

Notice of Meeting:

I hereby give notice that an ordinary Meeting of the Environment Committee will be held on:

Date: Tuesday 1 December 2020

Time: 1.00pm

Meeting Room: Council Chamber and Audio Visual Link
Venue: Municipal Building, Garden Place, Hamilton

Richard Briggs Chief Executive

Environment Committee Komiti Taiao OPEN AGENDA

Membership

Chairperson Cr M Forsyth

Heamana

Deputy Chairperson Cr S Thomson

Heamana Tuarua

Members

Cr M Bunting

Cr A O'Leary

Cr K Naidoo-Rauf

Cr D Macpherson

Cr Wilson

Mayor P Southgate (Ex Officio) Maangai Maaori – N

Hill

Quorum: A majority of members (including vacancies)

Meeting Frequency: Six weekly

Becca Brooke Governance Manager Menetia Mana Whakahaere

23 November 2020

Telephone: 07 838 6727 Becca.Brooke@hcc.govt.nz www.hamilton.govt.nz

Purpose

The Environment Committee is responsible for:

1. Governance of strategies, policies and plans relating to the wellbeing, protection, enhancement and sustainability of Hamilton's natural environment.

In addition to the common delegations, the Environment Committee is delegated the following Terms of Reference and powers:

Terms of Reference:

- 1. To develop policy, approve strategies and plans concerning Hamilton's contribution and response to climate change, and to monitor their implementation.
- 2. To develop policy, approve strategies and plans for the sustainable use of Hamilton's natural resources, and to monitor their implementation.
- 3. To develop policy, approve strategies and plans for efficient and sustainable waste management and recycling, and to monitor their implementation.
- 4. To develop policy, approve strategies and plans for Council's corporate environmental sustainability and to monitor their implementation.
- 5. To develop policy, approve strategies and plans for Council's biodiversity, and to monitor their implementation.
- 6. To develop policy, approve and monitor implementation of strategies in relation to the Climate Action Plan.

Special Notes:

• The Committee may request expert external advice through the Chief Executive as necessary.

The Committee is delegated the following powers to act:

Approval of matters determined by the Committee within its Terms of Reference.

The Committee is delegated the following recommendatory powers:

The Committee may make recommendations to Council.

The Committee may make recommendations to other Committees.

ITEM	TABLE OF CONTENTS	PAGE
1	Apologies – Tono aroha	4
2	Confirmation of Agenda – Whakatau raarangi take	4
3	Declarations of Interest – Tauaakii whaipaanga	4
4	Public Forum – Aatea koorero	4
5	Confirmation of the Open Environment Committee Minutes - 10 September 2020	5
6	Chair's Report	11
7	General Managers Report	13
8	Draft Nature in the City Strategy	16
9	Waikato Local Authority Shared Services (WLASS) Energy and Carbon Management Programme	66
10	Climate change programme update (Recommendation to the Strategic Risk and Assurance Committee)	67
11	Resolution to Exclude the Public	92

1 Apologies – Tono aroha

2 Confirmation of Agenda – Whakatau raarangi take

The Committee to confirm the agenda.

3 Declaration of Interest – Tauaakii whaipaanga

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

4 Public Forum – Aatea koorero

As per Hamilton City Council's Standing Orders, a period of up to 30 minutes has been set aside for a public forum. Each speaker during the public forum section of this meeting may speak for five minutes or longer at the discretion of the Chair.

Please note that the public forum is to be confined to those items falling within the terms of the reference of this meeting.

Speakers will be put on a Public Forum speaking list on a first come first served basis in the Council Chamber prior to the start of the Meeting. A member of the Council Governance Team will be available to co-ordinate this. As many speakers as possible will be heard within the allocated time.

If you have any questions regarding Public Forum please contact Governance by telephoning 07 838 6727.

Council Report

Committee: Environment Committee **Date:** 01 December 2020

Author: Carmen Fortin **Authoriser:** Becca Brooke

Position: Governance Advisor **Position:** Governance Manager

Report Name: Confirmation of the Open Environment Committee Minutes - 10

September 2020

Report Status	Open

Staff Recommendation - Tuutohu-aa-kaimahi

That the Committee confirm the open Minutes of the Environment Committee meeting held on 10 September 2020 as a true and correct record.

Attachments - Ngaa taapirihanga

Attachment 1 - Environment Committee - Unconfirmed Open Minutes - 10 September 2020



Environment Committee Komiti Taiao OPEN MINUTES

Minutes of a meeting of the Environment Committee held via audio-visual link on Thursday 10 September 2020 at 9.33am.

PRESENT

Chairperson

Cr M Forsyth

Heamana

Deputy Chairperson

Cr S Thomson

Heamana Tuarua

Members

Mayor P Southgate Cr M Bunting Cr A O'Leary Cr K Naidoo-Rauf Cr D Macpherson Cr E Wilson Maangai N Hill

In Attendance:

Sean Hickey - General Manager Strategy and Communication

Andy Mannering – Manager Social Development

Julie Clausen - Unit Manager Strategy and Corporate Planning Charlotte Catmur - Sustainability and Environment Advisor

Governance Unit:

Becca Brooke - Governance Manager

Carmen Fortin and Narelle Waite - Governance Advisors

1. Apologies – Tono aroha

Resolved:

(Cr Wilson/ Cr Forsyth)

That the apologies from Cr Bunting and partial apologies from Mayor Southgate and Crs Macpherson and O'Leary be accepted.

2. Confirmation of Agenda – Whakatau raarangi take

Resolved:

(Cr Forsyth/ Cr Wilson)

That the agenda is confirmed.

3. Declarations of Interest – Tauaakii whaipaanga

No members of the Council declared a Conflict of Interest.

4. Public Forum – Aatea koorero

Rex Bushell (representing Kirikiriroa Restoration Forum) spoke to item 9 (General Manager's Report). He indicated that the Forum believed that major changes would be required, including the co-management partnership of gully groups and Council, and implementation of the Environment

Page 1 of 5

Court rulings. He responded to questions from Members concerning inclusion of an independent panel.

Hannah Huggan (representing Student Environment Leaders) spoke to item 7 (Climate Action Plan). She spoke in support of some of the previous actions, including the inclusion of environment within the wellbeings and the inclusion of Mana Whenua in environmental decision making.

Andrea Gray spoke to item 6 (Chair's Report), in support of the consideration of lighting and the impact on wildlife. She responded to questions from Members concerning the consent application which was made and surveying done.

Timi Barabas (representing Student Environment Leaders) spoke to item 7 (Climate Action Plan), in support of the Climate Action Plan, and emphasised the need to take action.

Lynne Garnham (representing Tui 2000) spoke to item 9 (General Manager's Report), in support of Rex Bushell's submission, and emphasised the partnerships and co-management with community groups.

Roderick Aldridge spoke to item 9 (General Manager's Report) in support of co-operation between different groups to ensure the best outcome for wildlife.

Anna Casey-Cox and Jo Wrigley (representing GoEco) spoke to item 9 (General Manager's Report) in support of the collaboration with community groups and the impact that Council communication can have. They indicated some frustration in terms of lack of climate action, noting that they understood the planning time behind it. They responded to questions from Members in regards to a potential independent panel, and logistics around this, indications to reports which were meant to be published by community groups, communication with maaori and Mana Whenua groups in regard to the work of the community groups.

Cr Gallagher joined the meeting (10.02am) during the discussion of the above item.

5. Confirmation of the Open Environment Committee Minutes - 4 June 2020

Resolved: (Cr Forsyth/ Cr Thomson)

That the Committee confirm the open Minutes of the Environment Committee meeting held on 4 June 2020 as a true and correct record.

6. Chair's Report

The Chair took the report as read and responded to questions from Members concerning environmental surveying around sports parks.

Staff Action: Staff undertook to circulate information to Elected Members on status of Environment Court application, process, and decision relating to bat habitats in Peacocke. Elected Members have indicated a particular interest into what consideration had been given to bat habitats in relation to sports park applications.

Resolved: (Cr Thomson/ Cr Wilson) That the Environment Committee receives the report.

Item 8 (Enviroschools 2020 report) was taken after the above item 6 (Chair's Report) to accommodate external presenters.

Page 2 of 5

Environment Committee 10 SEPTEMBER 2020 - OPEN

7. Enviroschools 2020 Report

The Manager Social Development introduced the report and Dominique Thurlow, Chris Langley, and Adrian Grant from Waikato District Council, as well as Alastair Kerr and students from Rhode Street School. Chris Langley provided background to the function of the Enviroschool programme. Alastair Keer and the students from Rhode Street School described the activities and values within the school. They responded to questions from Members concerning next projects for Rhode Street School, how eco-friendly practices are being brought into the home, opportunities to include more schools in the programme within Hamilton, existing awards or recognition to encourage school participation within the programme, link between enviroschools and gardens in community spaces, and student numbers and student transport data.

Resolved: (Cr Forsyth/ Cr Thomson)

That the Environment Committee receives the report.

Cr Macpherson joined the meeting (10:42am) during the discussion of the above item. He was present when the item was voted on.

The meeting was adjourned 11.03am to 1.03pm.

Item 9 (Information Only Reports) was taken after the conclusion of the above item due to availability.

8. Open Information Only Reports

The General Manager Strategy and Communication took the General Managers report as read, noting that the focus on the Nature in the City Strategy. Staff responded to questions from Members concerning the summary of feedback from engagement from the Nature in the City strategy, and Mana Whenua input into the Nature in the City Strategy.

Staff responded to questions from Members concerning advances or progress in incentivising businesses to recycle, cost for Greenstar accreditation, and Greenstar requirements for smaller developers.

Resolved: (Cr Forsyth/ Cr Wilson)

That the Environment Committee receives the General Manager's Report.

Resolved: (Cr Forsyth/ Cr Wilson)

That the Environment committee receives the following information only reports:

- a) Update on 2018-2024 Waste Management and Minimisation Plan Actions;
- b) Building Sustainability and Energy Efficiency and Green Star Building Practices; and
- c) Smart Water Programme Update

Cr Macpherson rejoined the meeting (1:11pm) during the discussion of the above item. He was present when the matter was voted on.

9. 2020/21 Climate Change Action Plan

The Unit Manager Strategy and Corporate Planning provided background to the report and introduced the Sustainability and Environment Advisor. She noted that this action plan indicated the plan for the year, and indicates longer term plans, which will be included within the Long Term Plan. Staff responded to questions from Members concerning the inclusion of transport data,

Page 3 of 5

Committee influence on the development of the upcoming LTP without full Climate Action Plan in place, available resourcing, clarification between HCC carbon emissions and carbon footprint.

Staff Action: Staff undertook to make amendments to the 2020/21 Climate Action Plan in relation to transport, with the amendments to be approved by the Environment Committee Chair, Strategy and Communication General Manager, and CE.

Resolved: (Cr Forsyth/ Cr Thomson)

That the Environment Committee:

- a) receives the report;
- b) approves the 2020/21 Climate Change Action Plan, noting the above staff action in relation to transport amendment; and
- c) notes that the 2020/21 Climate Change Action Plan includes the setting of the following emissions reduction targets a 50% reduction in gross greenhouse gas emissions (except for biogenic methane) by 2030 from 2018/19 levels and a 25% reduction in emissions for biogenic methane levels by 2030 from 2018/19 levels.

Cr O'Leary retired from the meeting (1:26pm) during the discussion of the above item. She was not present when the matter was voted on.

Mayor Southgate joined the meeting (1.27pm) and retired (1.41pm) during the discussion of the above item. She was not present when the matter was voted on.

14. Resolution to Exclude the Public

Resolved: (Cr Forsyth/ Cr Wilson)

Section 48, Local Government Official Information and Meetings Act 1987

The following motion is submitted for consideration:

That the public be excluded from the following parts of the proceedings of this meeting, namely consideration of the public excluded agenda.

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution follows.

General subject of each matter to be considered	Reasons for passing this resolution in relation to each matter	* '
C1. Planning Guidance Unit - Vegetation Clearance) Good reason to withhold) information exists under) Section 7 Local Government) Official Information and) Meetings Act 1987	Section 48(1)(a)

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public, as follows:

Page 4 of 5

Environment Committee 10 SEPTEMBER 2020 - OPEN

Item C1. to maintain legal professional privilege Section 7 (2) (g) to enable Council to carry out negotiations Section 7 (2) (i)

The meeting went into a public excluded session at 1.45pm.

The meeting was declared closed at 2.18 pm.

Council Report

Committee: Environment Committee **Date:** 01 December 2020

Author: Carmen Fortin **Authoriser:** Becca Brooke

Position: Governance Advisor **Position:** Governance Manager

Report Name: Chair's Report

Report Status	Open

Recommendation - Tuutohu

That the Environment Committee receives the report.

Attachments - Ngaa taapirihanga

Attachment 1 - Environment Committee Chair's Report - 1 December 2020



Chair's Report

Welcome to the last Environment Committee meeting for 2020.

I want to take this opportunity to thank all committee members and staff for their active roles in this committee throughout the year - the meeting schedules are only a small part of what we do, and I acknowledge and appreciate your work outside of the formal meeting times.

Some of the more notable environmental achievements for this year include the adoption of the Climate Action Plan, the drafting of the Nature in the City Plan, the Micro Mobility and Biking Plan business case document, the new Waste and Rubbish bins - to name a few. Many other Council projects have positive environmental outcomes, and these are mostly evident in our Strategic Growth and Infrastructure Committees.

Gully maintenance, clearing and planting is proving to be a great success with the 100k Council grant to volunteers being well utilised and appreciated. I'd like to take this opportunity to thank our volunteer groups who show up week after week to do very physical work clearing trees, weeding and planting trees on sometimes challenging terrain. Thank you for your passion and performance.

I look forward to our LTP deliberations as we determine priorities for our city and our citizens. The growing awareness from not only an organisational but a community and personal context reminds us that we are connected to and influenced by our environment on so many levels. Long may this awareness continue.

I'll close my report with a whakatauki for reflection and guidance about our purpose as a Committee and Council- about how the decisions of today affect the environment of tomorrow. It's about Kaitiakitanga – Guardianship.

'Toituu to whanau, Whatungarongaro he tangata'

'The land remains when people have disappeared'.

Recommendation:

That the Environment Committee receive the report.

Margaret Forsyth
Councillor East Ward
Chair Environment Committee

Council Report

Committee: Environment Committee **Date:** 01 December 2020

Author: Sean Hickey **Authoriser:** Sean Hickey

Position: General Manager Strategy and **Position:** General Manager Strategy

Communications and Communications

Report Name: General Managers Report

Report Status	Open

Purpose - Take

- 1. To inform the Environment Committee on various environment-related matters, including the Waikato Sub-region Bat Strategy and the development of an Environment Committee work programme.
- 2. To seek nomination of Committee Members to form a working group to develop a set of Environmental Principles.

Staff Recommendation - Tuutohu-aa-kaimahi

- 3. That the Environment Committee:
 - a) receives the report; and
 - b) appoints the Chair and Deputy Chair of the Environment Committee and Maangai Hill to form a working group to develop a set of Environmental Principles.

Discussion - Matapaki

Environmental Principles for decision making

- 4. There are many decisions being made by Council and Committees of Council that have the potential to impact, positively or negatively, on the natural environment in Hamilton or contribute to climate change.
- 5. A set of Environmental Principles could guide decision making by Council and Committees to ensure the natural environment is being considered appropriately.
- 6. Staff recommend that a small working group of Committee Members and staff is convened to draft a set of Environmental Principles to be presented at the March 2021 Environment Committee meeting. Following approval by the Environment Committee, these principles would be recommended to Council for approval.

Development of an Environment Committee work programme

7. To support the Environment Committee in delivering positive outcomes for Hamilton's natural environment staff have commenced developing a work programme for the remaining term of the Environment Committee.

- 8. The key areas of focus include those listed in the terms of reference for the Committee as well as opportunities to influence other key areas that would result in positive environmental and climate change outcomes.
- 9. Following the approval of the Nature in the City Strategy staff will engage with the Environment Committee Chair and Deputy Chair on the forward work programme and it will then be presented for discussion at the March 2021 Environment Committee meeting.

Waikato Sub-region Bat Strategy - update

- 10. The Steering Group coordinated by Waikato Regional Council and made up of staff from Waikato Regional Council, Hamilton City Council, Waipa District Council, Waikato District Council, Department of Conservation, Waikato-Tainui and haapuu representatives, attended a facilitated hui in October 2020 to further define the issues and refine the scope of the strategy.
- 11. Two key works streams have been formed. One focusing on how high-level strategic collaboration between all agencies can result in aligned and effective rules, policies and incentives for bat conservation and habitat protection, and a 'hearts and minds' workstream focusing on engaging the community to promote bats as a visible, treasured and protected component of the Waikato region's identity.
- 12. The next Steering Group hui is to be held early December, with the objective of confirming the scope of the strategy and agreeing on how the strategy will be developed and resourced.

Partner engagement

- 13. Staff met with counterparts from Waikato Regional Council, Waikato District Council and Waipa District Council on 19 November 2020 regarding an aligned approach to climate action.
- 14. Waikato Regional Council (WRC) were due to present at this Environment Committee regarding our collaborative work around water quality, biodiversity and climate change. Due to the change of meeting date, WRC representatives were unavailable for this meeting, but have committed to presenting at the next Environment Committee meeting.
- 15. Waikato-Tainui were also due to present their climate strategy at this Committee Meeting but, due to the changed meeting date, have also been unable to attend. Staff are progressing a collaborative approach to climate change with Waikato-Tainui and have a meeting scheduled for 9 December 2020 to advance this.

Financial Considerations - Whaiwhakaaro Puutea

16. This is a regular operating activity funded through the 2018-2028 10 Year Plan.

Legal and Policy Considerations - Whaiwhakaaro-aa-ture

17. Staff confirm that the staff recommendation complies with the Council's legal and policy requirements.

Wellbeing Considerations - Whaiwhakaaro-aa-oranga tonutanga

- 18. The purpose of Local Government changed on the 14 May 2019 to include promotion of the social, economic, environmental and cultural wellbeing of communities in the present and for the future ('the 4 wellbeings').
- 19. The subject matter of this report has been evaluated in terms of the 4 wellbeings during the process of developing this report. The recommendations set out in this report are consistent with that purpose.

Risks - Tuuraru

20. There are no known risks associated with the decisions required for this matter.

Significance & Engagement Policy - *Kaupapa here whakahira/anganui* Significance

21. Staff have considered the key considerations under the Significance and Engagement Policy and have assessed that the recommendation(s) in this report has/have a low level of significance.

Engagement

22. Given the low level of significance determined, the engagement level is low. No engagement is required.

Attachments - Ngaa taapirihanga

There are no attachments for this report.

Item 8

Council Report

Committee: Environment Committee **Date:** 01 December 2020

Author: Amanda Banks **Authoriser:** Lance Vervoort

Position: Policy and Strategy Advisor - **Position:** General Manager Community

Social Development and

Recreation

Report Name: Draft Nature in the City Strategy

Report Status	Open
---------------	------

Purpose - Take

- 1. To inform the Environment Committee on the development of the Nature in the City Strategy 2020-2050.
- 2. To seek approval from the Environment Committee for the Draft Nature in the City Strategy 2020-2050 and for the Nature in the City Strategic Implementation Plan.

Staff Recommendation - Tuutohu-aa-kaimahi

- 3. That the Environment Committee:
 - a) receives the report;
 - b) approves the Draft Nature in the City Strategy 2020-2050; and
 - c) approves the Nature in the City Strategic Implementation Plan.

Executive Summary - Whakaraapopototanga matua

- 4. Hamilton City currently has around 2% indigenous vegetation cover. Cover of at least 10% is required to improve ecological function and enable ecosystems to be sustainable over time.
- 5. In August 2019, the Community Committee resolved to develop a Hamilton City Council biodiversity strategy.
- 6. In January 2020, staff initiated the development of the Nature in the City Strategy. While the development of the strategy included a number of touch points with the community, Covid-19 had a significant impact on the planned engagement which would have taken place under normal circumstances.
- 7. The main components of the Draft Nature in the City Strategy are vision, goal and outcome areas for improving biodiversity in Kirikiriroa/Hamilton. The vision 'nature thrives in Kirikiriroa/Hamilton and nurtures us wherever we are' is purposefully broad and reflects the environmental, social, cultural and economic wellbeing dimensions.
- 8. A Strategic Implementation Plan has been developed by staff which outlines the high level actions required to make progress on the vision, goal and outcome areas over the 2021-24 period.

- 9. Staff recommend that the Draft Nature in the City Strategy 2020-2050 and Strategic Implementation Plan be approved.
- 10. Staff consider the decision in this report has a medium significance and that the recommendations comply with Council's legal requirements.

Background - Koorero whaimaarama

Council's legislative mandate for biodiversity

- 11. The mandate for Hamilton City Council's (Council) involvement in managing biodiversity is primarily legislatively driven under the Resource Management Act 1991.
- 12. While management of biodiversity is primarily addressed through district plan objectives, policies, rules and methods, territorial authorities can also utilise mechanisms such as long-term plan funding to manage biodiversity.
- 13. Council also has responsibility to contribute towards achieving the Te Ture Whaimana o Te Awa o Waikato (the Vision and Strategy for the Waikato River contained in Schedule 2 of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010), of which biodiversity and ecosystem functions are a significant feature of restoring the health and wellbeing of the Waikato River.
- 14. At the Community Committee meeting on 22 August 2019, the Committee resolved that the development of a biodiversity strategy be delivered in early 2020. This decision enabled greater community engagement and for Council's strategy to be aligned with the government's Proposed National Policy Statement on Indigenous Biodiversity.

Discussion - Matapaki

- 15. Staff identified that renaming the biodiversity strategy to 'Nature in the City' would enable a greater range of the community to engage with the importance of biodiversity across cultural, economic and social wellbeings.
- 16. Staff undertook the following workstreams to develop the strategy:
 - i. Analysis of a range of information, including national and international research, relevant strategies, plans and policies;
 - ii. Engagement with staff across the organisation (through a series of four facilitated workshops);
 - iii. Engagement with mana whenua (Te Ngaawhaa Whakatupu Ake) to outline the strategy process and seek guidance on issues to address or concepts to reflect in the strategy;
 - iv. Touchpoints with elected members and Maangai Maaori, including a briefing on 11 March 2020, a Sharepoint engagement in October 2020 and informal meetings with Maangai Maaori Norm Hill. Councillor Sarah Thompson has also been kept up to date through fortnightly meetings (which began in August 2020) with the strategy development project team;
 - v. Informal conversations with key informants involved in the areas of conservation, ecological research, climate change action and business in Hamilton and wider Waikato region;
 - vi. Targeted engagement with community groups and members involved in gully restoration;
 - vii. Face-to-face and online community engagement. This included gaining feedback at the Multicultural Planting Day at Waiwhakareke Natural Heritage Park on 18 July 2020 and through Council's month-long Social Pinpoint online survey which ran 3 to 28 August 2020.

Item 8

Impact of Covid-19 on community engagement

- 17. Covid-19 (and the alert levels and associated requirements) had a significant impact on the community engagement that was able to be progressed during strategy development.
- 18. Staff had two gully open days and a rangatahi waananga (workshop with young Maaori) planned as part of the community engagement. These opportunities were not able to proceed due to Covid-19 Alert Level 2 physical distancing requirements.
- 19. There is strong interest in these two engagement concepts being delivered as part of an implementation programme. Staff have built this into future planning as part of the development of the Nature in the City Strategic Implementation Plan ('the implementation plan').

Strategic Alignment

- 20. In developing the strategy and associated implementation plan, staff have ensured there is strong alignment to a number of other Council plans and strategies and those in the regional and national arena. These include:
 - i. 'Our Vision for Hamilton Kirikiriroa' (particularly 'priority five shaping a green city');
 - ii. Waikato-Tainui Environmental Management Plan;
 - iii. Hamilton Open Space Plan;
 - iv. Vision and Strategy for the Waikato River;
 - v. Hamilton City Council Play Strategy;
 - vi. Aotearoa New Zealand Biodiversity Strategy;
 - vii. Hamilton City Council's Draft Climate Change Action Plan 20/21;
 - viii. Draft National Policy Statement on Indigenous Biodiversity.
- 21. There is also a strong degree of alignment between the Local Indigenous Biodiversity Strategy (LIBS) Collective Impact Framework and the strategy. The Collective Impact Framework (a common agenda, shared measurement, mutually reinforcing activities, continuous communication and backbone support) have been reflected through the strategy vision, goal and outcome areas. Additionally, the strategic implementation plan will deliver on various aspects of the Collective Impact Framework.

Nature in the City Strategy

- 22. The draft Nature in the City Strategy (Attachment 1) sets a vision, goal and outcome areas for improving biodiversity in Kirikiriroa/Hamilton. The vision 'nature thrives in Kirikiriroa/Hamilton and nurtures us wherever we are' is purposefully broad and reflects the environmental, social, cultural and economic wellbeing dimensions.
- 23. The vision, goal and outcome areas all have a future state description and brief commentaries on the evidence (both research and community voice) which assisted in developing the strategy. The strategy does not include specific implementation actions as it is designed to be an enduring document with a long-term focus.

Strategic Implementation Plan

- 24. In order to implement the strategy, a draft implementation plan for the 2021-24 period has been developed by staff (see Attachment 2).
- 25. The implementation plan outlines a number of key actions required to deliver the strategy. Many of the actions contained in the implementation plan are contingent on the funding provided through Council's Long-Term Plan process.

Options

- 26. **Option One**: To approve the strategy.
- 27. **Option Two**: Not approve the strategy. If the strategy is not approved, Council will continue to lack an agreed strategic direction for biodiversity restoration and enhancement throughout the city. Opportunities to coordinate workstreams and integrate biodiversity management across Council's business units will remain unrealised. Additionally, there is a community expectation (particularly from those in the environmental restoration sector) that Council will adopt the strategy and undertake implementation to improve biodiversity. There is therefore a degree of reputational risk for Council if the strategy is not approved.

Financial Considerations - Whaiwhakaaro Puutea

- 28. External costs to the organisation to complete the strategy was approximately \$15,000, which included engaging external consultants for facilitation and graphic design.
- 29. The implementation of the strategy is subject to 2021-31 LTP funding.

Legal and Policy Considerations - Whaiwhakaaro-aa-ture

30. Staff confirm that the approval of the strategy and the implementation plan complies with Council's legal and policy requirements.

Wellbeing Considerations - Whaiwhakaaro-aa-oranga tonutanga

- 31. The purpose of Local Government changed on the 14 May 2019 to include promotion of the social, economic, environmental and cultural wellbeing of communities in the present and for the future ('the 4 wellbeings').
- 32. The subject matter of this report has been evaluated in terms of the 4 wellbeings during the process of developing this report as outlined below.
- 33. The recommendations set out in this report are consistent with that purpose.

Social

- 34. The development of the Nature in the City Strategy has provided the community with an opportunity to give feedback on what they consider important for growing more nature in Hamilton City. Existing data from other Council sources of information has also helped in understanding how communities can improve biodiversity and positively impact on social connection and cohesion.
- 35. The Nature in the City Strategy will assist in enabling communities to increase social cohesion and connection and individual health and wellbeing through restoring and enhancing nature in Kirikiriroa/Hamilton.

Economic

36. The strategy will highlight the economic opportunities which will be able to be realised as a result of ecological restoration. Such economic benefits may include increased nature-based tourism and increased funding for Western science and Maatauranga Maaori in urban ecological restoration.

Environmental

- 37. The strategy outlines a vision, purpose statement and outcome areas which are focused on ecological restoration and increasing native vegetation cover from approximately 2% (current state) to 10% by 2050. Increasing native vegetation cover will assist on delivering across all the wellbeings and will ensure that ecosystems are sustainable over time.
- 38. Additionally, the strategy plays an important role in climate change mitigation and adaptation.

Cultural

Item 8

- 39. Staff have sought advice from Maangai Maaori Norm Hill, who has provided support throughout the strategy development to ensure the strategy incorporates Maaori aspirations for te taiao. All Maangai Maaori have had the opportunity to provide guidance to staff on the direction for the strategy, and the views of Te Ngaawhaa Whakatupu Ake were sought on the direction of the strategy. A number of concepts from Te Ao Maaori have been incorporated in to the Nature in the City Strategy, including kaitiakitanga, rongoa and Maatauranga Maaori.
- 40. Staff have also analysed iwi and hapuu environmental management plans (including the Waikato-Tainui Environmental Management Plan) to identify how the strategy can assist in delivering on iwi and hapuu aspirations for te taiao.

Risks - Tuuraru

41. If the strategy is not approved, Council will continue to lack an agreed strategic direction for biodiversity restoration and enhancement throughout the city. Opportunities to coordinate workstreams and integrate biodiversity management across Council's business units will remain unrealised. Additionally, there is a community expectation (particularly from those in the environmental restoration sector) that Council will adopt the strategy and undertake implementation to improve biodiversity. There is therefore a degree of reputational risk for Council if the strategy is not approved.

Significance & Engagement Policy - Kaupapa here whakahira/anganui Significance

42. Staff have considered the key considerations under the Significance and Engagement Policy and have assessed that the recommendation(s) in this report has/have a medium level of significance.

Engagement

- 43. Robust community engagement (albeit impacted by Covid-19) was undertaken as part of the development of the strategy (as outlined in the Discussion section of this report).
- 44. Given the medium level of significance determined, the engagement level is medium. No engagement is required.
- 45. While the engagement level is medium, no further engagement is required as this has already been undertaken through the development of the strategy.

Attachments - Ngaa taapirihanga

Attachment 1 - Draft Nature in the City Strategic Implementation Plan 2021-24

Attachment 2 - DRAFT Nature in the City Strategy

Nature in the City Strategic Implementation Plan 2021-24

The following actions outline the priority areas Council will focus on for the next three years in order to work towards the vision 'nature thrives in Kirikiriroa/Hamilton and nurtures us wherever we are' and contribute to the goal of achieving 10% native vegetation cover in the city by 2050.

These actions are all subject to resourcing decisions in the 2021-31 Long-Term Plan.

- 1. Establish a cross-council Nature in the City Working Group. The focus of the group will be to identify and capitalize on efficiencies and areas of mutual benefit in order to work towards achieving 10% native vegetation across the city;
- 2. Establish a biodiversity monitoring and reporting programme which incorporates

 Maatauranga Maaori and Western science to determine progress on the strategy's vision,
 goal and outcome areas. Undertake reporting annually to elected members and the
- 3. Develop access in the six main gully systems in order to undertake restoration works and provide opportunities for recreation and connection with nature;
- 4. Undertake ecological restoration on Council owned land in the six main gully systems;
- Develop and implement an education and information programme to support community action in ecological restoration. Existing information will be reviewed and used to develop the programme;
- 6. Actively seek funding opportunities to undertake restoration activities;
- 7. Support and enable the community to care for and restore nature and create opportunities for the community to gather to undertake ecological restoration.



He Maimai Aroha

The Maimai Aroha of King Taawhiao provided a description of the state of the environment during his reign. He described it as being full of life and rich in beauty that provided for the wellbeing of the people. Through the Maimai Aroha, the Tainui people have committed to the vision of restoring the health of the natural environment to a state that reflects King Taawhiao's description. The Nature in the City Strategy supports the guiding philosophy that underpins the Maimai Aroha and vision of Tainui to restore and be nurtured by nature.

Ka maatakitaki iho au ki te riu o Waikato Aanoo nei hei kapo kau ake maaku ki te kapu o taku ringa, Ka whakamiri noa i toona aratau. E tia nei he tupu pua hou.

Kia hiwa ake au i te tihi o Pirongia, Inaa, hei toronga whakaruruhau moona ki tooku tauawhirotanga

Anaa! Te ngoto o toona ngawhaa i ngoona uma kiihai i aarikarika a Maungatautari, a Maungakawa, ooku puke maunga, ngaa taonga tuku iho. Hoki ake nei au ki tooku awa koiora me ngoona pikonga He kura tangihia o te maataamuri.

E whakawhiti atu ai i te koopuu maania o Kirikiriroa, Me ngoona maara kai, te ngawhaa whakatupu ake o te whenua moomona,

Hei kawe ki Ngaaruawaahia, te huinga o te tangata.

Araa, te pae haumako, hei okiokinga moo taku Upoko, Hei tirohanga atu maa raro i ngaa huuhaa o Taupiri.

Kei reira raa, kei te oroko hanganga o te tangata, Waahia te tuungaroa o te whare, te whakaputanga mod te Kiingi. I look down on the valley of Waikato, as though to hold it in the hollow of my hand and caress its beauty, like some tender verdant thing.

I reach out from the top of Pirongia, as though to cover and protect its substanc with my own.

See how it bursts through the full bosoms of Maungatautari and Maungakawa, hills of my inheritance: The river of life, each curve more beautiful

The river of life, each curve more beautifu than the last.

Across the smooth belly of Kirikiriroa, its gardens bursting with the fullness of good things, towards the meeting place at Ngaaruawaahia.

There on the fertile mound I would rest my head and look through the thighs of Taupiri.

There at the place of all creation... let the King come forth.

Contents

02

1. EXECUTIVE SUMMARY

04

2. INTRODUCTION

05

What is nature?

07

Why does nature matter?

11

Why have we developed this strategy?

16

How have we developed this strategy?

17

What is the scope of the strategy?

20

Strategic context

21

3. KIRIKIRIROA/ HAMILTON'S STATE OF NATURE

22

Introduction

25

4. VISION, GOAL AND OUTCOME AREAS FOR NATURE IN THE CITY

26

Nature in the City Strategy

27

Introduction

28

Vision

30

Goa

32

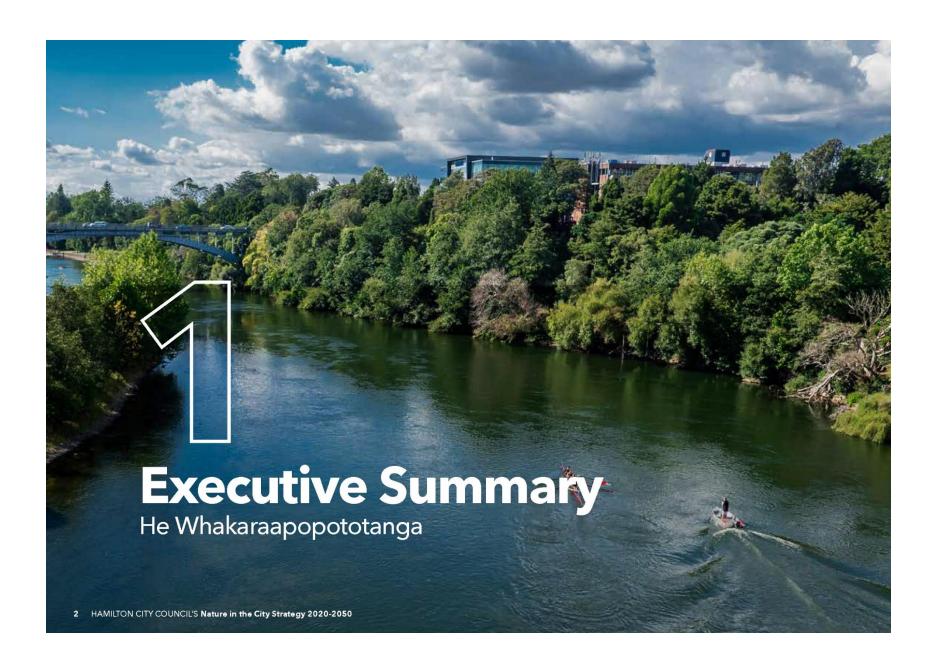
Outcome areas

58

5. NEXT STEPS

40

References



Executive Summary

This strategy is about growing a love affair with nature. As we connect and care for nature, we are nourished through our relationship to the land and each other.

Nature is all living things - including people - on Planet Earth. Within Kirikiriroa/Hamilton, nature is all the plants and trees, animals, birds, freshwater fish, insects and people which exist together.

The vision - 'nature thrives in Kirikiriroa/Hamilton and nurtures us wherever we are' - represents the potential future state for us to create. A state where nature is a korowai (cloak) which connects us to each other and the whenua (land). A vision where ecosystems are connected, and where our sense of place in Kirikiriroa/Hamilton is deepened and enhanced through connecting with and restoring nature.

While the definition of nature includes plants and trees, birds, fish and insects, the focus for the strategy on restoring native vegetation. Native vegetation cover across the city provides many benefits; it provides food and shelter for birds and insects. In our gullies, native forest shades our streams, which makes for cool, stable water temperatures for aquatic species. This focus is captured in the goal 'we achieve 10% native vegetation cover in Kirikiriroa/Hamilton by 2050'.

Four outcome areas provide a high-level focus for working towards achieving the vision:

- We invest in the continued growth of nature in our city
- We are courageous in staying the course
- We uplift the power of kaitiakitanga
- Thriving nature is all around us

The current state of nature in Kirikiriroa/Hamilton is the result of historical actions and decisions. With only 2% native vegetation cover remaining in Kirikiriroa/Hamilton, courageous action is required to invest in nature now. While this is a daunting prospect, our investment - of money, time and effort - in restoring nature will provide a wealth of return across social, environmental, cultural and economic domains. However, we know with our focus on a shared vision, we can take action.

While the focus for the strategy is on restoring nature within Kirikiriroa/Hamilton, we understand the importance of the interconnections across ecological and cultural landscapes. Our focus is on playing our part to join up the nature-based stepping stones within Kirikiriroa/Hamilton. In doing so, this mahi (work) will contribute to creating ecological pathways from the mountains to the sea.

We all prosper when we restore nature. We grow stronger as a community when we restore nature together and care for it as it grows. We all flourish when we create opportunities for children to benefit from restoring nature and for our whanau, neighbours and friends to be connected to nature and be healthy and well.



What is nature?

Nature is all living things - including people - on Planet Earth, and the ecological processes which sustain all living things.

Within Kirikiriroa/Hamilton, nature is all the plants and trees, animals, birds, freshwater fish, insects and people which exist together. It's also the climate (air, soil and water) and the natural systems and processes which work to maintain life.

Any healthy system relies on diversity; a healthy community thrives on a diversity of people. Within nature, the more variety there is of all living things within an area, the higher the biodiversity value; this includes diversity within species, between species and the diversity of ecosystems. In Aotearoa/New Zealand, nature includes native species as well as those which are exotic (introduced from other places).

Within Te Ao Maaori (the Maaori world), all things are interconnected. In Te Ao Maaori, people are **a part of** the natural

world, rather than **apart from**: "Maaori have an intricate, holistic and interconnected relationship with the natural world and its resources, with a rich knowledge base - maatauranga Maaori - developed over thousands of years"². Given this worldview, the health of nature and the health of the people cannot be separated.

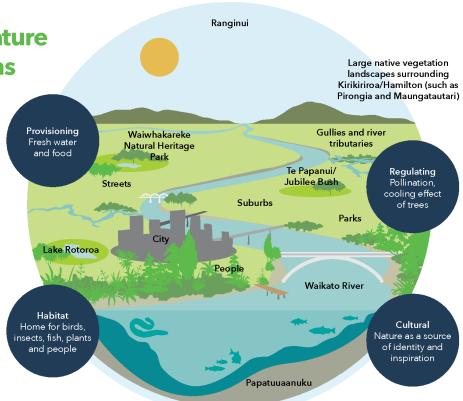
Nature does a lot to sustain living things - these are called **ecosystem services**. People's health and wellbeing is directly impacted on by the ecosystem services nature provides. This includes **provisioning services** (such as fresh water and food), **regulating services** (pollination and the cooling effect of trees), **habitat** or **supporting services** (suitable places for plants, animals, insects, birds and fish to live) and **cultural services** (spiritual experience and inspiration for culture, art and design)³.

Nature also provides **habitat** (a home) for all living things. Habitat is the right conditions, food and ecological processes for living beings to flourish - a "combination of environmental factors that provide the food, water, cover and space that a living thing needs to survive and reproduce"⁴.

Elements of nature and ecosystems services in

Kirikiriroa/ Hamilton

This diagram shows the interconnectedness of some key aspects of nature in a Kirikiriroa/Hamilton context, including examples of some of the ecosystem services which nature needs to function. The ideas illustrated are conceptual only and do not reflect all aspects of knowledge and value which people may have of nature and ecological processes.



Why does nature matter?

Nature plays an essential role in economic, environmental, cultural and social wellbeing, and the more vibrant and healthy nature is, the more these benefits are multiplied. The presence of thriving nature within an urban environment provides a number of tangible and intangible benefits.

Benefits of nature for individuals

The benefits nature provides to people are well-established. As the world becomes more urbanised, disciplines such as psychology, urban and environmental studies and health sciences have deepened the understanding of the importance of nature in urban areas and its role in improving people's health.

Research indicates that we are hard-wired to connect with nature as we know that it makes us feel better⁵. For many people, nature is a source of creative inspiration and spiritual replenishment. Connecting with nature has been shown to improve concentration and emotional and immune system function as well as protecting against the negative impacts of stress⁶. For people who work in office spaces, being able to see and connect with nature improves work performance and reduces sick leave, while a view of nature

through a window while recovering from surgery can result in a shorter hospital stay⁷.

Societal benefits of nature

Thriving nature within a city makes for a calmer, more connected community. Restoring nature on long-term projects (such as the restoration planting at Waiwhakareke Natural Heritage Park) creates a shared sense of purpose and nurtures a connection to the environment. For some new migrants to Kirikiriroa/Hamilton, restoring nature helps them feel as if they are earning their place within their new community.

For Maaori, caring for and connecting with nature is an integral part of kaitiakitanga (the way in which Maaori manage the natural environment based on Maaori worldviews³). The practice of kaitiakitanga also nourishes whaanau (family), hapuu (sub-tribe) and iwi (tribe) across all aspects of wellbeing.

Connecting with nature also has a significant impact on social cohesion and the reduction of crime. A study of 98 vegetated spaces in Chicago in the United States found they "cut crime rates by half by inspiring pride for the area and mitigating precursors [to criminal activity] like stress and anxiety". Urban forests, streams and rivers are also special places for people to gather for recreation and relaxation and can foster a greater sense of belonging within a community¹⁰.

Economic benefits of nature

Nature provides a wealth of economic benefit across a number of domains; the value of nature "has conclusively and repeatedly proven to have huge economic benefits"¹¹. In Aotearoa/New Zealand, many of the ecosystem services which nature provides underpin our economy. For example, experiencing nature is central to the tourism sector's value proposition and is promoted both domestically and internationally, while our primary production sector (such as agriculture and horticulture) relies on ecosystem services (such as the water cycle and pollination) to farm and grow crops.

Not only is thriving nature vital in creating a healthy urban environment, "it can also provide a boon to the economics and resources of the city, providing tourist attractions or sources of revenue as well as making the environment of the city feel more alive and fulfilling for citizens" 12. Thriving nature has been shown to increase house prices and acts as an attractor for new businesses to establish.

Additionally, economic benefits can be derived from research funding into urban restoration in cities. For example, the People, Cities and Nature research programme has six projects across New Zealand which are working towards restoring indigenous biodiversity in urban environments - one of which is in Kirikiriroa/ Hamilton¹³. This research programme showcases Aotearoa/ New Zealand on the world research stage and contributes to international knowledge on urban ecological restoration.

Cultural benefits of nature

The uniqueness of nature in Aotearoa/New Zealand is central to our sense of place in the world and is woven into our cultural fabric. A significant proportion of our native flora (plants) and fauna is endemic - only found in Aotearoa/New Zealand. Eighty-four percent of vascular plants native to Aotearoa-New Zealand *are found nowhere else on Earth* ¹⁴, ¹⁵.

As a result of a long history of occupation in Aotearoa/New Zealand, Maaori have an extensive knowledge of the natural world and the sustenance it provides. Many native trees and plants have healing and medicinal properties, while the place-specific traditional food sources - kaimoana (seafood) in coastal areas or tuna and iinanga (eel and whitebait) in areas with fresh water - were a source of mana (pride) when hosting manuwhiri (visitors).

Environmental benefits of nature

As the world's population becomes more urbanised, the





Why have we developed this strategy?

Council has a number of legal imperatives to protect and enhance nature and provide for people's wellbeing.

Resource Management Act 1991 (RMA)

Under the RMA, Council has responsibilities for maintaining and improving biodiversity. The RMA requires that Council "promote the sustainable management of natural and physical resources ... while ... safeguarding the life supporting capacity of air, water, soil, and ecosystems ... "18. Council is also required to recognise and provide for the "protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna" and "the relationship of Maori and their culture and traditions with their ancestral lands. water, sites, waahi tapu [sacred sites], and other taonga [treasures]

Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 (Waikato River Settlement Act)

Council has responsibilities under the Waikato River Settlement Act to play its part in restoring and protecting the health and wellbeing of the Waikato River²⁰.

The Waikato-Tainui iwi (tribe) has a deep relationship with the Waikato River, which is described by the late Sir Robert Te Kotahi Mahuta:

Nō tātou te awa. Nō te awa tātou. E kore e taea te wehe te iwi o Waikato me te awa. He taonga tuku iho nā ngā tūpuna. E whakapono ana mātou ko tā mātou, he tiaki i taua tāonga mō ngā uri whakatupu.

We belong to the river and the river belongs to us. Waikato people and the river cannot be separated. It is a treasure that has been passed down by the ancestors. We believe that it is our responsibility to look after [the river] for future generations²¹.

While many of the Waikato River Settlement Act responsibilities are focused on resource management issues, it provides a number of exciting opportunities for Council to support the community to restore the health and wellbeing of the Waikato River.

In doing so, people will be nourished through developing a stronger relationship with nature. Given that Council manages significant tracts of land within the river and gully system, it can make a considerable contribution to improving the health and wellbeing of the Waikato River.

Local Government Act 2002 (LGA)

The LGA "... provides for local authorities to play a broad role in promoting the social, economic, environmental, and cultural wellbeing of their communities ... "22". Within Kirikiriroa/Hamilton, the 'green infrastructure' Council maintains (including natural areas and remnant bush, parks and gullies) is an important resource which can be used to improve social, environmental, economic and cultural wellbeing in other domains which Council is responsible for. Additionally, Council has a role to play - through education, information, incentives and coordination - to support and enable the community to restore and care for nature.

A liveable city provides more than the basics of job opportunities, housing and transport; healthy nature provides benefits across a number of wellbeing dimensions and is a vital component of a liveable city. There is a growing awareness among communities and governments, backed up by global research, recognising that healthy ecosystems provide the foundation for a liveable city; "as

well as the intrinsic value of biodiversity for its own sake, there is an increasing body of evidence to suggest that it plays a critical role in the health and liveability of cities"23.

Whether it be the cool shade of a tree-lined street on a hot summer's day, the birdsong of tui in the flowering kowhai which line the Waikato River in the spring or the streams which are home to aquatic creatures, thriving nature is vital to making Kirikiriroa/Hamilton a liveable city.

"Nature is everything:
It's our social,
cultural and economic
wellbeing — when we
look after nature we
look after ourselves"

Community feedback

In addition to Council's legal imperatives, there are other drivers for protecting and restoring nature.

The community wants a healthy environment and a liveable city

Over the years, Council has received a strong message from the community about the importance of a healthy, thriving environment. Community groups currently involved in gully restoration have advocated for greater support from Council for planting, maintenance and pest control to improve ecosystems across the city and improve biodiversity. Environmental advocacy groups such as Forest and Bird have called for councils to do more to protect biodiversity, particularly on private land²⁴.

There is also a groundswell of recognition in our community²⁵ of the connection between climate change, biodiversity loss and issues of human health and social cohesion; people see the protection and restoration of nature as part of the solution to these complex problems. Engagement undertaken as part of this strategy development process indicates the community would do more to restore nature in Kirikiriroa/Hamilton if there were more opportunities to do so²⁶.

Furthermore, mana whenua have provided clear direction on their expectation of an environment which sustains life and ensures

people are also sustained and nurtured by nature²⁷. Incorporating the concept of kaitiakitanga into urban ecological restoration enables Maaori to be able to connect to and care for nature at a deeper level; "... kaitiakitanga must incorporate adequate understandings of place narratives, kinship relationships, spiritual connections, practices and intergenerational knowledge systems"28.

"I wish that every aspect of nature was thriving in Kirikiriroa"

Community

feedback

Increased expectation from central government to improve biodiversity

In addition to the important role restoring nature plays in climate change action, there is an increased expectation from central government for local authorities to protect and restore biodiversity. The recently released Aotearoa New Zealand Biodiversity Strategy 2020²⁹ outlines significant research on the concerning state of New Zealand's biodiversity and the need for action to be taken to protect and restore ecosystems. Council is in a favourable position to help restore nature and deliver on national social, economic and cultural wellbeing imperatives.

Restoring nature is a practical and tangible climate change action

Protecting and restoring nature is a vital action to mitigate the effects of - and adapt to - climate change. As climate change is likely to result in higher summer temperatures, higher wind speeds and more extreme rainfall events, restoring and connecting ecosystems across Kirikiriroa/Hamilton enables long-term climate resilience. Weaving nature in to the city can "provide vital carbon sinks and effective mitigation against risks such as flooding, heatwaves and drought"30.

In rainfall events, the street tree network slows down water velocity, which reduces the likelihood of surface flooding events and pressure on streams and stormwater infrastructure. Having a city with significant forest cover has a cooling effect on city temperatures and reduces the urban heat island effect.

Having well-vegetated gully systems in Kirikiriroa/Hamilton slows down water velocity and protects against soil erosion from higher volume rainfall events. A dense forest canopy in gullies also ensures water temperatures in gully streams stay stable and cool, thus creating ideal living conditions for native aquatic species.

In terms of climate mitigation, thriving and connected ecosystems play a vital role in absorbing carbon dioxide. Protecting and restoring native vegetation is particularly important. Research indicates that native trees are more effective at sequestering (storing) carbon than exotic trees.

When people connect with and care for nature and have meaningful experiences (such as undertaking ecological restoration), it can reduce stress levels and improve mental wellbeing. Restoring ecosystems "I would like to through native tree planting and see community groups looking after the streams maintenance may also assist in easing eco-anxiety (stress induced

by the state of the

environment) as it is

a practical, tangible

action to take.

Community feedback

in the city"



How have we developed this strategy?

To ensure we've developed a strategy which focuses on the right things for nature in Kirikiriroa/Hamilton, we've drawn on a number of sources of information and tested ideas with a range of people and organisations within the community.

We received some fantastic feedback and had some great conversations with a wide range of people. We've used community feedback to inform the vision, goal and outcome areas, and we've made sure the voice of the community is at the centre of what we do. We've also balanced what the community has told us with what research and evidence tells us.



What is the scope of the strategy?

The geographic scope for the strategy is the land within the Hamilton City Council boundaries. However, we recognise that nature - and people's connections to it - are not limited to the city of Kirikiriroa/Hamilton.

We know that birds, insects, plants and freshwater species move through the environment where there are strong ecological networks, regardless of local government boundaries. Maaori knowledge of, and connection with, te taiao (the environment) is also not dictated by local government boundaries, but rather is based on whakapapa (descent or lineage), relationships with people (both past and present), maatauranga Maaori (Maaori knowledge) and kaitiakitanga (the way in which Maaori manage the nature environment based on Maaori worldviews)31.

While the strategy talks broadly about restoring nature, the key focus is on restoring native vegetation. Native vegetation cover provides many benefits; it plays a vital role in improving ecological function and creating habitat. For example, native plants and trees provide food and shelter for birds and insects. They also shade out streams, which makes for cool, stable water temperatures for aquatic species.

While the focus for this strategy is on restoring nature within Kirikiriroa/Hamilton, we understand the importance

of the interconnections across ecological and cultural landscapes. We recognise that restoring nature within Kirikiriroa/Hamilton will enhance the health and wellbeing of nature beyond the city boundaries. Our focus is on playing our part to join up the naturebased stepping stones within Kirikiriroa/Hamilton. In doing so, this mahi (work) will contribute to creating ecological pathways from the mountains to the sea.

"A place where it feels like you're in both the city and nature at the same time"

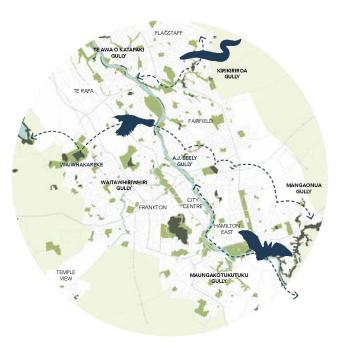
> Community feedback

Nature in Kirikiriroa/Hamilton in context



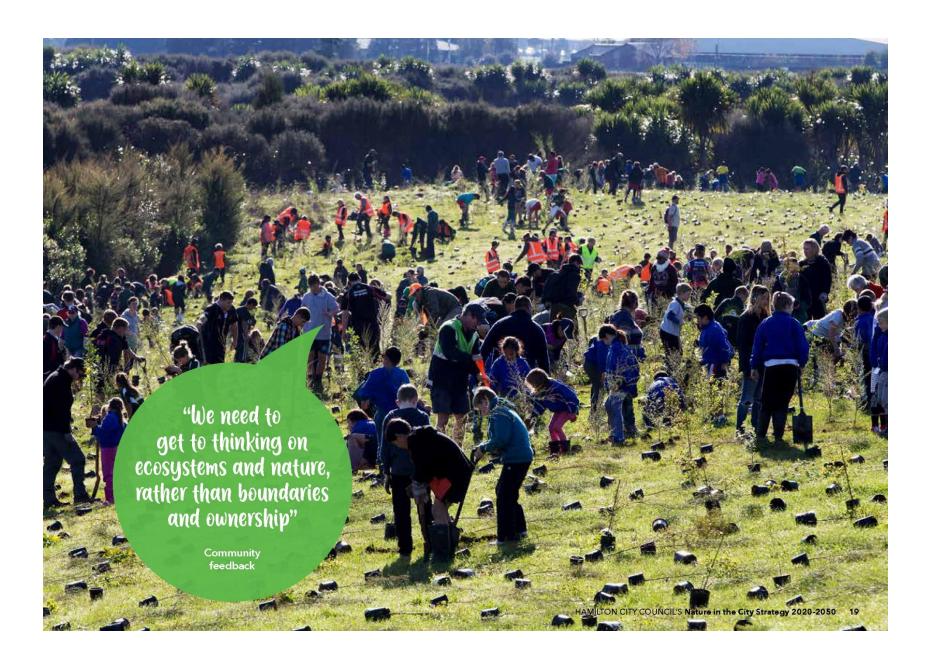
Regional context

Nature extends beyond the boundaries of Kirikiriroa/Hamilton and helps to keep the natural areas across the Waikato and beyond healthy and connected, from mountain to sea.



City context

The scope of this strategy focuses on restoring native vegetation within Kirikiriroa/Hamilton.



Strategic context

This strategy considers, takes into account and aligns to a range of global, national, regional and local strategies, policies, plans and guidance. These documents have been used to develop the vision, goal and outcome areas for growing more nature in Kirikiriroa/Hamilton.

International:

- Convention on Biological Diversity
- United Nations Sustainable Development Goals (11 Sustainable Cities and Communities, 13 Climate Action, 15 Life on Land)

NATIONAL

• Reserves Act 1977

- Resource Management Act 1991
- Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010

Local Government Act 2002

• Te Mana o te Taiao - Aotearoa New Zealand Biodiversity Strategy 2020

REGIONAL

- Waikato Regional Policy Statement
- Tai Tumu, Tai Pari, Tai Ao Waikato-Tainui Environmental Management Plan
- Vision and Strategy for the Waikato River

OCAL

- Hamilton City Open Space Plan
- Local Indigenous Biodiversity Strategy Hamilton Pilot Project
- Ngaati Hauaa Wetland Mauri Framework
- Ngaati Hauaa Environmental Management Plan
- Ngaa Tapuwae o Hotumaea (Maaori Landmarks on Riverside Reserves Management Plan)

- Gully Reserves Management Plan
- Hamilton City District Plan
- Hamilton Play Strategy
- Reserve Management Plans
- Hamilton Stormwater Master Plan



Introduction

Historical state of nature

Before 1840, much of the Waikato region (approximately 75%) was covered in native temperate rainforest³². Maaori occupied the land in small villages and maintained an interconnected relationship with the natural world and its resources³³. The region was "renowned for the abundance of natural resources that lay within the rivers, lakes, wetlands and their catchments, and the ngahere [native forest]"³⁴.

In 1863, the Waikato region was invaded by European soldiers and approximately 1.2 million acres was confiscated from Maaori³⁵. The raupatuu (confiscation) of land in the Waikato region heralded a significant step change in land management which has had long-lasting impacts on nature: "post-1840, three quarters of the indigenous vegetation of the Waikato has been removed to make way primarily for agricultural use"³⁶. Hamilton was established as a military settlement and the "newly-won lands [were] balloted to military settlers to make them stay"³⁷. Soldiers were allotted sections (a town acre and a farm section³⁸) from the confiscated lands.

A range of subsidies were provided to farm owners in the following decades, which saw rural landowners clear large tracts of native forest to convert to pasture. While agriculture provided (and continues to provide) significant economic benefits to both the regional and national economy, it has had a major impact on

biodiversity in the Waikato region. This has been most apparent in the lowland swamp and wetland areas where Kirikiriroa/Hamilton is situated.

The Hamilton and Frankton Boroughs were established in 1877 and 1907 respectively. In 1877, the Borough of Hamilton had a population of 1245 and a land area of 752 hectares. The amalgamation of these two boroughs in 1917 saw the Hamilton Borough expand to 422 hectares and the pattern of urbanisation

continue. While most of the land was cleared for roading and housing, much of the Waikato River and gully system was initially left intact. City status came in 1945 with a population of over 27,000 and an area of 1520 hectares. The city's population now exceeds 160,000 and covers over 11,000 hectares.

"That we treasure our gullies and provide for their ongoing restoration"

Community feedback

As a result of raupatuu and historical land use and land management decisions, the state of nature has been significantly impacted within the Hamilton ecological district (which Hamilton/Kirikiriroa sits within) to the point where over 98% of its indigenous vegetation cover was destroyed - only 1.5% of native vegetation remains. Much of the remaining native vegetation cover within Kirikiriroa/ Hamilton is within the Waikato River network (including the streams and gullies which feed in to the main river stem).

For Maaori the degraded state of biodiversity within the Waikato region (and Kirikiriroa/Hamilton) and the associated loss of maatauranga (knowledge) and ability to manaaki (care for people) and fulfil the role of kaitiaki (guardians of the natural environment) has impacted on "the foundations of the relationship of Waikato-Tainui with the whenua [land]"39. Waikato-Tainui want to see nature restored to a state where both nature and people flourish, and this is a view also held by many non-Maaori.

Nature in Kirikiriroa/Hamilton continues to be impacted by continued urban expansion, severance of ecological connections (such as the undergrounding of streams and waterways) and the removal of native and exotic vegetation.

Current state of nature in Kirikiriroa/Hamilton - a snapshot

Of the 11,000 hectares in Kirikiriroa/Hamilton, approximately 168 hectares is covered by native vegetation⁴⁰. Most of this vegetation exists within significant natural areas (SNAs), which have been assessed as being important sites for flora and fauna and habitat. The health and condition of these areas are generally poor and are threatened by invasive weeds, animal pest species and impacts from the surrounding land use.

However, there are also a number of plant, fish, bird and bat species which are endemic - found nowhere else in the world - which live in Kirikiriroa/Hamilton. Swamp maire, giant kookopu, black mudfish and long-tailed bats are some of the endemic species which exist within the city. Some of these species act as indicator species - if they are present, it means the area is well on its way to being a healthy ecosystem.

Swamp maire, a wetland-loving native tree, is an important indicator species which once dominated the gully floors of Kirikirioa/ Hamilton. Swamp maire is now a nationally endangered species.

Swamp maire is being planted back into Kirikiriroa/Hamilton's gully systems and due to restoration efforts has now been found naturally regenerating in some gully areas. While swamp maire is present at nine SNAs across the city, it is only found naturally occurring in Hammond Bush. The increasing populations of swamp maire in gullies is a sign of the success of restoration projects throughout the city.

Giant kookopu is an endemic fish species found within Kirikiriroa/ Hamilton and is an indicator species for the health of the city's streams. Giant kokopuu is nationally a declining species. Giant kookopu have been recorded within five gully systems at 14 sites in the city. Kukutaaruhe Gully (in Fairfield) is a particularly important gully system, with Giant kookopu seen spawning annually in since 2014⁴¹.

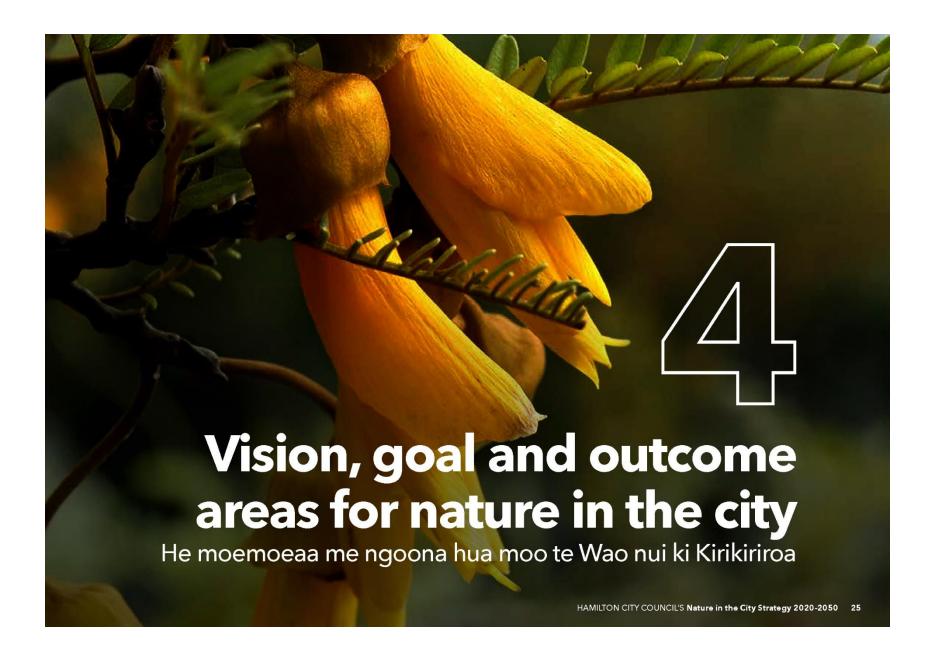
Black mudfish is another endemic fish species found in Kirikiriroa/Hamilton. Black mudfish are a nationally critical species⁴². Black mudfish have been found in the north-west of Kirikiriroa/Hamilton near Lake Waiwhakareke but could be present within other parts of the city. The biggest threat to Black mudfish is the loss of wetland habitat due to land use change, invading pest fish species (such as koi carp) and reduced water quality.

Long-tailed and the lesser short-tailed bat are Aotearoa/New Zealand's only two remaining species of land mammal. Kirikiriroa/ Hamilton is one of the only known cities in New Zealand to still support the Long-tailed bats within its urban boundaries. Long-tailed bats are a nationally critical species, so increased knowledge on this population is an important aspect of the city's urban ecosystem.

Project Echo monitors the presence of long-tailed bats at various locations across the city. Since monitoring began in 2016, southern Kirkiriroa/Hamilton and its associated gully systems have been shown to have the highest concentrations of bat activity across the city. In 2019, the bats' presence had been detected at a total of 17 out of 26 survey sites monitored. Gullies and mature vegetation are important habitats for Long-tailed Bats and their presence is reduced in areas where housing and lighting are increased.

The recent abundance of tuuii in the city is an indicator of good progress in bringing native bird species back into Kirikiriroa/ Hamilton. The Hamilton Halo Project (established in 2007) focuses on animal pest control at tuuii breeding sites surrounding the city⁴³. Tuuii in Kirikiriroa/Hamilton have significantly increased since the project began. A bellbird was also recorded for first time in August 2016.

While there is cause for concern for the current state of nature in Kirikiriroa/Hamilton, there is a wealth of community action taking place. Ecological restoration activity (such as the replanting of Kirikiriroa/Hamilton's gully systems and Waiwhakareke Natural Heritage Park) and pest and plant control is being undertaken by mana whenua, maataa waka, school students, environmental restoration groups and other individuals and research institutions. Additionally, research indicates that there is a strong desire by people in Kirikiriroa/Hamilton to do more to restore nature – there is the opportunity to enable more people to grow nature and enhance their wellbeing, their communities and te taiao (the environment).



Nature in the City Strategy

VISION

Nature thrives in Kirikiriroa/Hamilton and nurtures us wherever we are Ahuahungia te Wao nui I te oranga taangata

GOAL

We achieve 10% native vegetation cover in Kirikiriroa/Hamilton by 2050

OUTCOME AREA ONE

continued growth
of nature in our city

OUTCOME AREA TWO

We are courageous in staying the course

OUTCOME AREA THREE

We uplift the power of kaitiakitanga

OUTCOME AREA FOUR

Thriving nature is all around us



Vision

Nature thrives in Kirikiriroa/Hamilton and nurtures us wherever we are

Ahuahungia te Wao nui I te oranga taangata

What our future looks like once we've achieved the vision

Spending time caring for - and connecting with - nature is a part of our identity as a community and a way of life for many in Kirikiriroa/ Hamilton. Nature is a korowai (cloak) which keeps us safe, connects us (to each other and the whenua) and nourishes us. Hamiltonians seek out nature in times of joy and stress and are restored physically, spiritually and socially by this connection. The kai (food) and rongoaa (traditional medicine) we harvest from throughout the city supports us to be well.

Mana whenua exercise kaitiakitanga in their rohe, and non-Maaori recognise the similarities of caring for nature in their own culture. This understanding enriches and deepens our sense of connection to the land and our unique place in Kirikiriroa/Hamilton. Whether it be through enrichment planting in established gully systems, neighbours taking turns to reset pest control traps or seed collecting and propagating workshops run in schools and on marae, people are engaged and purposeful in their care for nature.

What the community told us

"Let nature in"

"I wish we were connected to the land and to each other, and that this connection guides how we grow"

"I wish we had traditional rongoa everywhere within our city"

"I wish nature had more friends who look after them".

Nature is a central pillar in the value proposition of Kirikiriroa/ Hamilton as a place for economic investment. Our research institutions attract funding for urban ecological restoration research which is valued locally, nationally and internationally for its contribution to biodiversity knowledge. Kirikiriroa/Hamilton has a successful nature-based tourism sector which capitalises on the uniqueness of Aotearoa/ New Zealand's biodiversity within an urban context.

The established forest areas in the city - connected through the Waikato River and gully system and across park and street networks - provide food and shelter for birds, bats and insects. The dawn chorus is rich with the sounds of tui, bellbird and piiwakawaka (fantail). Kereruu have found their home in Kirikiriroa/Hamilton while the dusk sees bats hunting down dinner.

As a result of significant revegetation of the gully systems throughout the city, the streams which run through the gullies are clean and clear and are home to native fish and other aquatic species. Aquatic, plant and animal pests have been significantly reduced as a result of sustained community effort in pest management and ecosystem restoration. All our main gully systems have achieved weed-free status due to community action.

We see thriving ecosystems in Kirikiriroa/Hamilton and they provide us a sense of place - we know we are in the special place of Aotearoa/New Zealand. Our sense of place in Kirikiriroa/Hamilton is deepened and enhanced through connecting with and restoring nature.

What research and evidence told us

Investing in nature in urban environments is a solution to a range of issues, including crime reduction, climate change adaptation and creating a more liveable city. There are also benefits for economic growth through the creation of attractive environments for investment and innovation46.

Goal

We achieve 10% native vegetation cover in Kirikiriroa/Hamilton by 2050



The Waikato River system (including gullies and wetlands) which flows through Kirikiriroa/Hamilton is a connected, thriving ecosystem. A forest canopy is well-established in the gullies, which includes towering rimu, kahikatea and majestic tootara. The forest is the source of food and habitat for the abundant native bird life in the city. Birds are able to fly further and undertake their role in the forest as seed distributors.

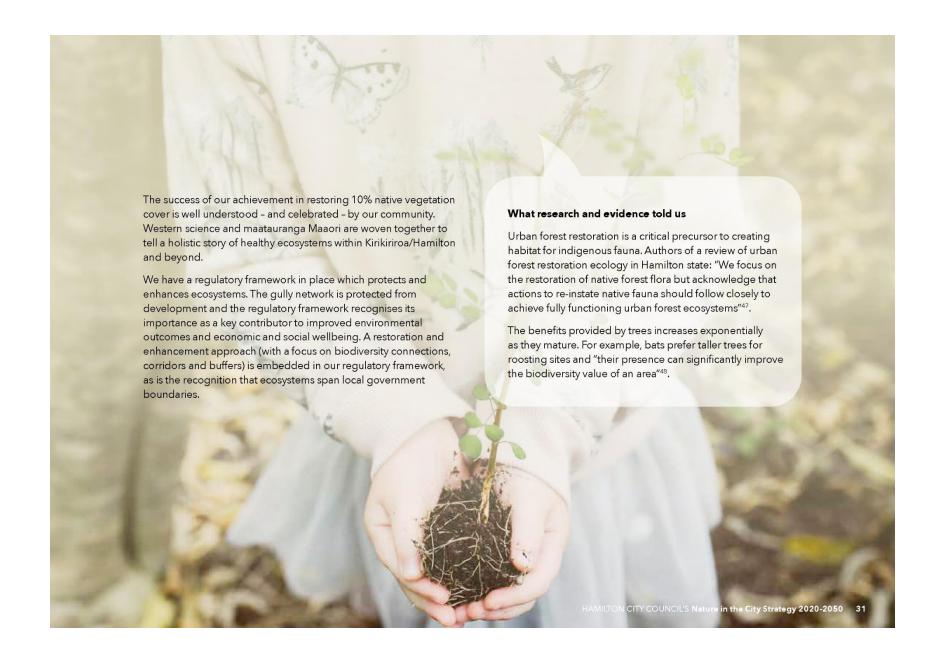
As a result of the healthy forest canopy, gully habitat is flourishing. The forest cover provides shading for cool, clear water to flow through gully streams into the Waikato River. In these streams, native aquatic species are abundant and move freely, unimpeded by hard infrastructure.

What the community told us

"I want my children to be able to look in their backyard and see tui, kereruu and piiwakawaka - for Hamilton to be a haven for native birds and bats with a surplus of the native trees they need to live and feast all year round"

"That we treasure our gullies and provide for their ongoing restoration"

"I wish we had plenty of plants and trees in the CBD - walls of vertical gardens to bring nature back into our city"



Outcome Area One

We invest in the continued growth of nature in Kirikiriroa/Hamilton

What our future looks like once we've achieved Outcome Area One

We have a clear understanding that investing in nature provides our community, economy and environment with a positive return on investment. We have transitioned to full cost accounting in development and recognise the many benefits investing in nature brings us.

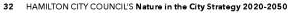
We have a well-established culture of investing in green infrastructure such as living walls, rooftop gardens and low-impact stormwater design. As a result of this culture shift, our green infrastructure investment is well funded and equal to that of other infrastructure (such as water supply and transportation). We understand investing in connected, integrated ecosystems and making space for nature in our city is the most effective climate change mitigation and adaptation action we can take.

What the community told us

"I wish we would put trees and green space back into the CBD" $\,$

"Connective corridors are needed to help wildlife move through the city between food sources"

"I wish we could move away from grey infrastructure towards green"



best return on investment' philosophy and their expertise is and the development community works to enhance te mauri oo te taiao (the health and wellbeing of the environment).

We have established our reputation as a city where native habitat flourishes and have reaped the benefits of this reputation across economy - whether it be through eco-tourism, nature-based

What research and evidence told us

Biophilic cities, those which have thriving biodiversity and wild urban spaces, are recognised for their contribution to those who live there. Daily contact with nature is vital for human health and wellbeing⁴⁹.

Embedding nature in development is increasingly seen as a way to deliver across a number of wellbeing dimensions: "The role of green infrastructure in addressing the challenges of the 21st Century cannot be underestimated. It is a natural, service-providing infrastructure that is often more cost-effective, more resilient and more capable of meeting social, environmental and economic objectives than 'grey' infrastructure. It has never been more necessary to invest in green infrastructure"50.

Outcome Area Two We are courageous in staying the course

What our future looks like once we've achieved Outcome Area Two

We celebrate our courage in taking a long-term approach towards restoring nature in Kirikiriroa/Hamilton. We see the fruits of this courage as we move through the city, which is evident in healthy forests, deafening birdsong and streams teeming with life. We see canopy trees standing tall, which are home to our flourishing bat population. We see kereruu in flight, which have made their home in the city. The presence of kereruu is an indication that our long-term investment has been successful.

We see people around us reaping the benefits of connecting with and caring for nature. We know our children - and the children yet to be born - will be nourished by nature because of our

What the community told us

"I wish that we were connected to the land and to each other and that this connection guides how we grow"

"Taiao development needs to be a partnership moving forward between iwi and ngaa tangata tiriti that supports Maaori to realise their role as kaitiaki"

"I wish for a council that puts nature first"

What research and evidence told us

Ecosystems take time to recover and grow. Forest canopy closure in newly planted urban forests is the first - and most critical - threshold in forest development. Research indicates that canopy closure happens about 20 years after initial planting⁵⁸. Following canopy closure, humidity and soil temperatures stabilise, and the "forest will then develop naturally through other successional stages"⁵⁹.

brave decisions. We reflect on the courage we took in providing better protection for nature through the development of a strong regulatory framework.

Council has strong, effective relationships with mana whenua, neighbouring district councils and organisations and communities involved in ecological restoration. The strength of these relationships is based on a shared vision of restoring nature and the many benefits it brings to our wider community.

We know that restoring nature takes time - the same sort of time it takes to raise a child into an adult. We are patient, secure in the knowledge that we are taking the right action to ensure that nature thrives in Kirikiriroa/Hamilton.

Outcome Area Three We uplift the power of kaitiakitanga

What our future looks like once we've achieved **Outcome Area Three**

We embrace our kaitiaki role and restoring nature is an integral part of the way we live. People are connected to each other through the shared goal of restoring nature in their back yard, the gullies near them and the forests in their neighbourhood. New city residents are playing their part in restoring nature, and this helps them establish roots in Kirikiriroa/Hamilton.

The Maaori worldview is embedded in restoring nature in Kirikiriroa/Hamilton. As a result, people have a strong sense of understanding of nature, their connection to it and their role in caring for it. This deepens our sense of connection to Aotearoa/ New Zealand as the unique place we call home.

We tell stories about nature which build mana, and we share these stories with each other. This growing knowledge helps us to grow our ability to care for te taiao. Maatauranga Maaori and Western science sit alongside each other as valid ways of seeing the world in practice and monitoring, and mana whenua are respected in their role as kaitiaki and supported by the community in this role.

What the community told us

"I use a wheelchair so could help with growing seedlings in raised beds"

"My greatest wish is for Council to work with gully landowners, their communities, neighbouring councils, ngaa tangata tiriti and government to establish a region-wide Waikato integrated series of biodiversity reserves. This will halt the current rapid loss of biodiversity in the city and the Waikato region"

"Really good advice and support for residents who want to restore native biodiversity on their own properties"

"Clear, simple information to educate or motivate residents to grow nature"





Outcome Area Four Thriving nature is all around us

What our future looks like once we've achieved Outcome Area Four

We see, hear, feel and taste nature throughout the city and we are nourished in body, mind and spirit through our enriched relationship with nature. As we move through the city, we see that the Waikato River and gully systems, park and street networks are a thriving and connected ecosystem.

As a result of our sustained investment in nature throughout Kirikiriroa/Hamilton, our connection with nature is part of our everyday life. The presence of nature enriches our daily life; our journey to work and school is made more peaceful because of

What the community told us

"I wish the central city was vibrant with nature"

"I wish native birds are increasingly as frequent as residents"

"I wish that all our gullies were planted out in native trees and plants - I wish for a city which has clean streams and kereru flying everywhere"

"I wish there were forests around here"

"We should be able to touch, smell, eat and hear our nature, not just see it"

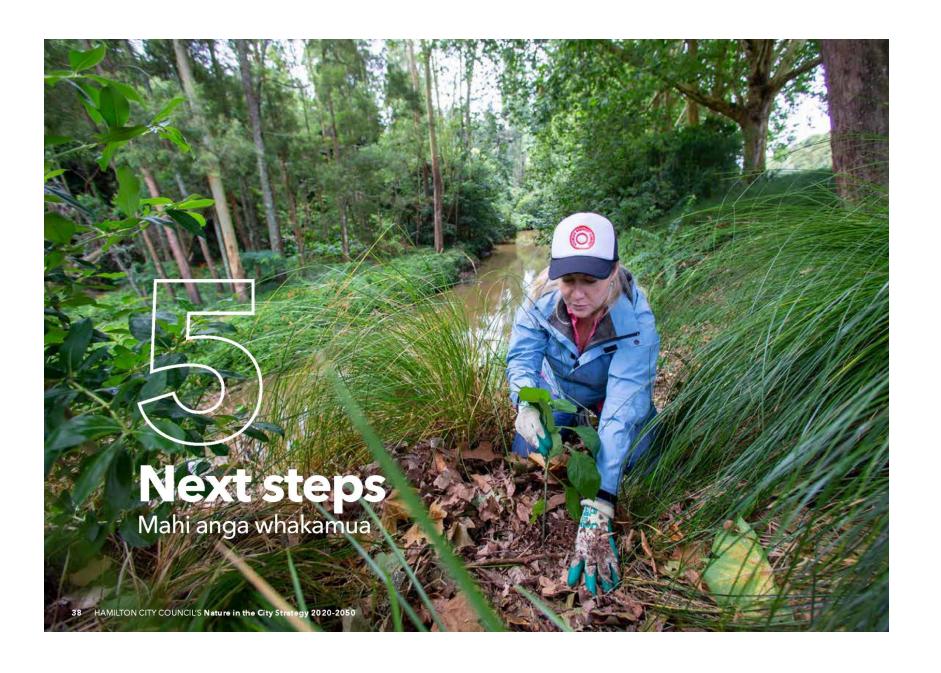
birdsong and tree-lined streets. Learning about natural systems and processes are part of our education, and we use our recreation time to connect with nature and restore our energy.

We see our neighbours, friends, whanau and broader community appreciating and caring for nature. We are in tune with the rhythm of the seasons, and we care for - and celebrate - nature according to these rhythms. Maatauranga Maaori is an integral part of ecological restoration practices.

Thriving nature just makes Kirikiriroa/Hamilton a beautiful, inspiring place to be.

What research and evidence told us

There is increasing recognition that thriving biodiversity within an urban environment is the new frontier of creating sustainable cities⁵⁵. Not only does urban ecological restoration lead to improved biodiversity, it creates opportunities for "people to interact with nature in their daily lives"56 and meet a deep human need to connect with nature. Additionally, numerous studies have demonstrated "the importance of nature play for children ... [and that] the more biodiverse the space the greater the benefits"57.



Next steps

The Nature in the City Strategy offers a vision for us all to move towards. It is hoped that everyone sees a role for themselves in restoring nature in Kirikiriroa/Hamilton and sees the opportunity for their lives to be enriched in doing so.

The strategy is not intended to provide an exhaustive list of actions. Rather, it provides an inspiring vision, a tangible goal for restoring nature in Kirikiriroa/Hamilton and some broad areas for action. Some of the priority areas will broadly address:

- restoring our gully system by creating access paths and undertaking pest control and native revegetation and maintenance
- establishing a city-wide monitoring and reporting programme which incorporates Western Science and Maatauranga Maaori, which will assist in celebrating our success and identifying opportunities for improvement
- taking a more integrated approach to ecological restoration in Council work programmes in order to capitalize on opportunities to reconnect ecosystems across the city

- working with neighbouring councils to restore landscape scale ecological networks
- supporting and enabling our community to care for nature.

Working towards achieving the goal of 10% native vegetation cover in Kirikiriroa/Hamilton will require significant resourcing in the form of time, effort and funding. For Council, this will be provided for primarily through the Long-Term Plan process. For the community, it is hoped that the strategy provides a focus point for efforts in pest control and ecological restoration.

A strategic implementation plan will be developed to provide a more detailed focus for Council to take action on restoring nature in Kirikiriroa/Hamilton. The strategic implementation plan has a three-year time horizon - aligned with the Long-Term Plan process - which enables Council to remain agile to respond to new issues and capitalize on new opportunities. The strategic implementation plan will be reported on six-monthly to chart progress and celebrate successes.

A review of the strategy will take place after five years. This review provides the opportunity to adjust the focus if required, or to stay the course.

Mauri ora.

References

- 1 United Nations (1992): United Nations Convention on Indigenous Biodiversity 1992: Sourced from https://www.cbd.int/doc/legal/cbd-en.pdf
- 2 Harmsworth, G.R. and S. Awatere (2013): Indigenous Maaori Knowledge and Perspectives on Ecosystems. In Dymond, J.R. (ed) Ecosystem services in New Zealand conditions and trends. Manaaki Whenua Press, Lincoln, New Zealand, page 274.
- 3 http://www.teebweb.org/resources/ecosystem-services/
- 4 Department of Conservation (2020): Te Mana o Te Taiao Aotearoa New Zealand Biodiversity Strategy 2020. Page 61.
- 5 Terrapin Report: 14 Patterns of Biophilic Design: Improving Health and Wellbeing in the Built Environment. Sourced from: https://www.terrapinbrightgreen.com/reports/14-patterns/ on 17 September 2020.
- 6 Healthy Nature Healthy People. Sourced from https://www.doc.govt.nz/about-us/our-partners/our-supporting-partners/mental-health-foundation/
- 7 Children & Nature Network (2018): Connecting with Nature to Care for Ourselves and the Earth: Recommendations for Decision Makers, Page 10
- 8 Walker, E.T., P.M. Wehi, N.J. Nelson, J.R. Beggs, H. Whaanga (2019): Kaitiakitanga, place and the urban restoration agenda, New Zealand Journal of Ecology, 43(3).
- 9 ARUP (2014): Cities Alive: Rethinking Green Infrastructure. Downloaded from: https://www.arup.com/perspectives/publications/research/section/cities-alive-rethinking-green-infrastructure. Sourced 17 September 2020.
- 10 Children & Nature Network (2018): Connecting with Nature to Care for Ourselves and the Earth: Recommendations for Decision Makers. Page 14
- ARUP (2014): Cities Alive: Rethinking Green Infrastructure. Downloaded from: https://www.arup.com/perspectives/publications/research/section/cities-alive-rethinking-green-infrastructure. Sourced 17 September 2020. Page 53.
- 12 Ibid., page 73.
- 13 The People, Cities, Nature Research Programme is funded by the Ministry of Business, Innovation and Employment Endeavour Fund https://www.peoplecitiesnature.co.nz/
- 14 https://www.nzpcn.org.nz/flora/vascular/whats-a-vascular-plant/
- 15 Vascular plants feature a system of "tubes" that connect all parts of the plant, roots, shoots and leaves to transport water and nutrients from one part of the plant to another. Department of Conservation (2020): Te Mana o Te Taiao Aotearoa New Zealand Biodiversity Strategy 2020. Page 16
- 16 ARUP (2014): Cities Alive: Rethinking Green Infrastructure. Downloaded from: https://www.arup.com/perspectives/publications/research/section/cities-alive-rethinking-green-infrastructure. Sourced 17 September 2020. Page 113
- 17 Ibid., page 110.
- 18 Section 5, Resource Management Act 1991. Sourced from www.legislation.govt.nz
- 19 Section 6, ibid.
- 20 Section 3, Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010. Sourced from www.legislation.govt.nz
- 21 Prepared by Envirostrat Consulting Ltd for Waikato Regional Council in association with DairyNZ and Waikato River Authority, 2018: Waikato and Waipaa River Restoration Strategy Te Rautaki Taamata I Ngaa Awa O Waikato Me Waipaa. page 3.
- 22 Section 3, Local Government Act 2002. Sourced from www.legislation.govt.nz
- 23 City of Melbourne (2017): Nature in the City: Thriving Biodiversity and Healthy Ecosystems, page 11
- 24 Forest and Bird (2020): See No Evil: Biodiversity Loss on Private Land. Sourced from Forest and Bird website
- 25 'Adults swell Hamilton crowd marching for climate action'. 27 September 2019. Accessed from: https://www.stuff.co.nz/environment/climate-news/116159713/adults-swell-hamilton-crowd-marching-for-climate-action.
- 26 Social Pinpoint data.
- 27 Ngaati Hauaa Iwi Trust (2018): Te Rautaki Taamata Ao Turoa o Hauaa: Ngaati Hauaa Environmental Management Plan.
- 28 Walker, E.T., P.M. Wehi, N.J. Nelson, J.R. Beggs, H. Whaanga (2019): Kaitiakitanga, place and the urban restoration agenda, New Zealand Journal of Ecology, 43(3). Page 6.
- 40 HAMILTON CITY COUNCIL'S Nature in the City Strategy 2020-2050

- 29 Department of Conservation (2020): Te Mana o Te Taiao Aotearoa New Zealand Biodiversity Strategy 2020.
- ARUP (2014): Cities Alive: Rethinking Green Infrastructure. Downloaded from: https://www.arup.com/perspectives/publications/research/section/cities-alive-rethinkinggreen-infrastructure. Sourced 17 September 2020. Page 59.
- 31 Walker, E.T, P.M. Wehi, N.J. Nelson, J.R. Beggs, H. Whaanga (2019): Kaitiakitanga, place and the urban restoration agenda, New Zealand Journal of Ecology, 43(3). Page 2.
- 32 Wallace, Kiri Joy and Bruce D. Clarkson 2019: Urban forest restoration ecology: a review from Hamilton, New Zealand. Journal of the Royal Society of New Zealand. Page 3.
- 33 Harmsworth, G.R and S. Awatere (2013): Indigenous Maaori Knowledge and Perspectives on Ecosystems. In Dymond, J.R. (ed) Ecosystem services in New Zealand conditions and trends. Manaaki Whenua Press, Lincoln, New Zealand.
- Waikato-Tainui Te Kauhanganui Incorporated (2013); Tai Tumu Tai Pari Tai Ao Waikato-Tainui Environmental Plan. Page 107.
- 35 Ibid.
- 36 ibid., Page 107.
- https://www.waikatofoodbasket.co.nz/about-the-waikato/, Accessed 15 October 2020.
- www.waikatotainui.com timeline of significant events. Accessed 11 September 2020.
- Waikato-Tainui Te Kauhanganui Incorporated (2013): Tai Tumu Tai Pari Tai Ao Waikato-Tainui Environmental Plan.
- https://www.mfe.govt.nz/publications/rma/tree-protection-urban-environments/background-tree-protection-under-rma Accessed 15 October 2020
- 41 Information sourced from the number and size of Significant Natural Areas (SNA's) in the Hamilton District Plan.
- 42 Reference to come
- 43 New Zealand Threat Classification System. Sourced from https://nztcs.org.nz.
- 44 https://www.waikatoregion.govt.nz/assets/PageFiles/233/4283%20-%20Hamilton%20Halo%20factsheet%202015_web.pdf Sourced 3 November 2020
- Community voice includes existing community voice information which Council has already collected, mana whenua views, key informant interviews, workshops with environmental restoration groups, online community engagement and elected members' feedback.
- Research and evidence includes current Council knowledge, academic research, maatauranga Maaori, central, regional and local government policies, strategies and
- 47 ARUP (2014): Cities Alive: Rethinking Green Infrastructure. Downloaded from: https://www.arup.com/perspectives/publications/research/section/cities-alive-rethinkinggreen-infrastructure, Sourced 17 September 2020.
- Wallace, Kiri Joy and Bruce D. Clarkson 2019: Urban forest restoration ecology: a review from Hamilton, New Zealand. Journal of the Royal Society of New Zealand. Page 2.
- Auckland Council: Auckland's Urban Ngahere (Forest) Strategy. Page 45. Sourced from https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/ourplans-strategies/topic-based-plans-strategies/environmental-plans-strategies/Pages/urban-ngahere-forest-strategy.aspx 21 October 2020.
- 50 https://www.biophiliccities.org/our-vision Accessed 22 October 2020
- 51 ARUP (2014): Cities Alive: Rethinking Green Infrastructure. Downloaded from: https://www.arup.com/perspectives/publications/research/section/cities-alive-rethinkinggreen-infrastructure. Sourced 17 September 2020. Page 107
- 52 Wallace, Kiri Joy and Bruce D. Clarkson 2019: Urban forest restoration ecology: a review from Hamilton, New Zealand. Journal of the Royal Society of New Zealand. Page 5.
- 53 Ibid.
- 54 Walker, E.T. P.M. Wehi, N.J. Nelson, J.R. Beggs, H. Whaanga (2019): Kaitiakitanga, place and the urban restoration agenda, New Zealand Journal of Ecology, 43(3), Page 2.
- Children & Nature Network (2018): Connecting with Nature to Care for Ourselves and the Earth: Recommendations for Decision Makers.
- 57 Children & Nature Network (2018): Connecting with Nature to Care for Ourselves and the Earth: Recommendations for Decision Makers. Page 20.
- 58 https://ourauckland.aucklandcouncil.govt.nz/media/13273/urban-ecological-restoration-the-new-frontier-prof-bruce-clarkson.pdf Accessed 23 October 2020
- 59 City of Melbourne (2017); Nature in the City: Thriving Biodiversity and Healthy Ecosystems, page 24
- 60 Ibid.



Council Report

Committee: Environment Committee **Date:** 01 December 2020

Author: Charlotte Catmur **Authoriser:** Sean Hickey

Position: Sustainability and Environment **Position:** General Manager Strategy

Advisor and Communications

Report Name: Waikato Local Authority Shared Services (WLASS) Energy and Carbon

Management Programme

Report Status	Open

Purpose - Take

1. To inform the Environment Committee on the Waikato Local Authority Shared Services (WLASS) Energy and Carbon Management Programme.

2. Kelvin French, CEO WLASS and Martin Lynch, Energy Manager WLASS will present a verbal report on the Energy and Carbon Management Programme at the meeting.

Staff Recommendation - Tuutohu-aa-kaimahi

- 3. That the Environment Committee:
 - a) receives the report; and
 - b) thanks Waikato Local Authority Shared Services for their verbal report.

Background - Koorero whaimaarama

- 4. In 2019 Hamilton City Council along with eight of the other Waikato Local Authority Shared Services (WLASS) Councils signed up to the WLASS Energy and Carbon Management Programme (ECMP).
- 5. The presentation from WLASS CEO and Energy Manager will:
 - Provide an overview of the ECMP and the benefits to the member councils
 - Outline some of the actions the council is putting in place as a result of the ECMP
- 6. Prior to joining the WLASS ECMP the council had been contracting the Energy Manager, Martin Lynch, directly to support the delivery of the internal energy management programme.
- 7. A quarterly update on the ECMP is available on the WLASS website https://waikatolass.co.nz/shared-services/energy-management/
- 8. The information gathered by the Energy Manager through the ECMP underpins the council greenhouse gas emissions reduction roadmap that forms part of the 2020/2021 Climate Change Action Plan.

Attachments - Ngaa taapirihanga

There are no attachments for this report.

Council Report

Committee: Environment Committee **Date:** 01 December 2020

Author: Charlotte Catmur **Authoriser:** Sean Hickey

Position: Sustainability and Environment **Position:** General Manager Strategy

Advisor and Communications

Report Name: Climate change programme update

Report Status	Open

Purpose - Take

1. To inform and update the Committee on the progress of the climate change programme and the 2020/2021 Climate Change Action Plan.

Staff Recommendation - Tuutohu-aa-kaimahi (Recommendation to the Strategic Risk and Assurance Committee)

- 2. That the Environment Committee:
 - a) receives the report.
 - b) recommends to Strategic Risk and Assurance Committee:
 - i. climate change risk is reassessed; and
 - ii. climate change is classified as a Strategic Risk and included on the Council Strategic Risk Register.

Executive Summary - Whakaraapopototanga matua

- 3. The 2020/2021 Climate Change Action Plan included a number of actions for delivery in this financial year. This included undertaking a Climate Change Readiness Assessment for Hamilton City Council.
- 4. KPMG completed the Climate Change Readiness Assessment and delivered a report on our current readiness and recommended a three year action plan to build our approach to managing climate change-related risks.
- 5. In response to the Assessment staff identified two actions that were critical in enabling many of the other year one actions to be completed. This includes climate change being assessed as a strategic risk for the council and the establishment of an internal climate change programme structure.
- 6. Staff recommend that the Environment Committee makes a recommendation to the Strategic Risk and Assurance Committee that climate change risk is reassessed and is classified as a strategic risk.
- 7. Staff consider the matters in this report have low significance and that the recommendations comply with the Council's legal requirements.

Background - Koorero whaimaarama

- 8. At the 10 September 2020 Environment Committee meeting the 2020/2021 Climate Change Action Plan was approved subject to amendments to the transport section. The relevant changes were made by staff and the updated Action Plan is included in **Attachment 1**.
- 9. The Action Plan includes four focus areas: Build our understanding, Deliver change, Climate accord and Collaborate and capacity building. **Attachment 2** includes the actions and the estimated timing of delivery over 2020/2021.

Discussion - Matapaki

2020/2021 Climate Change Action Plan – update

- Attachment 2 includes the priority actions and the estimated timing of delivery over 2020/2021.
- 11. A number of projects have commenced that support delivery of the Action Plan, including the staff workplace travel planning, climate modelling and investigating our carbon footprint further. In addition, the Climate Change Readiness Assessment has been completed.
- 12. For the transport actions, updates have been provided to the Infrastructure Operations Committee at the <u>8 October 2020</u> and the <u>19 November 2020</u> meetings. Updates included information on the Micro-Mobility and Biking Programme Consultation that ran from 22 October 2020 to 27 November 2020. Outcomes of the consultation will be shared with Committee Members. More information on the programme is provided on the Council <u>website</u>.
- 13. The <u>19 November 2020</u> Infrastructure Operations Committee meeting also included an update on the Eastern Pathways Programme that aims to resolve corridor safety concerns and deliver public transport and cycling facilities on the eastern side of Hamilton.

Climate Change Readiness Assessment

- 14. Staff commissioned KPMG to provide a Climate Change Readiness Assessment in order to assess the council's current response to climate change and to provide a three-year action plan on how to align with best practice climate change risk management.
- 15. The KPMG Assessment builds on the approach developed by the Task Force on Climate-Related Financial Disclosures (TCFD). The approach outlines how organisations should disclose information on four thematic areas:
 - Governance
 - Strategy
 - Risk Management
 - Metrics and Targets

Whilst this approach was designed predominantly for businesses it provides a useful approach to guide our response to climate-related risks and opportunities.

- 16. In September 2020 the Central Government announced that the TCFD framework will underpin the proposed mandatory climate-related financial disclosures for the finance sector. At this stage this mandatory reporting does not include Local Authorities.
- 17. In response to the KPMG assessment staff are developing a three-year action plan and will present this at the March 2021 Environment Committee.
- 18. There were two actions that staff assessed as being critical and have commenced prior to finalising that response. They are:

- Climate change assessed as a strategic risk for the organisation
- Establish an internal climate change programme with appropriate governance.

Strategic Risk

- 19. On 16 May 2019, the Audit and Risk Committee approved, for monitoring purposes, eight strategic risks and three key organisational risks. As well as these eleven risks, the Committee recognised climate change as an emerging risk. Staff have reported to the Strategic Risk and Assurance Committee on any changes to the emerging risks.
- 20. Following the release of the National Climate Change Risk Assessment and the Our

 Atmosphere and Climate 2020 report there is clear evidence that climate change is already impacting New Zealand and that there are risks of climate change for the community wellbeing and for the councils operations.
- 21. As well as the physical risks of climate change to our community, infrastructure and services there are potential risks that may arise from the transition to a low carbon economy, including changes in government policy in New Zealand and globally.
- 22. A two staged process is recommended for understanding the council's climate change-related risk:
 - Step 1 Assess climate change as a strategic risk as per the Councils Risk Register.
 - Step 2 Undertake a comprehensive climate change risk assessment
- 23. By defining climate change as a strategic risk it meets the recommendations from the KPMG Climate Readiness Assessment and the best practice approach in the TCFD framework. This includes having a process for reporting changes in risk to senior leadership and Elected Members and assigning responsibility for climate change-related risks to a General Manager.
- 24. If approved as a strategic risk, the assessment of climate change will be updated quarterly and reported to the Environment Committee and the Strategic Risk and Assurance Committee.

Climate change disclosure request

- 25. In October 2020, staff completed an information request from the Ministry for the Environment on climate change adaptation. The request was made under section 5ZW of the Climate Change Response Act 2002 (the Act). This is one of the new tools established in the amendments to the Act in 2019.
- 26. The survey results will be used to inform the development of the National Adaptation Plan and to provide a snapshot of how prepared reporting organisations are for climate change. The survey included 50 questions covering risks and impacts, the National Climate Change Risk Assessment, Strategy, governance and metrics and support and resources.
- 27. The Act requires the development of a National Climate Change Risk Assessment (NCCRA) every 6 years and within 2 years of the release of the NCCRA a National Adaptation Plan must be developed. To support the development of the National Adaptation Plan the Minister or the Climate Change Commission can request reporting organisations to provide information on their climate change risks and how the organisation is managing the risks.
- 28. The information request in October 2020 was to establish a baseline on how climate change risks are currently being managed across reporting organisations in New Zealand. Reporting organisations are defined in the Act and include local authorities, council-controlled organisations and lifeline utilities. <u>Guidance</u> on the information request was provided by the Ministry.
- 29. The Hamilton City Council response outlined that as part of the 2020/2021 Climate Change Action Plan the Council has committed to undertake climate change scenario development and a risk assessment to inform our adaptation planning.

Financial Considerations - Whaiwhakaaro Puutea

The costs to deliver the climate change risk assessment is in the Annual Plan

Legal and Policy Considerations - Whaiwhakaaro-aa-ture

31. Staff confirm that the staff recommendation complies with the Council's legal and policy requirements.

Wellbeing Considerations - Whaiwhakaaro-aa-oranga tonutanga

- 32. The purpose of Local Government changed on the 14 May 2019 to include promotion of the social, economic, environmental and cultural wellbeing of communities in the present and for the future ('the 4 wellbeings').
- 33. The subject matter of this report has been evaluated in terms of the 4 wellbeings during the process of developing this report as outlined below.
- 34. The recommendations set out in this report are consistent with that purpose.

Social

35. Climate change has the potential to reduce our communities social wellbeing, especially our more vulnerable community members. By better understanding these potential risks we can take action to minimise the risks and to enhance social wellbeing.

Economic

36. Climate change will present economic challenges for our community and our council. As we gain a better understanding of the potential economic risks and opportunities facing the City we can collaborate with others to address them.

Environmental

37. Our natural environment is vulnerable to the impacts of climate change and we need to understand these potential risks. We need to understand how our decisions today will impact on the resilience of the natural environment.

Cultural

38. Cultural wellbeing is threatened by climate change, for example if values and customs are unable to be undertaken. Collaboration is required in how we understand these risks and then build these considerations into long term decisions.

Risks - Tuuraru

39. There are no known risks associated with the decisions required for this matter.

Significance & Engagement Policy - *Kaupapa here whakahira/anganui* Significance

40. Staff have considered the key considerations under the Significance and Engagement Policy and have assessed that the recommendation(s) in this report has/have a low level of significance.

Engagement

41. Given the low level of significance determined, the engagement level is low. No engagement is required.

Attachments - Ngaa taapirihanga

Attachment 1 - 2020/2021 Climate Change Action Plan

Attachment 2 - 2020/2021 Climate Change Action Plan - 1 Page delivery plan



Contents

TAKING ACTION	3
Whats included in this Plan?	3
Our approach	3
2020/21 PRIORITY ACTIONS	4
FOCUS 1 BUILD OUR UNDERSTANDING	5
Emissions profiles	5
Climate models and scenarios	7
FOCUS 2 DELIVER CHANGE	8
Addressing our Council emissions - Leading by example	8
Hamilton City Council Emissions Reduction Roadmap	9
Creating a low carbon, resilient city	10
FOCUS 3 OUR CLIMATE ACCORD	16
FOCUS 4 COLLABORATING AND CAPACITY BUILDING	17
Collaborating	17
Capacity building	17

TAKING ACTION

The impacts of climate change are already affecting communities here in New Zealand. The risks are real and if we fail to act they will impact our community, our economy and our natural environment.

The youth of our city advocated strongly for Council to act and to protect their future. Our Council responded by recognising the urgency of the issue and committing to take action on climate change.

Responding to the challenges of climate change requires a collective response; we will work alongside our community, Waikato Tainui, businesses and organisations as we deliver this Action Plan.

Climate change presents an opportunity for us to rethink how we live, work and play in our city, now and into the future. To realise these opportunities, we need to ensure we are well informed, and we are acting together.

Whats included in this Plan?

This 2020/21 Climate Change Action Plan sets out the actions we will deliver in 2020 and 2021. As we deliver this years plan we will develop our long term approach to addressing climate change.

Our approach

This year our actions are focused on four key areas:



Building our understanding



Delivering change



Climate Accord



Collaborating and capacity building

2020/21 PRIORITY ACTIONS



Build our understanding

- Investigate the sources of our City's carbon footprint further.
 - Commission a 2019/20 emissions inventory for the Council.
- Undertake climate modelling and scenario development for Hamilton
- Complete a Climate Readiness Assessment for Hamilton City Council



Deliver change

• Develop a 2050 Climate Change Action Plan

Council emissions

- Deliver our emissions reduction roadmap actions for 2020/21
- Undertake workplace travel planning for Council staff

Waste

- Implement the Site Waste Management Plans requirements
- Deliver the Waste Minimisation Fund
- Delivery of the new rubbish and recycling service

Transport

- \$500,000 to finalise the delivery of the Rotokauri Transport Hub
- \$2.3 million in improvements to the bus transport network
- Implementation of the Biking Plan actions for 2020/21
- Development of a Biking and Micro-Mobility Business Case for Hamilton
- Implementation of transport optimisation projects for traffic flow efficiency
- Development of the School Link and University Link project business cases

Natural environment

- Nature in the City Strategy adopted by Council following engagement with our community
- \$100,000 funding for community gully restoration

Land use planning

Hamilton-Waikato
 Metropolitan Spatial Plan
 approved by Future Proof
 Implementation
 Committee

Built environment

 Peacocke development assessed under the Green Star Communities tool.

Water

- All best available data on flooding is incorporated into a single web viewer for Hamilton
- Map the carbon emissions of supplying drinking water and identify opportunities for emissions reduction
- Continue leakage detection to minimise water demand
- Review of the water alert system to improve water demand management at peak times



Climate Accord

Establish the Terms of Reference for the Climate Accord

· Identify key actions for delivery through the Accord



Collaboration and capacity building

Build a platform for collaborating and sharing knowledge on climate • change

Establish a climate change group with Waikato and Waipaa District Councils



FOCUS 1 BUILD OUR UNDERSTANDING

Across the city we want to make sure we are investing our resources where we will have the greatest impact. To guide our long term climate change action we need to understand where our emissions are coming from and what the future might look like in Hamilton.

Emissions profiles

We have two baseline greenhouse gas inventories, one for the City and one for our own Council operations. Greenhouse gas inventories, also known as carbon footprints, provide an understanding of the emissions generated by an organisation.

Hamilton City Carbon footprint

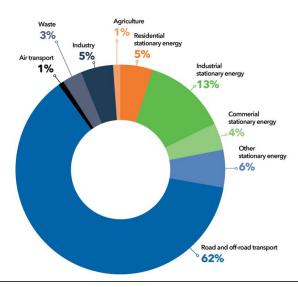
The city's carbon footprint includes emissions generated by the activities of residents, visitors, businesses and industries.

In 2018/2019 Hamilton City generated a total of 1,000,243 tonnes of carbon dioxide equivalents (tCO_2e) gross emissions and 1,000,995 tCO_2e net emissions (excluding forestry).

We do not have direct control of these emissions but we can influence them through partnering with others and through our policies and plans. To inform our decision making, we now need to explore the sources of these emissions further.

Action Investigate the sources of the carbon footprint further, especially the transport emissions, to better understand where to intervene.

Our city's carbon emissions



Stationary energy includes emissions from the generation and use of energy, for example electricity generation and the use of LPG and natural gas. In the carbon footprint the stationary energy emissions are attributed to the end users of the energy.



Hamilton City Council Carbon footprint

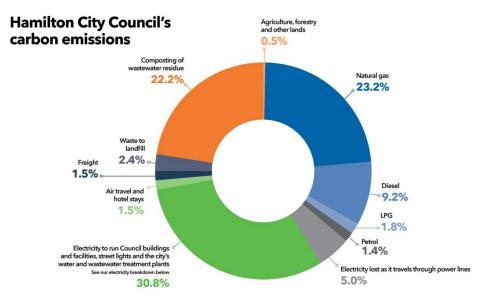
Our Council's carbon footprint includes emissions from all our council activities and operations, buildings and facilities and our fleet.

In 2018/19, the Council generated a total of $22,091 \text{ tCO}_2\text{e}$.

The treatment of Hamilton's wastewater produced over 50% of these emissions (11,159 tCO₂e), these are biogenic methane emissions. These emissions are not included in this graphic.

Every year we will commission a carbon footprint for Hamilton City Council and share with the community how the Council is tracking with emissions reductions and how the growing City is impacting our emissions.

Action Commission a 2019/20 greenhouse gas emissions inventory for Hamilton City Council.





Climate models and scenarios

The climate change projections for the Waikato Region¹ provide us with a high-level overview of the changes we can likely expect. The projections show it is likely going to get hotter, rainfall patterns will change, extreme weather events will be more intense, and frosts will decrease. What we really need to understand is – What could these changes mean for our city?

- How could more frequent droughts impact on our water supply and our trees, parks and gardens?
- How could increases in temperatures impact the wellbeing of our community?
- If the direction and strength of the wind change, could this cause damage to the trees across the city?

We will undertake the research to answer these questions and many more, building on the different modelling and hazards assessment work that is already undertaken by Council. We will share these future scenarios with our community, businesses and organisations.

Action Undertake climate modelling and scenario development for Hamilton.

Climate risks

Climate change possesses a number of risks to Council operations. To inform our response to these risks the Council is undertaking a Climate Readiness Assessment. This assessment will evaluate the climate-related management structures, processes and practices against internationally recommended frameworks, standards, and technical guidance to identify and prioritise opportunities to strengthen our climate response.

Action Commission and complete a Climate Readiness Assessment for Hamilton City Council.



¹ https://www.mfe.govt.nz/climate-change/likely-impacts-of-climate-change/how-could-climate-change-affect-my-region/waikato



FOCUS 2 DELIVER CHANGE

In 2020/21 we are taking action to reduce our Council emissions and delivering emission reduction and adaptation actions across key areas of our business.

As we deliver this plan, we will also develop our 2050 climate plan, this will set our vision and the short, medium and long term actions.

Action Develop a 2050 Climate Change Action Plan for Hamilton

Addressing our Council emissions - Leading by example

To do our part in the transition to a low carbon city we have set emissions reduction targets for the Councils emissions:

- 50% reduction of gross emissions (excluding biogenic methane) by 2030,2
- 25% reduction of emissions of biogenic methane by 2030³

We have a roadmap to deliver these targets. The 2020/21 actions will be implemented as part of delivering this plan and for actions beyond 2020/21 we will be seeking funding through the 2021-2031 Long Term Plan process.

Action Deliver our Council emissions reduction roadmap
Action Undertake workplace travel planning for Council staff

Staff travel management plan

In early 2020, we asked staff about how they travel to work and for work. This information helped us to build a better understanding of what we can do to support our staff to choose sustainable modes of transport.

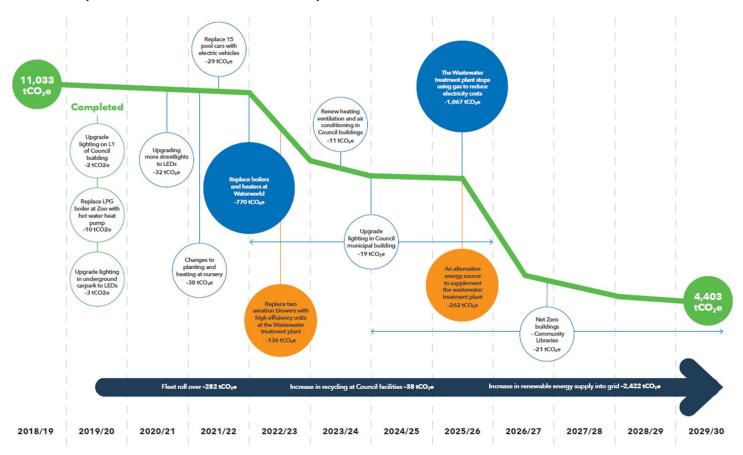
In 2020/21 we will deliver a staff travel management plan for Council. We will share our process and experience with other interested businesses.

² Reduction will be measured from the 2018/19 baseline

³ Reduction will be measured from the 2018/19 baseline



Hamilton City Council Emissions Reduction Roadmap





Creating a low carbon, resilient city

The priority areas for 2020/21 are:



Land use planning

The way we live, work and play in Hamilton is all influenced by our land use planning. Long term planning for Hamilton and our surrounding areas will support our transition to a low carbon, resilient city. Two key plans have been developed to guide our long term land use planning, the Hamilton to Auckland Corridor Plan and the Hamilton-Waikato Metropolitan Spatial Plan.

The Council has been part of the development and delivery of the Hamilton to Auckland Corridor Plan. The Plan's vision is to support sustainable growth and increase connectivity between Hamilton and Auckland and to plan in an integrated way based on communities of interest rather than existing council boundaries.

The Hamilton-Waikato Metropolitan Spatial Plan a joint urban growth plan that sets out a 100-year vision and 30-year plan for how Hamilton will grow up and out. The Spatial Plan includes an integrated land use and transport planning approach as well as a key focus on creating a blue-green network.

Action Hamilton-Waikato Metropolitan Spatial Plan approved by Future Proof Implementation Committee



Transport

Our emissions profile shows that transport is the primary source of emissions in Hamilton. We know that we can influence transport emissions in our City through improving our public transport, biking, micro-mobility and walking infrastructure and supporting a shift in transport modes. The Council is a strong advocate for micro mobility and public transport and is working to create a city that provides many transport options for our residents and visitors. In August 2020, the Council endorsed the Hamilton-Waikato Mode Shift Plan, the Plan developed by Waka Kotahi NZ Transport Agency in conjunction with Hamilton City, Waikato and Waipa District councils. The plan has a primary goal to increase the share of travel by public transport, walking and cycling and sets out the 'why and 'what to achieve Mode Shift over the next six years.

Ongoing work continues to optimise traffic movement through the City, reducing congestion and greenhouse gas emissions.

Action Implementation of transport optimisation projects for traffic flow efficiency

Micro-mobility and biking

The 2015-2045 Hamilton Biking Plan created a 30-year plan to deliver projects that will create a fully connected biking network that is safe, family-friendly and attractive. This year we are investing \$10.45 million in the implementation of our Biking Plan. This includes the development of a biking and micro-mobility programme, improvements and upgrades to existing cycle infrastructure and the development of new cycleways as part of the projects detailed in our Biking Plan.

Action Implementation of the Biking Plan actions for 2020/21:

- City wide biking safety measures
- Green cycle lane markings across the city
- Cycle 'Sharrow' road marking on Victoria Street
- Crosby Road dedicated cycle facility

- City wide bike parking
- Construction of new shared walking/biking infrastructure along River Road
- A new cycle path running parallel to Gordonton Road

Since the Biking Plan was developed we have seen an increase in the use of e-scooters and e-bikes. This year we are developing a biking and micro-mobility programme that will look at the infrastructure and increasing the efficiency of our existing network. This programme will identify changes required in Hamilton City to support the shift to bikes, e-bikes, e-scooters and other small single person modes of transport.

Action Development of a Biking and Micro-Mobility Business Case for Hamilton



The development of two new biking routes, the School Link and the University Link, form part of the Eastern Pathways Programme. As well as cycling facilities, this programme will also deliver public transport services and resolve corridor safety concerns on the eastern side of Hamilton. In 2020/21 funding has been approved to complete the business cases for the School Link and University Link, implement stakeholder engagement and commence design and delivery stages of the School Link project, subject to approval of business cases by HCC and Waka Kotahi NZTA.

Action Development of the School Link and University Link project business cases

Public transport

This year will see the launch of Te Huia, the Hamilton to Auckland passenger rail service. We have worked alongside Waikato Regional Council for a number of years to establish this passenger rail service for our region. To support the new service, we are completing the Rotokauri Transport Hub, which not only includes rail, but also includes a bus interchange and walking and cycling connections. This year we are also investing \$2.3 million in an options and business case review for rejuvenating the transport centre and bus stop infrastructure (\$650,000) across the city. These changes will improve the experience of travelling by bus and the connectivity across our network.

Action \$500,000 to finalise the delivery of the Rotokauri Transport Hub

Action \$2.3 million in improvements to the bus transport infrastructure including options for the transport centre rejuvenation

Built environment

The buildings and infrastructure we put in place today will still be here in decades to come, we need to ensure we are creating communities that are resilient and energy efficient. As a green star member, the Council can use the tools from the New Zealand Green Building Council for retrofitting buildings and also for new buildings and communities.

Action - Peacocke development assessed under the Green Star Communities tool









Waste

Waste is another important area for reducing emissions. Increasing our recycling means we are having a positive impact on New Zealand's industrial processing emissions. The use of recycled content in new products means less energy is used compared with when virgin material is used, for example with aluminum cans and glass bottles.

On 31 August 2020 the new rubbish and recycling wheelie bin service commenced. The new service aims to increase recycling by 50% (per capita) and decrease waste to landfill by 25% (per capita). This new service also includes the use of electric trucks to further reduce emissions associated with the collection of rubbish and recycling.



Our Waste Management and Minimisation Plan 2018-2024 outlines additional actions the Council is taking to support reducing waste to landfill. This includes the waste minimisation fund that provides \$50,000 to community groups, businesses and organisations to deliver actions that reduce, reuse or recycle waste.

Action Delivery of the \$50,000 Waste Minimisation Fund

The Waste Management and Minimisation Bylaw 2019 sets out two new rules around waste management plans, this includes for building developments and events. Waste is often an afterthought, requiring these plans will mean that waste is being considered at the beginning of the process, providing greater opportunity for diversion from landfill.

Action Implementation of the requirement for Site Waste Management Plans



Water

The climate change projections for the Waikato include issues of both more and less water, we need to build our resilience for drought conditions and increased storm intensities.

Flooding

Modelling shows that flooding in areas of our City may increase with climate change. To guide decision making we need to understand where flooding may impact on homes and our critical infrastructure across the whole City.

Action All best available data on flooding is incorporated into a single web viewer for Hamilton



Stormwater

In 2020 we delivered our second Stormwater Master Plan to guide our investment and decision making around future stormwater management. The plan recommends the continued use of wetlands as stormwater management devices as they also provide flood control. The actions identified in the Master Plan will be incorporated into the 2021-2031 long term plan decision making process.

Drinking water

In Hamilton our drinking water supply comes from the Waikato river, this means we are reliant on the flow of the river to be able to extract water. We then treat the water to make it safe for our community to drink. The process of treating the water and pumping the water around the city requires energy. To reduce emissions from this activity we need to firstly identify how much energy we use along the system.

Action Map the carbon emissions of supplying drinking water and identify opportunities for emissions reduction

We are also focusing on actions that reduce the demand for drinking water, therefore reducing the need for us to extract and treat as much water. To reduce demand, we look at both infrastructure as well as behaviour change by our community and businesses.

Action - Continue leakage detection to minimise demand for water

Action Review of the water alert system to improve water demand management at peak times



Natural environment

Hamilton has more than 200 parks and reserves ranging from expansive sports parks, to small neighbourhood reserves. These parks and reserves are important for our community and the biodiversity of our City. We need to do more to improve the natural environment across the City, build our ecological resilience and increase carbon sequestration.

This year we will deliver our Nature in the City Strategy, it will outline how we will maintain our existing biodiversity and the approach we will take to improving nature across the City. This year we have funded \$100,000 for gully restoration and following the Nature in the City Strategy we will deliver more.

Action - \$100,000 funding for community gully restoration

Action Nature in the City Strategy adopted by Council following engagement with our community







FOCUS 3 OUR CLIMATE ACCORD

To create a low carbon, resilient city we need to work in partnership with organisations and businesses that have the ability to influence the emissions of our City. The Hamilton Climate Accord will be a formal group that provides guidance and leadership on climate change.

The Accord will be established in 2020 and will be ongoing, building on past success and planning together for future change. Through the Accord we will develop an emissions reduction target for the City that is in line with a no more than 1.5 degree warming.

We want to:

- provide leadership by demonstrating action occurring in our own organisations
- create alignment by sharing and connecting ideas and action across organisations
- provoke and advocate for change locally and nationally.

In 2020 we invited 20 organisations to take part in a climate change interview to help guide the development of this Action Plan. The interviews were delayed due to many organisations being impacted by the COVID-19 response. The outcomes of the engagement further supported the importance of establishing the Climate Accord and creating opportunities for sharing knowledge and collaborating on actions for the City.

2020/21 Action Establish the Terms of Reference for the Climate Accord by November 2020 2020/21 Action Through the Climate Accord identify key actions for members to deliver

"I'm keen for better co-ordination between key prominent businesses and community groups and key local authorities. I would like to see a space where expertise, enthusiasm and ideas can be shared, and citywide momentum can be achieved on this"

- Climate Change Interview with Hamilton Business



FOCUS 4 COLLABORATING AND CAPACITY BUILDING

Underpinning our climate action is collaboration. Climate change requires us all to act, the Council alone cannot make all these changes.

Collaborating

Climate change has the potential to impact on many sectors of our community. We will connect with our community through existing forums and networks. For example, we will continue to take part in the Waikato Wellbeing Project. We will also build relationships with other Councils who are tackling the same climate change challenges as us.

Action Establish a climate change group with Waikato and Waipaa District Councils

Capacity building

Addressing climate change requires changes in our behaviour as individuals and organisations, infrastructure alone will not be enough. We will provide opportunities for knowledge sharing by our youth, community, businesses and experts.

Through our current programs we deliver a wide range of school and community education opportunities, for example:

- Kids on bikes school bike skills program;
- Waste minimisation workshops;
- Rainwater harvesting education workshops;
- Waiwhakareke community planting; and
- Smart Water schools programme.

Action - Build a platform for collaborating and sharing knowledge on climate change

Kids on Bikes (KOB) programme

KOB is increasing the number of students with the skills and competence to ride a bike confidentially and safely which ultimately gives them bike skills for life. Since it began at the end of 2018, a total of 25 schools have been visited and 2852 students have received bike skills through the programme. The programme is now very sought-after by schools.

Waiwhakareke community planting

The annual Arbor Day planting has grown in interest since it commenced. Around 2000 volunteers from schools and businesses come together to learn how to plant trees and take part in ecological restoration. Volunteers have been planting at Waiwhakareke for the last 15 years and are now planting around 20,000 trees a year.

Rainwater harvesting workshops

In 2019 the Council, through the Smart Water programme, ran a workshop on how to install a rainwater barrel harvesting kit. The water collected in the barrel can be used to water gardens and lawns, reducing the need to use potable water for outdoor use. Due to the success of the workshop the Council ran two workshops is 2020.

FURTHER INFORMATION

Hamilton City Council Garden Place, Private Bag 3010, Hamilton

- f /HamiltonCityCouncil
- @CouncilHamilton
- © 07 838 6699

hamilton.govt.nz

			July - December (Q1 and Q2)	January – March (Q3)	April - June (Q4)
	Build our understandi		Investigate City's carbon footprint further	Share findings	
		5		Commission a 2019/20 Emissions inventory for Hamilton City Council	Publish findings of emissions inventory
			Commission climate modelling	Complete modelling Commission risk assessment	Share findings
			Climate Change Readiness Assessment	Implement findings (ongoing)	
	Deliver Change	Long term planning	Develop 2050 Climate 2021/2022)	Change Strategy (ongoing into	
	3	Council emissions	Undertake workplace travel planning for Council staff	Delivery of 2020/21 emissions reduction roadmap activities	
		Land use planning	Hamilton-Waikato Metropolitan Spatial Plan approved		
		Natural environment	Nature in the City strategy approved - 1 December meeting \$100,000 for community gully groups		
		Built environment	Peacocke developmer Communities tool	nt assessed under the Green Star	
		Water	Mapping carbon emissions		
			Leakage detection, incorporated,	Flooding ir Review of the Wate	
		Transport	Bike plan implementat infrastructure,	ion, Bus stop Micro mobility business case	
		Waste	Delivery of new rubbish and recycling service	Implement the re site waste manag	•

		Waste Minimisation funding - open for applications - October	
	Our Climate Accord	Establish Terms of Reference and first meeting scheduled	Identify actions/activities for delivery through the Accord
8 27	Collaborating and capacity building	Collaborative climate change group with Waikato and Waipaa Councils	Build a platform for collaborating and sharing knowledge

Resolution to Exclude the Public Section 48, Local Government Official Information and Meetings Act 1987

The following motion is submitted for consideration:

That the public be excluded from the following parts of the proceedings of this meeting, namely consideration of the public excluded agenda.

The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution follows.

General subject of each matter to be considered	Reasons for passing this resolution in relation to each matter	
) Good reason to withhold) information exists under) Section 7 Local Government) Official Information and) Meetings Act 1987 	Section 48(1)(a)

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public, as follows:

Item C1.	to maintain legal professional privilege	Section 7 (2) (g)
	to enable Council to carry out negotiations	Section 7 (2) (i)