposal from Network Waitangi Otautahi that policies and proposals put forward under the localism kaupapa be reviewed to ensure they honour Te Tiriti (the Māori version of the Treaty);
- That iwi/Māori should be invited to the decision-making table as partners (Mangere-Ōtāhuhu Local Board); and
- The active promotion of programmes for elected members and officials to increase their knowledge of Te Tiriti o Waitangi and local Māori lore.

8. Enhancing communities' ability to "place shape"

LGNZ's Discussion Paper Reinventing Local Democracy highlighted the importance of place to the successful implementation of policies and programmes designed to enhance well-being and showed that those countries with decentralised forms of governance tended to have better social and economic outcomes. The paper explained this with reference to the ability of decentralised states to "shape" policy interventions to the specific circumstances of their different communities. An important feature, as well, is the ability of such approaches to utilise the knowledge and resources of local people and organisations. Critical is the ability to establish local partnerships appropriate to those local circumstances.

On the question of what services would be suitable for transfer to local government and/or communities submitters tended to highlight services that had a community, rather than individual, focus. Few called for a fundamental transfer of public responsibilities to the local level. As one submitter, John Clements, noted "local governance is there to represent the local community; deliver services to meet local needs and work to improve the quality of life in neighbourhoods and community". Many were also concerned about how funding would work and whether their local council would have the necessary capability. The views of

the Northern Action Group (NAG) reflected those of a number of submitters. NAG argued for devolution of those services which depend on a high level of volunteer effort, such as "aged care, mental health, youth, business mentoring, craft/cultural/leisure activities and the like". The Waitemātā Local board took a similar view.

< The idea that either a government programme or private contract can solve complex social problems on its own is a false promise. Over-reliance on such methods tends to neglect the agency and insights of the people themselves, leaving huge amounts of talent and resources – in all walks of life and in all parts of society – wastefully untapped. (IPPR 2014) >

- The Waitemātā Local Board also argued for cultural well-being as the most appropriate area for extensive devolution on the basis that it reflected the "distinctive ethos of different districts and the diversity within them.
- Many submitters supported the list of functions set out in the Discussion Paper. These functions were identified as ones where local authorities and communities might play a larger role, and include:
 - Welfare services for people in need;
 - Mental health services;
 - Public health;
 - Coordination and integration of social services;
 - Urban development;
 - Employment;
 - Services for young people not in employment, education or training;

- Provision of social and/or affordable housing;
- Support services to the aged community;
- Identification of labour force constraints;
- Working with central government to prioritize local needs; and
- Design of vocational training.

Not surprisingly many submitters argued that the rationale for shifting responsibilities from central to local government should also apply to councils themselves, particularly with regard to their relationship to community boards and neighbourhood governance organisations. Some also made the point that there may be some functions currently undertaken by councils that might be better undertaken at a regional or national level.

< (New Zealand should) allow communities to: de-amalgamate and self-govern if they choose to and are prepared to meet the cost; increase representation at local level; and focus national and regional governments on setting policies and standards rather than on implementation. (Northern Action Group) >

9. Deepening democracy

It was not by chance that LGNZ's Discussion Paper was given the title "Reinvigorating local democracy". Democracy as government for and by the people, is perhaps the most radical value underpinning our society and begins with the communities in which we live. The Discussion Paper touched briefly on current concerns about the state of democracy, seen to be under threat in many parts of the world. It concluded that one way of responding to those threats, such as the risk of voter disengagement, was to strengthen opportunities for citizens to have a meaningful say in the running of their own communities and neighbourhoods. Through this means engagement is enhanced and feelings of marginalisation hopefully diminished.

This argument was also made by Alan Lodge who quoted the definition of localism used by the Commission on the Future of Localism (2017). The Commission described localism as:

"being about the connections and feelings of belonging that unite people within their communities, it is about how people perceive their own power and ability to make change in their local area alongside their neighbours."

Consistent with this view many submitters highlighted the democratic importance of sub-municipal and neighbourhood citizen participation.

The measurement of the quality of democracy involves much more than simply the proportion of citizens who turn out to vote every three years. An effective democracy requires active citizens; active in the sense that they scrutinise the decisions and actions that their elected representatives make and contribute, in multiple ways, to the operation of government in their neighbourhoods and localities. One of the strong arguments for decentralisation is that by increasing the range and significance of the decisions made locally there will be a corresponding increase of interest in the organisations that make those decisions – namely local government. Other suggestions made by submitters included:

- Empowering local boards to play strategic leadership and management roles in directing community engagement as well as active engagement in decision-making processes in and about their specific jurisdictions (The Ōtara Papatoetoe Local Board).
- Establishing steering or advisory groups to help councils make decisions, such as an environmental or commercial project steering group, with membership drawn from relevant local organisations (Manurewa Local Board).
- Reducing the size of councils and increasing the number of elected members to better represent and articulate community views (The Northern Action Group).
- Adopting the Thames-Coromandel District Council model of empowered community boards.
- Establishing earmarked funding schemes to provide civic education opportunities for rangitahi and young people, and removing the right to abolish Māori wards by referendum. This was highlighted as a way of better representing the Treaty partnership.
- Requiring that councils take multiple approaches when consulting with their communities to gain feedback on local needs and priorities. This is necessary if councils are to meet the changing needs of their communities proactively rather than reactively or not at all, as “done in the past” (Moera Community House).
- Ensuring that any proposals for enriching democracy and empowering communities make specific reference to improving the responsiveness of local government Te Tiriti o Waitangi (Hui E).



Appendix One: References

Commission on the Future of Localism (2017). *People Power: Findings from the Commission on the Future of Localism* accessed from <https://locality.org.uk/wp-content/uploads/2018/03/LOCALITY-LOCALISM-REPORT-1.pdf>

Grayling, A.C. (2017) *Democracy and its Crisis*, London: Oneworld

Institute for Public Policy (North) (2015) *The Consequences of devolution in Germany*, accessed from <https://www.ippr.org/publications/a-race-to-the-top-middle-or-bottom-the-consequences-of-decentralisation-in-germany%20>

NZ Productivity Commission (2019) *Local Government Funding and Financing*, accessed from <https://www.productivity.govt.nz/inquiries/local-government-funding-and-financing/>

Simon Parker (2015) *Taking back power: putting people in charge of politics*, Policy Press.

For more information

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Appendix Two: List of submitters

	Submitting agency	Contact
1.	Christchurch City Council	Lianne Dalziel
2.	Individual	Joan Dugmore
3.	Individual	Rebecca Amundson (Becs)
4.	Individual	John Clements
5.	individual	Judith Davey
6.	NZ Federation of Business & Professional Women	Helen Swales
7.	Individual	Bill Mockridge
8.	Hāpai Te Hauoroa (Māori Public Health)	Selah Hart
9.	Hui E!	Ronja Levers
10.	Individual	Derek Stubbs
11.	Transparency International	Julie Haggie
12.	Moera Community House	Lorraine Dick
13.	Network Waitangi Otautahi	Averil Williams
14.	Waitemata Local Board	Richard Northey
15.	Individual	Alan Lodge
16.	Individual	Paul Spence
17.	Petone Community Board	Pam Hanna
18.	Auckland Council	Warwick McNaughton
19.	Northland Regional Council	Malcolm Nicholson
20.	Individual	Lee Short
21.	Hauraki District Council	Sarah Holmes
22.	Individual	Fiona Mackenzie
23.	Northern Action Group (NAG)	Bill Foster
24.	Public Libraries of NZ	Hilary Beaton
25.	Ōtara-Papatoetoe Local Board	Victoria Villaraza
26.	Ashburton District Council	Rachel Thomas
27.	Individual	Caitlin Watson
28.	Individual	Joan Dugmore
29.	Palmerston North City Council	Cassandra Botros
30.	Mangere-Otahuhu Local Board	Samantha Tan Rodrigo
31.	Manurewa Local Board	Robert Boswell
32.	Aotea-Great Barrier Local Board	Guia Nonoy
33.	Manawatu District Council	Lisa Thomas
34.	Papakura Local Board	Lee Manaia
35.	Waiheke Local Board	Dileeka Senewiratne
36.	Whangarei District Council	Tony Horton
37.	Whakatāne District Council	Wouter Villings
38.	Albert-Mt Eden Local Board	Robyn Allpress
39.	Waitemata Local Board	Shirley Coutts
40.	Individual	Jane Johnstone



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Auckland.	Gore.	Kaipara.	Ōtorohanga.	Stratford.	Waipa.
Bay of Plenty.	Greater Wellington.	Kāpiti Coast.	Palmerston North.	Taranaki.	Wairoa.
Buller.	Grey.	Kawerau.	Porirua.	Taranui.	Waitaki.
Canterbury.	Hamilton.	Mackenzie.	Queenstown-Lakes.	Tasman.	Waitomo.
Carterton.	Hastings.	Manawatu.	Rangitikei.	Tauranga.	Wellington.
Central.	Hauraki.	Marlborough.	Rotorua Lakes.	Thames-Coromandel.	West Coast.
Hawke's Bay.	Hawke's Bay Region.	Masterton.	Ruapehu.	Timaru.	Western Bay of Plenty.
Central Otago.	Horizons.	Matamata-Piako.	Selwyn.	Upper Hutt.	Westland.
Chatham Islands.	Horowhenua.	Napier.	South Taranaki.	Waikato District.	Whakatāne.
Christchurch.	Hurunui.	New Plymouth.	South Waikato.	Waikato Region.	Whanganui.
Clutha.	Hutt City.	Northland.	South Wairarapa.	Waimakariri.	Whangarei.
Dunedin.	Invercargill.	Ōpōtiki.	Southland District.		

LGNZ.



Our atmosphere and climate 2020

New Zealand's Environmental Reporting Series



Ministry for the
Environment
Manatū Mo Te Taiao

Stats^{NZ}
Tātauranga Aotearoa

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► Message to readers



COVID-19 has dominated our lives in 2020, causing widespread and significant changes to our economy, our businesses, and the way we live our lives. The experiences we are living through may offer some insights for how to approach the challenges that climate change is fast bringing our way.

COVID-19 reminded us that large-scale disruption to our lives can be abrupt, unwanted, and unforeseen, and that some people, places, and sectors are likely to be disproportionately affected. For many people, the disruption caused the loss of jobs, businesses, and financial stability. Forced isolation was tough and served to highlight the things we value most in life, like connections with others and access to nature.

However, our responses to eliminating the virus were an example to the world. As a nation we demonstrated resilience, kindness, and the capacity to act as a team. Science, data, and modelling informed daily decision-making and guided us through the alert levels. We also rapidly adopted new technology and different ways of working, learning, and keeping in touch. These are the attitudes we can draw on to respond to climate change.

Significant changes to Aotearoa New Zealand's climate are documented in this report, and they mirror the changes being observed around the world. The impacts are widespread and threaten our environment, our way of life, and the ways we make a living. Our emissions are affecting the climate and changes in the climate are affecting us. Details of the effects on our wellbeing are included here, and while the voices of te ao Māori are stronger, future reports should go further.

Climate change is here to stay, but the opportunity to create the best possible future for our young people and mokopuna is short-lived. The responsibility on our shoulders today is to act wisely and rapidly to gift them security, health, and access to the beauty and benefits of New Zealand that we have enjoyed.

In our hands are many tools to transform our way of life and create a low-emissions future. Clean energy, protecting native forest and planting trees, re-thinking transport away from petrol and diesel, and new technologies can enhance nature, create healthier cities, and ensure people are better off.

There is an opportunity to listen and learn from each other and past experiences. When Māori journeyed to this land from Hawaiki, they were forced to discover different food and use new and unfamiliar materials to survive. Sir Paul Reeves rightly said of Māori, "We are geared toward innovative and revolutionary thinking, and practical and sustainable solutions." These ways of thinking are needed to take us forward together.

We invite you to use this report to see for yourself how much has already changed and reflect on the serious and immediate challenges we face. Then share what you discover. Use the findings with whānau, schools, businesses, government, and communities to inform choices and decisions that will shape the legacy we leave for future generations.

Vicky Robertson
Secretary for the
Environment

Mark Sowden
Government Statistician

► Structure and content of this report

Our atmosphere and climate 2020 is the latest in a series of environmental reports produced by the Ministry for the Environment and Stats NZ. It updates *Our atmosphere and climate 2017* and theme 5 'Our changing climate' from *Environment Aotearoa 2019*, which was the most recent report on the state of the environment as a whole.

Our changing climate is explored in five chapters that aim to show how, why, and what is happening to our climate, and how the changing climate is beginning to affect many of the things we care about. For the first time in the Environmental Reporting series, information about drivers of environmental change and future outlooks are included.

After an introduction, *Our activities are driving emissions* (chapter 2) explores the make-up of Aotearoa New Zealand's greenhouse gas emissions and the high-level forces that are driving them. Two different methods (production and consumption) of accounting for emissions are presented to provide a more complete picture of their sources.

Changes in our climate and environment are being observed (chapter 3) documents the many changes in temperature and rainfall that are already being observed here, as well as how they are affecting our environment. Data from 30 sites across New Zealand is used for the first time to explore how temperatures are changing nationwide. Changes in heatwaves, dates of the first and last frosts, drought, and fire danger are also discussed.

Chapter 4: *Climate change and our wellbeing* presents the diverse ways climate change is starting to affect the wellbeing of New Zealanders. This chapter has a particular emphasis on how Māori identity is threatened by environmental changes, including a reduced ability to manaaki or care for visitors.

In chapter 5: *Looking ahead: future emissions and climate*, projections are used to help us understand the implications for climate and wellbeing if the current emissions and warming trends continue.

The report finishes with a look at the importance of data and an understanding of uncertainty for good decision-making. See *Towards a better understanding of our climate*.

This report includes new or updated data from the following measures and indicators:

- [Atmospheric ozone](#)
- [Drought](#)
- [El Niño Southern Oscillation](#)
- [Extreme rainfall](#)
- [Extreme wind](#)
- [Frost and warm days](#)
- [Greenhouse gas concentrations](#)
- [Growing degree days](#)
- [New Zealand's greenhouse gas emissions](#)
- [Rainfall](#)
- [Temperature](#)
- [Wildfire risk](#)

**CHAPTER 1**

Our climate, our future



► Electric motorbike being used in a Te Puke kiwifruit orchard.

Photo: UBCO

Patterns of temperature, rain, wind, and sunshine make up the climate of Aotearoa New Zealand. Climate sculpts river valleys and mountains, influences which plants grow where, and defines our landscapes, making them instantly recognisable as New Zealand.

These patterns shape many ordinary facets of our lives too – the food on our plates, the sports we play, the crops we grow, and where we spend our leisure time and holidays. We know that warmer weather will bring fresh strawberries back to our plates. In some places we know to take an umbrella or a jacket when we go out – just in case.

Rain and sun also shape the climate of resourcefulness and ingenuity that defines the psyche of our nation. We are forced to be resilient, and take four seasons in one day in our stride. When extreme weather hits, it can build a feeling of community as people band together to clean up after nature has done her worst to our farms, roads, and houses.

Over time, we have learned to live and thrive with the climate of New Zealand. We tend to take our climate for granted because we generally know what to expect – even the unexpected.

Māori beginnings, the environment, and our climate

In the beginning there was darkness. This time, *te kore*, was full of potential, and from it grew consciousness, an energy that grew and led into *te pō*, the time of the long night. As *te pō* went on, life began as the creation of two supreme atua (deities) – Ranginui the sky father and Papatūānuku the Earth mother.

Ranginui and Papatūānuku were bound together by their great love for each other. Many children were born and raised in the darkness between them. The children wanted to live and grow in daylight, so they debated whether to separate their parents. The separation took place and brought the children into the world of light, *te ao mārama*. The children of Ranginui and Papatūānuku are atua of the natural world.

One son, Tāwhirimātea, did not agree with the plan to separate his parents, but was unable to stop it. Tāwhirimātea is the atua of winds and weather and in his sadness and anger over his parents' separation, he frequently attacks his siblings in the form of storms, cyclones, droughts, and extreme weather. Tāwhirimātea is the parent of *kōhauhau* (atmosphere) and *āhuarangi* (climate).

Another son, Tānemāhuta, is atua of forests, birds, and insects. It was Tāne who gathered the sacred red clay of Kurawaka to form the first human, and breathed life into her. She is known as Hineahuone. Tāne mated with Hineahuone and from her womb came the first human, Hinetītama (the dawn maiden), from whom all humans are descended.

This is one version of the Māori creation story that helps us understand our connection to the natural world, including the world's climate and atmosphere. 'Ko ahau te taiao ko te taiao ko ahau: I am the environment and the environment is me' is a *whakataukī* (proverb) that articulates the Māori worldview that all the values and traditions that make

us who we are, are gifts from Papatūānuku passed down through our ancestors. In turn, we must pass them on to those who come after us.

For Māori, the gifts are described as our *taonga tuku iho* (treasured gifts passed down through generations). They include *mātauranga* (knowledge), *te reo Māori* (the Māori language), *manaakitanga* (generosity), *mahinga kai* (food gathering), *whanaungatanga* (socialising), and *kaitiakitanga* (guardianship). They shape who we are as people and are deeply linked to our wellbeing and sense of identity.

Gathering *harakeke* for weaving with *whānau* (extended family), diving for *pāua* and *kina* with mates in the summer, and dropping off a sack of fresh *kaimoana* (seafood) to our *kaumātua* (elders) – these are the moments we live for. These practices also make us *tangata whenua* (people of the land). Our identity and sense of belonging depends totally on being able to have a balanced and reciprocal relationship with the environment.

But the things that matter most – our unique way of life, identity, and the values and traditions that make us who we are – are at risk of being altered or lost forever. The impacts of climate change are already being felt by vulnerable *whānau* throughout Aotearoa, and are causing pain and *mamae* (hurt).

Our responsibility as *kaitiaki* (guardians) of Aotearoa, is to protect and care for what we have been given, for future generations. Ours is only one moment in time. We can draw strength from carrying our ancestors with us in this challenge, 'Kia whakatōmuri te haere whakamua: we walk backwards into the future with our eyes fixed on our past'. By working together, acknowledging the past and incorporating innovative and revolutionary ways of thinking, we can walk into the future with a greater understanding of how to accept the *wero* (challenge) that is climate change.

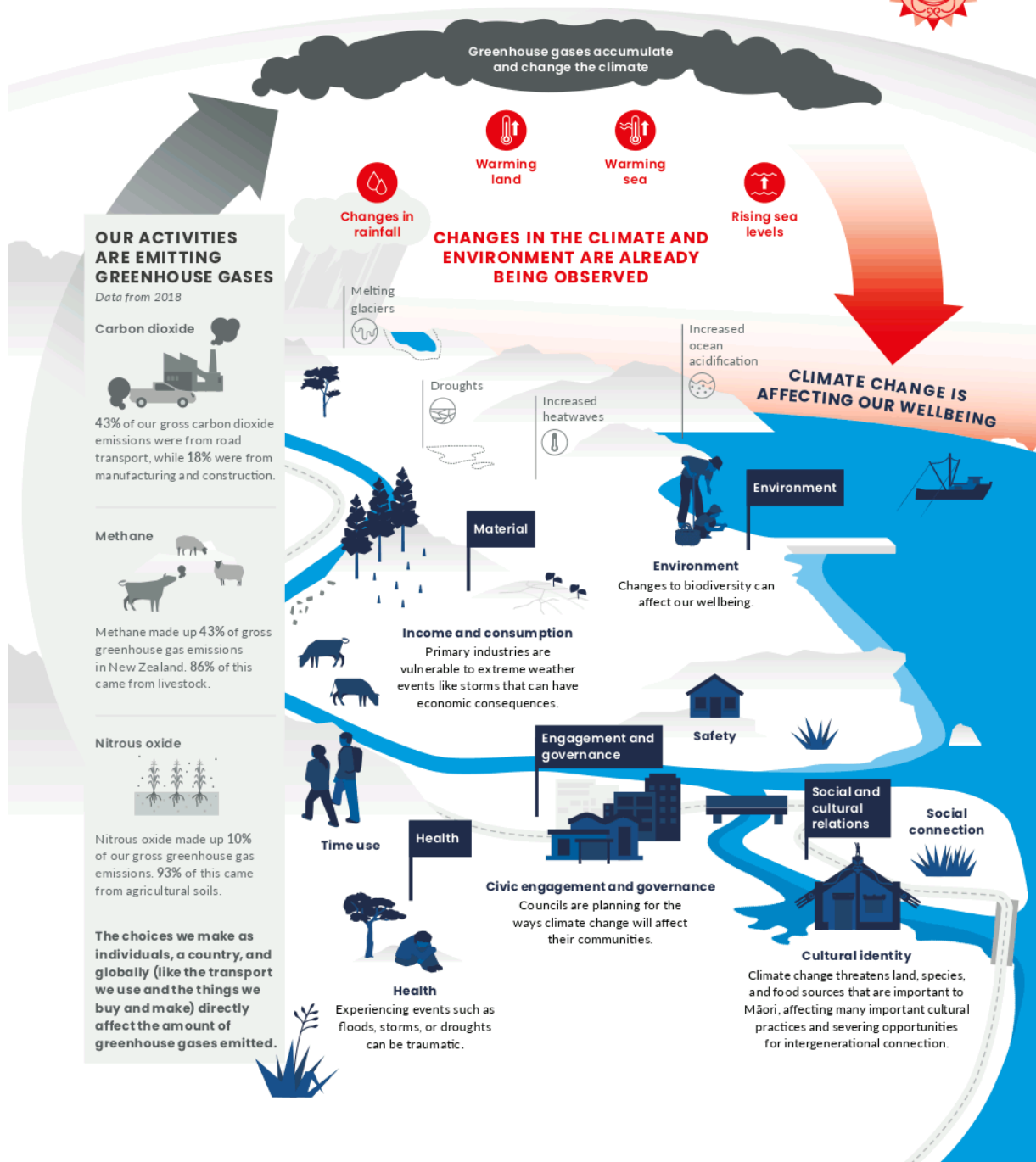
► Greenhouse gas emissions are changing the climate

Greenhouse gases are accumulating in the atmosphere and changing the climate. These gases have mostly come from burning fossil fuels around the world for the past 200 years. Our daily activities – the transport we use and the products we make and buy – continue to be sources of emissions. Contributions to the build-up of greenhouse gases come from choices we make as individuals and as a nation, and from other countries.

As greenhouse gases accumulate in the atmosphere, they are altering climates around the world and in our own country. New Zealand's average annual temperature has risen by 1.13 (± 0.27) degrees Celsius from 1909 to 2019. Sea levels are rising, and changes to drought and extreme rainfall are beginning to emerge.

► Our changing climate

The greenhouse gases we emit are changing the climate and our environment. These changes can affect our wellbeing.



► The changing climate is affecting us

Emissions are changing the climate, and the changing climate is affecting us and our wellbeing. The native biodiversity of New Zealand and the places where we live, enjoy recreation, and make a living are also being affected. Some of the things we care about most – our ability to direct our own future, a secure life for our grandchildren, and our deep connections to the natural beauty of these islands – are all threatened by climate change.

Think about getting a coffee at your favourite café or shelling mussels at the marae with whānau (family). As changes in the climate build, coffee crops and other imports could be affected by disease, and the activities that bind generations together may have to change if kai can no longer be gathered in the same places.

When the climate we have built our lives and economy on begins to shift beyond natural variability, it creates unease and uncertainty. This can affect us as individuals, whānau, and communities, and our wellbeing suffers. The effects of a drought for example, can ripple through a region and affect the environment, the economy, and the mental health of the people who live and work there.

► Global and local choices to avoid the worst impacts

As a small, trade-reliant nation, New Zealand is highly dependent on connections with the rest of the world, and therefore on climate and behaviour elsewhere. Reducing greenhouse gas emissions globally would reduce the future impacts of climate change on us and the planet.

A small window of time remains to make these reductions to avoid the severe impacts of a world that is two degrees Celsius or more warmer. As a signatory of the 2015 Paris Agreement and the United Nations Framework Convention on Climate Change, New Zealand has committed to work with the rest of the world to limit future warming.

The global community has acted together before. When damage to the ozone layer in the stratosphere was discovered over Antarctica in the 1980s it was cause for global concern. This layer of ozone stops ultraviolet (UV) radiation reaching Earth's surface, where too much can cause sunburn, skin damage, cataracts, and skin cancer. The Montreal Protocol was signed in 1987, and has resulted in the use of human-made chemicals that can destroy ozone being almost completely phased out.

The ozone hole has started to shrink. Current projections are that the Antarctic hole will gradually close and that ozone concentrations will return to mid-1980s levels in the 2060s (WMO, 2019). Without the protocol and the later amendments that further tightened actions on emissions, UV index values in New Zealand would now be 20 percent higher than those recorded in the early 1990s (McKenzie et al., 2019). (The UV index is a measure of the strength of UV radiation from the sun.)

► Securing a stable climate

There is growing public desire for New Zealand to do its part to secure a stable climate. Tens of thousands of New Zealanders marched and took part in climate strikes in 2019. They joined millions worldwide to show the high value of a stable climate for personal wellbeing and safety, the environment, and for future generations.

Throughout the country, regional councils and city councils have declared climate emergencies. Whānau, hapū, and iwi have been involved in discussions about how climate change is affecting their communities, and more companies than ever have committed to quantifying and understanding their emissions. In 2019, New Zealand passed the Zero Carbon Act to put emission reduction targets into law and start the transition to a low-carbon economy.

Burning coal, oil, and gas across the globe has fuelled the breakthroughs that have led to our modern life. New Zealand is fortunate to be rich in the clean resources – wind, geothermal, hydro-power, and solar – that will fuel our future. We have begun to embrace these sources of energy and in 2018, 84 percent of our electricity was generated from renewable sources (MBIE, 2019b).

In other parts of our lives we still depend heavily on activities that emit greenhouse gases. We love our cars, and in 2018 owned 0.8 cars and passenger vehicles per person – this was the highest rate in the OECD in 2017 (OECD, 2017). All those vehicles made up 27 percent of our gross carbon dioxide emissions in 2018 (only 10 in 1,000 light vehicles were hybrids and 2 in 1,000 were fully electric) (MoT, 2019). Greenhouse gas emissions from agriculture made up close to half of our gross emissions in 2018. However, exports from natural resources or activity in primary industries (including agriculture) make up a large part of our export income (Stats NZ, 2019).

Our future is interconnected with the climate because climate shapes our social, cultural, and economic lives. But it is a two-way street – our actions and activities are also affecting the climate. This presents a responsibility and an opportunity for today. We have a responsibility to protect the people and places that will be most affected by climate change. This comes with an opportunity to play an active role in shaping our future so we are secure and resilient.

Weather, greenhouse gases, and climate change

Climate is what you expect and weather is what you get

Climate describes the expected temperature, rain, or snowfall at a certain place on a particular day – like the average high temperature for August 15th at your local rugby field. An especially freezing afternoon or a heavy downpour during a game is the weather. These weather conditions are variations from the long-term average climate.

Climate variations

Our climate varies in response to human activities (like adding greenhouse gases to the atmosphere) and to natural influences (like climate oscillations). Natural influences can cause the climate to fluctuate above and below a baseline, but by increasing the amount of greenhouse gases in the atmosphere, humans are changing the actual baseline.

How greenhouse gases affect our climate

Greenhouse gases (like carbon dioxide, methane, and nitrous oxide) in the atmosphere act like a blanket by retaining energy from the sun. They are vital for keeping the temperature on Earth in a range where life can flourish. For the past 3,000 years the average temperature in New Zealand has been relatively steady, rising and falling by less than a degree over this time (MfE, 1997).

Burning fossil fuels (like coal, oil, and gas), deforestation, and agriculture have increased the amounts of greenhouse gases in the atmosphere and caused more energy to be trapped by Earth's blanket. Most of the extra energy retained (more than 90 percent) has been absorbed by the oceans and raised sea temperatures and sea levels. Some energy is held in the atmosphere and makes our air and climate warmer (IPCC, 2014a).

Not all greenhouse gases have the same effect. Some, like carbon dioxide, are long-lived and can stay in the atmosphere for thousands of years. Long-lived gases build up when they are added to the atmosphere faster than they are taken out, effectively making the blanket thicker and thicker. Other gases, including methane, can be gone in years or decades but do a better job of holding heat in, and act more like a duvet than a blanket. These short-lived gases can have a significant warming effect if their levels are kept topped up by continued emissions.



CHAPTER 2

Our activities are driving emissions



► Morning traffic on the Wellington motorway.

Photo: Sarah Wilcox, Decipher

The products we buy, the food we eat, the way we travel, and the goods and services we produce can all cause emissions of greenhouse gases.

Many of the things we do every day produce greenhouse gases. Those emissions can be caused directly, by travel or a production process for example, or indirectly because of the energy required to fuel those processes.

There are many different greenhouse gases, but the most important ones for climate change are carbon dioxide, methane, and nitrous oxide. Globally, continued emissions of greenhouse gases is causing them to accumulate in the atmosphere and warm the climate. The contribution that smaller countries like New Zealand make to global emissions also adds up.

Carbon dioxide has the biggest effect on future warming globally because it is emitted in large quantities by many different processes. Also, part of every emission stays in the atmosphere for hundreds to thousands of years. Methane is important because it has a more intense but shorter-term warming effect. Other human activities like removing trees and releasing soot contribute to the build-up of greenhouse gases and warming.

Increased economic activity (measured as gross domestic product, GDP) and population growth are the most significant high-level forces (or drivers) that shape the amount and type of emissions produced. These drivers have caused most of the growth in greenhouse gas emissions in New Zealand and globally, but improvements in energy efficiency and a greener energy supply have offset some of the increase.

► Global emissions

GLOBAL CARBON DIOXIDE EMISSIONS ARE GREATER THAN EVER BEFORE

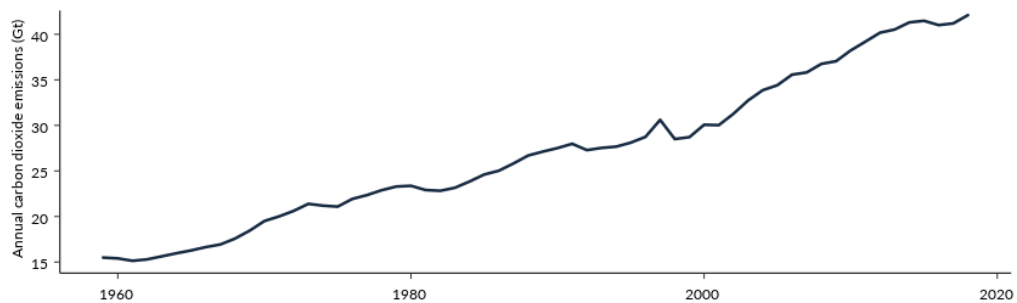
Most of the world's energy needs are met by burning fossil fuels, which releases carbon dioxide. The rise in global emissions has been dramatic: half of all human-generated carbon dioxide emissions since 1750 have occurred since 1970 (IPCC, 2014a). Humans added about 42 gigatonnes of carbon dioxide to the atmosphere in 2018, more than 190 times the weight of every person in the world combined (Bar-On, Phillips, & Milo, 2018; Friedlingstein et al., 2019).

Global carbon dioxide emissions from fossil fuels in 2018 were about 2.1 percent more than 2017, and higher than the 1.3 percent average increase per year for the previous decade (2009–18) (see figure 1). Most of the emissions were from burning coal (40 percent), oil (34 percent), and natural gas (20 percent) (Friedlingstein et al., 2019).

This rate of increase is dramatic. It is causing changes to the climate that challenge the ability of our social, economic, and environmental systems to adapt. Although Earth's climate has varied naturally in the past, even 'abrupt' natural changes at the global scale have typically taken many hundreds to thousands of years. But now is different. Current carbon dioxide levels in the atmosphere have increased about 100 times faster than the fastest rise at the end of the last ice age (Gaffney & Steffen, 2017).

In the previous 7,000 years, the climate was cooling slightly at a rate of -0.01 degrees Celsius per century. But this has changed, mainly because of human activities that increase greenhouse gas concentrations in the atmosphere (IPCC, 2014a). In the past 45 years the global average temperature has increased about 170 times faster than the rate of change before humans began emitting greenhouse gases in large amounts (Gaffney & Steffen, 2017).

Figure 1: Global carbon dioxide emissions from fossil fuels, industry, and land-use change, 1959–2018



Data source: Friedlingstein et al., 2019

► Global carbon dioxide emissions have doubled since about 1970.

LARGE EMITTERS OF CARBON DIOXIDE

Three countries and the European Union emitted 59 percent of all carbon dioxide in 2018 – China 28 percent, the USA 15 percent, the European Union 9 percent, and India 7 percent. These areas include many of our trading partners that produce goods and services we import and use every day (see [New Zealand's consumption-based carbon dioxide emissions](#)). The rest of the world emitted the remaining 41 percent (Friedlingstein et al., 2019).

Some countries have decreased their carbon dioxide emissions in the last decade (2009–18). This includes the European Union (by 1.4 percent per year) and the USA (by 0.5 percent per year). Nineteen countries (mainly in the European Union) decreased their emissions while their economies grew, but some of the decrease may be due in part to moving the production of goods to other countries (Friedlingstein et al., 2019; IPCC, 2014b).

GLOBAL GREENHOUSE GAS CONCENTRATIONS ARE AT A RECORD HIGH

The result of all of these emissions is that greenhouse gases are building up in the atmosphere faster than they are removed, and their concentrations are increasing. This accumulation of carbon dioxide in the atmosphere is the most important factor governing the amount of global warming we will experience this century and beyond (IPCC, 2014a).

In May 2020, carbon dioxide concentrations reached a seasonal peak of 417 parts per million at the Mauna Loa Observatory in Hawaii. This observatory has the world's longest unbroken record of carbon dioxide measurements directly from the air, and this is the highest monthly reading ever recorded (NOAA, 2020). Global levels of carbon dioxide in the atmosphere are now at their highest level for the past 3 million years at least (Willeit, Ganopolski, Calov, & Brovkin, 2019).

Measurements in New Zealand are consistent with the global concentrations, but are slightly lower in the Southern hemisphere. The concentration of carbon dioxide in the atmosphere measured at Baring Head near Wellington reached 409 parts per million in September 2019. (See indicator: [Greenhouse gas concentrations](#).) This is about 46 percent higher than the pre-industrial level of 280 ppm (IPCC, 2014a).

Methane concentrations at Baring Head have increased by 4 percent in the last decade (2010–19) and reached 1,838 parts per billion in September 2019. This is more than 160 percent higher than pre-industrial levels. Nitrous oxide levels were 23 percent higher than pre-industrial levels and increased by 3 percent in the last decade.

► New Zealand's greenhouse gas emissions

COUNTING UP OUR EMISSIONS

Greenhouse gas emissions can be estimated using different approaches (see [Approaches to measuring New Zealand's greenhouse gas emissions](#) on the Stats NZ website). A production-based approach counts all emissions that are created within our border by the production of all goods and services, whether they are exported or used in New Zealand. A consumption-based approach counts emissions that are created from producing the goods and services we consume here, whether they are imported or produced locally. Both are shown to give a fuller understanding of the sources of our emissions. Note: consumption-based emissions estimates were only available for carbon dioxide when this report was prepared.

The [New Zealand greenhouse gas inventory](#) publishes estimates of greenhouse gas emissions each year as part of our international reporting obligations. This reporting only counts emissions that are produced in New Zealand. Information on the production of emissions from an [industry and household](#), and [regional](#) basis is available from Stats NZ. Information from Stats NZ on consumption-based emissions at a national level was not available when this report was prepared.

Emissions can be analysed by considering gross emissions (total emissions) and net emissions (total emissions plus carbon dioxide added or removed by land use, land-use change, and forestry). Net emissions are more variable than gross emissions because of the influence of forest planting and harvesting cycles.

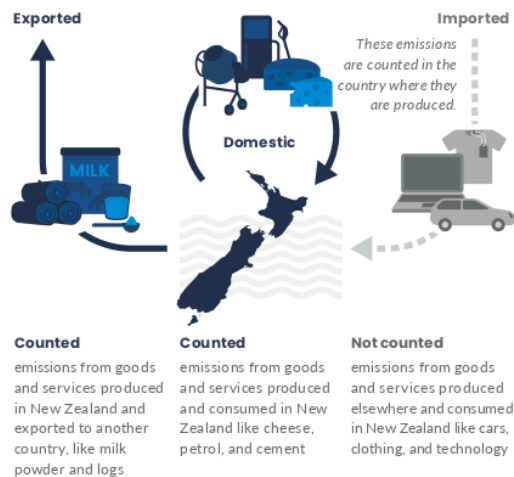
For information on how New Zealand's emissions may change in the future, and how we are tracking towards emission reduction targets see [chapter 5: Looking ahead: future emissions and climate](#).

► Estimating our emissions

New Zealand's emissions can be estimated in different ways.

PRODUCTION-BASED APPROACH

Emissions produced here are counted



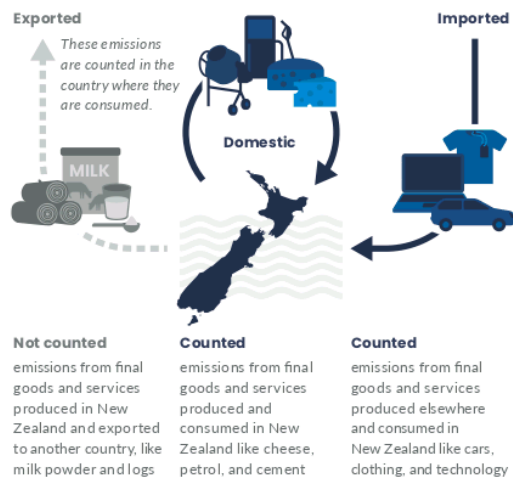
This approach is used to calculate emissions in the New Zealand Greenhouse Gas Inventory.

35,839 kilotonnes

New Zealand's gross carbon dioxide emissions in 2015 using a production-based approach.

CONSUMPTION-BASED APPROACH

Emissions consumed by New Zealanders are counted



This approach is useful for calculating a country's carbon footprint.

42,800 kilotonnes

New Zealand's gross carbon dioxide emissions in 2015 using a consumption-based approach.

In 2015, New Zealand imported more CO₂ emissions than we exported.

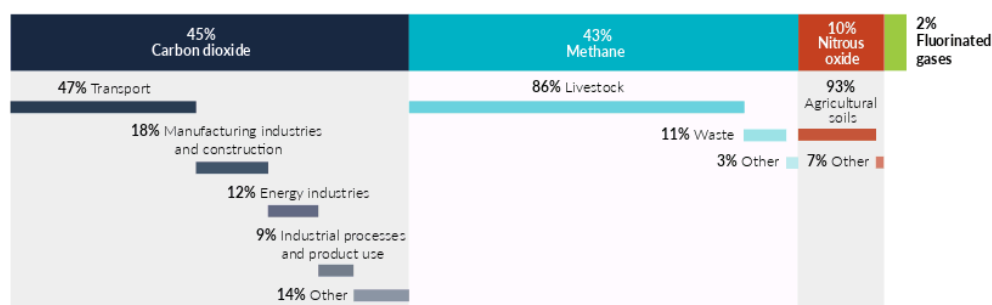
PRODUCTION-BASED EMISSIONS HAVE INCREASED

New Zealand's net emissions have increased by 57 percent from 1990 to 2018. (See indicator: [New Zealand's greenhouse gas emissions](#).) Our gross greenhouse gas emissions in 2018 were 24 percent higher than in 1990 but have changed little in the last decade despite increases in economic activity and population. However, as long as our net emissions of long-lived greenhouse gases (mainly carbon dioxide and nitrous oxide) are greater than zero, we are contributing to further climate change.

The profile (or mix) of greenhouse gases we produce is unusual (see figure 2). In most developed countries, carbon dioxide produced by burning fossil fuels dominates emissions, especially burning coal and gas for electricity, and burning diesel and petrol for transport. A large proportion (84 percent in 2018) of New Zealand's electricity has renewable sources so electricity generation does not make up a large part of our emissions (MBIE, 2019b).

Nearly half (48 percent) of New Zealand's gross emissions in 2018 came from agriculture. These emissions, almost all methane and nitrous oxide, increased 5 percent from 2009 to 2018. In a typical developed country, only about 12 percent of total gross emissions come from agriculture (MfE, 2020c). Road transport also makes a large contribution to our gross emissions (19 percent).

Figure 2: New Zealand's gross greenhouse gas emissions, 2018



Data source: Ministry for the Environment

- The livestock and road transport sectors combined contributed well over half (57 percent) of New Zealand's gross greenhouse gas emissions in 2018.

Greenhouse gases are not all equal

Different greenhouse gases last for different amounts of time in the atmosphere before being removed by natural processes. Long-lived gases can stay in the atmosphere for centuries or even millennia, which allows them to build up. (Nitrous oxide has an average lifetime of 121 years, while carbon dioxide can remain in the atmosphere for thousands of years). Emissions of long-lived gases have to be reduced to zero to stabilise the climate at any temperature.

Short-lived gases typically remain in the atmosphere for years to decades – methane stays in the atmosphere for about 12 years on average. Emissions of short-lived greenhouse gases do not accumulate over centuries and do not have to be reduced to zero to stabilise the climate. However, these gases generally have a powerful warming effect and make the climate warmer than it would be from emissions of carbon dioxide alone. The less we emit, the lower their ongoing contribution to climate change will be.

Different gases also have different abilities to absorb energy or retain heat. The global warming potential (GWP) relates different gases to the average warming produced by carbon dioxide over a given time period,

usually 100 years. For example, methane has a GWP of 25 (under current reporting conventions), so in the 100 years following their emission, 1 kilogramme of methane will cause 25 times the average warming as 1 kilogramme of carbon dioxide.

Other greenhouse gases (like hydrofluorocarbons) have very high GWPs – sometimes thousands of times higher than carbon dioxide. These gases are generally short-lived (about 15 years on average) and are emitted in much smaller quantities than carbon dioxide, methane, and nitrous oxide.

GWP is used for reporting under the Paris Agreement and by New Zealand to set and account for its 2030 emissions target under the agreement. GWPs from the Intergovernmental Panel on Climate Change Fourth Assessment Report are used in this report but updated GWPs are available from other sources and will be used in future reporting periods. Other metrics give short-lived gases a greater or lesser weighting compared to carbon dioxide because they focus on effects of the gas on different aspects of climate change.

Gas	Carbon dioxide	Methane	Nitrous oxide	Hydrofluorocarbons
Global warming potential (IPCC, 2007)	1	25	298	Up to 14,800
Lifetime in the atmosphere (IPCC, 2014a)	Up to thousands of years	12 years	121 years	15 years (weighted by usage of different gases)

CARBON DIOXIDE EMISSIONS HAVE INCREASED

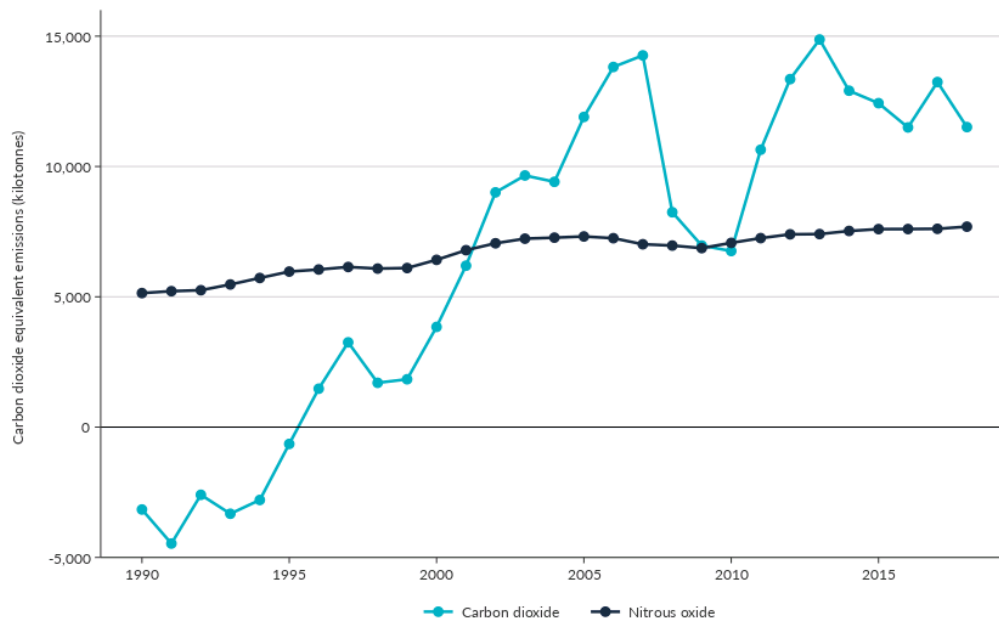
Carbon dioxide is the most important long-lived greenhouse gas for climate change, followed by nitrous oxide. Because long-lived gases build up in the atmosphere, every additional emission of these gases will affect the climate for hundreds to thousands of years into the future. The net emissions of all long-lived gases have to be brought to zero globally for Earth's warming climate to stabilise.

Other long-lived gases play a similar role but are emitted in much lower quantities. How quickly New Zealand reaches net-zero emissions of these gases will determine how much more our emissions contribute to long-term warming of the climate.

Net carbon dioxide emissions have increased by about 14,700 kilotonnes from 1990 to 2018 (see figure 3).

New Zealand's gross carbon dioxide emissions were 7.7 tonnes per person in 2017, which is 17th out of 32 OECD countries (with available data) (OECD, 2020; UNPD, 2020). This is despite the high percentage of renewable electricity generated here, and shows the large emissions of carbon dioxide that continue to be produced by sectors such as transport, manufacturing, and construction.

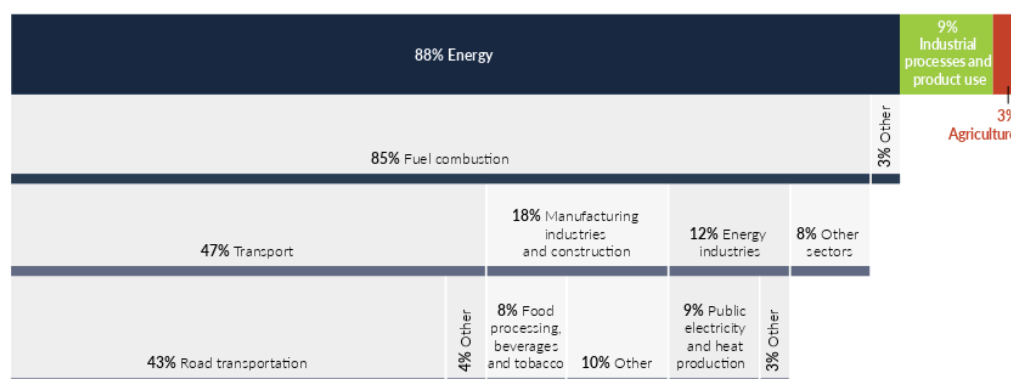
Figure 3: Net carbon dioxide and nitrous oxide emissions, 1990–2018



Data source: Ministry for the Environment

► Before 1996, land use, land-use change, and forestry removed and stored more carbon dioxide than was emitted.

Figure 4: New Zealand's gross carbon dioxide emissions by sector, 2018



Data source: Ministry for the Environment

- Road transportation (cars, light duty trucks, heavy duty trucks and buses, and motorcycles) emitted 43 percent of New Zealand's gross carbon dioxide emissions in 2018.

TRANSPORT IS THE LARGEST SOURCE OF CARBON DIOXIDE EMISSIONS

Road transport made up 43 percent of New Zealand's gross carbon dioxide emissions in 2018 (see figure 4). For 2009–18, emissions from this source increased by 22 percent, about 2,700 kilotonnes. Emissions from light duty trucks had the greatest increase (78 percent, almost 1,700 kilotonnes) during these 10 years.

Cars and other passenger vehicles were responsible for 27 percent of New Zealand's gross carbon dioxide emissions in 2018. These vehicles emitted 7 percent more carbon dioxide than 10 years previously. Petrol-electric hybrids made up 1 in every 100 light vehicles. Fully electric-powered vehicles made up a tiny but growing portion of New Zealand's fleet in 2018 at about 2 in every 1,000 light vehicles (MoT, 2019).

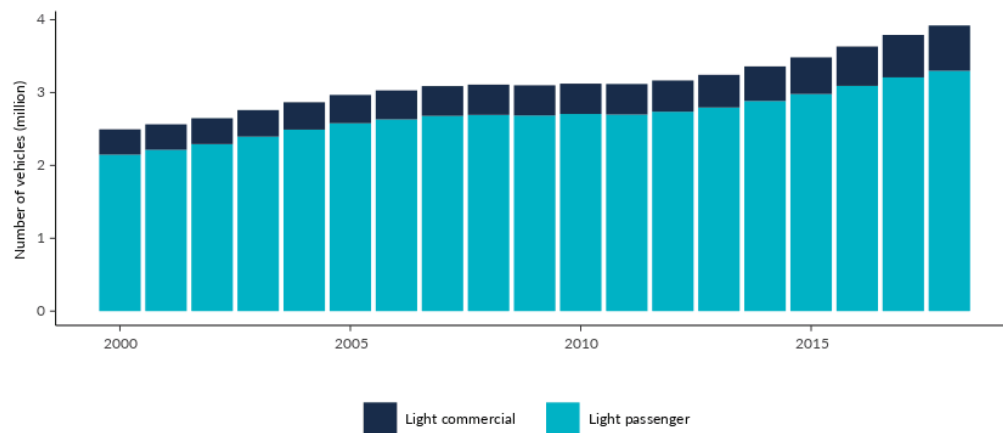
New Zealanders' vehicle preferences are affecting greenhouse gas emissions. Light commercial vehicles such as utes, SUVs, and vans, made up 16 percent of the light vehicle fleet in 2018, 75 percent of which run on diesel (see figure 5). These larger, heavier vehicles are increasingly popular, while sales of smaller petrol-engined vehicles show a corresponding decline.

This means that transport emissions are not reducing despite improvements in engine technology. Also, commercial vehicles, especially those that run on diesel, generally travel much further than their petrol equivalents (particularly in the first 10 years when an average diesel vehicle travels 30 percent further) (MoT, 2019).

The number of heavy trucks and buses, and the distance they travelled has increased every year since 2013. Heavy vehicles are expected to continue to make the largest contribution to carbon dioxide emissions on a per vehicle basis (MoT, 2019).

New Zealand has one of the highest per capita rates of carbon dioxide emissions from road transport in the 43 OECD countries with data for road transport emissions. This was 5th highest in 2018, coming behind Luxembourg, USA, Canada, and Australia. Our rate of 3.2 tonnes of carbon dioxide emitted per person per year from road transport was higher than Iceland (2.9 tonnes), Ireland (2.4 tonnes), Germany (1.9 tonnes), and the UK (1.7 tonnes), and was similar to Australia (3.4 tonnes) and Canada (4.1 tonnes) (UNFCCC, 2020; UNPD, 2020).

Figure 5: New Zealand's light vehicle fleet composition, 2000–18



Data source: Ministry of Transport, 2019

► New Zealand's light vehicle fleet in 2018 was the largest to date.

MANUFACTURING PRODUCES CARBON DIOXIDE

The manufacturing industries and construction sector was New Zealand's next biggest source of gross carbon dioxide emissions after transport, at 18 percent of our total in 2018. The emissions were mainly from using fossil fuels to produce heat and energy. These emissions increased by 21 percent (about 1,100 kilotonnes) from 2009–18.

The food processing, beverage, and tobacco product subsector made up the largest portion of manufacturing emissions, mainly because fossil fuels are still used in many industrial boilers. In 2018, the subsector produced 8 percent of New Zealand's total gross carbon dioxide emissions.

CARBON DIOXIDE REMOVAL BY FORESTS IS VARIABLE

Carbon dioxide can be removed from the atmosphere when plants grow and store carbon. In New Zealand, land use, land-use change, and forestry removed about 23,400 kilotonnes of greenhouse gases in 2018. This was 15 percent less than was removed in 2009, mainly because more plantation forests were harvested during this time. Note: the carbon dioxide removed and stored by plantation forests as they grow, or when new forests are planted on grassland, is included in this figure. Emissions produced during harvesting and planting are also included.

New Zealand's consumption-based carbon dioxide emissions

Consumption-based emissions are like a greenhouse gas footprint, and reflect the goods and services a country uses, as well as its lifestyle choices. Counting all the emissions along the way to the final use of a good or service, helps us understand the emissions that are embodied in our activities. For example, if a product is produced overseas and used in New Zealand, the greenhouse gases released during its production count as New Zealand's emissions. Similarly, emissions from products produced here but exported count against another country's greenhouse gas emissions and not ours. Looking at emissions this way helps show how trade between countries with different carbon intensities (the amount of carbon released to produce a unit of energy) can affect emissions.

In an example for consumption-based carbon dioxide emissions, an estimated 42,800 kilotonnes was emitted from goods and services consumed in New Zealand in 2015. Because New Zealand has a relatively small manufacturing sector and is reliant on imports for many products, this figure is almost 20 percent higher than the estimated 35,839 kilotonnes of production-based carbon dioxide emissions in 2015. Forty-four percent of the carbon dioxide emissions created by the goods and services we use happens overseas, making us a net importer of carbon dioxide (OECD, 2019).

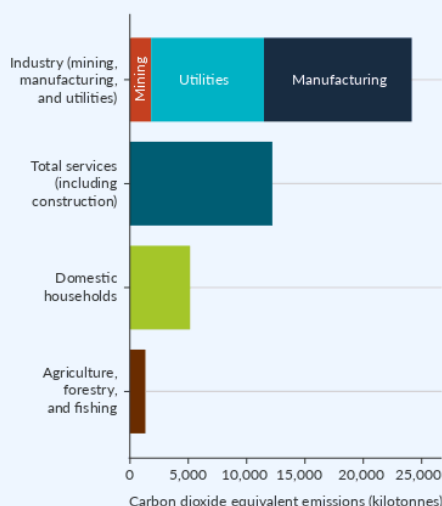
Carbon dioxide emitted when goods were manufactured made up a large proportion of our consumption-based emissions – 30 percent in 2015. Emissions from services, including construction, created 29 percent of emissions. Carbon dioxide emissions from utilities made up 23 percent in 2015, but decreased by 30 percent from 2005 to 2015 (OECD, 2019) (see figure 6).

New Zealand's 42,800 kilotonnes of consumption-based carbon dioxide emissions in 2015 equates to 9.3 tonnes of carbon dioxide per person, which is mid-range (18 out of 37) for OECD countries (OECD, 2020a, UNPD, 2020). The highest emitters were the USA and Australia with 18.1 tonnes and 17.9 tonnes per person, respectively. (For comparison, our per person estimates for production-based emissions were 7.8 tonnes of carbon dioxide in 2015 (UNPD, 2020)).

Estimating consumption-based emissions is challenging because it depends on the emissions intensity (the amount of energy required to produce a unit of gross domestic product, GDP) of overseas activities, and also on the methodology used – for example, how far back in the supply chain are indirect emissions included? Some data is also lacking, which prevents us seeing a full picture.

Consumption-based emissions were not available for methane, nitrous oxide, or other greenhouse gases when this report was prepared, although further analysis is underway. Together these gases made up more than half of the total production-based greenhouse gas emissions in New Zealand in 2018. Most of the emissions of these gases are from producing agricultural products, which make up a large proportion of our export value. Because of this, it is likely that New Zealand would be a net exporter of greenhouse gas emissions in a consumption-based approach that includes all greenhouse gases.

Figure 6: Carbon dioxide emissions embodied in domestic final demand in 2015



Data source: Organisation for Economic Co-operation and Development

► Carbon dioxide emissions embodied in the use of manufactured goods, and from services were the largest sources of New Zealand's consumption-based emissions in 2015.

MOST OF OUR METHANE EMISSIONS COME FROM LIVESTOCK

Methane is a short-lived gas – it remains in the atmosphere for about 12 years, and with a global warming potential of 25, has a much greater warming effect than carbon dioxide (see [Greenhouse gases are not all equal](#)). Continued methane emissions top up the concentrations in the atmosphere, and make the climate warmer than it would be from carbon dioxide emissions alone. If methane emissions were reduced rapidly, the warming caused by past emissions (and their contribution to climate change) would decrease naturally within a few decades.

Methane emissions were at the same level in 2018 as they were 10 years prior in 2009 (see figure 7).

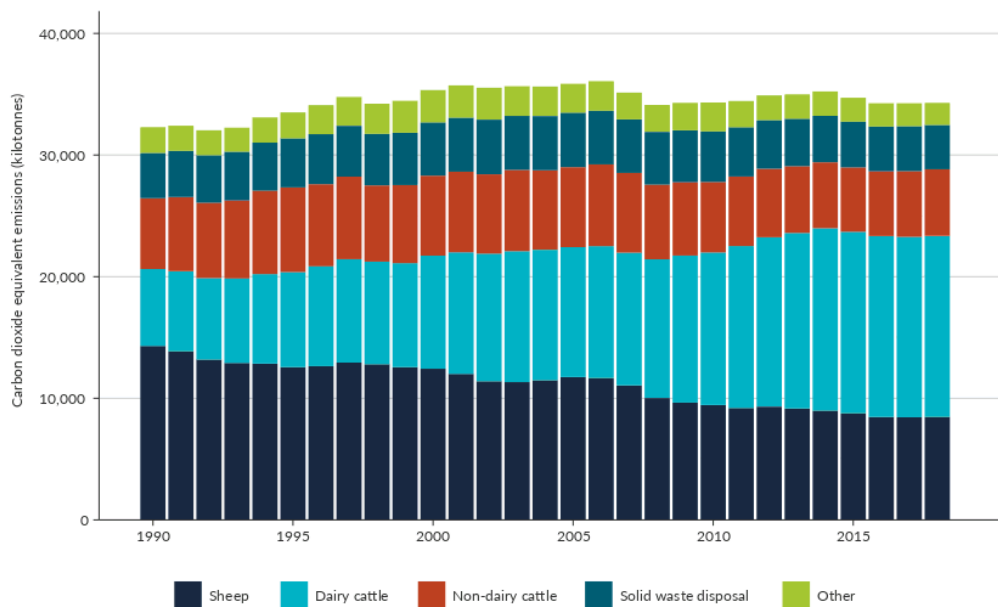
Agriculture is a major part of the New Zealand economy, and methane emissions from livestock make up a large proportion of our emissions profile. Methane made up 43 percent of our gross greenhouse emissions in 2018, with 86 percent from livestock. Methane from dairy cattle increased by 21 percent in the 10 years from 2009 to 2018, whereas emissions from sheep and beef cattle decreased by 11 percent (see figure 6). This reflects a shift from sheep and beef farming to dairy farming with higher stocking rates (see [Our land 2018](#)).

Waste contributed 11 percent to methane emissions in 2018 but decreased by 13 percent from 2009–18. This is mainly from solid waste disposal in landfills and wastewater treatment. Methane is also emitted as part of fossil fuel extraction and use. While these emissions are significant globally, they make up 2 percent of total methane emissions in New Zealand.

NITROUS OXIDE IS MAINLY EMITTED BY AGRICULTURAL SOILS

Like carbon dioxide, nitrous oxide is a long-lived gas, with a lifetime in the atmosphere of about 120 years. Nitrous oxide made up 10 percent of New Zealand's emissions in 2018, having increased by 14 percent in the 10 years from 2009 to 2018. Ninety-three percent of all nitrous oxide emissions were from agricultural soils. These emissions mainly come from the urine and dung of grazing animals and synthetic nitrogen fertiliser, which is converted to nitrous oxide by soil microbes.

Figure 7: New Zealand's gross methane emissions, 1990–2018



Data source: Ministry for the Environment

► Methane emissions have been about the same level over the past 10 years but this masks shifts in emissions from livestock.

► Other emissions also affect the climate

BLACK CARBON

Besides greenhouse gases, emissions of aerosols (fine particles in the air) play a role in heating or cooling the planet. One aerosol is black carbon or soot, which strongly absorbs sunlight because of its dark colour. Unlike carbon dioxide, black carbon only stays in the atmosphere for about a week but the changes it causes to the climate happen rapidly. Black carbon typically has local rather than global effects.

In New Zealand, most black carbon comes from vehicle exhaust (especially from diesel engines), burning wood or coal for home heating, and outdoor burning. New Zealand does not have an inventory for black carbon emissions. However, monthly black carbon concentrations decreased (at the 95 percent confidence level) at three out of four monitoring sites in Auckland between 2006 and 2016, but are high compared to the levels in cities in Europe, the United Kingdom, and the United States (see [Our air 2018](#)).

SULPHUR DIOXIDE

Emissions of sulphur dioxide gas cool the climate by forming particles of sulphate that scatter incoming sunlight and create clouds.

Most of the sulphate in the atmosphere is from the global burning of fossil fuels (especially coal) but large volcanic eruptions can also add significant amounts that cause cooling for months or years. Burning coal in manufacturing and construction, and public electricity generation and heat production was the main source of sulphur dioxide emissions in New Zealand in 2015. Emissions from domestic shipping were also important (see [Our air 2018](#)).

Ozone-depleting substances and hydrofluorocarbons

Ozone-depleting substances (ODSs) are human-made chemicals that react with ozone in the stratosphere and destroy it. A build-up of these substances in the atmosphere led to the development of lower levels of ozone over Antarctica during the spring, known as the ozone hole. Lower average levels of ozone globally and ozone holes over the northern polar region were also observed occasionally (WMO, 2019).

Global concern about the damage these chemicals were causing led to the 1987 Montreal Protocol under the Vienna Convention, which agreed on phasing out the global production of ODSs. Since then, production has decreased by 98 percent (data for 1986–2015). (See indicator: [Global production of ozone-depleting substances](#).) Since 2012 unreported emissions from eastern Asia have partially offset this (WMO, 2019).

The ozone hole does not have a large effect on ozone concentrations over New Zealand and therefore levels of UV. (See indicators: [Ozone hole](#) and [UV intensity](#).) However, when the hole breaks up in late spring it can send plumes of ozone-depleted air from Antarctica over the country that briefly decrease the column ozone levels by about 5 percent. This is about the same amount as daily variation but adds to it (Ajtić et al., 2004).

New Zealand has naturally higher levels of UV radiation during summer than countries in the Northern Hemisphere at similar latitudes. This is partly because of a naturally thinner ozone layer over New Zealand at this time, lower background air pollution, and because Earth is closer to the sun during the Southern Hemisphere summer than it is during the Northern Hemisphere summer.

The ozone hole has started to shrink in response to the global phasing out of ODSs (WMO, 2019). Also, in 2019, the hole was the smallest since 1982, due to abnormally high temperatures in the stratosphere over Antarctica (NOAA, 2019). Current projections are that the Antarctic hole will gradually close and springtime ozone concentrations will return to mid-1980s levels in the 2060s (WMO, 2019).

In 2018, ozone over New Zealand reached its highest annual average thickness since 1994 at 315 Dobson units (DU). (See indicator: [Atmospheric ozone](#).) Annual average ozone column thickness in 2018 and 2019 (309 DU) was also above the long-term average of 308 DU from 1979 to 2019. Average daily ozone column thickness varied by about 100 DU throughout the year, with the highest levels occurring in spring and the lowest in autumn.

Many ODSs are also powerful greenhouse gases (see [Greenhouse gases are not all equal](#)). Projections estimate that by 2100 phasing out of their use would reduce global warming by about 0.2 to 0.4 degrees Celsius (WMO, 2019).

Hydrofluorocarbons (HFCs) can be used instead of ODSs, particularly as refrigerants, but they are also powerful greenhouse gases. Emissions of HFCs used as substitutes for ODSs increased by 86 percent for 2009–18. HFCs made up 2 percent of New Zealand's gross greenhouse gas emissions in 2018. Because they have a greenhouse warming potential of up to 14,800, these gases can contribute to climate warming during the short time (on average) they remain in the atmosphere.

► High-level forces drive emissions

UNDERSTANDING EMISSIONS

High-level forces, also known as drivers, are behind the greenhouse gas emissions that are changing the climate and environment. Globally, these forces control how much and which greenhouse gases are accumulating in the atmosphere.

The forces reflect the many choices we have made and continue to make as individuals, communities, countries, and as a global population. Understanding the forces behind New Zealand's emissions shows what is shaping our contribution to global emissions. Once we appreciate what is driving our emissions, we can better understand why emissions from different sources are changing and make choices to address their causes.

Four interacting elements can be used to understand the main factors that are driving the amount of carbon dioxide that is emitted from activities using energy (for power, heat, or transport):

1. economic activity per person (GDP per capita, excluding the effects of inflation): GDP is a measure of the total economic activity occurring within a country, and GDP per capita is GDP divided by the population size
2. population size
3. energy intensity of the economy (energy intensity of GDP): the amount of energy required to produce a unit of GDP
4. carbon intensity of the energy supply: the amount of carbon dioxide emitted for each unit of energy produced.

ECONOMIC GROWTH IS DRIVING GLOBAL EMISSIONS

At a global scale, this analysis demonstrates that increasing carbon dioxide emissions are driven by economic growth as more goods and services are produced and used both per person and in total (IPCC, 2014b). This growth, and how energy intensive it is, has a big influence on emissions. The trends can go in opposite directions, so the relative rates of change are important – for example, if economic activity per person increases faster than the energy intensity decreases, overall emissions will rise.

It takes energy to produce goods and services. Because globally most of this energy still comes from burning fossil fuels, there is a strong correlation between economic activity and carbon dioxide emissions. Countries with higher incomes per person also tend to have higher energy use per person because its citizens live more energy-intensive lifestyles (IPCC, 2014b).

The source of the increased GDP also matters. Growth from advances in technology (which tend to be less energy intensive) has less of an impact on greenhouse gas emissions than growth from using more resources or expanding existing energy intensive activities (IPCC, 2014b).

Population growth adds to the growth of global emissions. Each person who is added to the world's population increases the demand for resources and energy. Where they live, however, makes a huge difference (up to 91-fold) in their typical emissions. In general the regions with the highest population growth have significantly lower emissions and lower wealth per capita than regions with low or no population growth (IPCC, 2014b).

Energy intensity has decreased globally in the past 40 years because of improvements in technology and efficiency. The change is driven by the decisions we make at an individual and economy wide level, to buy and use energy efficient products for example. The decrease, however, has not been fast enough to offset the growth in energy use from the world's increasing population and increasing energy use per person. From 1970 to 2010, total global energy use increased by 130 percent, while global population increased by 87 percent. Energy use per person also increased by 30 percent (IPCC, 2014b).

Carbon intensity of the energy supply has decreased globally due to the move from fuels with a high carbon content like coal, to lower-carbon fuels like natural gas and near-zero carbon fuels such as nuclear, wind, and solar. As with energy intensity, this reduction has not been fast enough to offset the growth in energy use (IPCC, 2014b).

Emissions of other greenhouse gases such as methane and nitrous oxide are also growing, driven by similar trends. These include the worldwide increase in living standards and increased demand for goods and services, particularly from agriculture (IPCC, 2014b).

ECONOMIC ACTIVITY IS DRIVING NEW ZEALAND'S CARBON DIOXIDE EMISSIONS

The growth of economic activity has driven New Zealand's carbon dioxide emissions. Economic activity per person rose by 31 percent between 2000–18 and by 15 percent in the last decade from 2009–18 (see figure 8) (Stats NZ, 2020c). During this time, direct carbon dioxide emissions from households increased by 16 percent and by 13 percent from manufacturing (Stats NZ, 2020b).

Between 2007 and 2018, an average of 90 percent of direct household emissions came from transport (Stats NZ, 2020b). The light vehicle fleet includes passenger vehicles (primarily cars) and light commercial vehicles (vans, utes, SUVs, and trucks). Growth in the fleet has mirrored population growth – the fleet was the largest to date in 2018 (MoT, 2019).

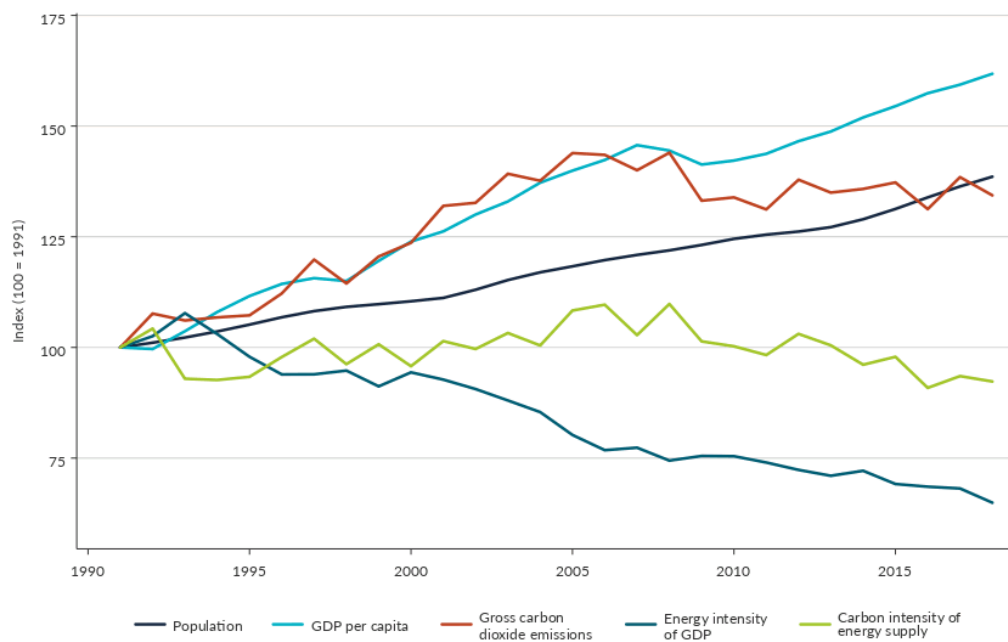
The increase in carbon dioxide emissions from light vehicles for 2009–18 was largely driven by strong growth in the total distance travelled by these vehicles – the overall distance travelled increased by 20 percent in the last decade. The increased travel was not offset by increased fuel efficiency in the light vehicle fleet during this time as this effect was much smaller (MoT, 2019).

Population growth in New Zealand has also driven the increase of our greenhouse gas emissions (as it does globally), particularly by driving economic growth and increasing total household consumption.

Increased pressures on gross carbon dioxide emissions from growth in GDP per person and population were lessened by decreases in the energy intensity of our economy. The energy intensity of GDP decreased by 31 percent between 2000 and 2018, and decreased by 14 percent in the last decade (MBIE, 2019a; Stats NZ, 2020c). Despite the decreases (and the high percentage of electricity generated from renewable sources) our energy intensity remains high – it was 18 percent above the OECD average in 2017, and the sixth highest of 37 OECD countries (MBIE, 2019a).

A decrease in the carbon intensity of our energy supply also contributed to reducing growth in emissions. Between 2000 and 2018 the carbon intensity of our energy supply decreased by 4 percent, but the decrease was 9 percent from 2009–18 (MBIE, 2019a). This was mainly due to more geothermal electricity generation from about 2010 (MBIE, 2019b).

Figure 8: Drivers of New Zealand's carbon dioxide emissions, 1991–2018



Data source: Ministry of Business, Innovation and Employment; Ministry for the Environment; Stats NZ

- Decreases in the energy intensity of our economy and a decrease in the carbon intensity of our energy supply contributed to reducing growth in gross carbon dioxide emissions.

METHANE EMISSIONS ARE MAINLY DRIVEN BY THE NUMBER AND TYPE OF LIVESTOCK

Methane emissions are driven by the economics of agriculture. The increased profitability of dairy farming (relative to sheep and beef) has resulted in conversions to dairy production, a larger national dairy herd, and increased methane emissions from dairy cattle. Increased livestock productivity (for the yield of milk and meat per animal) has also contributed, as higher productivity requires more feed per animal, which increases methane emissions (MfE, 2020d).

Higher emissions from a larger dairy herd and higher productivity have been offset by decreases in the number of beef cattle and sheep. Severe droughts, such as those in 2008, 2013, 2015, and 2016, can also drive down methane emissions as farmers are forced to reduce the number of livestock (MfE, 2020d).

Improving the capture of methane from landfills (managed waste disposal) has driven a decrease in emissions from this source, with a 25 percent reduction reported for 2009–18 (MfE, 2020d). This is despite more municipal waste being generated by our increasing population and rising GDP per person.

NITROUS OXIDE EMISSIONS ARE MAINLY DRIVEN BY LIVESTOCK

Nitrous oxide emissions were caused mainly by livestock dung and urine deposited onto pasture, but were also driven by the use of more synthetic nitrogen fertiliser – this increased by 673 percent from 1990 to 2018. More manure from more productive livestock also contributed to increased emissions (MfE, 2020d).

► COVID-19 and greenhouse gas emissions

In an unprecedented move to eliminate a new coronavirus from New Zealand, the Government closed the borders and confined people to their homes for 29 days during the alert level 4 lockdown in March and April 2020. Essential work continued and supermarkets stayed open but schools, shops and workplaces closed. Many people lost their jobs and businesses, and those who could worked from home.

How did such a radical and sudden behaviour change affect greenhouse gas emissions?

During level 4, traffic volume in large urban areas dropped to an average of 19–25 percent of 2019 levels (NZTA, 2020). The distance heavy vehicles travelled decreased by up to 50–60 percent (compared to mid-March) but buses still ran to transport essential workers – sometimes with few or no passengers. Sea freight reduced, imports decreased by 21 percent, and exports decreased by 17 percent in April, compared to April 2019 (MoT, 2020). Domestic air travel restrictions and the closed border decreased air traffic volume by about 80 percent (ACL, 2020).

Large reductions in air pollutants were observed. In Auckland, nitrogen dioxide levels decreased by 34–57 percent and black carbon levels fell by 55–75 percent (Patel et al., 2020).

Globally, similar lockdowns cut carbon dioxide emissions to 2006 levels. At its peak during the lockdowns in early April, daily carbon dioxide emissions were estimated to have decreased by 17 percent from 2019 levels. Reductions in road and air traffic made the biggest contributions (Le Quéré et al., 2020).

By mid-year, it was estimated that annual global emissions for 2020 would be 4–7 percent lower than 2019 levels. Although this would be the largest annual decrease in greenhouse gases on record, global carbon dioxide emissions remain large, so even a decrease of this size would not be enough to significantly affect the accumulation of carbon dioxide in the atmosphere to limit warming to 1.5 degrees Celsius. For that to happen, this rate of decrease would need to continue year on year for the next decades (Le Quéré et al., 2020).

There is also a question of whether the reductions in emissions will be sustained. Previous economic crises have caused emissions to decrease in the short term but all rebounded except when the crises were driven by energy supply. For example, energy efficiency improved substantially and alternative energy sources were developed as a result of the oil crises of the 1970s and 1980s. The current decreases in emissions are unlikely to be lasting unless structural changes are made to the world's economic, transport, or energy systems (Le Quéré et al., 2020).

Transport and economic activity in New Zealand increased as restrictions on movement were eased in April and May. For the most part, daily life resumed on 9 June when New Zealand moved to level 1 (except for the border remaining closed). Traffic volumes returned to about 2019 levels 1 month into level 1, measuring up to 94 percent in Auckland, 96 percent in Wellington, and 100 percent in Dunedin. In Christchurch and Hamilton, level 1 traffic volumes exceeded 2019 traffic volumes by 4–5 percent (NZTA, 2020).

The emission reductions that will last longest are likely to be in tourism. Tourist activity makes up about 7 percent of the greenhouse gas emissions we produce (on an environmental-economic accounting basis), most of which is from air and land-based travel (Stats NZ, 2020b). Reductions in international tourism, however, may be partially offset by more domestic tourism as New Zealanders are encouraged to travel in their own backyard and support the recovery of local economies.



► A lone car on the Auckland motorway during the early 2020 lockdown.

Photo: Stuart Mackay, NIWA



CHAPTER 3

Changes in our climate and environment are being observed



► Floodwaters encroach on roads, farmhouses, and paddocks.

Photo: Alan Blacklock, NIWA

Climate change has well and truly arrived in New Zealand and is affecting the climate where we live.

The annual average temperature in Aotearoa New Zealand continues to increase. Measurements between 1972 and 2019 showed increases in the annual average temperature at 28 of 30 sites, and at every site during winter. Daily average high and low temperatures also increased at many of the sites, and the growing season has lengthened.

Temperature extremes can cause serious risks to our health, and these have been changing. Warm days, where the daily high is above 25 degrees Celsius, very likely increased at nearly two thirds of sites. The annual number of heatwave days increased at more than half of all sites, while frost days decreased in many places.

The signals of changes to rainfall are also beginning to emerge. Annual rainfall either increased or decreased at 24 of 30 sites, and most of these also had changes to extreme rainfall. Changes to dry spells were observed, as well as changes to the frequency and intensity of drought.

The warmer atmosphere and changed rainfall is already translating to impacts on other parts of the physical environment, like our soils, oceans, and glaciers. The volume of ice in our glaciers has decreased, and changes to wildfire risk have been observed in some places. The changes are unmistakable in the oceans, which are rising, warming, and becoming more acidic.

(See [Measuring and reporting trends and anomalies](#) for information about how increases and decreases are reported.)

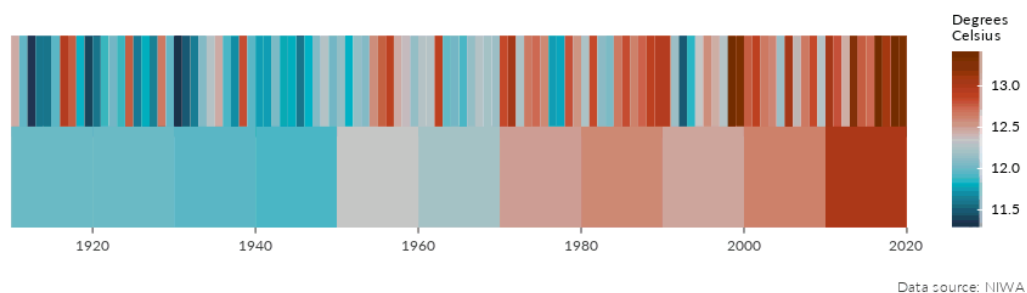
► How New Zealand's climate is changing

TEMPERATURES ARE RISING NATIONWIDE

In 2019, the annual average land-surface temperature in New Zealand was the fourth highest since records began in 1909 (see figure 9). It has risen by 1.13 (± 0.27) degrees Celsius in these 111 years. (See indicator: [Temperature](#).) Of the past 20 years, 16 have recorded above average temperatures compared with the average for the 1961–90 reference period. Overall, the national average temperature increased by 0.10 degrees Celsius per decade since 1909, but that rate was 0.31 degrees Celsius per decade in the past 30 years.

Evidence from sediments, pollen, and ice suggests it has been about 10,000 years since the average annual temperature in New Zealand was as high as it is today. The temperatures we are now experiencing are therefore likely to be near the top of the range that current ecosystems have experienced (MfE, 1997).

Figure 9: Annual and decadal average temperature between 1910 and 2019



Note: Stripes on the top row show the annual average temperature for a year. Stripes on the bottom row show the average temperature by decade.

► 2010–19 was New Zealand's warmest decade on record.

Measuring and reporting trends and anomalies

Trends are classified as 'very likely' when there is a greater than 90 percent certainty of an increasing or decreasing trend. A 'likely' trend is greater than 66 percent certain and an 'indeterminate' trend is reported when there is not enough statistical certainty to say if a trend is going up or down. We report trends (for example, changes in temperature or rainfall over time) using likelihood categories describing the certainty of trends adapted from the Intergovernmental Panel on Climate Change (IPCC, 2014a).

Increasing or decreasing trends are calculated from all the sites where the trend was very likely or likely. Sites that had insufficient data were not included in the trend analysis. Note that *Our atmosphere and climate 2017* used a different framework for reporting trends. When comparisons between reports are made, it is based on the trend likelihood framework used for this report.

The 30 years from 1961 to 1990 are used in this report as a reference or baseline period from which to measure anomalies (data points above or below a standard reference) as recommended by the World Meteorological Organization (WMO, 2017). This provides a benchmark against which contemporary observations can be compared.

The reference period is different from the periods used in weather reports – these use climate normals. Climate normals are 30-year averages that give information about what we can expect on a given day now, given the climate is warming. Averages are currently based on the 1981–2010 climate normal period. The normal period is updated every 10 years, with the next update scheduled for the end of 2020.

Using data from 30 sites around New Zealand allows for an in-depth look at how the climate is changing in different parts of the country. From 1972 to 2019, the annual average temperature increased at 28 sites (the increasing trend was statistically very likely at 25 sites and likely at 3), and no decreasing trends were found. (See indicator: [Temperature](#) and [Measuring and reporting trends and anomalies](#).) Nelson had among the fastest increases in annual average temperature – an average rate of +0.29 degrees Celsius per decade, along with Reefton (+0.25 degrees Celsius per decade) and Tara Hills in inland Canterbury (+0.24 degrees Celsius per decade).

Some sites have already experienced years with an average temperature well above the 1961–90 reference temperature. In 2013, the average annual temperature in Dannevirke was +1.73 degrees Celsius higher. This was the largest temperature annual average anomaly observed for the 16 sites with enough data to calculate anomalies.

The warming observed in New Zealand is consistent with global observations. Worldwide, recorded temperatures have risen 1.0 degrees Celsius above pre-industrial levels, and 19 of the 20 warmest years have occurred since 2001. The past 6 years have been the warmest since records began in 1880 (IPCC, 2018; NASA, 2020).

While 1.0 degrees Celsius of global warming may not sound like a big increase, this rise in global surface temperature is part of an enormous accumulation of extra energy in the climate system (Trenberth, 2020). The difference between today's climate and the climate during the last ice age (when large parts of Europe and North America were covered in ice) is 2–7 degrees Celsius, so changes that seem small can have major consequences (IPCC, 2013).

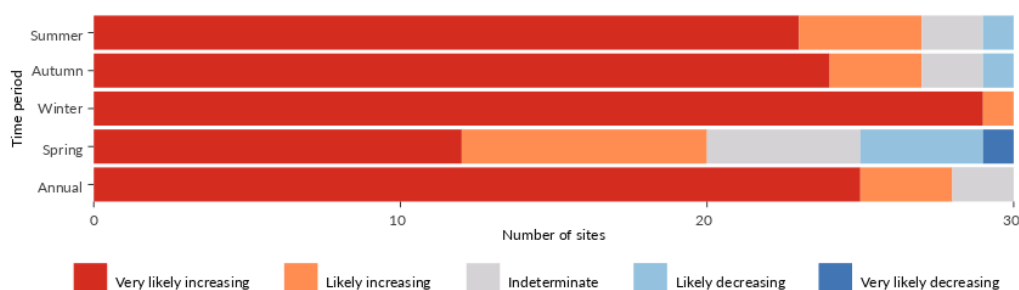
OUR SEASONS ARE CHANGING

Winters are becoming warmer – average temperatures increased at all 30 sites (the trend was statistically very likely at 29 sites and likely at 1 site, see figure 10). Between 1972 and 2019 winters at Tara Hills warmed at an average rate of +0.41 degrees Celsius per decade. This was one of the highest rates of change at any site in any season. Nelson and Gore were also among the sites that had rapid changes in winter temperatures, with average increases of +0.35 and +0.33 degrees Celsius per decade respectively.

Winter had the most sites with increasing trends, although many of the largest temperature anomalies were recorded in summer. The hot summer in 2018 was unprecedented in New Zealand's climate record. It resulted in average summer temperatures of more than 2 degrees Celsius above the 1961–90 baseline at 11 of the 30 sites, including Dannevirke, Nelson, and New Plymouth.

Changes in the seasons can affect our native plants, animals, and ecosystems, as well as how and when crops are grown. Changes can affect the flowering of some trees, when birds lay their eggs, and when species migrate. The timings and relationships that some mātauranga Māori is based on can also be affected. Warmer winters can mean less fuel needs to be burned to heat our homes. This could cause fewer emissions of air pollutants like particulate matter, the tiny particles in wood smoke. Warmer summers can increase heat stress (an inability to get rid of excess heat), which has serious health implications.

Figure 10: Trends in average temperature between 1972 and 2019

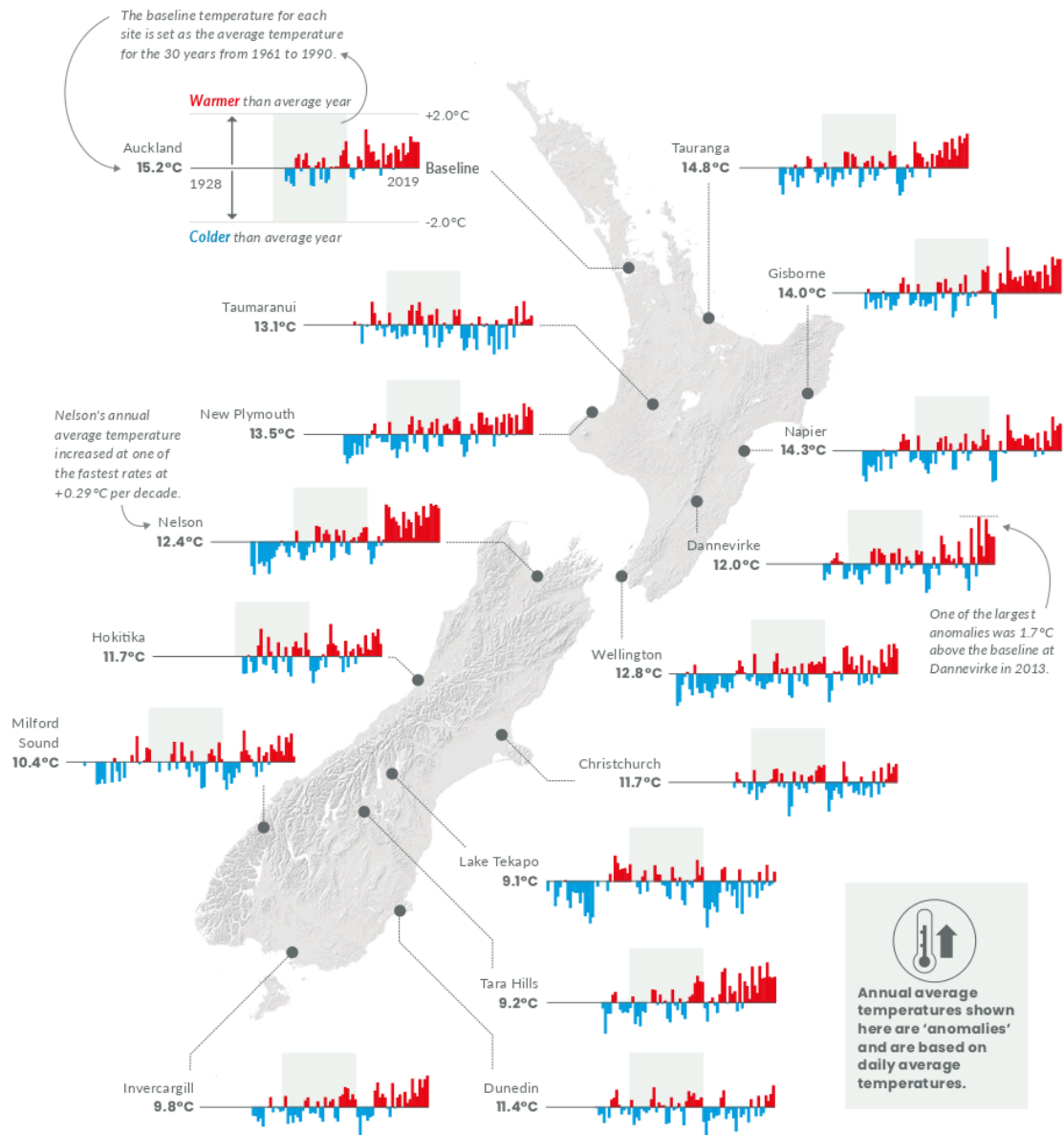


Data source: NIWA

► Average temperatures increased at most of the 30 sites across the country.

► Average temperatures across New Zealand are increasing

Comparing annual average temperatures with the average for 1961–90 shows how temperatures are changing.



Note: Temperature records have different start dates. Only sites with enough data to calculate a baseline temperature are shown here.
Map data by Land Information New Zealand (CC BY 4.0)

Tohu and maramataka: observing and tracking changes in the environment

By interacting closely with local environments and processes over time, Māori developed a detailed knowledge of biophysical indicators or tohu (King, Tawhai, Skipper, & Iiti, 2005). Tohu are passed down through kōrero tuku iho (stories of the past), karakia (prayers), pūrākau (legends), whakatauhāki (proverbs), and waiata (songs) like this one:

Tihore mai te rangi – clear the sky
Tihore mai
Mao mao mao te ua – cease the rain
Whiti mai te rā – let the sun shine
E rere kōtare – fly kingfisher
Ki runga pūwharawhara – onto the astelia bush
Rūrū parirau – ruffle your wings
Kei mate i te ua – lest you catch a chill
E rere e noke – flee you worm
Mai tō pokorua – out of your burrow
Kei kī i te wai – lest it be filled with water
Ka mate i te ua – and you will drown.

Melbourne, 1978

In this waiata, Tāwhirimātea is asked specifically to stop the rain, clear the dark clouds, and let the sun shine. The waiata also contains a warning to the kōtare and noke (kingfisher and worm) about the consequences of failing to prepare and seek shelter. If we humans liken ourselves to kōtare and noke, the waiata can also be a warning to avoid the same failings.

The use of tohu is based on traditional principles that all things are connected through whakapapa (ancestral lineage). Through these layers of the past, tohu provide access to the memories of Māori ancestors and the state of the environment in their time. They can therefore be used to signal, monitor, and forecast changes in the natural environment.

Another method used by Māori for observing environmental changes is the maramataka. This stellar-lunar-ecological calendar is how Māori traditionally kept time as it divides a year into lunar months. The maramataka is a vast repository of mātauranga Māori (traditional knowledge) that aligns with the movements and phases of the moon (Weko, Roberts, & Clarke, 2006). It is used for deciding when to plant and harvest crops and indicates when to hunt and fish for specific animals. It also helps to indicate weather and seasonal changes (Harris, Matamua, Smith, Kerr, & Waaka, 2013; Tawhai, 2013).

There are many maramataka, and they vary from region to region. The appearance of the star Puanga or Rigel, for example, marks the start of Matariki (Māori New Year) in the far north, Taranaki, Whanganui, the South Island, and the Chatham Islands. In Te Urewera, Ngāi Tūhoe know that cold weather and frosts in Paengawhāwhā (April) are signs of a good year for korerū because the trees will produce plenty of fruit (Lyver, Jones, & Doherty, 2009).



► Ātea a Rangi (star compass) in Hawke's Bay.

Photo: Andrew Caldwell/photoneusealand

DAILY MAXIMUM AND MINIMUM TEMPERATURES ARE CHANGING

Winter days and winter nights are warming in New Zealand (see figure 11). The maximum temperature in winter increased at all 30 sites, and the minimum winter temperature increased at 27 of the sites (increases and decreases include both very likely and likely statistical trends, see figure 12).

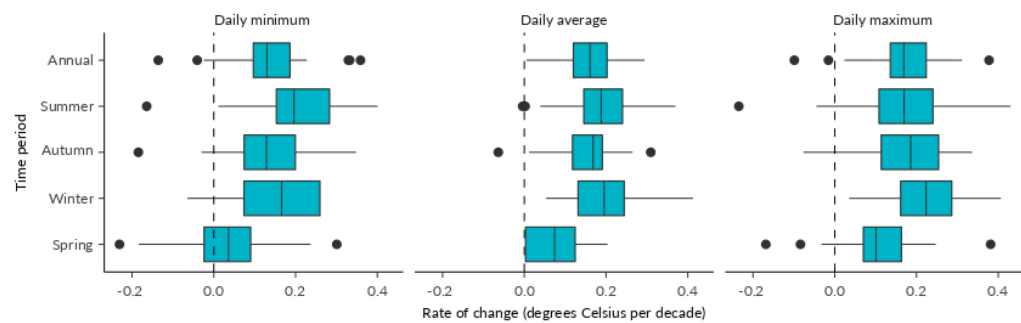
Changes in spring were more mixed – 25 sites had increasing maximum temperatures, but only 13 had increasing minimum temperatures. This contrasts with changes in seasonal rainfall (see [Annual and seasonal rainfall is changing](#)) where spring was the season when the most sites experienced changes.

One of the fastest increases in annual average maximum temperature occurred in Masterton, where an average rate of +0.38 degrees Celsius per decade was recorded. Some of the fastest increases in annual average minimum temperatures were recorded in Whangārei, Nelson, and Gisborne.

Maximum daily temperatures have strong influences on our day-to-day life and can affect human health, as well as ecosystems, agricultural systems, and water availability. These temperature measurements are sensitive to changes in siting and instrumentation.

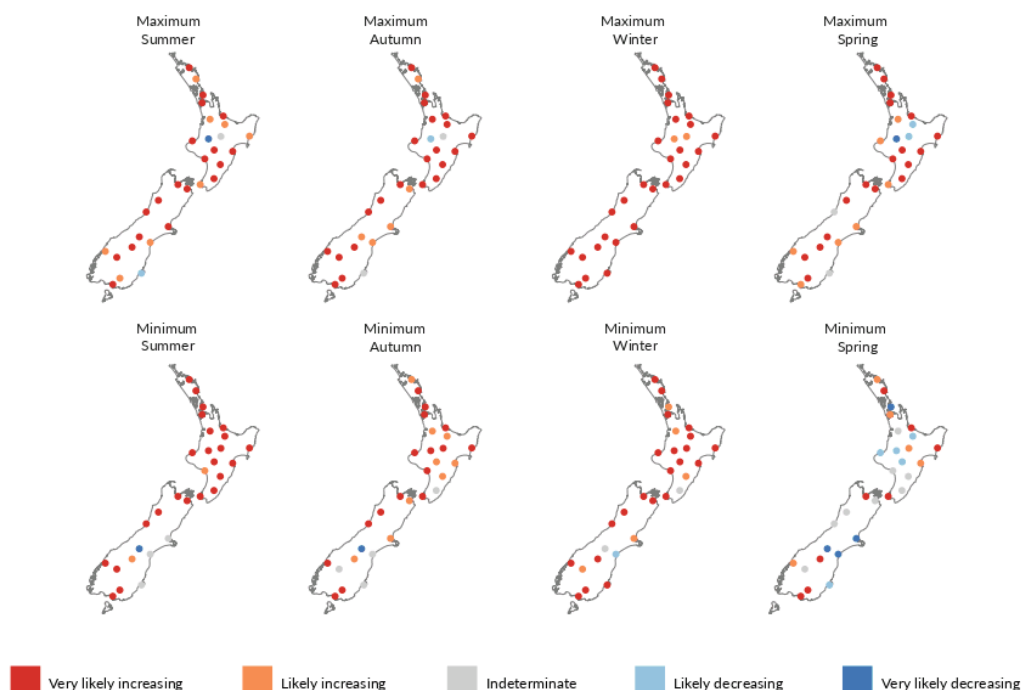
Soaring maximum temperatures often make headlines, but changes to minimum temperatures have effects that may go unnoticed. Tropical nights, when the minimum temperature does not go below 20 degrees Celsius, increased by about half a night per decade in Whangārei and Tauranga on average. Elevated night-time minimum temperatures can be a health concern as people do not get a break from the heat (Murage, Hajat, & Kovats, 2017).

Figure 11: Rate of change in temperature between 1972 and 2019



Data source: NIWA

► Unlike summer, daily minimum temperatures in spring did not increase between 1972 and 2019.

Figure 12: Trends in daily minimum and maximum temperature between 1972 and 2019

Data source: NIWA

► Minimum and maximum daily temperatures increased at most of the 30 sites, although fewer trends were seen in spring minimum temperatures.

The temperature range widened at Lake Tekapo and Timaru, with decreases in minimum temperatures and increases in maximum temperatures recorded. This pattern could be linked to a reduction of cloudiness in the area, with more cooling happening at night. New Zealand is also strongly influenced by the surrounding marine environment, so these observations may be related to the cooler sea-surface temperatures found to the southeast of the South Island (Mullan, Stuart, Hadfield, & Smith, 2010). (See indicator: [Sea-surface temperature](#).)

THE GROWING SEASON IS GETTING LONGER

Growing degree days is a measure that can be used to estimate the length of the growing season for agriculture and horticulture. The measure counts the total number of degrees Celsius that the average temperature is above a base temperature (commonly 10 degrees Celsius) each day. Growing degree days measure heat accumulation, which plants depend on for development, and can be used to predict plant and animal growth.

For 1972–2019, 27 of the 30 sites had an increasing trend in growing degree days (this includes both very likely and likely statistical trends). (See indicator: [Growing degree days](#).) Lake Tekapo had a statistically likely decreasing trend for this period (this may be related to reduced cloudiness as discussed above).

THE NUMBER OF WARM DAYS AND HEATWAVE DAYS IS INCREASING

Average temperatures help define how a climate feels, but it is often the infrequent, extreme events like heatwaves that we notice most. These events are also where the most immediate impacts of changes to the climate are observed. Changes to the intensity and frequency of heatwaves, for example, may have much greater economic, social, and environmental impacts than changes in the average climate (Pearce et al., 2019).

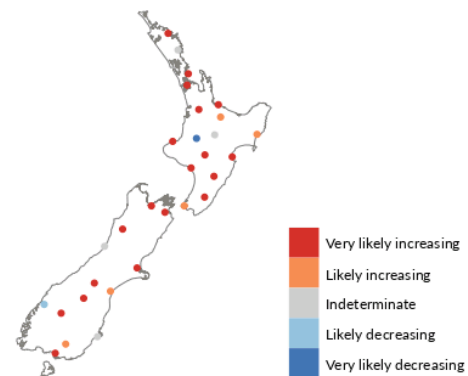
High temperatures can have health and safety implications for people who work and play outdoors, and for people like the elderly who are particularly sensitive to heat (Royal Society Te Apārangi, 2017). Heat can also affect infrastructure such as roading (like when your jandals stick to melted tar on the road) and increase the demand for electricity (because people use air conditioning). Plants, including crops, are affected by heat but their tolerances vary widely. Temperature extremes are likely to influence the range and survival of native and introduced species (Pearce et al., 2019).

The number of warm days (when the maximum temperature is above 25 degrees Celsius) is very likely to have increased at 19 of 30 sites and very likely to have decreased at only one site between 1972 and 2019. (See indicator: [Frost and warm days](#) and figure 13.) Among the sites with the largest average increases were Masterton (which gained a week per decade), Reefton (+5.0 days per decade), and Tauranga (+4.8 days per decade). A decrease was observed at Taumarunui, which recorded an average of 4.1 fewer warm days per decade.

The increase in the number of sites with trends in warm days is one of the biggest changes observed since *Our atmosphere and climate 2017* among the climate indicators used in this report. Five more sites (19 in total) observed a very likely increasing trend than the 14 sites that were observed between 1972 and 2016.

Heatwave days are a measure of when temperatures are significantly warmer than normal. In this report, heatwaves are defined as three or more consecutive days with a maximum temperature of more than 5 degrees Celsius above the monthly average for 1981–2010. Annual heatwave days is the total number of days in these heatwaves per year. Heatwaves can occur at any time of year – in winter they are known as warm spells.

Figure 13: Trends in annual number of warm days between 1972 and 2019



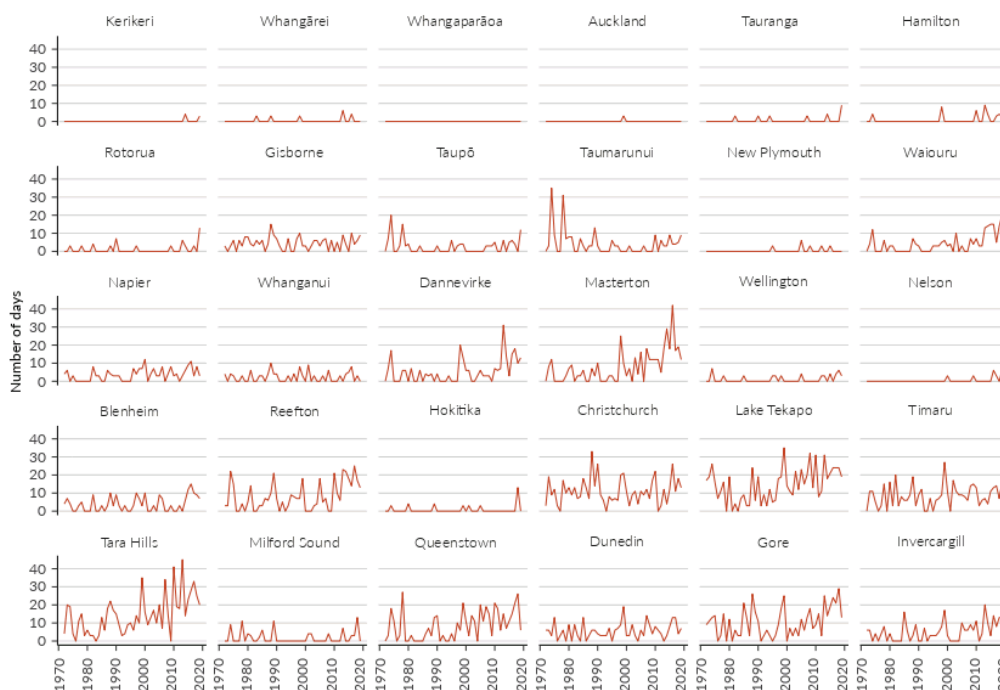
Data source: NIWA

► The annual number of warm days increased across the country between 1972 and 2019.

Inland sites like Tara Hills, Lake Tekapo, Gore, and Masterton were among those with the most heatwave days between 1972 and 2019 (see figure 14). Coastal South Island sites like Christchurch and Timaru can also experience heatwaves, particularly when hot northwest winds blow across the Canterbury Plains.

A very likely increasing number of annual heatwave days occurred at 18 of 30 sites nationwide. Some of the fastest increases were at inland South Island locations. Heatwave days increased by 4.1 days per decade at Tara Hills, 3.0 days per decade at Lake Tekapo, 2.7 days per decade in Queenstown, and 3.2 days per decade in Masterton.

By season, more of the 30 sites had very likely increasing trends for annual heatwave days in summer (14) and autumn (18) than in winter (8) and spring (9, and 1 very likely decreasing trend).

Figure 14: Annual heatwave days, 1972–2019

Data source: NIWA

► Heatwaves were more common at South Island sites for 1972–2019.

FROSTS ARE BECOMING LESS COMMON AND THE DATES OF FROSTS ARE CHANGING

Our climate is not as cool as it used to be. A frost day occurs when the minimum air temperature is below zero degrees Celsius (rather than a day that has frost on the ground). For 1972–2019, 12 of the 30 sites had a very likely decreasing number of frost days. (See indicator: [Frost and warm days](#).) Nelson and Tara Hills (with an average loss of 5 days per decade) had some of the fastest decreases.

Some places that once had frosts rarely no longer have any. Whangārei never recorded more than two frost days per year but a temperature below zero has not been recorded at this site since 1994. However, Lake Tekapo and Timaru are very likely to have had an increased number of frost days per year.

The dates of the first and last frosts have also changed (see figure 15). Some sites, including Waikouaiti, Taumarunui, Reefton, Nelson, Gore, Milford Sound, and Tara Hills now experience winter weather for a shorter time on average, with the first frost occurring later in the year and the last frost earlier. Four sites (Taupō, Blenheim, Timaru, and Lake Tekapo) had their first frost day occurring earlier and the last frost day later.

Some plants (including invasive species) cannot tolerate frost so fewer frost days may allow them to expand their range. Cold temperatures are critical for other species because they trigger processes like blossoming in fruit trees. Frost can also be beneficial in killing some insect pests.

Figure 15: First and last frost days, 1972–2019



Data source: NIWA

► The time between first and last frosts decreased (lines got closer) at several sites for 1972–2019.

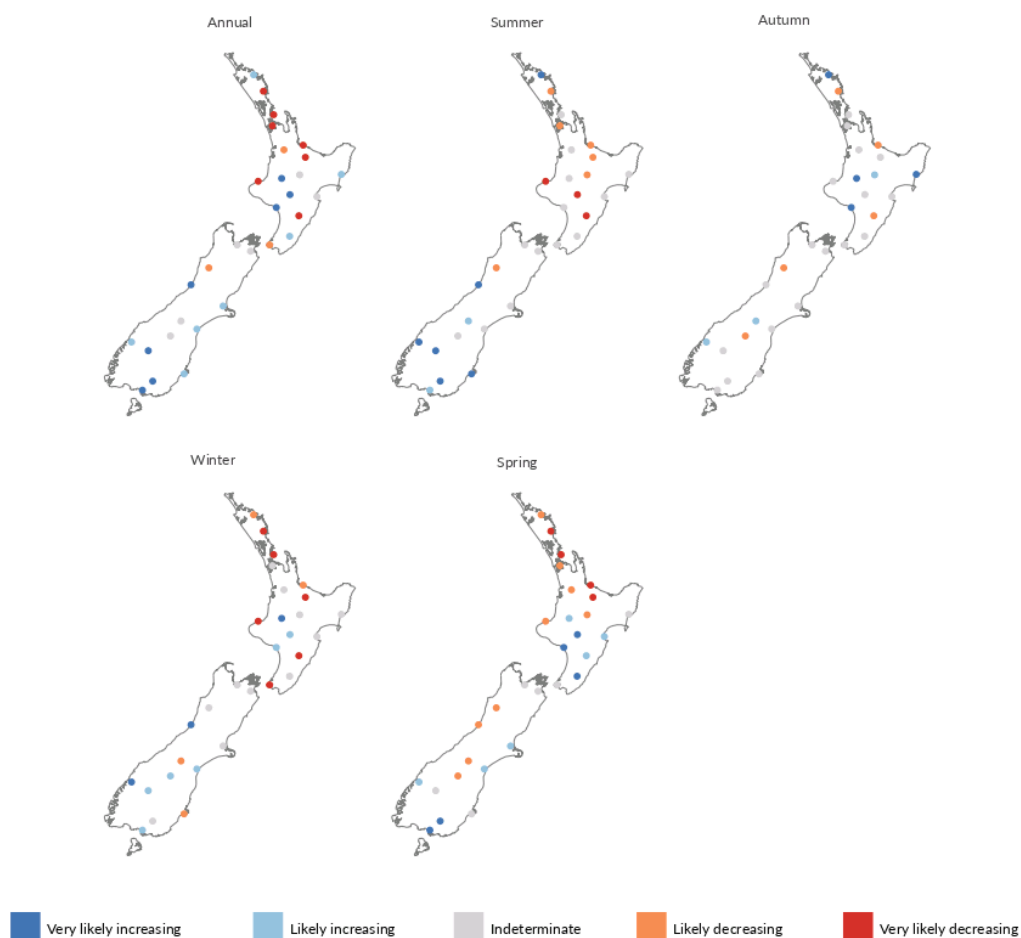
► Rainfall is changing in many places

ANNUAL AND SEASONAL RAINFALL IS CHANGING

Almost half of the 30 sites had increasing trends for annual rainfall for 1960–2019 (increases and decreases include both likely and very likely statistical trends (see figure 16 and indicator: [Rainfall](#))). One third of the sites experienced less rainfall – many of these were in the northern half of the North Island. Southern South Island and west coast sites (including Milford Sound, the wettest of the 30 sites) had increased annual rainfall. Some of the drier sites – Tara Hills and Lake Tekapo – had different trends in different seasons.

Annual rainfall decreased by an average of 4.3 percent per decade in Whangārei, and 3.2 percent per decade in Tauranga, relative to the average rainfall over the entire period. These were among the largest decreases per decade. It increased by 2.8 percent per decade in Whanganui, 2.1 percent per decade in Milford Sound, and 1.3 percent per decade in Hokitika.

Figure 16: Trends in total rainfall between 1960 and 2019



Data source: NIWA

► Autumn had the fewest number of sites with increasing or decreasing trends compared with other seasons.

Changes in rainfall did not happen evenly across the year. There were increasing or decreasing trends in spring at 24 of 30 sites between 1960 and 2019. Spring is an especially important time of year for agriculture and horticulture. The fewest changes were observed in autumn, when 12 sites had increasing or decreasing trends, and the remaining sites had no detectable trend.

Most sites with increasing rainfall also had more intense rainfall – the rain fell in a shorter period of time rather than being spread out over the year. Most sites with decreasing rainfall had less intense rainfall (see [Changes to extreme rainfall are mixed](#)).

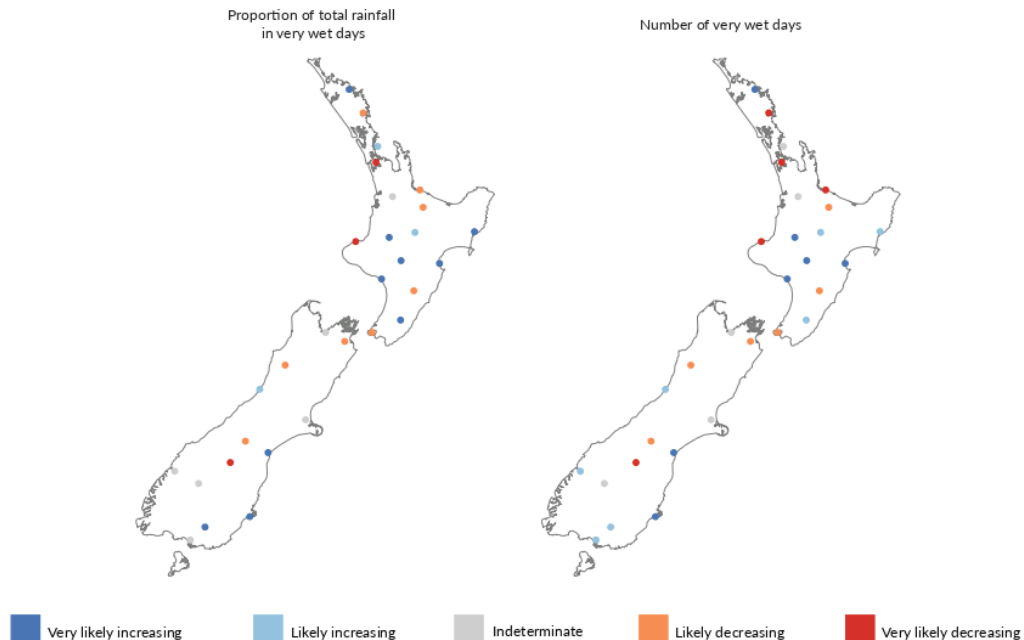
Rainfall influences which plants can grow in an area. Most ecosystems are sensitive to changes in precipitation (mostly rain and snowfall). Differences in the long-term baseline rainfall can affect the structure, composition, and diversity of ecosystems (Weltzin et al., 2003). The seasonal timing of rainfall can also have important implications for water supply and management, agriculture and irrigation, hydroelectricity generation, and river ecosystems.

CHANGES TO EXTREME RAINFALL ARE MIXED

Extreme rainfall events are variable by nature. Because a warmer atmosphere is a more energetic atmosphere (and can hold more water vapour), the water cycle is intensified. This can result in more frequent and intense rainfall. Although trends in the frequency and size of intense rainfall events have been observed, these events do not happen often, so a longer record of data is needed to increase confidence in these findings.

More rain falling in intense events can increase the risk of floods, landslides, streambank erosion, and sedimentation. Flooding from intense rainfall events can cause widespread damage to the infrastructure, social, and economic systems we rely on. Studies that examined recent floods for a link to climate change found that the warmer climate had increased the likelihood of some events – Golden Bay 2011 (Dean, Rosier, Carey-Smith, & Stott, 2013) and Northland 2014 (Rosier et al., 2015).

Figure 17: Trends in extreme rainfall between 1960 and 2019



Data source: NIWA

► Changes in extreme rainfall across New Zealand were mixed.

The proportion of total rainfall arriving in extreme events (downpours versus light rain) increased at 13 sites and decreased at 11 sites (increases and decreases include both likely and very likely statistical trends) (see figure 17 and indicator: **Extreme rainfall**). Timaru (+2.0 percent per decade), Kerikeri (+1.6 percent per decade), Napier (+1.5 percent per decade), and Dunedin (+1.4 percent per decade) had among the largest average increases. The proportion of rain falling in extreme events decreased by 1.6 percent per decade in New Plymouth.

The number of days with extreme rainfall increased at 14 sites and decreased at 11. Of the 25 sites with an increasing or decreasing trend, all but two had the same trend in the proportion of rainfall occurring in extreme events.

► Floods release decades-old rubbish from a landfill

Ex-tropical cyclone Trevor hit New Zealand in March 2019, bringing extreme rainfall to the west coast of the South Island. Heavy rain closed part of State Highway 6, caused slips, and destroyed the Waiho River Bridge south of Franz Josef. Stretches of road were damaged over a distance of hundreds of kilometres. This weather event is estimated to have caused \$3.81 million of damage in Westland (Westland District Council, 2019a).

A state of emergency was declared, residents and businesses were affected by power cuts, some homes were flooded or evacuated, and one person died (New Zealand Government, 2019a). Stop banks and farmland were damaged, and the floodwaters tore through a disused landfill beside Fox River, exposing rubbish from previous decades (Westland District Council, 2019b).

The effects were widespread. About 135,000 kilograms of rubbish was washed 21 kilometres downstream through Westland Tai Poutini National Park to the Tasman Sea and strewn over 64 kilometres of coastline. Litter in the marine environment is recognised as a global concern – flooding can deliver it deep onto the sea floor and threaten these marine ecosystems (Pierdomenico et al, 2019).

Westland District Council began the massive clean-up operation but handed it over to the Department of Conservation (DOC) in June 2019. (DOC is responsible for the national park, which is also part of Te Wāhipounamu South West New Zealand World Heritage Area). The New Zealand Defence Force also provided assistance.

The clean-up effort, called Operation Tidy Fox, coordinated hundreds of volunteers from across New Zealand and overseas and acted as a receiving point for financial support. Nearly 1,000 volunteers gave their time between June and August 2019, collecting over 134,000 bags of rubbish from the riverbed and coast (DOC, 2019).

Subsequent floods continue to release more rubbish. A feasibility study is underway to estimate the cost of sealing the landfill to stop more pollution. More intense and frequent extreme weather events may increase the risk to landfills that are vulnerable to storms and flooding (New Zealand Government, 2019b; Office of the Prime Minister's Chief Science Adviser, 2019).

Fox River landfill, which it is believed was closed in 2001, is one of between 110 and 163 closed landfills (compared to 2–3 active landfills) that are vulnerable to the effects of climate change such as sea-level rise (Simonson & Hall, 2019).



► Volunteers collect rubbish from Fox riverbed.

Photo: Department of Conservation

DRY SPELLS ARE BECOMING MORE FREQUENT IN MANY PLACES

Auckland experienced its longest dry spell in early 2020, which finally ended after 47 days (NIWA, 2020). The average length of dry spells in Auckland between 1960 and 2019 was 10 days.

In this report a dry spell is defined as a period of 7 or more consecutive dry days when less than 1 millimetre of rain is recorded on each day. Annual dry spell days is the total number of days in these dry spells in a year. Note that some towns and cities use different time periods depending on their climate. Longer or more frequent dry spells coupled with shortened wet spells or warmer temperatures can lead to drought.

The total number of dry spell days per year increased at 13 of the 30 sites and decreased at 9 sites between 1960 and 2019 (increases and decreases include both very likely and likely statistical trends, see figure 18). Almost all sites with an increasing annual number of dry spell days (most of which were in the North Island and particularly the northern half) also had increasing trends for the number of dry spells. Six of the 9 sites with decreasing trends in the number of dry spell days, and 8 of the 11 sites with decreasing number of dry spells were in the South Island (particularly the lower half) where annual rainfall increased at many sites.

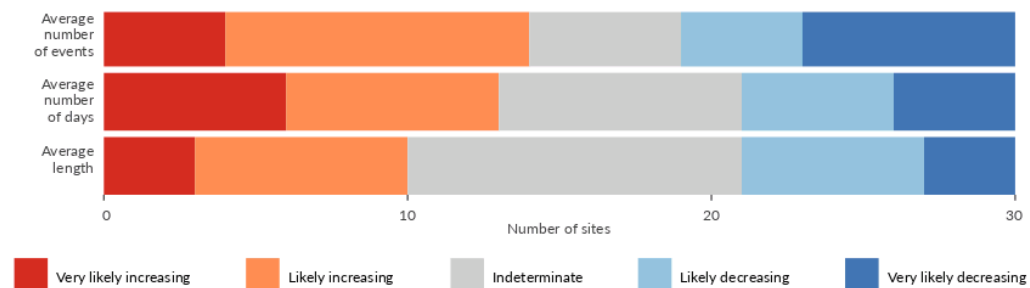
DROUGHTS ARE BECOMING MORE FREQUENT IN SOME AREAS

A drought is a prolonged and marked shortage of moisture compared to what is expected. Drought is caused by a lack of rain but high temperatures can contribute because they accelerate evaporation and water loss from soil, vegetation, and waterways. Therefore, high temperatures, low rainfall, and more of the rain falling heavily (with consequently longer dry intervals) can quickly lead to drought conditions.

One method used to detect and monitor drought is the standardised precipitation-evapotranspiration index (SPEI) (WMO and Global Water Partnership, 2016). Because SPEI accounts for the influence of temperature and precipitation on drought it is useful for studying climate change because both are affected. SPEI can also be applied for different time periods (like the past 3, 6, or 12 months) to provide information about the frequency and intensity (drought severity divided by its duration) of droughts.

More of the 30 sites had increasing trends for frequency and intensity of short-term drought than sites that had decreasing trends (as measured using the 3-month SPEI) for 1972–2019. (Increases and decreases include both very likely and likely statistical trends, see figure 21 and indicator: [Drought](#)). Thirteen of the 30 sites had an increased frequency of short-term drought, and the frequency decreased at 9 sites. Hamilton's 3-month SPEI values for example, dipped into short-term extremely dry conditions six times in the past 10 years (see figure 19). Blenheim and Dunedin were among the sites with the largest increases in the frequency of short-term drought.

Figure 18: Trends in dry spells between 1960 and 2019



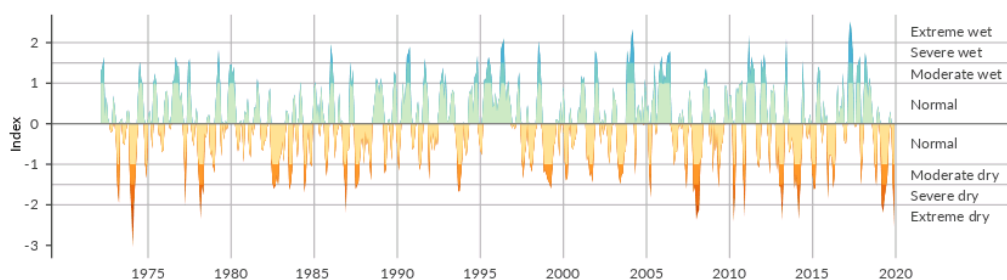
Data source: NIWA

► The average number of dry spell days and number of events changed at many sites.

The intensity of short-term drought increased at 14 sites, 11 of which were in the North Island. Of these 14 sites, 4 (Auckland, Waikouaiti, Reefton, and Lake Tekapo) had increasing trends in severity but not duration. This indicates that the drought intensification at those places was likely to be related more to increased severity than increased length. Auckland and Wellington had some of the largest increases in intensity. Nine sites had decreased short-term drought intensity, and of these, 7 were in the South Island.

New Zealand does not typically experience the droughts of a year or more that occur in other parts of the world, but long-term drought (measured using the 12-month SPEI) increased in frequency at 13 sites and decreased at 5 of the 30 sites. Also, more sites had decreases in severity and intensity than increases.

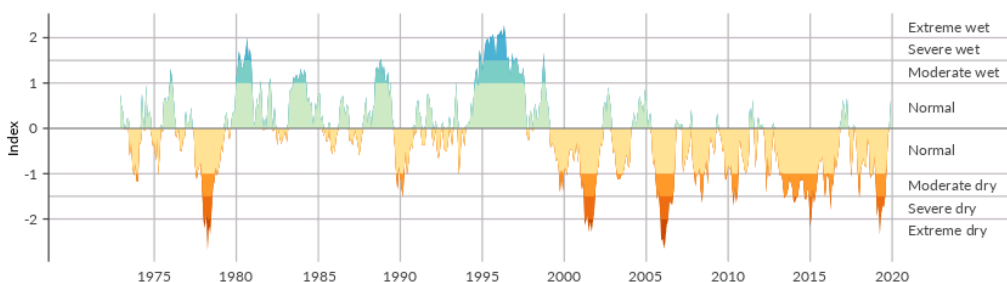
Figure 19: 3-month standardised precipitation-evapotranspiration index (SPEI) Hamilton, 1972 to 2019



Data source: NIWA

► 3-month SPEI can identify short-term drought – in Hamilton there were six periods of extremely dry conditions for 2010–19.

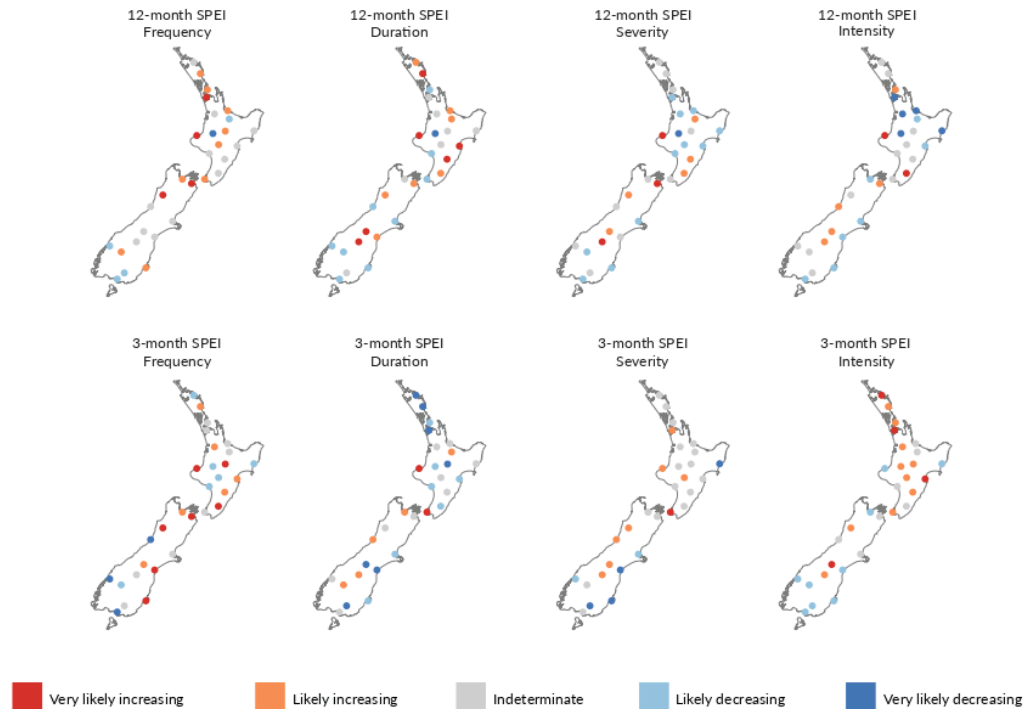
Figure 20: 12-month standardised precipitation-evapotranspiration index (SPEI) Reefton, 1972 to 2019



Data source: NIWA

► 12-month SPEI can show long-term drought. Reefton has had several periods of moderate to extremely dry conditions.

Figure 21: Trends in drought frequency, duration, severity, and intensity based on standardised precipitation-evapotranspiration index (SPEI) between 1972 and 2019



Data source: NIWA

► Short and long-term drought became more frequent at almost half of all sites.

New Zealand's native plants typically have low drought resistance, and drought has caused the death of trees in all types of forest (Wyse, Macinnis-Ng, Burns, Clearwater, & Schwendenmann, 2013; Wyse, Wilmschurst, Burns, & Perry, 2018). Freshwater ecosystems can also be affected when less rain results in a reduced amount of stream habitat for fish and other freshwater species.

Long-term drought, such as that experienced in Reefton can be especially stressful for rural communities that rely on rain for drinking water, to grow crops, and water livestock (see figure 20). Urban areas can also be affected by drought. In summer 2020, widespread drought occurred in much of the North Island and parts of the South Island. Water storage dams for Auckland fell below half of their capacity and mandatory water restrictions were put in place. This is one of the most severe droughts to have occurred in this country since the early 20th century (NIWA, 2020).

EXTREME WIND HAS DECREASED ACROSS THE COUNTRY

Because New Zealand is a nation of islands in the roaring 40s, our country is frequently buffeted by strong winds. For 1980–2019, the annual maximum wind gust decreased at 11 of the 14 sites that had enough data to calculate a trend, and increased at 2 of the 14 sites (Gisborne and New Plymouth) (increases and decreases include both likely and very likely statistical trends). (See indicator: [Extreme wind](#).)

The number of days where gusts were extreme for that location (was potentially damaging) decreased at 12 and increased at 2 sites. This observation is counter to climate projections that anticipate an increase in extreme wind speeds, especially in the South Island and the southern half of the North Island (MfE, 2018a).

The observed decrease in potentially damaging wind may be related to changes in the Southern Annular Mode (SAM), a climate oscillation that is associated with storm tracks being shifted towards or away from New Zealand. Since 1970, the wind belt has often been shifted to the south (the SAM has been in more positive phases), bringing an overall decrease in windiness over the country (see [Climate varies naturally but natural variations may be changing too](#)).

OTHER CLIMATE INDICATORS

Our climate is affected by, and affects, other indicators such as sunshine hours and carbon stocks in forests. These indicators were reported in [Our atmosphere and climate 2017](#) and have not been updated for this report.

► Changes to the climate are changing the environment

OUR GLACIERS ARE MELTING

In 1997, the volume of ice in New Zealand's glaciers peaked for the 1977–2016 data record. (See indicator: [Annual glacier ice volumes](#).) Only two decades later in 2016, 28 percent (15.5 cubic kilometres) of the ice had gone, enough to fill Wellington Harbour 12 times.

An unprecedented ocean-atmosphere heatwave in the summer of 2017–18 resulted in the loss of about 3.8 cubic kilometres of glacier ice in the Southern Alps. This was the largest amount of loss in a single year since 1962 (Salinger et al., 2019). New research has linked years with the highest levels of ice loss to human-caused greenhouse gas emissions, finding that global warming made the extreme ice loss observed in 2018 at least 10 times more likely (Vargo et al., 2020).

The volume of ice in New Zealand's glaciers is strongly influenced by temperature and snowfall. Changes to the accumulation and melting of ice affects the volume of water downstream, which influences the ecology and health of waterways. Water for hydroelectric generation, cultural values, tourism, and agriculture can all be affected.

SEA LEVELS ARE RISING

Sea level is rising as ice sheets and glaciers melt, and because water expands when it warms. New Zealand's mean relative sea level (based on four long-term monitoring sites in Auckland, Wellington, Lyttelton, and Dunedin) rose 1.81 (± 0.05) millimetres per year on average since records began more than 100 years ago. (See indicator: [Coastal sea-level rise](#).)

Not only are sea levels rising, but they are rising faster. The average rate of sea-level rise at the four sites for 1961–2018 was twice the average rate between the start of New Zealand records and 1960.

Globally, mean sea level has risen more than 7 centimetres in just 25 years according to satellite data. The loss of ice from the large Greenland and Antarctic ice sheets has accelerated the rate of global sea-level rise – the rate for 2006–15 was about two and a half times the rate for 1901–90 (IPCC, 2019).

OCEANS ARE WARMING

Water around the New Zealand coast warmed by 0.2 degrees Celsius per decade on average from 1981 to 2018 as measured by satellite. (See indicator: [Sea-surface temperature](#).) Higher rates of warming were observed off the South Island's west coast in the Tasman Sea between 2002 and 2018 (Chiswell & Grant, 2018). Faster warming has also been recorded to the east of the Wairarapa coast since 1981, although the rate of warming varies. Less warming has occurred to the southeast of the South Island (Sutton & Bowen, 2019).

The rate of warming in the upper ocean has accelerated globally since 1991 (Cheng, Abraham, Hausfather, & Trenberth, 2019). There is growing evidence that only a small amount of sea-surface warming is needed to affect the stability of ice shelves in Antarctica, which could result in multi-metre rises in sea level over the coming centuries (Turney et al., 2020).

OCEANS ARE BECOMING MORE ACIDIC

Higher concentrations of carbon dioxide in the air is also making the world's oceans more acidic. About 30 percent of global human-emitted carbon dioxide was absorbed by the oceans between 1994 and 2007 (Gruber et al., 2019).

Ocean surface water has become 26 percent more acidic (a decrease of 0.1 pH units) since the beginning of the industrial era (IPCC, 2014a). Subantarctic waters off the coast of Otago became 7 percent more acidic in the 20 years from 1998 to 2017. (See indicator: [Ocean acidification](#).) More acidic seawater can affect ocean biodiversity, particularly species like corals, shellfish, and coralline algae (Kroeker et al., 2013).

THE RISK OF WILDFIRES IS CHANGING

The cool, moist environment in many of New Zealand's forests is a natural barrier to burning. In one version of the legend, Mahuika the Māori fire deity, discovered this as she tried to preserve her sparks using the native rātā, hīnau, kahikatea, rimu, and miro trees without luck (Best, 1924). But when the weather is dry for long periods, bushfires can sweep through our forests and grasslands (Kitzberger et al., 2016).

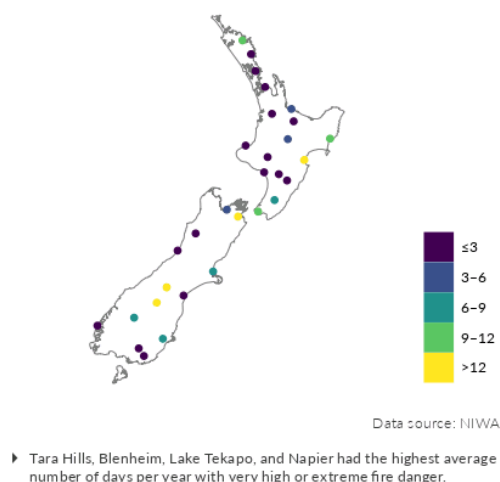
NIWA (National Institute of Water and Atmospheric Research) operates the fire weather system for Fire and Emergency New Zealand. Using four weather variables, fuel moisture data, and fire behaviour indices, fire danger in New Zealand is categorised into five levels: low, moderate, high, very high, and extreme. When fire danger is very high or extreme, large fire outbreaks are possible, and may require considerable effort to control.

For 1999–2019, 16 of the 30 sites had an annual average of 3 days or less with very high or extreme fire danger (see figure 22 and indicator: [Wildfire risk](#)). By contrast, Tara Hills, Lake Tekapo, and Blenheim all had an annual average of more than a month's worth of days per year with very high or extreme fire danger.

Six of 28 sites where trends could be calculated (Napier, Lake Tekapo, Queenstown, Gisborne, Masterton, and Gore) had a very likely increasing trend in days with very high or extreme fire danger between 1997 and 2019. Six sites (Blenheim, Christchurch, Nelson, Tara Hills, Timaru, and Wellington) had very likely decreasing trends.

Fire is still possible at places that do not have a large number of days with very high to extreme fire danger. Nelson and Dunedin, for example, have a relatively low yearly average (4 and 8 days per year, respectively for 1999 to 2019) compared to other sites, but had large wildfires nearby in 2019.

Figure 22: Annual average number of very high and extreme fire risk days, 1999–2019



More bushfires could radically change our land. Unlike Australia, few New Zealand ecosystems have evolved with fire and most are not adapted to it. Most of our native trees cannot survive even a low-intensity fire (Tepley et al., 2018). Burned habitat can also affect many of our native animals.

The smaller trees and shrubs that are first to grow in burned spaces are also more prone to burning. Coupled with other factors like the loss of seed sources or invasive plants, burned forests may take centuries to recover, and recovery may be prevented in some areas (Tepley et al., 2018).

When vegetation is removed by burning, soil erosion increases. This can increase the risk of flash floods and affect water supplies by filling reservoirs with sediment and debris. Also, when soot from bushfires lands on snow and glaciers, it forms a dark layer that causes the absorption of more heat and faster melting.

The effects on air quality and human health can also be severe and occur far away from the fire itself. The Australian bushfires of 2019–20, for example, reduced visibility throughout this country and helped cause levels of tiny particles (PM_{10}) to exceed national air quality standards in four regions: Auckland, Bay of Plenty, Waikato, and Tasman (MfE, 2020a).

CLIMATE VARIES NATURALLY BUT NATURAL VARIATIONS MAY BE CHANGING TOO

The world's climate is influenced by natural patterns of change (oscillations) that operate globally or regionally on timescales ranging from months to millennia. New Zealand's weather and climate is most influenced by three oscillations: El Niño Southern Oscillation (with El Niño, La Niña, and neutral phases), Interdecadal Pacific Oscillation, and Southern Annular Mode (SAM). (See indicators: [El Niño Southern Oscillation](#), [Interdecadal Pacific Oscillation](#), and [Southern Annular Mode](#).)

Although these oscillations are natural, they can be influenced by the greenhouse gases we are putting into the atmosphere. Recent work has found that El Niño events may be shifting – central Pacific El Niño events were more common in the past 30 years than any period in the previous 400 years. At the same time Eastern Pacific El Niño events were less frequent, but were more intense (the most intense in the 400 year record) when they did occur (Freund et al., 2019).

Models project an increase in strong Eastern Pacific El Niño events and the extreme weather they bring (Cai et al., 2018). More work is needed to pull out the recent trends from the long-term natural variations of this climate oscillation.

The SAM oscillation, which indicates how storm tracks shift towards or away from New Zealand, has been changing. Damage to the ozone layer has been associated with more positive SAM phases since 1970, which are associated with winds and storm tracks that are shifted away from this country. Recent research has found that this pattern has paused and slightly reversed since 2000 because the level of ozone is increasing (Banerjee, Fyfe, Polvani, Waugh, & Chang, 2020). Greenhouse gas emissions, however, continue to push SAM towards its positive phase and make future changes uncertain.



CHAPTER 4

Climate change and our wellbeing



► Growing and harvesting potatoes.

Photo: photonewzealand

Our wellbeing and the things that matter most to us in life will be affected more and more by changes in the climate. We are only beginning to understand how wellbeing and climate change are connected.

Many of our activities produce greenhouse gases, which are changing the climate. These changes can affect the things that matter most to us in life. This is like when a house shifts on its foundations – the movement reduces the stability of the walls, roof, and plumbing and ultimately reduces the wellbeing and prosperity of the people who live in it.

Things that form the core of our wellbeing – our physical and mental health, a secure income, a pristine natural environment, even our identity – can be affected by changes to the climate.

In some areas, impacts on things that contribute to our wellbeing are already being observed. For example, the areas where some species live have shifted, including some species that are considered taonga. But in many areas, the ways climate change could affect various aspects of our wellbeing, like our mental health or security is only beginning to be explored in New Zealand.

Despite relatively little study to date, many of the things that contribute to our wellbeing are vulnerable to the environmental changes that are likely as the climate warms. Documented evidence as well as studies that give an indication of what to watch for, are presented here to show how wellbeing is already being affected or is likely to be affected in the future.

WELLBEING AND ASSESSMENT FRAMEWORKS

The people, places, and things that make a person feel safe, happy, healthy, and satisfied all contribute to wellbeing. Our wellbeing can suffer if the things that matter most to us are degraded. These could be health and happiness for ourselves and those we love, places that ground us and we draw identity from, or the feelings of purpose and hope that get us through tough times.

The New Zealand Treasury's Living Standards Framework identifies 12 domains that contribute to wellbeing, and is used by the Government to track changes in wellbeing. While there are other frameworks, components of the Living Standards Framework are used here to discuss both observed effects and expected changes to wellbeing. Although information is not currently available about how climate change affects every domain (housing for example) it is expected to affect all aspects of wellbeing in the future.

Living Standards Framework domains	Wellbeing component and section title
<ul style="list-style-type: none"> ▶ Health ▶ Time use 	Health: Health effects of climate change
<ul style="list-style-type: none"> ▶ Income and consumption ▶ Jobs and earnings ▶ Housing 	Material: Climate change impacts on material wellbeing
<ul style="list-style-type: none"> ▶ Environment 	Environment: Climate change threatens ecosystems
<ul style="list-style-type: none"> ▶ Social connection ▶ Subjective wellbeing ▶ Cultural identity ▶ Knowledge and skills 	Social and cultural relations: Our social and cultural relations are affected by climate change
<ul style="list-style-type: none"> ▶ Civic engagement and governance ▶ Safety 	Engagement and governance: Climate change is becoming part of the way we engage and govern

▶ Health effects of climate change

WARMER WEATHER AND EXTREME EVENTS AFFECT PHYSICAL HEALTH

Higher temperatures affect people. For example, models indicate that when the temperature gets above 20 degrees Celsius in Christchurch and Auckland a total of 14 heat-related deaths occur per year in adults older than 65 years. Higher temperatures also have risks for those who work outdoors (Royal Society Te Apārangi, 2017). In some parts of New Zealand higher temperatures have been linked to an increased risk of Salmonellosis infection, and may lead to reduced food safety (Lal, Hales, Kirk, Baker, & French, 2016; Royal Society Te Apārangi, 2017). Warmer winters, however, may reduce winter illness and deaths but this has not yet been observed in New Zealand.

We can expect other health impacts that are related (at least in part) to climate change. Large-scale heatwaves have affected American and European populations during recent Northern Hemisphere summers. New Zealanders may experience similar events more regularly, with varying abilities to cope (Joynt & Golubiewski, 2019). Conditions that favour the introduction of disease-carrying species, like mosquitoes for dengue fever, are also a concern for health.

In 2019, the New Zealand Medical Association declared climate change to be a health emergency. This recognised the threats to health from higher temperatures and extreme weather, changing patterns of disease and potential social impacts.

A CHANGING CLIMATE CAN HAVE PROFOUND EFFECTS ON MENTAL HEALTH

Some people can experience feelings of hopelessness and frustration when the problem of climate change feels too big, too complicated, and completely overwhelming (Moser, 2009). These feelings of eco-anxiety or climate anxiety also relate to concern for future generations – as people become anxious about a climate disaster, their concern for the fate of their children and grandchildren increases (Albrecht, 2011). There is a growing awareness that young people are particularly at risk from eco-anxiety as they look at an uncertain future where their lives will be different to those of their parents and grandparents due to the effects of climate change (Fritze, Blashki, Burke, & Wiseman, 2008).

Experiencing severe weather events such as floods, storms, or droughts can be traumatic and can lead to anxiety and depression. People who are forced to move as a result of climate change have to leave familiar surroundings and in the process, break personal and cultural bonds, which can affect mental health (Stephenson et al., 2018).

The environment is at the heart of our identity as Kiwis – it shapes our economy, culture, and lifestyle. The degradation or alteration of familiar environments can therefore cause grief, a sense of loss, and anxiety. The impacts go further for some, with acute and chronic mental health effects that include strained social relationships, depression, suicide, substance abuse, loss of identity, as well as feelings of helplessness, fear, and fatalism (Clayton, Manning, Krygsman, & Speiser, 2017). These anxieties are likely to occur more often as awareness of the risks and consequences from climate change increases (Coyle & Van Susteren, 2011).

The effects on mental health were recognised by the New Zealand Psychological Society creating a Climate Psychology Taskforce in 2014. Its goal is to help practitioners address the anxiety, distress, depression, and post-traumatic stress that extreme weather and displacement can cause.

► River forces a community to move tīpuna from a threatened urupā

When an encroaching river threatened their ancestral urupā (burial ground), a community near Wairoa took the difficult decision to dig up and move their tīpuna (ancestors) to a brand new site. So far 31 of the 53 tīpuna have been relocated.

"I could see the river coming closer and closer to our whānau. Initially I thought there was no way I was going to pick up our tīpuna and take them away, but the alternative was to see them floating down the river and I definitely didn't want that," says Karen Paku, Ngāti Kahungunu, who has been part of the team organising the move.

Natural movement and modifications to the riverbed have shifted the course of Te Wairoa Hōpūpū Hōnengenenge Mātangi Rau (Wairoa River) closer to Mātiti Urupā. Because it is situated on an outer bend of the river, the urupā is at a greater risk from ongoing erosion, particularly during larger floods. Despite wānanga (forums) with experts and research-based interventions such as building a barrier in the river and planting along the banks, the erosion continued.

"We realised that moving them was the only option. At that time we were quite scared that our tīpuna were going to be washed away so we had to move quite quickly. It was an anxious time because we couldn't wait another winter – they were only about 4 metres from the river. It was really too close for comfort."

A new urupā site near Huramua Marae was identified and the Huramua community came together to make the project happen. Different teams allowed people to work to their strengths in planning, fundraising, logistics, communications, and ahi kā (work behind the scenes including hospitality).

"We also had a cultural team who looked at what is tikanga (correct protocol) and the right way to do things. They taught us about opening a void with a karakia (prayer) for our tīpuna to travel along, how the neighbours beside the route would have to shut their gates to maintain the integrity of the void, and to use another karakia to close the void. This was to keep us all safe."

Many family members came back home to be part of the process. "It was a great opportunity to reconnect and strengthen our ties. We also reconnected to our people who had passed on. The night before someone was moving, we would sit down and talk about who they were, what they did in their life, and tell some funny stories about them. It's important to keep that alive so our people today realise who their tīpuna were."



► Moving the first tīpuna in April 2019.

Photo: Huramua Community

Karen's whānau were the first to move their taonga (treasured ones). They used diggers to excavate the site and placed the remains in large plywood boxes for transportation. "We first had to consecrate the new ground, so that morning we got up before the first light at 4.00am for a ceremony led by local Anglican and Catholic clergy and other hāhi (religious leaders). There was a light drizzle that made everything seem a bit surreal. It was a very moving time."

Now that her family are safe at the new site, Karen is continuing to work with the Huramua Marae Trustees to help others with moves. Some families with graves further from the river have decided not to move their tipuna yet.

"For me, I feel relieved, happy, excited – all of that mixed together. And when it rains in the winter, I know we're all ok, we're safe."

Several other marae along the river are facing similar issues, and hundreds of coastal urupā are at risk from rising sea levels and increasing storm events. With this in mind, the moves from Mātiti to Huramua are being documented in written and video form. The information will be made available for others who face the same issues with their urupā.

The people of Huramua Marae would like to acknowledge and thank everyone who has contributed to the project, including Hawke's Bay Regional Council, J R McKenzie Trust, Department of Internal Affairs, Ministry for Culture and Heritage Te Manatū Taonga, Ministry of Health, Te Puni Kōkiri, Ministry for the Environment, Te Uru Rākau, Wairoa District Council, Evans Funeral Services, many local businesses, and the people of Wairoa district.

RECREATION CAN BE AFFECTED

Climate change may affect our access to coastal areas and the opportunity to spend our leisure time there in the future. Sea-surface warming for example, is associated with increased wave power that shapes the coast (Reguero, Losada, & Méndez, 2019). This, along with heavy rain, can increase erosion and the risk of slips like the one at Cape Kidnappers that closed a popular walking track in January 2019 and prevented public access to views of a large gannet colony.

Flooding, which is projected to increase with climate change, damaged some of New Zealand's iconic Great Walks in the summer of 2019–20, including the Milford and Routeburn tracks. It also delayed the opening of a new one, the Paparoa Track. Coastal flooding due to sea-level rise has put 331 Department of Conservation assets (2 percent) and 119 visitor sites at risk (Tait, 2019).

Fox and Franz Josef glaciers in Westland are retreating and have become too dangerous for tourists to be guided onto them from their bases. This has ended almost 100 years of glacier guiding from the valley floor (Anderson, Kerr, & Milner, 2016). Access to the glacier for a guided walk now requires a helicopter but this affects the wilderness experience, increases cost, and is more emissions-intensive. The long-term sustainability of these tours is now in doubt (PCE, 2019).

► Climate change impacts on material wellbeing

FINANCIAL COSTS AND OPPORTUNITIES FROM CLIMATE CHANGE

The ability to provide for ourselves, our whānau, and our community is vital to our wellbeing. Many parts of the New Zealand economy are exposed to a changing climate.

In 2018, the Reserve Bank of New Zealand reported that our financial system is exposed to climate risks through the sectors it lends to and insures (RBNZ, 2018).

Between 2007 and 2017 it is estimated that the contribution of climate change to floods and droughts alone cost New Zealanders \$840 million in insured damages and economic losses (Frame et al., 2018). In response, some insurers have already adjusted insurance products and pricing to account for emerging climate risks (RBNZ, 2018). Some insurance companies have moved to risk-based pricing where premiums are higher in areas that are prone to hazards such as floods or earthquakes (Horne, Frith, & de Pont, 2019). Insurance cover may become difficult or impossible to acquire and properties may become difficult to sell in locations that are vulnerable to climate risks, especially coastal areas (Storey et al., 2017).

Some economic opportunities also exist. Recent reporting found that for 2009–19, companies with low greenhouse gas emissions had higher valuations and better performance on the New Zealand Exchange than their high-emitting counterparts (Bowley et al., 2019). The impacts of climate change in other parts of the world could also create market opportunities for New Zealand's primary industries (Frame et al., 2018).

EFFECTS ON INFRASTRUCTURE AND BUILDINGS

Climate change is likely to cause severe effects on the infrastructure we rely on to support our daily lives and routines. Some communities are already having to contend with impacts.

In Wellington, summer heat in 2017 dried the ground and put stress on old, brittle water pipes. This caused a record number of leaks (Lawrence, Blackett, Cradock-Henry, & Nistor, 2018). High temperatures can also cause issues for rail networks. Temporary speed restrictions are used in some places as a precaution in the event that tracks become dangerously misaligned from the heat (Metlink, n.d.). The highest of high tides is also causing flooding in some locations even when there are no waves or storm surges (see [King tides show possible future sea levels](#)).

New information from agencies and local authorities is improving our understanding of how sea-level rise may affect assets, communities, and businesses. With a sea-level rise of 0.5 metres for example, an extra 48,900 people (about the population of Nelson), 36,000 buildings, and 350 square kilometres of land across the country would be exposed to flooding during extreme events (Paulik et al., 2019).

PRIMARY INDUSTRIES ARE VULNERABLE TO INCREASED WEATHER EXTREMES AND CHANGING CONDITIONS

Because of their reliance on the environment, New Zealand's primary industries (including farming, forestry, and horticulture) are sensitive to changes in climate. While extreme events such as droughts, rainstorms, and heavy snowfalls can have devastating effects, other changes like alterations to the growing season are starting to be documented.

In interviews, kiwifruit growers noted longer and more variable spring weather. Changes in temperature and humidity over the course of a growing season can change the size, shape, and taste of fruit and affect the price a grower receives (Cradock-Henry, 2017).

Modelling found that almost half of the variability in annual pasture production was linked to the climate. Climate shifts towards the end of this century are likely to result in higher yields, with a shift in pasture production towards spring, but also higher risk of heat stress for animals and increasing water limitation (Ausseil et al., 2019).

Sauvignon Blanc grapes were expected to mature about two weeks earlier than normal in the 2017–18 growing season because of high summer temperatures. Flowering occurred in a shorter period and fruit set was exceptionally successful – this delayed the harvest (Salinger et al., 2019). These changes are in line with recent modelling that projects earlier flowering dates for wine grapes towards the end of the century (Ausseil et al., 2019).

Fish stocks are influenced significantly by variations in climate (see [Our marine environment 2019](#)). Fishing is a valuable part of our economy, and in 2019 New Zealand's commercial fish stocks were valued at \$10.4 billion (Stats NZ, 2020a). There is evidence that warmer seas in summer are affecting fish – the reproduction of some species (such as snapper and hoki) appears to be affected by sea-surface temperature (MPI, 2017).

The impacts of climate change on fish stocks is a concern for New Zealand's fisheries and for Māori in particular. Māori own about 40 percent of the national fisheries quota and rely on the ocean for food through customary fishing (King, 2015).

The marine heatwave of 2017–18 was associated with the death of many salmon grown by aquaculture in the Marlborough Sounds (Salinger et al., 2019).

► Climate change threatens ecosystems

ECOSYSTEMS ARE VALUABLE AND CONTRIBUTE TO WELLBEING

New Zealand's ecosystems are unique and have incomparable value. They also contribute to our wellbeing by providing benefits that range from the tangible (like drinking water) to the ethereal (like the melodious song of a bellbird). We also gain cultural benefits from nature, like a sense of identity and connection to place. The loss of biodiversity, especially taonga species, can negatively affect our wellbeing through changes or loss of culture, traditional practices, and language.

ABNORMALLY HIGH TEMPERATURES ARE DISTURBING NATIVE SPECIES

Native plants and animals are exposed to changes in the environment and although their resilience varies, many are already being affected by higher temperatures.

In the marine environment, high sea-surface and land temperatures and low wave heights during the 2017–18 marine heatwave led to the complete loss of rimurapa (bull kelp, *Durvillaea*) at some reefs in Lyttelton and a significant loss at four other sites. Rimurapa is a crucial part of the marine ecosystem. At the site where the kelp was lost, the invasive seaweed *Undaria* took its place and a dramatic decrease in mussels was observed (Thomsen et al., 2019). Rimurapa is a taonga species for South Island Māori. It is traditionally used to make pōhā (kelp bags) to preserve and transport tītī (mutton bird). In the past pōhā were also used to steam shellfish, carry water, and as flotation devices when inflated.

In Lake Wānaka, warmer surface water temperatures are likely to have contributed to a shift in the populations of phytoplankton to a species that prefers warmer temperatures. (Phytoplankton are microscopic algae that form the base of the food web). Higher temperatures have also allowed a non-native phytoplankton to survive winter in the lake (Bayer, Schallenberg, & Burns, 2016).

A changing climate can make other stresses worse. On Otago Peninsula, a study found that warming seas contributed to a reduction in the survival rates of hoiho (yellow-eyed penguins) – probably by reducing the number and size of the fish they feed on. Other factors including disease outbreaks, predators, and tourism also have a role in their declining population. If sea-surface temperatures remain high, conditions may limit the ability of the penguins to recover (Mattern et al., 2017).

Impacts like these are expected to continue in the future. A warmer climate, for example, may cause some native fish species to be lost from places they once inhabited. Alpine galaxias are native to mountain streams but are sensitive to temperature and cannot live in water that is too warm (Boddy & McIntosh, 2017). In the Waikato River, īnanga (one of the species caught as whitebait) were found to be smaller in spring and summer when the water was warmer (Goodman, 2018). Īnanga are an iconic species for New Zealanders and a taonga species for Māori.

CLIMATE CHANGE IS REDUCING THE AREAS WHERE SOME SPECIES CAN LIVE

There is some early evidence that the warming climate is affecting the ranges of some species. For example, the altitude range of two wētā species on Mount Taranaki moved higher, due in part to warmer temperatures. Their range is also determined by competition with other wētā (Bulgarella, Trewick, Minards, Jacobson, & Morgan-Richards, 2014).

Sightings of tropical and warm-water fish that are usually seen only in warmer water, were reported in New Zealand seas during the marine heatwave of 2017–18 (Salinger et al., 2019).

As the temperature continues to warm, it is likely that the areas where some species can live will be squeezed. Many native birds have already retreated into cooler parts of their former habitats because there are more predators (like possums, rats, and stoats) in the warmer lowland forests. As the area of cooler forests shrinks, the pressure from predators will increase further. Large birds like kiwi, whio and North Island kōkako are particularly at risk because of their limited ability to move into new areas. Kākā and kea, as well as smaller cavity-nesting birds like kākāriki, may be threatened too (Walker, Monks, & Innes, 2019).

EXTREME EVENTS ARE AFFECTING BIODIVERSITY

Droughts and floods are projected to increase in many parts of the country (see [chapter 5: Looking ahead: future emissions and climate](#)). Droughts have been found to dramatically decrease the body size of kōwaro (Canterbury mudfish), which have a conservation status of threatened (nationally critical) (Meijer, Warburton, Harding, & McIntosh, 2019). Droughts and floods have also been shown to affect breeding in īnanga (Goodman, 2018).

Flooding in 2009 reduced a population of scree skinks in the Canterbury high country by 84 percent. This lizard has a conservation status of nationally vulnerable. It took about 8 years for the population to recover naturally (Lettink & Monks, 2019).

TREE MASTING IS AFFECTED BY CLIMATE CHANGE

Masting occurs when trees produce and spread a large number of seeds in some years. A study in the Northern Hemisphere found that climate change eliminated the benefit that beech trees get from seed masting. European beech trees in England had more regular mast events – this benefited some of the animals that feed on the seeds because food was produced more regularly, and their populations increased. The larger number of animals eliminated any benefit to the trees from the masting strategy because there were more of them to eat the seed before it could grow into trees (Bogdziewicz, Kelly, Thomas, Lageard, & Hackett-Pain, 2020).

New Zealand trees like beech use the same masting strategy and some species including kākāpō cue their breeding around mast events. At higher elevations in the South Island, increased rainfall and warmer temperatures in summer have been linked to greater seed production from beech trees (Allen, Hurst, Portier, & Richardson, 2014). Years with large mast events are linked to higher numbers of introduced predators. This increases predation on native species and can require significant human intervention and resources to control.

► Our social and cultural relations are affected by climate change

A SENSE OF IDENTITY AND CONNECTIONS CONTRIBUTE TO WELLBEING

The ability to express our identity and connect with others has a strong bearing on our overall wellbeing. Many things besides climate contribute to these aspects of wellbeing, which makes it difficult to isolate the effects of climate change. However, the strong interconnections between environment, identity, and social connection (particularly for Māori), make it likely that changes to the environment will also affect these aspects of our lives.

EFFECTS OF CLIMATE CHANGE ON MĀORI CULTURAL IDENTITY

The phrase *mai i ngā maunga ki te moana*, from the mountains to the sea, describes the range of effects that climate change is having on weather and temperature in New Zealand. The changes are having direct and indirect negative effects on Māori – from the loss of physical structures and resources, to impacts on the spiritual, physical, intellectual, and social values that are integral to the health and wellbeing of Māori identity.

When culturally significant land, *taonga* (treasured) species, and *mahinga kai* (food gathering sites) are lost or damaged due to changes in the climate, it severs the ancestral relationships that *tangata whenua* (people of the land) share with a place and a resource. It also affects *tūrangawaewae*, (place where one has the right to stand), *mātauranga* (knowledge), and *tikanga* (customs) that are linked to Māori culture and sense of being (Bond, Anderson, Henare, & Wehi, 2019; Te Hiku o te Ika Development Trust, 2018).

CLIMATE CHANGE IS AFFECTING THE ENVIRONMENT AND MAKING SEASONAL TOHU LESS RELIABLE

Māori are observing many changes in the environment. People from Te Waipounamu (South Island) report changes that include more frequent long summers and mild winters. Along with much of the rest of the country, temperatures have increased in the Murihiku (Southland) region. This is likely to have contributed to profuse flowering of Southern *rātā* (*Metrosideros umbellata*) on Motupōhue (Bluff Hill) that in turn caused bird and pest populations to expand rapidly (Skipper, 2018).

Because of local changes in climate, *tītī* (sooty shearwaters, a *taonga* species) are having to fly further to find food and are therefore away from their chicks for longer periods. Kingfish are also being caught in greater numbers along the east coast of Te Waipounamu. This species was unknown to early Ngāi Tahu (a South Island iwi). Kiwifruit are now grown in Invercargill, which was not known to be possible 30 years ago (Skipper, 2018).

In the far north of the North Island, one fisher noted, "Everything has its time... there's time for fish, there was time for oysters, time for mussels. And it never altered until recently. I realised about two years ago things are changing. Things [plants] are blooming out of season. Fishing is all out of kilter. Mullet never came till winter and now you've got mullet coming any old time, sort of thing. It's really changed." (Te Hiku o te Ika Development Trust, 2018).

Believed to be due to changes to the climate, some tohu that have been used for generations can no longer be used in the same way (Skipper, 2018) (see [Tohu and maramataka: observing and tracking changes in the environment](#)). Changes in sea temperatures for example mean that kina are no longer fat and ready for the table when pōhutukawa traditionally bloom in summer (see [Our marine environment 2019](#)). What was once normal like gathering a feed of kina with whānau at Christmas time – is at risk of becoming a thing of the past.

CULTURALLY SIGNIFICANT PLACES ARE AT RISK

Places of special significance such as marae (meeting places) and urupā (burial grounds) situated near the coast or on floodplains are at increasing risk of flooding from sea-level rise and erosion (Deep South National Science Challenge, 2018).

Numerous Māori cultural heritage sites are situated in coastal low-lying areas. These places are deeply connected with Māori identity but are especially exposed to impacts from climate change because of their location (CCATWG, 2018). Hundreds of coastal urupā across the country are threatened by rising seas and more severe storms.

Some iwi are already experiencing these effects first-hand. At Ōkūrei Point in Maketū, a sacred burial site on a cliff-top collapsed onto the beach below, scattering human remains into the sand and sea. The site was possibly pre-European, dating back to the 1300s and one of the first burial sites in the area (Office of the Māori Climate Commissioner, 2019). In other areas, urupā at risk from flooding have had to be relocated (see [River forces a community to move tīpuna from a threatened urupā](#)).

EFFECTS ON TAONGA SPECIES ARE BEING REPORTED

Climate change is affecting our environment and the species that live here. Taonga species such as tuna (eels), kōura (crayfish), and kākahi (mussels) are central to the identity and wellbeing of many Māori. For generations these species have been the source of physical and spiritual sustenance for whānau, hapū, and iwi, and helped transfer customary practices and knowledge from one generation to the next.

Many communities are reporting that both the abundance and size of their taonga species are declining. South Island iwi Ngāi Tahu ki Murihiku noticed that the quality and health of tītī and tio (oysters) had declined substantially and that the decline seemed to be occurring in cycles aligned with the El Niño Southern Oscillation (MAF, 2011b). Recent research indicates that climate change may be having an effect on El Niño events (Freund et al., 2019).

In some parts of Te Waipounamu rivers are drying up in summer and causing stress or even loss of taonga species. Mahinga kai areas are also disappearing (Skipper, 2018).

In Horowhenua, Ngāti Raukawa ki te Tonga have noticed a decline in tuna, one of their most prized taonga. Anecdotal evidence and a decrease in the quantity and quality of the resource encouraged hapū to research the health and habitat of the tuna population. The research points to climate change affecting ocean currents, habitat, and the tuna food chain, all of which have an effect on the species' sensitive life cycle (MAF, 2011a).

MĀTAURANGA MĀORI COULD BE LOST

Mātauranga Māori is knowledge in its broadest sense. It is part of Māori culture, linked to Māori identity, and is considered by some as a unique part of the identity of all New Zealanders (Mead, 2012).

For many coastal communities, traditional mahinga kai customs such as collecting tītī with whānau, shelling mussels around the table with cousins, and setting the hinaki (trap) to catch tuna with koro (grandad), are all treasured activities. They are deeply rooted in mātauranga, which connects whānau, hapū, and iwi to their tīpuna (ancestors).

Muttonbirding is one example. Hana Morgan, Awarua rūnanga chair said, "The minute I'm back on the Tītī Islands it's like ... 'I'm back! I'm home again' ... we think of our ancestors ... they walked these tracks ... we are not alone and you know that, and that's why it's so special." (Skipper, 2018).

Māori use te reo (Māori language) to express mātauranga and their perception and understanding of the physical environment – how it functions in part and as a whole (Harmsworth & Awatere, 2013; New Zealand Waitangi Tribunal, 2011). As renowned Ngāpuhi leader Sir James Henare said, "ko te reo te mauri o te mana Māori", the language is the core of our Māori culture and mana (New Zealand Waitangi Tribunal, 1989).

Because te reo is often closely associated with a place, there are risks to the integrity of te reo, tikanga (customs), and the intergenerational transfer of mātauranga from sea-level rise and the displacement of iwi or hapū who live near the coast.

Climate change can contribute to degradation in the mauri (life force) of ecosystems and taonga species, and jeopardise the mātauranga associated with them. When a taonga species is lost, the whakapapa (lineage or ties) between iwi, hapū, whenua (land), and taonga is severed.

The ability of tangata whenua to act as kaitiaki (guardians) over the taonga, and to engage in mahinga kai practices within their rohe (region) can also be degraded. Te reo me ngā tikanga (language and customs) and interactions between generations to share the mātauranga can also be reduced (MAF, 2011a).

Some whānau already feel that mātauranga related to traditional practice is in danger of being lost forever (Skipper, 2018).

MANAAKITANGA IS THREATENED BY CLIMATE CHANGE

Manaakitanga describes the responsibility of a host to care for whānau and manuhiri (visitors) through nurturing relationships and by providing shelter, food, and resources. The word is derived from mana-aki-tanga, meaning to behave in a way that enhances mana, with actions reflecting the prestige and authority of a whānau, hapū, or iwi.

For Māori, manaakitanga is a way of life that can be shown in many ways. In homes, workplaces, and everyday interactions, Māori people take great pride in caring for the wellbeing of others. Manaakitanga is especially important on a marae as the following whakatauhākī shows, "Tangata takahi manuhiri, he marae puehu. A person who mistreats his guest has a dusty marae."

Tangata whenua usually do all they can to show generosity and kindness to their guests by sharing stories, singing waiata, and treating them to the local delicacies for which their area is known. Pāua (abalone), kina (sea-urchin), tuna, tītī and wild pork are all examples.

Climate change is likely to affect marae and customary harvesting grounds, and cause major shifts in how whānau practice manaakitanga. Coastal marae may become inaccessible due to increased flooding. A loss of taonga species would mean whānau were no longer able to provide local delicacies to manuhiri. A combination of these situations could see some whānau unable to manaaki on their marae as they have for generations. The inability to gather kaimoana also has economic consequences because this practice has always supplemented low incomes and diet (Patuharakeke Te Iwi Trust Board Inc, 2014).

ALL THESE CHANGES AND LOSSES ADD UP

As the climate continues to change, seasonal tohu become less reliable, places of special significance are affected, taonga species face increased risk of extinction, te mātauranga me ngā tikanga (knowledge and customs) are lost, and risks to the unique Māori values at the heart of our society grow.

Rising sea levels and flooding are threatening to inundate all 14 marae of an iwi in the north. Iwi in the east talk about soil erosion and roads being washed away. Iwi in the south talk of the health of tītī declining, and iwi in the west also talk about flooding (Climate Change Iwi Leadership Group, 2016).

Around the world, climate change poses threats and dangers to the survival of other indigenous communities (United Nations, 2007). Because of their dependence on and close relationship with the environment and its resources, indigenous people are among the first to be directly affected by climate change (United Nations, n.d.).

Climate change is expected to worsen the difficulties that are already being faced by indigenous communities. These include political and economic marginalisation, loss of land and resources, human rights violations, discrimination, and unemployment (United Nations, n.d.). All these interacting challenges will test the resilience, adaption, and survival of Māori and indigenous communities more than ever before.

► Māori identity and wellbeing is threatened by climate change

Te whenua, te wai, and taonga species are being affected by climate change, which threatens traditional practices connected to Māori identity and wellbeing.



The timing of tohu are changing

Traditional tohu are used to help forecast changes in the natural environment. They are becoming less reliable, and this is affecting planting, daily decision-making, and activities like resource gathering and hunting.

The loss of taonga species

Taonga species are central to Māori identity and wellbeing. A warming climate is affecting where some species can live, their numbers, and size.

Culturally significant places are at risk of being damaged

Many marae and urupā are threatened by flooding and erosion from sea-level rise and extreme weather events.

Ability to manaaki is threatened

Manaakitanga is a way of life and is especially important on marae where local delicacies are offered generously to manuhiri. Climate change threatens the reliability of tohu, abundance of kai, and sometimes the marae itself.

How Māori wellbeing is connected to te taiao



Taha tinana:
physical wellbeing

- rongoā
- mahinga kai



Taha wairua:
spiritual wellbeing

- karakia
- waiata



Taha hinengaro:
mental wellbeing

- mātauranga
- tikanga



Taha whānau:
social wellbeing

- manaakitanga
- whanaungatanga

Adapted from Durie, 1985

Mātauranga may not be passed on

Losing traditional resources from the moana, awa, and ngahere is not just a loss in the present. It affects future generations because the tikanga and mātauranga Māori associated with the resource and the practices around its harvest and use would also be lost.

Glossary

awa: river | kai: food | karakia: prayer | mahinga kai: food gathering place | manaakitanga: the practice of hospitality | manuhiri: visitors
marae: cultural gathering centre | mātauranga: knowledge | moana: ocean | ngahere: forest | rongoā: medicinal plants
taonga species: treasured species | tikanga: customary protocols | tohu: environmental indicator | urupā: burial grounds
wai: water | waiata: songs | whanaungatanga: socialisation | whenua: land

► Climate change is becoming part of the way we engage and govern

EFFECTS ON COMMUNITIES AND LOCAL GOVERNMENT

Wellbeing is enhanced when we feel we have a say in the institutions and decision-making that governs our day-to-day lives. Climate change can create difficult trade-offs and raise new legal and ethical questions that society and governing institutions need to grapple with.

Many regions, cities, and towns are now incorporating the current and projected impacts of climate change in their planning. In Hawke's Bay for example, planning has begun to understand the risks and management options for dealing with coastal hazards, including sea-level rise. More resilient communities can be created by consulting with people early and developing options for managing the effects before they are needed (HBRC, 2016).

NATIONAL SECURITY

All aspects of wellbeing are threatened by a reduction in safety and security. Preparations for potential climate-related effects have already begun in this country.

The Ministry of Defence, for example, has identified climate change as "one of the greatest security challenges for New Zealand Defence in the coming decades". The Defence Force has already begun planning for more humanitarian, disaster relief, and stability operations in the Pacific region to help New Zealand's Pacific Island neighbours who will be increasingly affected by rising sea levels, drought, and stronger tropical cyclones (MoD & NZDF, 2019).

Rising seas have already immersed at least eight low-lying islands in the Pacific Ocean. Migration caused by climate change is inevitable, and will affect the people who are displaced as well as the communities where they eventually resettle. (MoD & NZDF, 2018).

CLIMATE CHANGE RAISES LEGAL QUESTIONS

Local authorities must disclose hazard information on property land information memorandums (LIMs), including "any information they have about the implications of sea-level rise and coastal processes" (MfE, 2017). Both disclosure and failure to disclose this information can create legal issues for councils, which puts them in a difficult situation. In 2012, the Kāpiti Coast District Council placed information on projected erosion hazard risk on LIMs for properties deemed to be at risk from future sea-level rise. Following a legal challenge that contested the accuracy of the analysis and the adequacy of a public consultation process, the council removed the information (Filippova, Nguyen, Noy, & Rehm, 2019).

Other legal risks are increasingly experienced by company directors for not considering climate change risks alongside other financial risk because it "presents a foreseeable risk of financial harm to many businesses". Climate change litigation has also been increasing. In 2019, court proceedings were filed against seven New Zealand companies seeking injunctions to reduce their emissions (Chapman Tripp, 2019).

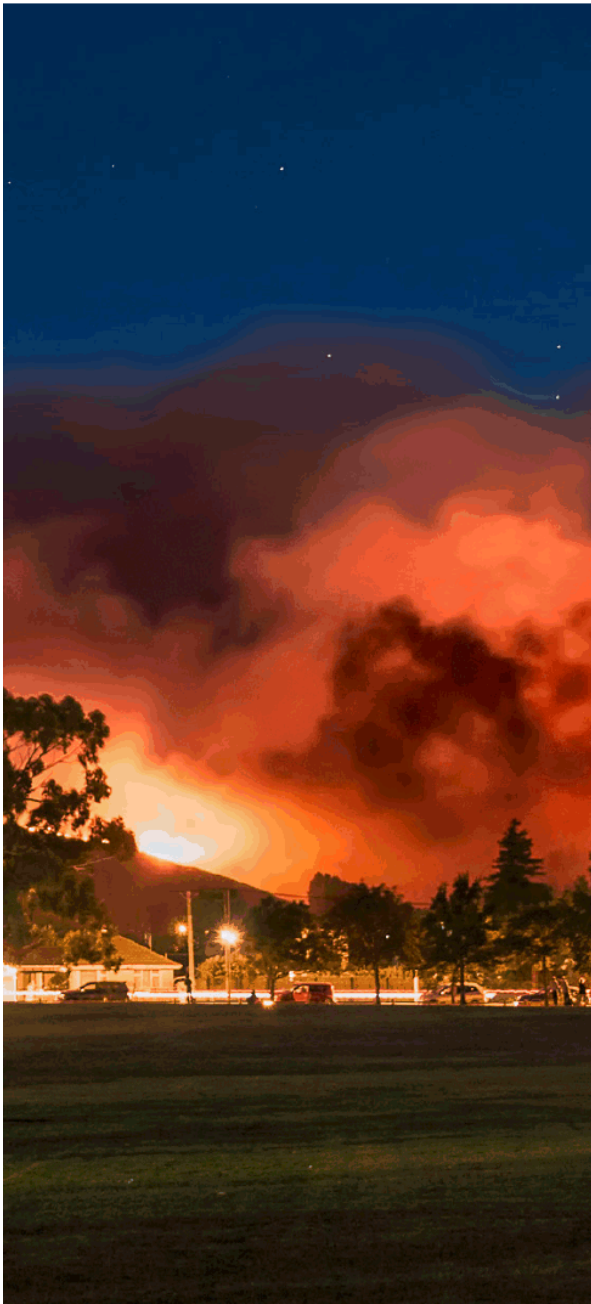
CLIMATE CHANGE RAISES ETHICAL QUESTIONS

Questions about allocating the costs related to sea-level rise are complex: who is responsible when buildings or homes become uninsurable, or people have to retreat from living close to the sea? There are also questions about the duty of councils to their communities: what level of engagement is sufficient to ensure the public has a voice in how they adapt for a climate-changed future? Further questions about intergenerational equity arise: what costs should people alive today be allowed to impose on future generations?



CHAPTER 5

Looking ahead: future emissions and climate



► Fire on the Port Hills, Christchurch in February 2017.

Photo: Mark Hannah Photography

Temperature in New Zealand and globally is expected to continue to increase. Large reductions to emissions are needed to limit future warming.

Human activities have already caused the world's average temperature to rise by about 1 degree Celsius above its pre-industrial level. At the current rate of increase, global average temperature is likely to be 1.5 degrees Celsius above the pre-industrial level in the next 10–30 years.

Globally, high rates of greenhouse gas emissions are expected to continue. Deep cuts to global net carbon dioxide emissions would be needed (45 percent below 2010 levels by 2030, and net zero by 2050) to hold warming to below 1.5 degrees Celsius.

In New Zealand, greenhouse gas emissions are projected to decrease in the coming decades, but not at a fast enough rate to meet our 2030 goals under the Paris Agreement.

As the climate warms, profound changes are expected in New Zealand. Temperature is projected to increase across the country particularly in summer and autumn. Extreme rainfall, drought, and wildfire risk are expected to increase in many places.

Continued sea-level rise will put large amounts of coastal infrastructure at risk. Our oceans will continue to warm and acidify.

► How emissions are projected to change

GLOBAL EMISSIONS AND REDUCTION TARGETS

How much more the climate changes in the future depends on how much more greenhouse gases the world adds to what is already in the atmosphere (IPCC, 2014a).

Globally, greenhouse gas emissions continue to rise. Before the COVID-19 pandemic, there was no sign of emissions peaking in the next few years. Worldwide, lockdowns in 2020 did reduce emissions, but because the reductions to date have not come from structural changes to our economic, transport, or energy systems, they are likely to be temporary (Le Quéré et al., 2020; UNEP, 2019) (see [COVID-19 and greenhouse gas emissions](#) in chapter 2).

There is a large and growing gap between projections of emissions (that continue to rise) and the level of emissions required to be tracking on the least-cost pathways to limit warming to 2 or 1.5 degrees Celsius above pre-industrial levels. To limit warming to 2 degrees Celsius, total global emissions must be about 25 percent lower than 2018 levels by 2030. To limit warming to 1.5 degrees Celsius, emissions must be about 55 percent lower by 2030 – this would require countries to increase the stringency of their Paris Agreement reduction goals fivefold (UNEP, 2019).

To limit warming to 1.5 degrees Celsius, net emissions of carbon dioxide globally must be at zero by 2050. Big reductions in other greenhouse gases would also be needed. If the global community settles for keeping warming to no more than 2 degrees, these reductions could be delayed by about two decades, but cannot be avoided (IPCC, 2018).

There are many different options for achieving these reductions and each country will develop its own mix. The scale of reductions needed will require profound changes to the way food, energy, and the goods and services we rely on are produced and supplied. According to the United Nations Environment Programme, transforming societies, economies, and governance institutions will require unprecedented efforts. The longer we delay in making the reductions, the deeper and faster they will have to be (UNEP, 2019).

NEW ZEALAND'S EMISSIONS AND REDUCTION TARGETS

Models of future greenhouse gas emissions in this country are used to report projected emissions under the United Nations Framework Convention on Climate Change.

These models indicate that 'with existing measures and policies', New Zealand's net greenhouse gas emissions are projected to peak in the mid-2020s before decreasing (see figure 23). The projected decrease is due to replanting forests that were harvested in the early 2020s and establishing new forests (MfE, 2019). These plantings will not reduce emissions unless the wood is preserved in long-lasting products like house framing after harvest.

The latest modelling was published in 2019 before the COVID-19 pandemic response. It therefore does not reflect changes to the economy or COVID-19 response policies that may alter future emissions.

Gross greenhouse gas emissions are projected to remain steady through the early 2020s and decrease by 11 percent by 2035. Emissions in 2035 would be 10 percent above New Zealand's gross emissions in 1990, but 10 percent less than with no measures to mitigate emissions (MfE, 2019).

Carbon dioxide emissions from transport are projected to be 14 percent lower in 2035 than levels estimated for 2020. Because vehicles are replaced slowly in this country, it will take longer here for the effects of improved fuel efficiency and more electric vehicles to affect our emissions than in other countries (MfE, 2019).

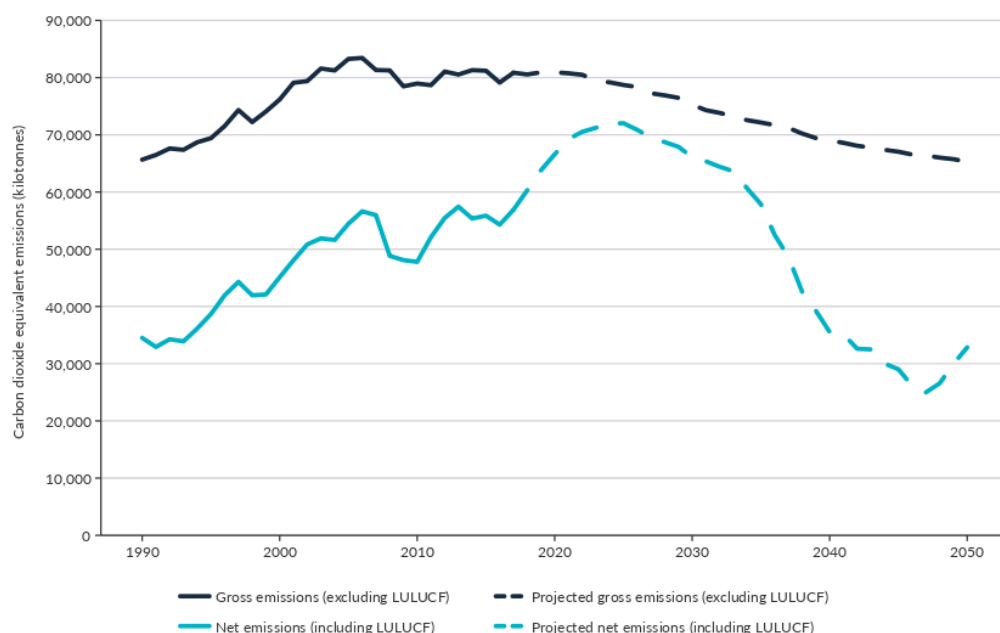
Gross emissions of methane are projected to be about 7 percent lower in 2035 than in 2020, and gross emissions of nitrous oxide are projected to be 7 percent lower (MfE, 2019).

To give the world a reasonable chance of limiting global warming to 1.5 degrees Celsius, the IPCC has calculated that net carbon dioxide emissions need to be brought to zero by 2050 globally. Agricultural methane emissions need to be reduced at the same time by about 24–47 percent relative to 2010 levels (IPCC, 2018). This global-scale information was used by New Zealand in 2019 to inform the domestic targets set in the Climate Change Response (Zero Carbon) Amendment Act.

New Zealand has committed to reduce its emissions by 30 percent relative to 2005 levels by 2030 under the Paris Agreement. This is our nationally determined contribution (NDC) – our country's ambition or target for reducing emissions. To achieve this emission reduction goal, there is a limited amount (or budget) of greenhouse gases that New Zealand can emit into the atmosphere between 2021 and 2030. Projections are that under current policies, cumulative emissions, and removals of all greenhouse gases over this period will be 707 million tonnes, which is 18 percent higher than the emissions budget set through the NDC of about 601 million tonnes (MfE, 2020b). (The NDC specifies that this budget can be met by actions in New Zealand, but international carbon markets can be used additionally.)

More information about New Zealand's greenhouse gas emission projections and progress towards the emissions targets is available from [New Zealand's Fourth Biennial Report under the United Nations Framework Convention on Climate Change](#).

Figure 23: New Zealand's gross and net greenhouse gas emissions
from 1990–2017, with projections to 2050



Data source: New Zealand's Fourth Biennial Report under the United Nations Framework Convention on Climate Change

Note: The gross and net emissions (including land use, land-use change, and forestry – LULUCF) projections to 2050 were prepared using New Zealand's 2019 Greenhouse Gas Inventory 1990–2017 data.

► New Zealand's emissions are projected to decrease with existing measures.

ACTIONS TO REDUCE EMISSIONS WILL AFFECT OUR EVERYDAY LIVES

As well as a changing climate, we can expect to experience effects from the ways we address our emissions. The actions we take (or don't take) will affect many parts of our lives – including the economic, social, and cultural systems we participate in every day. Some parts of our economy will incur losses during a transition to a low-emissions future even if it is fair and well-planned. New opportunities and positive changes will also occur, such as savings in energy costs, improved health, cleaner air, reduced traffic congestion, and benefits for biodiversity (MfE, 2018b).

The longer the world delays emission reductions, the steeper and faster the reductions must be to stay in the agreed temperature range. Delayed reductions also cause faster short-term climate change with greater impacts to people and the environment, including our native biodiversity. Delays give us less time to adapt to the changes. Later reductions may defer costs in the near-term but have potentially higher costs and risks, and less flexibility in how we make the rapid reductions when they can no longer be deferred (IPCC, 2018).

► How climate is projected to change

PROJECTIONS FOR FUTURE GLOBAL CLIMATE

The disturbance of climate change is not like a recession where a recovery eventually returns the economy to the level it was at before. Adding long-lived greenhouse gases to the atmosphere is like turning a ratchet. Stopping these emissions today would stop the ratchet from turning further, but because the gases will stay in the atmosphere for centuries or more, the ratchet will not be unwound. Even with no more carbon dioxide emissions, we will not go back to an undisturbed climate or even the climate we grew up with.

Climate models and projections

Sophisticated computer models are tools that are used to explore what may happen to the climate in the future. They are based on the laws of physics and maths and equations that describe the dynamics of the climate system.

Future climate scenarios are called projections rather than predictions, as they are only indications of what we can expect, rather than specific forecasts. The scenarios are generally based on different concentrations of greenhouse gases in the atmosphere and calculate the warming and other environmental effects they are likely to cause. Projections usually include scenarios that assume a rapid reduction in emissions as well as scenarios that assume a continued rise in emissions for the rest of the century.

Information about Earth's climate in the past is used to improve our understanding of the climate system and to test and improve climate models. The climate has changed naturally over millions of years, with ice ages and warm periods occurring. Records of these changes (including the concentration of carbon dioxide present in the atmosphere at the time) are laid down in sediments and ice and can be collected by researchers, including New Zealand teams studying the seafloor off Antarctica. This information gives us increased confidence in the outputs of the climate models.

Climate research has shown that the last time carbon dioxide levels were as high as they are now was about 3 million years ago and temperatures were 1.8–3.6 degrees Celsius warmer than in pre-industrial times (Burke et al., 2018). At this time trees grew in Antarctica and seas were at least 20 metres higher (Grant et al., 2019; Rees-Owen et al., 2018). This information cannot be used as a straightforward guide to the future, but it helps us better understand the impacts from changes that are similar to those happening now.

Short-lived gases with strong warming effects (such as methane) also contribute. Emissions of these gases make the climate warmer in the short term, and add to the total amount of warming the world experiences.

It is estimated that human activities have caused the world's average temperature to rise by about 1 degree Celsius above its pre-industrial level. At the current rate of increase, the global average temperature is likely to reach 1.5 degrees Celsius above the pre-industrial average temperature between 2030 and 2052. A rise of 3.4 to 3.9 degrees Celsius is projected by the end of the century if current policies continue (IPCC, 2018; UNEP, 2019).

Even if all the current emissions reduction commitments and goals (conditional and unconditional) are met by the international community, the average global temperature is likely to be 3 degrees Celsius warmer than the pre-industrial temperature by the end of this century (IPCC, 2018).

This amount of warming is projected to increase the likelihood of severe, pervasive, and irreversible impacts for people and ecosystems (IPCC, 2014a). Heatwaves and extreme rainfall are projected to become more frequent and intense in many places. Average global sea level is expected to continue to rise and at a faster rate, for many centuries. Ninety-nine percent of tropical corals could be lost with warming of 2 degrees Celsius (IPCC, 2018).

It is virtually certain that the extent of permafrost will decrease. Previously frozen areas may then start emitting carbon dioxide and methane, which would contribute to more climate change. (This is known as a positive feedback loop.) Irreversible changes such as species extinctions and melting of the Greenland ice sheet are also expected (IPCC, 2014a).

Recent research has found that most communities around the world can expect to soon experience climates that are more similar to a different city than their own current climate. For example, in 2050 the climate of Auckland is projected to be more similar to that of Sydney in 2020 than it is to its climate today (Bastin et al., 2019). By 2060 (about the time when a 25-year-old today will be retiring) most of the world's population can expect an average climate that is unfamiliar to them now. What is expected to be a normal climate in 2060 is so extreme that it would occur only once every 44 years on average today (Frame, Joshi, Hawkins, Harrington, & De Roiste, 2017).

More information about global climate change, risks, and impacts is available from the [Intergovernmental Panel on Climate Change \(IPCC\)](#).

PROJECTIONS FOR NEW ZEALAND'S FUTURE CLIMATE

The continued accumulation of greenhouse gases in the atmosphere is projected to have increasing effects on New Zealand's climate.

Higher temperatures are expected across the country. Warm days (where the maximum temperature is 25 degrees Celsius or higher) are projected to occur four times as often in Auckland in 2090 if global emissions continue to increase throughout the 21st century (see figure 24). These days would still increase by 55 percent if emissions are reduced in line with limiting warming to below 2 degrees globally (MfE, 2018a).

Changes to rainfall are also expected – in general, wet areas are expected to get wetter, and dry areas drier (see figure 25). We can also expect more stress on water resources from both of these situations.

Extreme rainfall events are projected to become more common in many areas. What was once a rare, extreme event for us may become common for our children and grandchildren. In the Wellington region for example, projections for future climate point to more intense extreme, rare rainfall events. These events will have broad impacts including slips, landslides, reduced stream habitat quality, and effects on urban drainage and transport systems (Pearce et al., 2019).

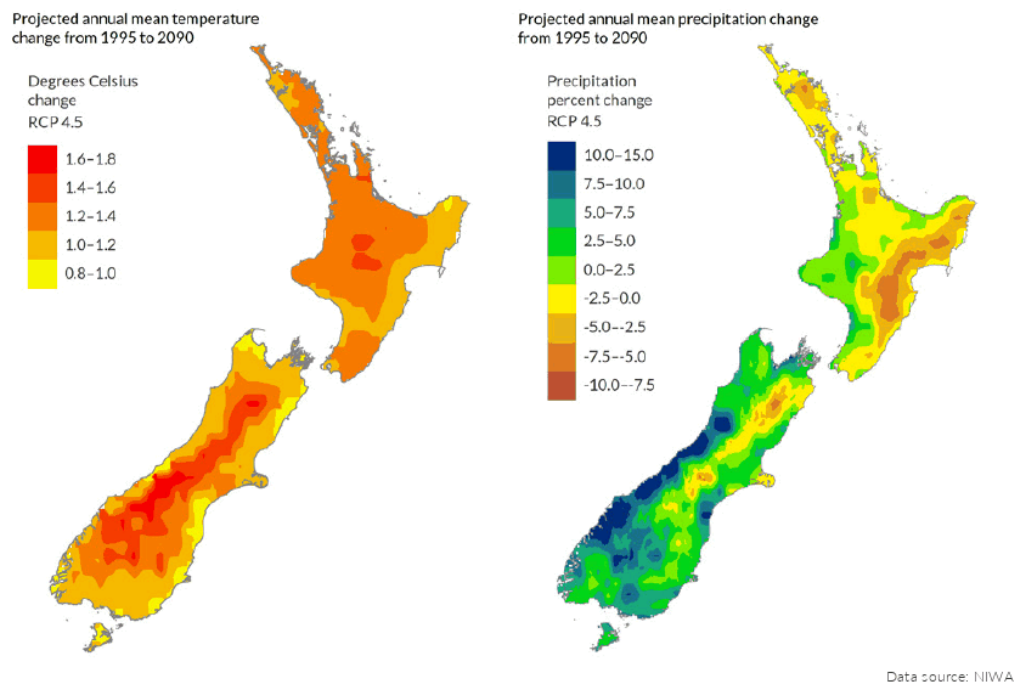
Figure 24: Additional number of warm days compared to 1995



Note: These projections are based on the IPCC Representative Concentration Pathway (RCP) 8.5 emissions scenario. Other emissions scenarios are available for RCP 2.6, RCP 4.5, and RCP 6.0.

► Warm days (above 25 degrees Celsius) are expected to increase across the country under the high emissions scenario (RCP 8.5).

Figure 25: Temperature and precipitation climate change projections for New Zealand



Note: These projections are based on the IPCC Representative Concentration Pathway (RCP) 4.5 emissions scenario. Other emissions scenarios are available for RCP 2.6, RCP 6.0, and RCP 8.5.

- Average annual mean temperature is projected to rise across the country (left). Precipitation is projected to increase on the west coast of the South Island, and decrease along the east coast and Northland.

Droughts are projected to increase in severity and frequency in many areas due to a combination of rising temperatures and changes to rainfall. This will be most pronounced in areas that are already drier, like many eastern areas (MfE, 2018a). Longer periods of drought could affect native forests by causing trees to die, shifting the makeup of a plant community towards more drought tolerant species, and increasing the risk of wildfires.

Sea levels in New Zealand are projected to be 0.5 metres higher than the baseline level for 1986–2005 between 2060 and 2110, and will continue to rise for several centuries (MfE, 2017). The timeframe for this rise depends on future emissions, as well as how quickly polar ice sheets respond to rising temperatures.

The implications for coastal areas are serious but people are still attracted to living near the sea. In many cities throughout the world, population increase and building continues in some zones that are at risk from sea-level rise. In the Auckland region from 2010 to 2013 for example, some construction occurred in low lying areas that may eventually be affected by sea-level rise. The population was also estimated to have increased in these coastal areas between 2001 and 2013 (Golubiewski, Balderston, Hu, & Boyle, 2019).

Days with very high or extreme fire danger are projected to increase by an average of 70 percent by 2040, due to hotter, drier and windier conditions. The largest increases are projected for Wellington and coastal Otago, where fires do not generally occur. A doubling (to around 30 days for Wellington) or even tripling (to around 20 days for coastal Otago) of the number of days per year with very high or extreme fire danger is possible (Scion, 2019).

More information can be found in the [Climate change projections for New Zealand](#) report produced by NIWA.

► Cumulative and cascading effects

The effects of climate change will be felt most acutely when they overlap and build on each other. These are known as cumulative effects. Some examples include a heatwave and drought happening at the same time or a storm surge adding to raised sea levels and making coastal flooding worse.

Cumulative effects can also occur when climate change adds to other changes to the environment. For example, excess nutrients in rivers and lakes can cause algae blooms, but these blooms become more likely when water is warmer. In 2019, flooding on the Fox River on the west coast of the South Island washed through a disused landfill, exposing decades of rubbish and washing it downstream (see [Floods release decades-old rubbish from a landfill](#)).

The increasing frequency of climate-related extreme events makes them more likely to co-occur and cause cumulative effects. This increased risk will be a challenge to our resilience and ability to recover, especially as we are only beginning to understand how and where the events are likely to occur.

Climate change can also have cascading effects, where one climate impact can affect many aspects of our society. Heavy rain and floods for example, can affect wastewater services, road networks, and power and water supplies. These effects all have links to the safety of individuals as well as the quality of life and economic activity of an area. This may cause people to leave the area, particularly if the impacts become more common and access to insurance decreases. The effects then cascade to put greater pressure on councils – with fewer residents left to pay rates, services for those who remain can be reduced (Lawrence et al., 2018).

Impacts from droughts can also ripple through regions and affect the environment, the health of a community, and the economy. Areas that rely on rainwater for drinking and other uses like pasture growth can be especially hard hit.

Climate change will not affect New Zealand in isolation. Life in this country is not separate from the activities and the effects of climate change that are projected to occur around the world. International connections that could be affected include the Pacific Island nations that we have strong relationships with, as well as trading partners, trade routes, international aid assistance, and migration. Our wellbeing can also be threatened by overseas events that have cascading impacts to our economy and security including climate-driven conflicts, water scarcity, and food insecurity.

Overall, a warming climate is projected to create uncertainty and increase risk. The Ministry for the Environment has commissioned the first national assessment of the risks that climate change poses to New Zealand, to meet the requirements in the Zero Carbon Amendment to the Climate Change Response Act (CCRA). See [First national climate change risk assessment for Aotearoa New Zealand](#) webpage on the Ministry for the Environment website for more information about the specific risks and changes expected from climate change.

Future national climate change risk assessments will be carried out regularly by the Climate Change Commission. As required by the CCRA, the Government must deliver a national adaptation plan within 2 years from the publication of the national climate change risk assessment.

Towards a better understanding of our climate



► NIWA's atmospheric research station at Lauder, Central Otago.

Photo: Dave Allen, NIWA

► Making good decisions today

WE KNOW WHY CLIMATE CHANGE IS HAPPENING AND WHAT FURTHER CHANGES ARE LIKELY

The data and insights highlighted in this report demonstrate some of the physical changes and broad-scale effects that are already being observed in Aotearoa New Zealand (see [chapter 3: Changes in our climate and environment are being observed](#)). The observations of increasing temperatures and changes to rainfall show that climate change is no longer a far-off threat but is affecting us and our environment here and now.

This report also sets out the sources of New Zealand's greenhouse gas emissions that are contributing to climate change, and the high-level forces that are driving emissions (see [chapter 2: Our activities are driving emissions](#)). Our activities and the choices we make every day can produce or reduce greenhouse gas emissions. At all levels from central to local government and businesses to communities, iwi, families, and individuals, we are continually making decisions that affect the climate.

Knowledge of Earth's systems and how they affect our lives is progressing, with further data collection, analysis, and investigation continuing across a wide range of subjects. Using tools like climate models, scientists can estimate the most likely range of impacts for different aspects of climate change. Projections from these models show how different emissions scenarios for the future are likely to cause further changes to the climate, with impacts on our environment, society, and culture, and ultimately on our wellbeing.

MANAGING UNCERTAINTY IN DECISION-MAKING

While our understanding of the climate is comprehensive, it will never be perfect. The climate system itself is complex, and so are the ecological and human systems it interacts with. There will always be some uncertainty surrounding any decision related to climate change.

We come across uncertainty in the decisions we make every day, from the mundane (can I get away without a jacket today?) to the life altering (should I start a new career?). While we rarely have all the information we need to act with absolute certainty, we also rarely have so little information that we cannot make a decision.

Part of the enterprise of science is to understand variability and uncertainty so what is significant can be distinguished from the noise. Science recognises that every measurement carries an uncertainty, and methods such as statistical analysis can be used to manage it for decision-making.

Our understanding has advanced to a point where it is straightforward to use our knowledge of uncertainty and risk to make many decisions. For example, taking into account the risk of where flooding is likely to occur more regularly in the future can help us make better decisions about where to build new roads.

PLANNING FOR A CHANGING FUTURE

The ways we choose to act require careful planning and evaluation well in advance of being needed. This can help make the best use of the time and resources that are available now, and because some interventions take a long time to have an effect. Well-planned actions can also increase the openings for other benefits to be incorporated. These could include new economic opportunities or reduced emissions of greenhouse gases. If left too late, the options can be limited and more costly.

Good planning can also help ensure there are no unintended consequences from the actions we take today. Planting pine trees to store carbon, for example, is often cited as an effective strategy for reducing carbon dioxide in the atmosphere. But if the trees are planted in a place where rising temperatures will increase the risk of extreme wildfires, this may not be a sensible long-term strategy for that location.

An improved understanding of how our climate is likely to change, and the effects of those changes, can also help us to be more resilient. This information is especially important at a local level, where adaptations to climate change need to be designed and implemented by the communities affected.

We can develop flexible and innovative plans and responses that allow us to adjust and adapt as the future plays out. The challenge is making the right decisions today that give the next generation the same opportunities to make the right decisions tomorrow.

► Gathering the knowledge we need

LISTENING TO THE VOICES OF TE AO MĀORI

In New Zealand we are fortunate to have a vast repository of local knowledge – mātauranga Māori. It dates back hundreds of years and is therefore an invaluable source of information for identifying changes in te taiao (the environment) and helping us understand how it is changing (see [Tohu and maramataka: observing and tracking changes in the environment](#)).

Mātauranga Māori and science are independent views of te taiao and use different methodologies to progressively add observations and knowledge over generations. Their relationship has been likened to a braided river with channels that cross and uncross on the journey downstream (Macfarlane & Macfarlane, 2019). When the 'channels cross' there is an opportunity for these knowledge systems to come together and provide new ways of thinking and alternate pathways to explore.

There are challenges to bringing mātauranga Māori into the environmental reporting system, which has traditionally focused on the collection and analysis of quantitative data. This report has gone further than previous reports in the Environmental Reporting series in showing that mātauranga Māori can relate and offer different perspectives on data collection, use, and wellbeing. More listening and more work is needed to further combine these views of te taiao.

SOME THINGS WE CAN ONLY LEARN WITH TIME

The complexity of the climate system means it can take time for observations related to climate change to be confirmed statistically. For infrequent events like extreme rainfall, it can take several decades for clear signals to emerge. Robust observation systems and long-term datasets are therefore crucial to provide reliable, quality data. This allows us to detect and understand the trend of important changes. Quality data is also crucial for understanding how actual observed changes are tracking with climate projections and whether any adjustments in the projections are needed.

New Zealand has some of these long-term data sets as part of the data system. For example, coastal sea level and air temperatures have been measured since around the turn of the 20th century. Carbon dioxide concentrations have been measured at Baring Head since 1972. Data sets like these that span 50–100 years are invaluable national assets.

SOME THINGS WE CAN ONLY LEARN BY WORKING TOGETHER

The need for a more connected environmental monitoring system is highlighted by the chain of links from our activities and emissions to the changing climate, to impacts on our social, environmental and economic systems. New Zealand is already on a journey to improve environmental monitoring and ensure data gathering is

prioritised and consistent across the many communities that observe, collate, and steward data.

The journey requires a shift in the system and a holistic understanding of the way environmental data is collected in New Zealand. It is essential that we understand:

- why we collect data (legislation, internal obligations, and national direction and regulation)
- the barriers and incentives (investment, governance, data management systems, standards, and frameworks)
- the roles and responsibilities (those who collect and use the data).

The challenges go well beyond this report, but better data is critical for ensuring a more useful, relevant, and robust evidence base for conversations about climate change and the environment. The Parliamentary Commissioner for the Environment, the Ministry for the Environment, and Stats NZ agree that systemic changes are needed to advance environmental reporting.

Further research to understand the links between climate change and wellbeing at local, regional, and national scales would also be beneficial. This knowledge would help us to better prepare and respond to the ways that climate change will impact our lives.

SOME THINGS WE CAN LEARN USING NEW APPROACHES

Beyond traditional data collection approaches, there is also significant potential to use new technology, such as drones or low-cost sensors. The popularity of smartphones also means that many of us now walk around with a data capture device (the humble camera and GPS receiver) wherever we go, and can be active participants in gathering scientific data.

Citizen science initiatives (that often use smartphones to collect data) have a much larger reach than traditional monitoring because many more people can be involved. Those who are involved also learn more about the places where they live by making observations. Citizen science collaborations can also increase the trust in data and findings and create a stronger base for decision-making (see [King tides show possible future sea levels](#)).

Climate change will affect all aspects of our environment and our lives. The scale and complexity of the challenge will require the use of all the knowledge available to us. There is a need for social scientists to work more alongside biologists, modellers, and other physical scientists. Going further than working across disciplines, however, the size and complexity of climate change offers an opportunity to draw on all knowledge systems.

► King tides show possible future sea levels

The highest of all tides are called king tides. They occur a few times a year when the orbits of the Earth, sun and moon align and create high tides that are even larger than spring tides. King tides can cause flooding in the same places where the higher sea level caused by climate change would be expected to occur. Since king tides are actual events, they provide a more accurate picture of how water moves across a landscape than computer models.

The King Tides Project was begun to document the effects of king tides around the world to help planners, scientists and policymakers study and prepare for future sea-level rise. The Auckland King Tides Project enables local people to share their photographs of places around the city during king tides, so others can see the effects.

The king tides of today may well become normal sea level in the future. Documenting these currently rare events is helping to demonstrate what raised sea levels would be like in New Zealand. The information gathered is also beginning to be used by councils and organisations such as surf clubs that have buildings, roads, and other infrastructure close to the coast.

See [King Tides Auckland](#) for more information.



► Blue sky flooding from a king tide on Tamaki Drive, Auckland, March 2020.

Photo: King Tides Auckland

Additional information



► Dark clouds over the Auckland suburbs of Ellerslie and Panmure.

Photo: Sky View Photography

► About Our atmosphere and climate 2020

REPORTING UNDER THE ENVIRONMENTAL REPORTING ACT 2015

Under the Environmental Reporting Act 2015 (the Act), the Secretary for the Environment and the Government Statistician must produce regular reports on the state of our environment.

Under the Act, a report on a domain (marine, freshwater, land, air, and atmosphere and climate) must be produced every 6 months and a whole-of-environment (or synthesis) report every 3 years. Each domain report has now been published once (see the [Environmental reporting](#) section on the Ministry for the Environment website for the full list). The most recent synthesis report, [Environment Aotearoa 2019](#), was published in April 2019. The previous atmosphere and climate report was [Our atmosphere and climate 2017](#).

Our atmosphere and climate 2020 continues the second cycle of domain reporting. It updates *Environment Aotearoa 2019* and *Our atmosphere and climate 2017* by presenting new data and insights.

As required by the Act, state, pressure, and impact are used to report on the environment. The logic of the framework is that pressures cause changes to the state of the environment and these changes have impacts. The reports describe impacts on ecological integrity, public health, economy, te ao Māori, culture, and recreation to the extent that is possible with the available data.

Suggesting or evaluating any responses to environmental impacts is out of scope under the Act. Therefore, this report does not cover the work that organisations and communities are doing to mitigate the issue. It does provide an update on the most recent data about the state of the atmosphere and climate. The evidence in this report is a basis for an open and informed conversation about what we have, what we are at risk of losing, and where we can make changes. For the first time in the Environmental Reporting series, information about drivers of environmental change and future outlooks are included.

INFORMATION FOR THIS REPORT COMES FROM MANY SOURCES

Data, upon which this report is based, came from many sources including Crown research institutes and central government. Further supporting information was provided using a 'body of evidence' approach. This is defined as peer reviewed, published literature, and data from reputable sources. This also includes mātauranga Māori and observational tools used to identify changes in an ecosystem.

All the data used in this report, including references to scientific literature, was corroborated and checked for consistency. A panel of independent scientists advised on and reviewed the content of the report.

SUPPORTING INFORMATION IS AVAILABLE

This report is supported by other products that are published by the Ministry for the Environment and Stats NZ:

- [Environmental Indicators: Atmosphere and climate](#) – summaries, graphs, interactive maps, and data that are relevant to the state, pressures, and impacts on the atmosphere and climate.
- Data tables are available on the [Ministry for the Environment's data service](#), and technical reports on the [Ministry for the Environment's website](#).

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INFOGRAPHICS

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► References

- Airport Corporation Ltd (ACL). (2020).** Flight arrivals/departures at New Zealand airports. Retrieved July 29, 2020, from www.acl-international.com
- Ajtić, J., Connor, B. J., Lawrence, B. N., Bodeker, G. E., Hoppel, K. W., Rosenfield, J. E., & Heuff, D. N. (2004).** Dilution of the Antarctic ozone hole into southern midlatitudes, 1998-2000. *Journal of Geophysical Research: Atmospheres*, 109(D17), 1–9. <https://doi.org/10.1029/2003JD004500>
- Albrecht, G. (2011).** Chronic environmental change: emerging 'psychoterratic' syndromes. In I. Weissbecker (Ed.), *Climate Change and Human Well-Being* (pp. 43–56). New York, United States of America: Springer. <https://doi.org/10.1007/978-1-4419-9742-5>
- Allen, R. B., Hurst, J. M., Portier, J., & Richardson, S. J. (2014).** Elevation-dependent responses of tree mast seeding to climate change over 45 years. *Ecology and Evolution*, 4(18), 3525–3537. <https://doi.org/10.1002/ece3.1210>
- Anderson, B., Kerr, T., & Milner, A. (2016).** Alpine processes. In P. Jellyman, T. Davie, C. Pearson, & J. Harding (Eds.), *Advances in New Zealand Freshwater Science* (pp. 73–98). Christchurch, New Zealand: New Zealand Freshwater Sciences Society.
- Auseil, A., van der Weerden, T., Beare, M., Teixeira, E., Baisden, T., Lieffering, M., ... Noble, A. (2019).** *Climate change impacts on land use suitability*. Manaaki Whenua Contract Report: LC3573. Lincoln, New Zealand: Manaaki Whenua.
- Banerjee, A., Fyfe, J. C., Polvani, L. M., Waugh, D., & Chang, K. L. (2020).** A pause in Southern Hemisphere circulation trends due to the Montreal Protocol. *Nature*, 579(7800), 544–548. <https://doi.org/10.1038/s41586-020-2120-4>
- Bar-On, Y. M., Phillips, R., & Milo, R. (2018).** The biomass distribution on Earth. *Proceedings of the National Academy of Sciences of the United States of America*, 115(25), 6506–6511. <https://doi.org/10.1073/pnas.1711842115>
- Bastin, J.-F., Clark, E., Elliott, T., Hart, S., van den Hoogen, J., Hordijk, L., ... Crowther, T. W. (2019).** Understanding climate change from a global analysis of city analogues. *Plos One*, 14(7), e0217592. <https://doi.org/10.1371/journal.pone.0217592>
- Bayer, T. K., Schallenberg, M., & Burns, C. W. (2016).** Contrasting controls on phytoplankton dynamics in two large, pre-alpine lakes imply differential responses to climate change. *Hydrobiologia*, 771(1), 131–150. <https://doi.org/10.1007/s10750-015-2625-2>
- Best, E. (1924).** The Polynesian method of generating fire. *The Journal of the Polynesian Society*, 33(130), 87–102.
- Boddy, N. C., & McIntosh, A. R. (2017).** Temperature, invaders and patchy habitat interact to limit the distribution of a vulnerable freshwater fish. *Austral Ecology*, 42(4), 456–467. <https://doi.org/10.1111/aec.12463>
- Bogdziewicz, M., Kelly, D., Thomas, P. A., Lageard, J. G. A., & Hackett-Pain, A. (2020).** Climate warming disrupts mast seeding and its fitness benefits in European beech. *Nature Plants*, 6(2), 88–94. <https://doi.org/10.1038/s41477-020-0592-8>
- Bond, M. O., Anderson, B. J., Henare, T. H. A., & Wehi, P. M. (2019).** Effects of climatically shifting species distributions on biocultural relationships. *People and Nature*, 1(1), 87–102. <https://doi.org/10.1002/pan3.15>
- Bowley, A., Harvey-Green, A., Leadbeater, C., Henry, M., Hooper, G., Simpson, J., ... Walton, J. (2019).** *The Carbon Report*. New Zealand Equity Research. Retrieved from <https://investmentnews.co.nz/wp-content/uploads/The-Carbon-Report-2019-12-05-Counting-Carbon-Costs-Climate-Change-and-NZX-Companies.pdf>
- Bulgarella, M., Trewick, S., Minards, N., Jacobson, M., & Morgan-Richards, M. (2014).** Shifting ranges of two tree weta species (*Hemideina spp.*): competitive exclusion and changing climate. *Journal of Biogeography*, 41(3), 524–535. <https://doi.org/10.1111/jbi.12224>
- Burke, K. D., Williams, J. W., Chandler, M. A., Haywood, A. M., Lunt, D. J., & Otto-Bliesner, B. L. (2018).** Pliocene and Eocene provide best analogs for near-future climates. *Proceedings of the National Academy of Sciences of the United States of America*, 115(52), 13288–13293. www.pnas.org/cgi/doi/10.1073/pnas.1809600115
- Cai, W., Wang, G., Dewitte, B., Wu, L., Santoso, A., Takahashi, K., ... McPhaden, M. J. (2018).** Increased variability of eastern Pacific El Niño under greenhouse warming. *Nature*, 564(7735), 201–206. <https://doi.org/10.1038/s41586-018-0776-9>
- Chapman Tripp. (2019).** *Climate change risk – implications for New Zealand company directors and managed investment scheme providers*. Legal opinion, The Aotearoa Circle. Retrieved from <https://chapmantripp.com/media/r30jdd05/climate-change-risk-legal-opinion-2019.pdf>
- Cheng, L., Abraham, J., Hausfather, Z., & Trenberth, K. E. (2019).** How fast are the oceans warming? *Science*, 363(6423), 128–129. <https://doi.org/10.1126/science.aav7619>
- Chiswell, S., & Grant, B. (2018).** *New Zealand coastal sea surface temperature*. NIWA Client Report: 2018295WN. Wellington, New Zealand: National Institute of Water and Atmosphere Ltd (NIWA).
- Clayton, S., Manning, C., Krygsman, K., & Speiser, M. (2017).** *Mental Health and Our Changing Climate: Impacts, Implications, and Guidance*. Washington, D.C.: American Psychological Association, and ecoAmerica.
- Climate Change Adaptation Technical Working Group (CCATWG). (2018).** *Adapting to climate change in New Zealand*. Wellington, New Zealand.

- Climate Change Iwi Leadership Group. (2016).** *NZ ETS review submissions 2016 priority matters part 1: mitigation*. Retrieved from https://www.mfe.govt.nz/sites/default/files/media/NZETS_reviewstage1%20-%20Climate%20Change%20Iwi%20Leaders%20Group%20180.pdf
- Coyle, K. J., & Van Susteren, L. (2011).** *The psychological effects of global warming on the United States: And why the U.S. mental health care system is not adequately prepared*. National Forum and Research Report. Virginia, United State of America: National Wildlife Federation.
- Cradock-Henry, N. A. (2017).** New Zealand kiwifruit growers' vulnerability to climate and other stressors. *Regional Environmental Change*, 17(1), 245–259. <https://doi.org/10.1007/s10113-016-1000-9>
- Dean, S., Rosier, S., Carey-Smith, T., & Stott, P. (2013).** The role of climate change in the two day extreme rainfall in Golden Bay, New Zealand, December 2011. *Bulletin of the American Meteorological Society*, 94(9), 61–64.
- Deep South National Science Challenge. (2018).** *Tangoio Climate Change Adaptation Decision Model: A process for exploring adaptive pathways for Tangoio Marae*. NIWA Client Report: 2018242HN. Hamilton, New Zealand: National Institute of Water and Atmospheric Research Ltd (NIWA).
- Department of Conservation (DOC). (2019).** Operation Tidy Fox ending Sunday with a record number of volunteers [Press release]. Retrieved from <https://www.doc.govt.nz/news/media-releases/2019/operation-tidy-fox-ending-sunday-with-a-record-number-of-volunteers>
- Durie, M. H. (1985).** A Māori perspective of health. *Social Science & Medicine*, 20(5), 483–186.
- Filippova, O., Nguyen, C., Noy, I., & Rehm, M. (2019).** *Who cares? Future sea level rise and house prices* (Vol. 96). Working Paper: 4/2019. Wellington, New Zealand: School of Economics and Finance, Victoria Business School. <https://doi.org/10.3368/LE.96.2.207>
- Frame, D., Joshi, M., Hawkins, E., Harrington, L. J., & de Roiste, M. (2017).** Population-based emergence of unfamiliar climates. *Nature Climate Change*, 7(6), 407–411. <https://doi.org/10.1038/nclimate3297>
- Frame, D., Rosier, S., Carey-Smith, T., Harrington, L., Dean, S., & Noy, I. (2018).** *Estimating financial costs of climate change in New Zealand, an estimate of climate change-related weather event costs*. Wellington, New Zealand: National Institute of Water and Atmospheric Research (NIWA), New Zealand Climate Change Research Institute.
- Freund, M. B., Henley, B. J., Karoly, D. J., McGregor, H. V., Abram, N. J., & Dommenges, D. (2019).** Higher frequency of Central Pacific El Niño events in recent decades relative to past centuries. *Nature Geoscience*, 12(6), 450–455. <https://doi.org/10.1038/s41561-019-0353-3>
- Friedlingstein, P., Jones, M. W., O'Sullivan, M., Andrew, R. M., Hauck, J., Peters, G. P., ... Zaehle, S. (2019).** Global Carbon Budget 2019. *Earth System Science Data*, 11, 1783–1838. <https://doi.org/10.5194/essd-11-1783-2019>
- Fritze, J. C., Blashki, G. A., Burke, S., & Wiseman, J. (2008).** Hope, despair and transformation: climate change and the promotion of mental health and wellbeing. *International Journal of Mental Health Systems*, 2, 1–10. <https://doi.org/10.1186/1752-4458-2-13>
- Gaffney, O., & Steffen, W. (2017).** The Anthropocene equation. *The Anthropocene Review*, 4(1), 53–61. <https://doi.org/10.1177/2053019616688022>
- Golubiewski, N. E., Balderston, K., Hu, C., & Boyle, J. (2019).** Auckland's Exposure to Sea Level Rise: Part 1 - Regional Inventory. In N. E. Golubiewski (Ed.), *Auckland Climate Change Risk Assessment - 2019*. Retrieved from: <https://knowledgeauckland.org.nz/media/1085/tr2019-017-aucklands-exposure-to-sea-level-rise-part-1-regional-inventory-final.pdf>
- Goodman, J. M. (2018).** *Conservation, ecology and management of migratory galaxiids and the whitebait fishery: A summary of current knowledge and information gaps*. Nelson, New Zealand: Department of Conservation.
- Grant, G. R., Naish, T. R., Dunbar, G. B., Stocchi, P., Kominz, M. A., Kamp, P. J. J., ... Patterson, M. O. (2019).** The amplitude and origin of sea-level variability during the Pliocene epoch. *Nature*, 574(7777), 237–241. <https://doi.org/10.1038/s41586-019-1619-z>
- Gruber, N., Clement, D., Carter, B. R., Feely, R. A., van Heuven, S., Hoppema, M., ... Wanninkhof, R. (2019).** The oceanic sink for anthropogenic CO₂ from 1994 to 2007. *Science*, 363(6432), 1193–1199. <https://doi.org/10.1126/science.aau5153>
- Harmsworth, G. R., & Awatere, S. (2013).** Indigenous Māori knowledge and perspectives of ecosystems. In J. Dymond (Ed.), *Ecosystem services in New Zealand: conditions and trends*. Lincoln, New Zealand: Manaaki Whenua Press.
- Harris, P., Matamua, R., Smith, T., Kerr, H., & Waaka, T. (2013).** A Review of Māori Astronomy in Aotearoa-New Zealand. *Journal of Astronomical History and Heritage*, 16(3), 325–336.
- Hawke's Bay Regional Council (HBRC). (2016).** *Clifton to Tangoio Coastal Hazards Strategy 2120: Coastal Hazard Assessment*. Napier, New Zealand.
- Home, A., Frith, N., & de Pont, O. (2019).** Risk under the microscope - a sea change in pricing property insurance. *Cover to Cover*, (17). Retrieved from <https://www.minterellison.co.nz/our-view/risk-under-the-microscope-a-sea-change-in-pricing-property-insurance>
- Intergovernmental Panel on Climate Change (IPCC). (2007).** *Climate Change 2007: The Physical Science Basis*. In S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquid, & K. Averyt (Eds.), *Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Retrieved from <https://www.ipcc.ch/report/ar4/wg1/>

- Intergovernmental Panel on Climate Change (IPCC). (2013).** *Information from Palaeoclimate Archives*. In *Climate Change 2013: The Physical Science Basis: Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 383–464). <https://doi.org/10.1017/CBO9781107415324.013>
- Intergovernmental Panel on Climate Change (IPCC). (2014a).** *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, United Kingdom and New York: Cambridge University Press.
- Intergovernmental Panel on Climate Change (IPCC). (2014b).** *Drivers, Trends and Mitigation*. In *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 351–412). <https://doi.org/10.1017/cbo9781107415416.011>
- Intergovernmental Panel on Climate Change (IPCC). (2018).** *Global warming of 1.5°C*. Masson-Delmotte, V. P., Zhai, H. O., Pörtner, D., Roberts, J., Skea, P. R., Shukla, A., Pirani, W., Moufouma-Okia, C., Péan, R., Pidcock, S., Connors, J. B. R., Matthews, Y., Chen, X., Zhou, M. I., Gomis, E., Lonnoy, T., Maycock, M., Tignor, & T., Waterfield (Eds.). In Press.
- Intergovernmental Panel on Climate Change (IPCC). (2019).** *IPCC special report on the ocean and cryosphere in a changing climate*. Pörtner, H.-O., Roberts, D. C., Masson-Delmotte, V., Zhai, P., Tignor, M., Poloczanska, E., Minternebeck, K., Nicolai, M., Okem, A., Petzold, J., Rama, B. & Weyer, N. (Eds.). In Press.
- Joynt, J. L. R., & Golubiewski, N. E. (2019).** *Development of the Auckland Heat Vulnerability Index*. Auckland Council Technical Report: TR2019/012. Auckland, New Zealand: Auckland Council.
- King, D. N. (2015).** The climate change matrix facing Māori society. In R. A. C. Nottage, D. S. Wratt, J. F. Bornman, & K. Jones (Eds.), *Climate change adaptation in New Zealand: future scenarios and some sectoral perspectives* (pp. 100–111). Wellington, New Zealand: New Zealand Climate Change Centre.
- King, D., Tawhai, W., Skipper, A., & Iti, W. (2005).** *Anticipating local weather and climate outcomes using Māori environmental indicators*. NIWA Client Report: AKL-2005-129. Auckland, New Zealand: National Institute of Water and Atmospheric Research Ltd (NIWA).
- Kitzberger, T., Perry, G. L. W., Paritsis, J., Gowda, J. H., Tepley, A. J., Holz, A., & Veblen, T. T. (2016).** Fire-vegetation feedbacks and alternative states: common mechanisms of temperate forest vulnerability to fire in southern South America and New Zealand. *New Zealand Journal of Botany*, 54(2), 247–272. <https://doi.org/10.1080/0028825X.2016.1151903>
- Kroecker, K. J., Kordas, R. L., Crim, R., Hendriks, I. E., Ramajo, L., Singh, G. S., ... Gattuso, J. P. (2013).** Impacts of ocean acidification on marine organisms: Quantifying sensitivities and interaction with warming. *Global Change Biology*, 19(6), 1884–1896. <https://doi.org/10.1111/gcb.12179>
- Lal, A., Hales, S., Kirk, M., Baker, M. G., & French, N. P. (2016).** Spatial and temporal variation in the association between temperature and salmonellosis in NZ. *Australian and New Zealand Journal of Public Health*, 40(2), 165–169. <https://doi.org/10.1111/1753-6405.12413>
- Lawrence, J., Blackett, P., Cradock-Henry, N., & Nistor, B. (2018).** *Climate Change: the cascade effect. Cascading impacts and implications for Aotearoa New Zealand*. Wellington, New Zealand: Deep South Challenge.
- Le Quéré, C., Jackson, R. B., Jones, M. W., Smith, A. J. P., Abernethy, S., Andrew, R. M., ... Peters, G. P. (2020).** Temporary reduction in daily global CO₂ emissions during the COVID-19 forced confinement. *Nature Climate Change*. <https://doi.org/https://doi.org/10.1038/s41558-020-0797-x>
- Letlink, M., & Monks, J. M. (2019).** Ecology of scree skinks (*Oligosoma waimatense*) in O Tu Wharekai Wetland, mid-Canterbury high country, New Zealand. *New Zealand Journal of Ecology*, 43(1). <https://doi.org/10.20417/nzjecol.43.6>
- Lyver, P. O. B., Jones, C. J., & Doherty, J. (2009).** Flavor or forethought: Tuhoe traditional management strategies for the conservation of Kereru (*Hemiphysalis novaezeelandiae novaezeelandiae*) in New Zealand. *Ecology and Society*, 14(1). <https://doi.org/10.5751/ES-02793-140140>
- Macfarlane, A., & Macfarlane, S. (2019).** Listen to culture: Māori scholars' plea to researchers. *Journal of the Royal Society of New Zealand*, 49:sup1, 48–57. <https://doi.org/10.1080/03036758.2019.1661855>
- Mattern, T., Meyer, S., Ellenberg, U., Houston, D., Darby, J., Young, M., ... Seddon, P. (2017).** Quantifying climate change impacts emphasises the importance of managing regional threats in the endangered Yellow-eyed penguin. *Poird*, 5, e3272. <https://doi.org/10.7717/peerj.3272>
- McKenzie, R., Bernhard, G., Liley, B., Disterhoft, P., Rhodes, S., Bais, A., ... Brogniez, C. (2019).** Success of Montreal Protocol Demonstrated by Comparing High-Quality UV Measurements with "World Avoided" Calculations from Two Chemistry-Climate Models. *Scientific Reports*, 9, 12332, 1–13. <https://doi.org/10.1038/s41598-019-48625-z>
- Mead, H. M. (2012).** Understanding Mātauranga Māori. In D. Bean, T. Black, W. Collings, & W. Nuku (Eds.), *Conversations On Mātauranga Māori* (pp. 9–14). Retrieved from <https://www.nzqa.govt.nz/assets/Maori/ConversationsMMv6AW-web.pdf>
- Meijer, C., Warburton, H., Harding, J., & McIntosh, A. (2019).** Shifts in population size structure for a drying-tolerant fish in response to extreme drought. *Austral Ecology*, 44(4), 658–667. <https://doi.org/10.1111/aec.12709>

- Melbourne, H. (1978).** Tihore Mai Te Rangi. Retrieved from <http://www.folksong.org.nz/tihore/>
- Metlink. (n.d.).** What delays trains. Retrieved June 18, 2020, from <https://www.metlink.org.nz/getting-around/trains/what-delays-trains>
- Ministry of Agriculture and Forestry (MAF). (2011a).** Adapting to a changing climate: case study 17: Managing impacts on tuna (eel) using a kaupapa Māori approach. Retrieved from <https://www.biosecurity.govt.nz/dmsdocument/26842/direct>
- Ministry of Agriculture and Forestry (MAF). (2011b).** Adapting to a changing climate: case study 33: Threats to stocks of Tītī and Tio in the South Island. Retrieved from <https://www.fisheries.govt.nz/dmsdocument/26848/direct>
- Ministry of Business, Innovation and Employment (MBIE). (2019a).** Energy balances. Retrieved 10 August, 2020, from <https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-statistics-and-modelling/energy-publications-and-technical-papers/energy-in-new-zealand/>
- Ministry of Business, Innovation and Employment (MBIE). (2019b).** *Energy in New Zealand 2019* (Vol. 15). Wellington, New Zealand.
- Ministry for the Environment (MfE). (1997).** *The state of New Zealand's environment 1997*. Wellington, New Zealand.
- Ministry for the Environment (MfE). (2017).** *Coastal hazards and climate change: guidance for local government*. Wellington, New Zealand.
- Ministry for the Environment (MfE). (2018a).** *Climate Change Projections for New Zealand: Atmosphere projections based on simulations from the IPCC fifth assessment, 2nd Edition*. Wellington, New Zealand.
- Ministry for the Environment (MfE). (2018b).** *The co-benefits of emissions reduction: An analysis*. Wellington, New Zealand.
- Ministry for the Environment (MfE). (2019).** *New Zealand's Fourth Biennial Report under the United Nations Framework Convention on Climate Change*. Wellington, New Zealand.
- Ministry for the Environment (MfE). (2020a).** About exceptional circumstances and how to apply. Retrieved from <https://www.mfe.govt.nz/air/air-regulations/national-environmental-standards-air-quality/exceptional-circumstances-and>
- Ministry for the Environment (MfE). (2020b).** New Zealand's projected greenhouse gas emissions. Retrieved 10 July, 2020, from <https://www.mfe.govt.nz/climate-change/emissions-reduction-targets/projected-emissions>
- Ministry for the Environment (MfE). (2020c).** *New Zealand's Greenhouse Gas Inventory 1990-2018 Snapshot*. Wellington, New Zealand.
- Ministry for the Environment (MfE). (2020d).** *New Zealand's Greenhouse Gas Inventory 1990-2018*. Wellington, New Zealand.
- Ministry for Primary Industries (MPI). (2017).** *Aquatic Environment and Biodiversity Annual Review 2017*. Wellington, New Zealand.
- Ministry of Defence (MoD) & New Zealand Defence Force (NZDF). (2018).** *The climate crisis: defence readiness and responsibilities*. Wellington, New Zealand.
- Ministry of Defence (MoD) & New Zealand Defence Force (NZDF). (2019).** *Responding to the climate crisis, an implementation plan*. Wellington, New Zealand.
- Ministry of Transport (MoT). (2019).** *Annual Fleet Statistics 2018*. Retrieved from <https://www.transport.govt.nz/assets/Import/Uploads/Research/Documents/The-NZ-Vehicle-Fleet-Report-2018-web-v2.pdf>
- Ministry of Transport (MoT). (2020).** Weekly COVID-19 Transport Indicators Dashboard - 25 May 2020. Retrieved August 31, 2020, from <https://www.transport.govt.nz/mot-resources/covid-19-transport-indicators-dashboard/>
- Moser, S. C. (2009).** More bad news: the risk of neglecting emotional responses to climate change information. In S. C. Moser, & L. Dilling (Eds.), *Creating a Climate for Change* (pp. 64–80). <https://doi.org/10.1017/cbo9780511535871.006>
- Mullan, A. B., Stuart, S. J., Hadfield, M., & Smith, M. J. (2010).** Report on the review of NIWA's "seven-station" temperature series. NIWA Information Series: 78. Wellington, New Zealand: National Institute of Water and Atmospheric Research Ltd (NIWA).
- Murage, P., Hajat, S., & Kovats, R. S. (2017).** Effect of night-time temperatures on cause and age-specific mortality in London. *Environmental Epidemiology*, 1(2). <https://doi.org/10.1097/EE9.000000000000005>
- National Aeronautics and Space Administration (NASA). (2020).** Global temperature. Retrieved May 4, 2020, from <https://climate.nasa.gov/vital-signs/global-temperature/>
- National Institute of Water and Atmospheric Research (NIWA). (2020).** Auckland's drought most extreme in modern times. Retrieved from <https://niwa.co.nz/news/aucklands-drought-most-extreme-in-modern-times>
- National Oceanic and Atmospheric Administration (NOAA). (2019).** 2019 ozone hole smallest on record. Retrieved from <https://research.noaa.gov/article/ArtMID/587/ArticleID/2566/2019-ozone-hole-smallest-on-record>
- National Oceanic and Atmospheric Administration (NOAA). (2020).** Trends in atmospheric carbon dioxide. Retrieved July 24, 2020, from <https://www.esrl.noaa.gov/gmd/ccgg/trends/>
- New Zealand Government. (2019a).** Govt support for Westland floods recovery [Press release]. Retrieved from <https://www.beehive.govt.nz/release/govt-support-westland-floods-recovery>

- New Zealand Government. (2019b).** Minister announces multi-agency response to identify risks from legacy landfills [Press release]. Retrieved from <https://www.beehive.govt.nz/release/minister-announces-multi-agency-response-identify-risks-legacy-landfills>
- New Zealand Transport Agency (NZTA). (2020).** Weekly traffic count information. Retrieved July 22, 2020, from <https://nzta.govt.nz/about-us/coronavirus-disease-covid-19-services-update/data-and-research/weekly-traffic-count-information>
- New Zealand Waitangi Tribunal. (1989).** *Report of The Waitangi Tribunal on The Te Roa Māori Claim*. Wai 11. Wellington, New Zealand.
- New Zealand Waitangi Tribunal. (2011).** *Ko Aotearoa Tēnei*. Wai 262. Wellington, New Zealand.
- Office of the Māori Climate Commissioner. (2019).** Māori burial grounds under threat from rising seas increasing storm events. [Press release]. Retrieved from <http://www.maoriclimateminister.co.nz/media/maori-burial-grounds-under-threat-from-rising-seas-increasing-storm-events/>
- Office of the Prime Minister's Chief Science Adviser. (2019).** Compromised landfills at risk during extreme weather [Press release]. Retrieved from <https://www.pmcsc.ac.nz/2019/11/05/compromised-landfills-at-risk-during-extreme-weather/>
- Organisation for Economic Co-operation and Development (OECD). (2017).** OECD Environmental Performance Reviews: New Zealand 2017. Paris, France: OECD Publishing. <http://dx.doi.org/10.1787/9789264268203-en>
- Organisation for Economic Co-operation and Development (OECD). (2019).** Carbon dioxide emissions embodied in international trade. Retrieved from <https://www.oecd.org/sti/ind/carbondioxideemissionsembodiedininternationaltrade.htm>
- Organisation for Economic Co-operation and Development (OECD). (2020).** OECD Statistics. Retrieved August 12, 2020, from <https://stats.oecd.org/>
- Parliamentary Commissioner for the Environment (PCE). (2019).** *Pristine, popular... imperilled? The environmental consequences of projected tourism growth*. Wellington, New Zealand.
- Patel, H., Talbot, N., Salmond, J., Dirks, K., Xie, S., & Davy, P. (2020).** Implications for air quality management of changes in air quality during lockdown in Auckland (New Zealand) in response to the 2020 SARS-CoV-2 epidemic. *Science of the Total Environment*, 746, 141129. <https://doi.org/10.1016/j.scitotenv.2020.141129>
- Patuharakeke Te Iwi Trust Board Inc. (2014).** *Patuharakeke Hapū Environmental Management Plan* 2014. Whangarei, New Zealand.
- Paulik, R., Stephens, S., Wadhwa, S., Bell, R., Popovich, B., & Robinson, B. (2019).** Coastal flooding exposure under future sea-level rise for New Zealand. Prepared for The Deep South Science Challenge. NIWA Client Report: 2019119WN. Wellington, New Zealand: National Institute of Water and Atmospheric Research (NIWA).
- Pearce, P., Fedaeff, N., Mullan, B., Rosier, S., Carey-Smith, T. & Sood, A. (2019).** *Wellington Region climate change extremes and implications*. NIWA Client Report: 2019134AK. Auckland, New Zealand: National Institute of Water and Atmospheric Research Ltd (NIWA).
- Pierdomenico, M., Casalbone, D., & Chiocci, F. L. (2019).** Massive benthic litter funnelled to deep sea by flash-flood generated hyperpycnal flows. *Scientific Reports*, 9(1), 1–10. <https://doi.org/10.1038/s41598-019-41816-8>
- Rees-Owen, R. L., Gill, F. L., Newton, R. J., Ivanović, R. F., Francis, J. E., Riding, J. B., ... Lopes dos Santos, R. A. (2018).** The last forests on Antarctica: Reconstructing flora and temperature from the Neogene Sirius Group, Transantarctic Mountains. *Organic Geochemistry*, 118, 4–14. <https://doi.org/10.1016/j.orggeochem.2018.01.001>
- Reguero, B. G., Losada, I. J., & Méndez, F. J. (2019).** A recent increase in global wave power as a consequence of oceanic warming. *Nature Communications*, 10(1), 1–14. <https://doi.org/10.1038/s41467-018-08066-0>
- Reserve Bank of New Zealand (RBNZ). (2018).** *Financial Stability Report, November 2018*. Wellington, New Zealand.
- Rosier, S., Dean, S., Stuart, S., Carey-Smith, T., Black, M., & Massey, N. (2015).** Extreme rainfall in early July 2014 in Northland, New Zealand - Was there an anthropogenic influence? *Bulletin of the American Meteorological Society*, 96(12), 35–40. <https://doi.org/10.1016/j.jmatprotec.2009.09.029>
- Royal Society Te Apārangi. (2017).** *Human Health Impacts of Climate Change for New Zealand: Evidence Summary*. Wellington, New Zealand.
- Salinger, M. J., Renwick, J., Behrens, E., Mullan, A. B., Diamond, H. J., Sirguey, P., ... Sutton, P. J. (2019).** The unprecedented coupled ocean-atmosphere summer heatwave in the New Zealand region 2017/18: drivers, mechanisms and impacts. *Environmental Research Letters*, 14(4), 1–18. <https://doi.org/10.1088/1748-9326/ab012a>
- Scion. (2019).** Fire Danger. *Scion Connections*. Issue 31. Retrieved from <https://www.scionresearch.com/about-us/about-scion/corporate-publications/scion-connections/past-issues-list/scion-connections-issue-31-march-2019/fire-danger>
- Simonson, T., & Hall, G. (2019).** *Vulnerable: the quantum of local government infrastructure exposed to sea level rise*. Wellington, New Zealand: Local Government New Zealand (LGNZ).
- Skipper, A. (2018).** Ka taki mai te māuru When the nor'wester howls. *Te Karaka*, 78, 24–27.
- Stats NZ. (2019).** Environmental-economic accounts: 2019 (data to 2017). In *SEEA account*. Retrieved from <https://www.stats.govt.nz/information-releases/environmental-economic-accounts-2019-data-to-2017>

- Stats NZ. (2020a).** Environmental-economic accounts: 2020 – tables. In *SEEA account*. Retrieved September 1, 2020, from <https://www.stats.govt.nz/information-releases/environmental-economic-accounts-2020-tables>
- Stats NZ. (2020b).** Greenhouse gas emissions (industry and household): Year ended 2018. Retrieved September 1, 2020, from <https://www.stats.govt.nz/information-releases/greenhouse-gas-emissions-industry-and-household-year-ended-2018>
- Stats NZ. (2020c).** Gross domestic product (GDP). Retrieved August 10, 2020, from <https://www.stats.govt.nz/indicators/gross-domestic-product-gdp>
- Stephenson, J., Orchiston, C., Saunders, W., Kerr, S., MacMillan, A., McKenzie, L., ... Willis, S. (2018).** *Communities and climate change: vulnerability to rising seas and more frequent flooding*. Motu Note: 29. Wellington, New Zealand: Motu Economic and Public Policy Research.
- Storey, B., Noy, I., Townsend, W., Kerr, S., Salmon, R., Middleton, D., ... James, V. (2017).** *Insurance, housing and climate adaptation: current knowledge and future research*. Motu Note: 27. Wellington, New Zealand: Economic and Public Policy Research.
- Sutton, P. J. H., & Bowen, M. (2019).** Ocean temperature change around New Zealand over the last 36 years. *New Zealand Journal of Marine and Freshwater Research*, 53(3), 305–326. <https://doi.org/10.1080/00288330.2018.1562945>
- Tait, A. (2019).** *Risk-exposure assessment of Department of Conservation (DOC) coastal locations to flooding from the sea: a national risk assessment of DOC assets, archaeological sites, recreation functional locations, destinations and ecosystem and species management uni* (Vol. 332). Wellington, New Zealand: Department of Conservation.
- Tawhai, W. (2013).** *Living by the Moon: Te Maramataka a Te Whānau-ā-Apanui*. Wellington, New Zealand: Huia publishers.
- Te Hiku o te Ika Development Trust. (2018).** *Te Hiku O Te Ika Climate Change Project. Project Summary Report for the Deep South National Science Challenge*. Wellington, New Zealand: The Deep South.
- Tepley, A., Thomann, E., Veblen, T., Perry, G., Holz, A., Paritsis, J., ... Anderson-Teixeira, K. (2018).** Influences of fire-vegetation feedbacks and post-fire recovery rates on forest landscape vulnerability to altered fire regimes. *Journal of Ecology*, 106(5), 1925–1940. <https://doi.org/10.1111/1365-2745.12950>
- Thomsen, M. S., Mondardini, L., Alestra, T., Gerrity, S., Tait, L., South, P. M., ... Schiel, D. R. (2019).** Local extinction of bull kelp (*Durvillaea* spp.) due to a marine heatwave. *Frontiers in Marine Science*, 6(MAR), 1–10. <https://doi.org/10.3389/fmars.2019.00084>
- Trenberth, K. E. (2020).** Understanding climate change through Earth's energy flows. *Journal of the Royal Society of New Zealand*, 50, 331–347. <https://doi.org/10.1080/03036758.2020.1741404>
- Turney, C. S. M., Fogwill, C. J., Golledge, N. R., McKay, N. P., Sebille, E. van, Jones, R. T., ... Cooper, A. (2020).** Early Last Interglacial ocean warming drove substantial ice mass loss from Antarctica. *Proceedings of the National Academy of Sciences of the United States of America*, 117(8), 3996–4006. <https://doi.org/10.1073/pnas.1902469117>
- United Nations. (2007).** *Climate change an overview*. Paper prepared by the Secretariat of the United Nations Permanent Forum on Indigenous Issues.
- United Nations. (n.d.).** The effects of climate change on indigenous peoples. Retrieved July 23, 2020, from <https://www.un.org/development/desa/indigenouspeoples/climate-change.html>
- United Nations Environment Programme (UNEP). (2019).** *Emissions gap report 2019*. Nairobi, Kenya. <https://doi.org/10.18356/ff6d1a84-en>
- United Nations Framework Convention on Climate Change (UNFCCC). (2020).** Greenhouse gas inventory data - detailed data by Party. Retrieved June 22, 2020, from https://di.unfccc.int/detailed_data_by_party
- United Nations Population Division (UNPD). (2020).** World population prospects 2019. Retrieved August 12, 2020, from <https://population.un.org/wpp/Download/Standard/Population/>
- Vargo, L. J., Anderson, B. M., Dadić, R., Horgan, H. J., Mackintosh, A. N., King, A. D., & Lorrey, A. M. (2020).** Anthropogenic warming forces extreme annual glacier mass loss. *Nature Climate Change*, 10, 856–861. <https://doi.org/10.1038/s41558-020-0849-2>
- Walker, S., Monks, A., & Innes, J. (2019).** Thermal squeeze will exacerbate declines in New Zealand's endemic forest birds. *Biological Conservation*, 237, 166–174. <https://doi.org/10.1016/j.biocon.2019.07.004>
- Weko, F., Roberts, M., & Clarke, L. (2006).** *Maramataka: the Māori Moon Calendar*. Research Report No. 283. Christchurch, New Zealand: Lincoln University.
- Weltzin, J., Loik, M. E., Schwinning, S., Williams, D. G., Fay, P. A., Haddad, B. M., ... Zak, J. C. (2003).** Assessing the response of terrestrial ecosystems to potential changes in precipitation. *BioScience*, 53(10), 941. [https://doi.org/10.1641/0006-3568\(2003\)053\[0941:ATROTE\]2.0.CO;2](https://doi.org/10.1641/0006-3568(2003)053[0941:ATROTE]2.0.CO;2)
- Westland District Council. (2019a).** March storm remains costly for small council [Press release]. Retrieved from <https://www.westlanddc.govt.nz/media-release>
- Westland District Council. (2019b).** *Westland District Council Annual Report 2018/19*. Hokitika, New Zealand.

- Willeit, M., Ganopolski, A., Calov, R., & Brovkin, V. (2019).** Mid-Pleistocene transition in glacial cycles explained by declining CO₂ and regolith removal. *Science Advances*, 5(4). <https://doi.org/10.1126/sciadv.aav7337>
- World Meteorological Organization (WMO). (2017).** *WMO Guidelines on the Calculation of Climate Normals*. WMO-No. 1203. Geneva, Switzerland.
- World Meteorological Organization (WMO). (2019).** *Scientific Assessment of Ozone Depletion: 2018*. Global Ozone Research and Monitoring Project – Report No. 58. Geneva, Switzerland.
- World Meteorological Organization (WMO) and Global Water Partnership. (2016).** *Handbook of drought indicators and indices*. Integrated Drought Management Programme (IDMP), Integrated Drought Management Tools and Guidelines Series 2 (No. 1173). Geneva, Switzerland.
- Wyse, S. V., Macinnis-Ng, C. M. O., Burns, B. R., Clearwater, M. J., & Schwendenmann, L. (2013).** Species assemblage patterns around a dominant emergent tree are associated with drought resistance. *Tree Physiology*, 33(12), 1269–1283. <https://doi.org/10.1093/treephys/tpt095>
- Wyse, S. V., Wilmshurst, J. M., Burns, B. R., & Perry, G. L. W. (2018).** New Zealand forest dynamics: A review of past and present vegetation responses to disturbance, and development of conceptual forest models. *New Zealand Journal of Ecology*, 42(2), 87–106. <https://doi.org/10.20417/nzjecol.42.18>



Provincial Growth Fund Dashboard

Southland / Murihiku Region | August 2020

FUNDING BY SECTOR

	Approved (\$m)
ICT & Digital Connectivity	\$24.58
Regional Projects	\$21.26
Tourism	\$9.77
Aquaculture	\$8.92
Training Skills / Employment	\$4.88
Forestry	\$3.23
Energy	\$3.16
Agriculture / Horticulture	\$3.02
Manufacturing / Engineering	\$2.67
Water Storage / Management	\$1.15
Airports	\$0.50
Rail	\$0.25
Grand Total	\$83.39

CROSS-REGION	
1 Project \$1.91m	
●	1BT Grants – Southland - \$1.91m

WEST SOUTHLAND	
3 Projects \$25.08m	
●	Milford Highway Fibre Connection (2 x projects) - \$22.00m
●	Milford Aerodrome - \$3.08m

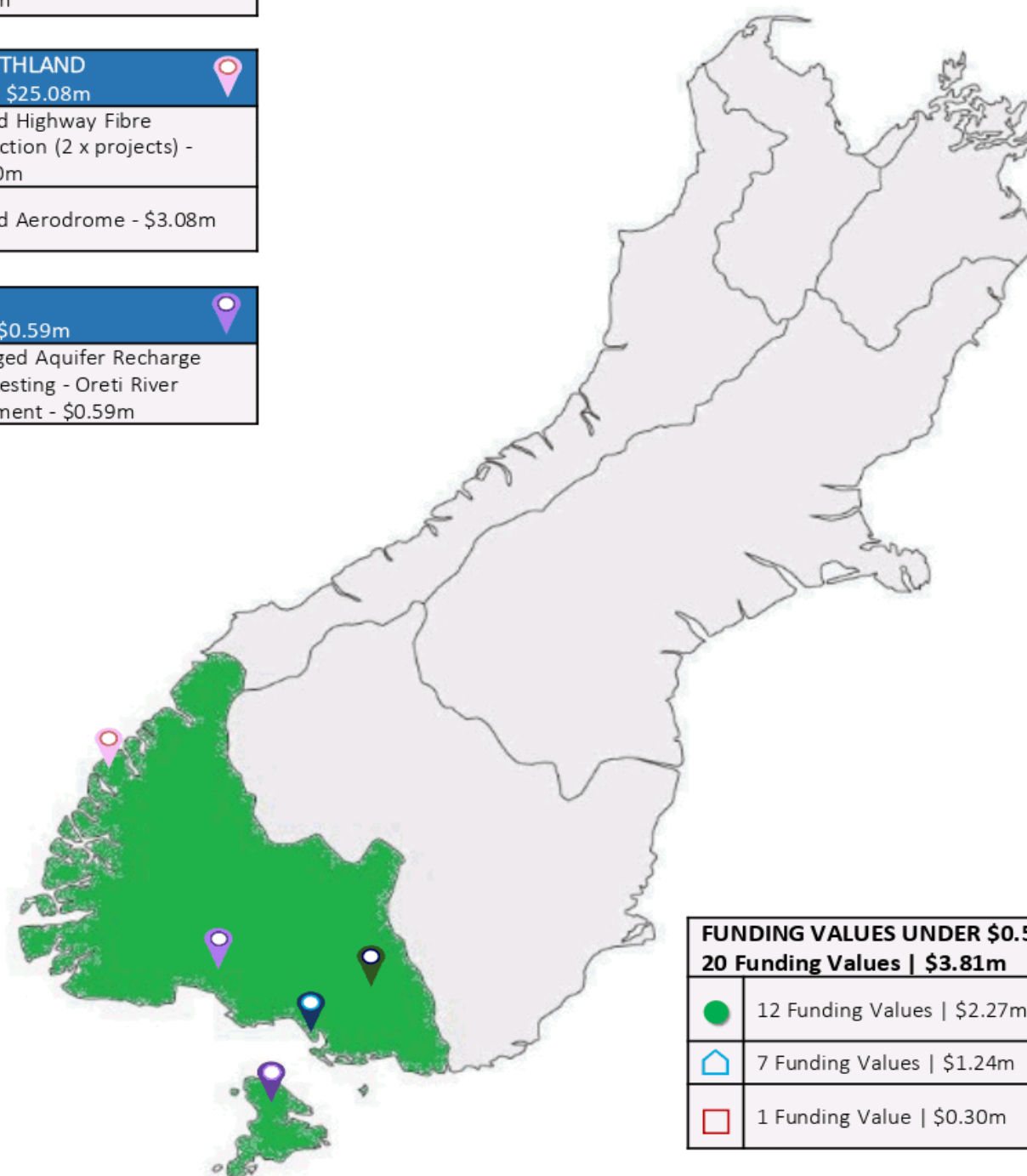
ORETI	
1 Project \$0.59m	
●	Managed Aquifer Recharge Pilot Testing - Oreti River Catchment - \$0.59m

INVERCARGILL	
8 Projects \$34.10m	
●	Our city for tomorrow (2 x funding values) - \$19.50m
□	Realising the Vision for Southland Aquaculture - \$8.00m
□	Southern Hydroponics Growth Fund Proposal - \$2.50m
●	Southland Youth Futures – \$1.55m
□	Inner City Development Feasibility Study - \$1.00m
●	COIN - Business and Community Led Co-Investment Network - \$0.55m
□	Airport Cargo and Terminal Development - \$0.50m
●	SOREC - JK's Engineering – Machinery - \$0.50m

GORE	
3 Projects \$3.74m	
●	Hokonui Highway - \$2.09m
●	Maruawai Centre Development - \$0.92m
●	Hokonui Moonshine Museum and Distillery Redevelopment - \$0.73m

RAKIURA / STEWART ISLAND	
2 Projects \$3.66m	
●	Stewart Island Wind Power - \$3.16m
●	Commercial-scale harvest and cultivation of the native New Zealand seaweed species Asparagopsis to trigger the establishment of a new high-value regional aquaculture sector - \$0.50m

KEY	
●	Project is underway
□	No commencement date set
□	Project complete



FUNDING VALUES UNDER \$0.50M	
20 Funding Values \$3.81m	
●	12 Funding Values \$2.27m
□	7 Funding Values \$1.24m
□	1 Funding Value \$0.30m

The table of announced projects displays all projects that have been announced by PGF decision-makers. Projects which have been announced since the last iteration of this dashboard can be identified with an asterisk displayed next to the project title. The sector table shows all approved funding by decision makers, including projects which have not yet been announced. All figures in the tables are the current project values which are the announced, approved or contracted amounts.



Provincial Growth Fund Dashboard

Southland / Murihiku Region | August 2020

Announced Title	Recipient	Current Project Value
1BT Grants - Southland	Various	\$1,911,210
Bluff Engineering and Welding Limited – Machinery	Bluff Engineering and Welding Co Limited	\$77,500
Building a bright future for aquaculture in Southland	Environment Southland	\$424,976
Building capacity in Southland	Great South (Venture Southland)	\$400,000
COIN - Business and Community Led Co-Investment Network	Coin South Incorporated	\$550,000
Commercial-scale harvest and cultivation of the native New Zealand seaweed species Asparagopsis to trigger the establishment of a new high-value regional aquaculture sector - (Resubmission)	CH4 Aotearoa Supply Limited	\$500,000
EIS - Engineering Equipment	EIS Group Limited	\$55,000
FI Innovations – Industry 4.0 HERE WE COME	FI Innovations Limited	\$370,000
Hokonui Highway Project	Community Networking Trust (Eastern Southland) Incorporated	\$2,093,879
Invercargill – Our city for tomorrow (Equity)	HWCP Management Limited	\$9,500,000
Invercargill – Our city for tomorrow (Loan)	Invercargill Central Limited	\$10,000,000
Invercargill Airport Air Cargo and Terminal Development	Invercargill Airport Limited	\$500,000
Invercargill Inner city Development: Reimagined. Redeveloped. Revitalised. Our city for tomorrow	HWCP Management Limited	\$995,000
JK's Engineering – Machinery	JK's 2018 Limited, trading as JK's Engineering	\$500,000
Managed Aquifer Recharge Pilot Testing - Oreti River Catchment	Oreti MAR Limited	\$593,500
Maruawai Project - Stage 2 (Maruawai Centre [Development])	Gore District Council	\$919,000
Maruawai Project - Stage One (Hokonui Moonshine Museum and Distillery)	Hokonui Heritage Centre Trust	\$729,000
McKenzie Marine and MacKraft – Growth Acceleration Project	McKenzie Marine and MacKraft Limited	\$103,000
McMaster Engineering Productivity Project	McMaster Engineering	\$108,000
Milford Aerodrome	Ministry of Transport	\$3,080,000
Milford Fibre Link	Crown Infrastructure Partners	\$10,000,000
Milford Highway Fibre Connection	CIP	\$12,000,000
Nulook Windows and Door - Machinery	Nulook Southland (Southland Windows and Door Centre Limited)	\$140,000
Programme Manager - Predator Free Stewart Island	Southland District Council	\$100,000
Rail Freight Opportunities - South Port	KiwiRail Holdings Limited	\$250,000
Realising The Vision For Southland Aquaculture	Sanford Limited	\$8,000,000
Resource support for communities transforming into being age-friendly as an economic basis to their future	Office For Seniors, Ministry of Social Development	\$150,000
Sheet Metalcraft - Engineering Equipment	Sheet Metalcraft Limited	\$132,500
Southern Hydroponics Growth Fund Proposal	Southern Hydroponics Limited	\$2,500,000
Southern Steel Windows - Engineering Equipment	Southern Steel Windows Limited	\$250,000
Southland Story Project	Environment Southland	\$18,000
Southland Youth Futures	Southland Regional Development Agency	\$1,550,000
Stabicraft – Engineering Equipment for Marine services	Stabicraft Marine Limited	\$225,000
Stewart Island Wind Power	Southland District Council	\$3,160,000
Stewart Island/ Rakiura Future Opportunities Project	Southland District Council	\$100,000
Water: People Water and Land Strategy Pilot	Environment Southland	\$300,000
Wind tunnel for facade testing – Manufacturing Enhancements	Insol Limited	\$225,000
Yunca - Machinery	Terry Young Limited	\$250,000
Zenitec Holdings Limited – Machinery	Zenitec Holdings Limited	\$130,000

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