Meeting of the Environment and Integrated Catchments Committee

Date: Wednesday 1 July 2020

Time: 9.00am

Venue: Council Chamber
Hawke's Bay Regional Council
159 Dalton Street, NAPIER

Agenda

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

SUBJECT: FOLLOW-UPS FROM PREVIOUS ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE MEETINGS

Reason for Report

1. **Attachment 1** lists items raised at previous meetings that require follow-ups. All items indicate who is responsible for each, when it is expected to be completed and a brief status comment. Once the items have been completed and reported to the Committee they will be removed from the list.

Decision Making Process

2. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Services Committee receives and notes the *Follow-up Items from Previous Environment & Services Committee Meetings* staff report.

Authored by:

Annelie Roets
GOVERNANCE ADMINISTRATION ASSISTANT

Approved by:

James Palmer
CHIEF EXECUTIVE

Attachment/s

⇩**1** Followups for 1 July 2020 EICC meeting

Follow-ups from Previous Environment & Integrated Catchments Committee Meetings

5 February 2020

	Agenda item	Follow-up item	Responsible	Status/Comment
1	Follow-ups from Previous EICC meetings	Ahuriri Estuary operational plan	A Madarasz-Smith /I Maxwell	This work is currently underway and will be presented to council when available.
2	Regional Climate Change Response Programme Development Update	Establish Climate Change working party to assist staff with development of a Climate Change work programme and develop resource requirements for LTP. Bring rough draft of a strategy to progress the climate change response work programme to the next EICC meeting.	Gavin Ide /Dale Meredith	WP established, includes councillors Williams, Ormsby & Barker; Dr Roger Maaka & Michelle McIlroy representing the Māori Committee; and RPC representative(s) to be confirmed 15 April.
3	Regional Climate Change Response Programme Development Update	Quarterly reporting of Council's carbon reduction and sustainability achievements	Fleet & Facilities Manager	Included in quarterly Organisational Performance reports

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 17 June 2020

Subject: CALL FOR MINOR ITEMS NOT ON THE AGENDA

Reason for Report

1. This item provides the means for committee members to raise minor matters they wish to bring to the attention of the meeting.
2. Hawke's Bay Regional Council standing order 9.13 states:
   2.1. "A meeting may discuss an item that is not on the agenda only if it is a minor matter relating to the general business of the meeting and the Chairperson explains at the beginning of the public part of the meeting that the item will be discussed. However, the meeting may not make a resolution, decision or recommendation about the item, except to refer it to a subsequent meeting for further discussion."

Recommendations

3. That the Environment and Integrated Catchments Committee accepts the following "Minor Items Not on the Agenda" for discussion as item 15.

Topic	Raised by

Leeanne Hooper
GOVERNANCE LEAD

James Palmer
CHIEF EXECUTIVE

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

Subject: CR RICK BARKER NOTICE OF MOTION: CLIMATE MITIGATION HAWKE'S BAY

Reason for Report

1. Councillor Barker has submitted a Notice of Motion; attached in its original form and replicated in paragraphs 2 to 5 below.
2. The Committee notes the range of Council actions connected to climate change, including:
    2.1. The decision by Council on 27 June 2019 to declare a climate emergency
    2.2. Council's activities in climate adaptation such as the work on the Coastal Hazards Strategy with initiatives to strengthen the regions stop-banks.
    2.3. Council's contribution to reducing greenhouse gases with its tree plantings and the plans for further extensive plants in the 'right tree right place' initiative.
3. The committee notes that central government will lead a country wide approach to climate change but observes that currently at the regional level there is a lack of organised and structured activity focused on mitigating the effects of climate change which needs to be effected by individuals, households and at the enterprise and industry levels.
4. The committee recommends to Council that it takes timely steps to address this by undertaking the following.
    4.1. Set up a semi autonomous unit similar to Civil Defence; to be called "Climate Mitigation Hawke's Bay"
        4.1.1. That it have a governance structure of Regional Council Chair, the regions four Mayors and the Chair of Ngati Kahungunu Iwi Incorporated.
        4.1.2. That it have a minimum staff of three, with the necessary facilities and support to be effective.
    4.2. The remit for the unit is to be the catalyst for encouraging the regions individuals, households, whanau, enterprises and industries to take reasonable and measurable steps to reduce and mitigate their greenhouse gas emissions. To encourage and annual reduction by all to ensure the region is carbon neutral by 2050.
        4.2.1. CMHB can bring forward proposals to the Regional Council and to Government on policies and initiatives that will alleviate the effects of climate change.
        4.2.2. CMHB will report at least every six months to the region's councils on its activities.
        4.2.3. CMHB will in the initial stages be funded from the Regional Disaster Damage Relief Fund. This arrangement be reviewed after two years and should CMHB prove effective Council at that point can resolve to make CMHB part of the Council's plans and if not the entity be abandoned.
5. The Committee notes that CMHB will not be supported by legal powers to bring about change that it will be reliant on the moral case of all making changes to avert a climate disaster for future generations. That Hawke's Bay cannot solve this issue alone but that the region has an obligation to do its very best to mitigate the effects of climate change

and this Council and region will be judged not on what it said about climate change but what it did.

Process for Considering Notice of Motion

6. Councillor Barker moves his Notice of Motion, and if there is a seconder for it, Cr Barker introduces and speaks to the Motion, opening debate on it in accordance with Standing Orders.
7. If there is not a seconder, then the Notice of Motion lapses.
8. Following a vote to accept the Motion (either CARRIED or LOST), the meeting moves to resolve the substantive motion as per Recommendation 2 following.

Decision Making Process

9. Council and its committees are required to make every decision in accordance with the (attached) requirements of the Local Government Act 2002 (the Act).
10. Staff have assessed the requirements in relation to the Notice of Motion and have concluded that the decision to accept (resolve) it:
    10.1. does not itself significantly alter the service provision or affect a strategic asset.
    10.2. has not been assessed against the Significance criteria contained in Council's adopted Significance and Engagement Policy
    10.3. has not been assessed to determine whether the decision is inconsistent with an existing policy or plan.

Staff Comments

11. For Council to agree to undertake the steps set out in the Notice of Motion it will be important to ensure the requirements of Local Government Act are complied with, particularly in terms of undertaking appropriate analysis of the issues to be addressed and the options for achieving the objectives sought by Council, with the advantages and disadvantages of such options understood. Consideration also needs to be given as to whether public consultation should be undertaken given that this would effectively be to introduce a new Level of Service.
12. The use of the Disaster Damage Relief Fund for funding this initiative is not recommended as these funds are intended to be available for responding to specific disaster events and not ongoing operational expenditure. While climate change itself is expected to increase the frequency and intensity of natural disasters, this reality will be with us for the foreseeable future and the Council's response to climate change should be sustained over time and funded accordingly.
13. Further, while the HB CDEM Group operates under joint governance there is a clear statutory basis for this and a targeted rate that ensures clear accountability for this service. To place Council's activities and expenditure, for which Council is accountable, under external governance requires careful consideration and legal advice is recommended. Consultation with the relevant parties named in the Notice of Motion would also be necessary before committing to such an approach. If such consultation is to occur it is recommended that financial contributions from other participants and Central Government is also explored.
14. For the reasons set above, staff recommend that should the Committee favour this initiative staff be directed to include this within the business case development process for climate change related activities in the 2021-2031 Long Term Plan. A package of climate change initiatives is already in development for the LTP, as well as a communications plan to support behaviour change for the 2020-21 year which will be presented to Council on 29 July, supported by a community survey currently underway to provide Council with data upon which to design its interventions.

15. Considering the initiative in this Notice of Motion within the 2021-2031 Long Term Plan process will enable the merits of the proposal to be properly assessed and the value of the investment weighed against other Council priorities, including other climate change related initiatives, as well as ensuring the community is given the opportunity to comment on the merits of the proposal before committing ratepayer funds.

Recommendations

1. That the Environment and Integrated Catchments Committee receives and accepts the "*Cr Rick Barker Notice of Motion: Climate Mitigation Hawke's Bay*"; being:

    1.1. The Committee notes the range of Council actions connected to climate change, including:

        1.1.1. The decision by Council on 27 June 2019 to declare a climate emergency

        1.1.2. Council's activities in climate adaptation such as the work on the Coastal Hazards Strategy with initiatives to strengthen the regions stop-banks.

        1.1.3. Council's contribution to reducing greenhouse gases with its tree plantings and the plans for further extensive plants in the 'right tree right place' initiative.

    1.2. The committee notes that central government will lead a country wide approach to climate change but observes that currently at the regional level there is a lack of organised and structured activity focused on mitigating the effects of climate change which needs to be effected by individuals, households and at the enterprise and industry levels.

    1.3. The committee recommends to Council that it takes timely steps to address this by undertaking the following.

        1.3.1. Set up a semi autonomous unit similar to Civil Defence; to be called "Climate Mitigation Hawke's Bay" (CMHB)

            1.3.1.1. That it have a governance structure of Regional Council Chair, the region's four Mayors and the Chair of Ngati Kahungunu Iwi Incorporated.

            1.3.1.2. That it have a minimum staff of three, with the necessary facilities and support to be effective.

        1.3.2. The remit for the unit is to be the catalyst for encouraging the regions individuals, households, whanau, enterprises and industries to take reasonable and measurable steps to reduce and mitigate their greenhouse gas emissions. To encourage and annual reduction by all to ensure the region is carbon neutral by 2050.

            1.3.2.1. CMHB can bring forward proposals to the Regional Council and to Government on policies and initiatives that will alleviate the effects of climate change.

            1.3.2.2. CMHB will report at least every six months to the region's councils on its activities.

            1.3.2.3. CMHB will in the initial stages be funded from the Regional Disaster Damage Relief Fund. This arrangement be reviewed after two years and should CMHB prove effective Council at that point can resolve to make CMHB part of the Council's plans and if not the entity be abandoned.

    1.4. The Committee notes that CMHB will not be supported by legal powers to bring about change that it will be reliant on the moral case of all making changes to avert a climate disaster for future generations. That Hawke's Bay cannot solve this issue alone but that the region has an obligation to do its very best to mitigate the effects of climate change and this Council and region will be judged not on what it said about climate change but what it did.

2. The Environment and Integrated Catchments Committee recommends that Hawke's Bay Regional Council:

   2.1. In accordance with LGA decision making requirements, commits to investigating options to implement the intent of the "*Cr Rick Barker Notice of Motion: Climate Mitigation Hawke's Bay*" through the 2021-31 Long Term Plan development process.

   Or

   2.2. Does not pursue the establishment of Climate Mitigation Hawke's Bay as a semi autonomous unit similar to Civil Defence.

Authored by:

Leeanne Hooper
GOVERNANCE LEAD

Approved by:

James Palmer
CHIEF EXECUTIVE

Attachment/s

⇩**1** Barker Notice of Motion 24June2020

⇩**2** LGA Decision Making Requirements

On Wed, 24 Jun 2020, 2:23 pm Rick Barker, <rickjbarker@gmail.com> wrote:
Tena koe James and Iain

Find below a notice of motion for the EICC meeting next week

Thanks

Rick

Resolution for the EICC

The Committee notes the range of Council actions connected to climate change;

The decision by Council on 27 June 2019 to declare a climate emergency.

Councils activities in climate adaptation such as the work on the Coastal Hazards Strategy with initiatives to strengthen the regions stop-banks. Councils contribution to reducing greenhouse gases with its tree plantings and the plans for further extensive plants in the 'right tree right place' initiative.

The committee notes that central government will lead a country wide approach to climate change but observes that currently at the regional level there is a lack of organised and structured activity focused on mitigating the effects of climate change which needs to be effected by individuals, households and at the enterprise and industry levels.

The committee recommends to Council that it take timely steps to address this by undertaking the following;

Set up a semi autonomous unit similar to Civil Defence. To be called "Climate Mitigation Hawke's Bay"

That it have a governance structure of Regional Council Chair, the regions four Mayors and the Chair of Ngati Kahungunu Iwi Incorporated

That it have a minimum staff of three, with the necessary facilities and support to be effective.

The remit for the unit is to be the catalyst for encouraging the regions individuals, households, whanau, enterprises and industries to take reasonable and measurable steps to reduce and mitigate their greenhouse gas emissions. To encourage and annual reduction by all to ensure the region is carbon neutral by 2050.

CMHB can bring forward proposals to the Regional Council and to Government on policies and initiatives that will alleviate the effects of climate change.

CMHB will report at least every six months to the region's councils on its activities.

CMHB will in the initial stages be funded from the Regional Disaster Damage Relief Fund. This arrangement be reviewed after two years and should CMHB prove effective Council at that point can resolve to make CMHB part of the Council's plans and if not the entity be abandoned.

The Committee notes that EMHB will not be supported by legal powers to bring about change that it will be reliant on the moral case of all making changes to avert a climate disaster for future generations. That Hawke's Bay cannot solve this issue alone but that the region has an obligation to do its very best to mitigate the effects of climate change and this Council and region will be judged not on what it said about climate change but what it did.

Part 6
Planning, decision-making, and accountability

76 Decision-making

(1) Every decision made by a local authority must be made in accordance with such of the provisions of sections 77, 78, 80, 81, and 82 as are applicable.

(2) Subsection (1) is subject, in relation to compliance with sections 77 and 78, to the judgments made by the local authority under section 79.

(3) A local authority—

(a) must ensure that, subject to subsection (2), its decision-making processes promote compliance with subsection (1); and

(b) in the case of a significant decision, must ensure, before the decision is made, that subsection (1) has been appropriately observed.

(4) For the avoidance of doubt, it is declared that, subject to subsection (2), subsection (1) applies to every decision made by or on behalf of a local authority, including a decision not to take any action.

(5) Where a local authority is authorised or required to make a decision in the exercise of any power, authority, or jurisdiction given to it by this Act or any other enactment or by any bylaws, the provisions of subsections (1) to (4) and the provisions applied by those subsections, unless inconsistent with specific requirements of the Act, enactment, or bylaws under which the decision is to be made, apply in relation to the making of the decision.

(6) This section and the sections applied by this section do not limit any duty or obligation imposed on a local authority by any other enactment.

77 Requirements in relation to decisions

(1) A local authority must, in the course of the decision-making process,—

(a) seek to identify all reasonably practicable options for the achievement of the objective of a decision; and

(b) assess the options in terms of their advantages and disadvantages; and

(c) if any of the options identified under paragraph (a) involves a significant decision in relation to land or a body of water, take into account the relationship of Māori and their culture and traditions with their ancestral land, water, sites, waahi tapu, valued flora and fauna, and other taonga.

(2) This section is subject to section 79.

78 Community views in relation to decisions

(1) A local authority must, in the course of its decision-making process in relation to a matter, give consideration to the views and preferences of persons likely to be affected by, or to have an interest in, the matter.

79 Compliance with procedures in relation to decisions

(1) It is the responsibility of a local authority to make, in its discretion, judgments—

(a) about how to achieve compliance with sections 77 and 78 that is largely in proportion to the significance of the matters affected by the decision as determined in accordance with the policy under section 76AA; and

(b) about, in particular,—

(i) the extent to which different options are to be identified and assessed; and

(ii) the degree to which benefits and costs are to be quantified; and

(iii) the extent and detail of the information to be considered; and

(iv) the extent and nature of any written record to be kept of the manner in which it has complied with those sections.

(2) In making judgments under subsection (1), a local authority must have regard to the significance of all relevant matters and, in addition, to—

(a) the principles set out in section 14; and

(b) the extent of the local authority's resources; and

(c) the extent to which the nature of a decision, or the circumstances in which a decision is taken, allow the local authority scope and opportunity to consider a range of options or the views and preferences of other persons.

(3) The nature and circumstances of a decision referred to in subsection (2)(c) include the extent to which the requirements for such decision-making are prescribed in or under any other enactment (for example, the Resource Management Act 1991).

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

Subject: HERETAUNGA WATER SECURITY

Reason for Report

1. This item reports on the scoping phase of the Heretaunga Water Security Project and seeks the Committee's feedback and direction on the key outcome of that phase:

   1.1. "What could the Heretaunga Water Security solution be?"

2. Staff are seeking a confirmation of Council's direction on the problem and broad requirements this solution is designed to address. Based on the feedback, staff can then review all potential options and bring back an indicative Business Case proposing a shortlist of sites to be advanced to the prefeasibility phase for decision.

3. The consequence of these decisions and discussions will initiate work programmes that are not only of significant interest to the community but potentially have a large impact on specific landowners. The decisions made today will allow staff to initiate discussions and engagement with landowners and other affected parties and ensure that their concerns and interests are protected through the investigation stages of the project in a way that recognizes and balances community interest in the project.

Decision for Committee

4. The Committee is asked to consider the broad requirements that the storage solution needs to cater for.

   Scale

   4.1. Is the solution to provide storage volume sufficient to maintain environmental outcomes based on current climatic conditions?

   4.2. Is the solution to provide storage volume sufficient to maintain environmental outcomes and modest growth options for future climatic conditions, based on NIWA modelling?

   4.3. Is the solution to provide storage volume sufficient to maintain environmental outcomes for future climatic conditions, **and** provide additional supply to meet the foreseeable needs of future generations?

Executive Summary

5. The Water Security programme has taken on greater importance in recent months with the combined impacts of drought and Covid-19, and Council's resolve to respond to these dual challenges using a Climate. Smart. Recovery. framework.

6. In order to identify appropriate solutions for the CHB and Heretaunga Water Security projects' decisions makers must first define an ambition or objective for each storage project. In CHB's case, given the long history associated with both Plan Change 6 and the RWSS, the extensive work that has been undertaken previously on storage investigations, and the firm views expressed by CHBDC, the Tukituki Leader's Forum has been "stood up" under independent facilitation to inform the scale and ambition of solutions as a part of its scoping phase. The outputs of these forums will be reported through to Council for its consideration and approval of any commitments to pre-feasibility.

7. For Heretaunga, a different scoping approach is recommended. Because Heretaunga solutions are less well understood and investigated than those in CHB, Councillors are being asked for their scope and scale guidance directly so that more thorough investigations of solutions can be ruled in or out through pre-feasibility processes.

8. Staff are operating on the assumption progressing solution(s) that provide storage volume sufficient to maintain environmental outcomes based on current climatic conditions is the base objective. Early analysis has confirmed the suitability of some sites that can be potentially be progressed quickly and that can satisfy key environmental objectives. However, should decision makers wish to commit to more ambitious objectives then early analysis also appears to indicate that a more complex and integrated range of promising storage solutions can be investigated.

Background /Discussion

9. In March staff provided Councillors an update on the Regional Water Security Programme and an overview of the four projects incorporated under the programme including:

    9.1. **3D Aquifer Mapping project** – this work provides detailed imagery of our sub-surface to depths we haven't seen before providing the region with an opportunity to significantly enhance our understanding of the aquifers in Heretaunga, Ruataniwha and Poukawa/Otane and with it the information needed to sustainably manage our water resources into the future.

    9.2. **Regional Water Assessment** – an assessment of the region's water resources and creation of the natural capital accounting framework and tools to collectively shape and model different solutions to inform policy and investment decisions. This work is designed to support the region in taking a long-term outlook to ensure that our natural assets are valued, managed effectively, and continue to balance the region's economic, social and cultural well-being.

    9.3. **The CHB Water Security project** and **The Heretaunga Water Security project** – in their simplest form these are investigations of water storage to carry winter water surpluses through to periods of summer deficit centred around the Ruataniwha and Heretaunga Plains. The challenges and their solutions differ however both projects are seeking solutions that effectively protect and enhance environmental outcomes and provide a secure and sufficient water supply to ensure a positive regional future.

10. The Water Security programme represents only one lever amongst a number of interventions to drive the sustainable management and resilience of the region's freshwater resource. The programme sits within a broader organisational effort and context including:

    10.1. HBRC has funded the Future Farming Trust to promote alternative land use activity, including regenerative practices.

    10.2. HBRC has a long history for funding research projects around more climate resilient farming systems with a recent project on forage species is just concluding.

    10.3. Regulatory and non-regulatory effort on nutrient limits progressively being imposed to manage the effects of ruminant farming which will be complemented by regulation on farm emissions, which we are engaged in at the national level.

    10.4. Policy development to reduce water allocations and to impose conservation and efficiency constraints on use (e.g. PC 6 and TANK).

    10.5. Programmes in support of protecting lowland forests, restoration of wetlands and riparian protection – all of which we are hoping to scale up with current bids with the Crown.

    10.6. HBRC's science programme measuring wind erosion to support interventions around the maintenance of shelter belts and continued support for LandWise in promoting no-till cultivation practices.

Socio-economic Assessment

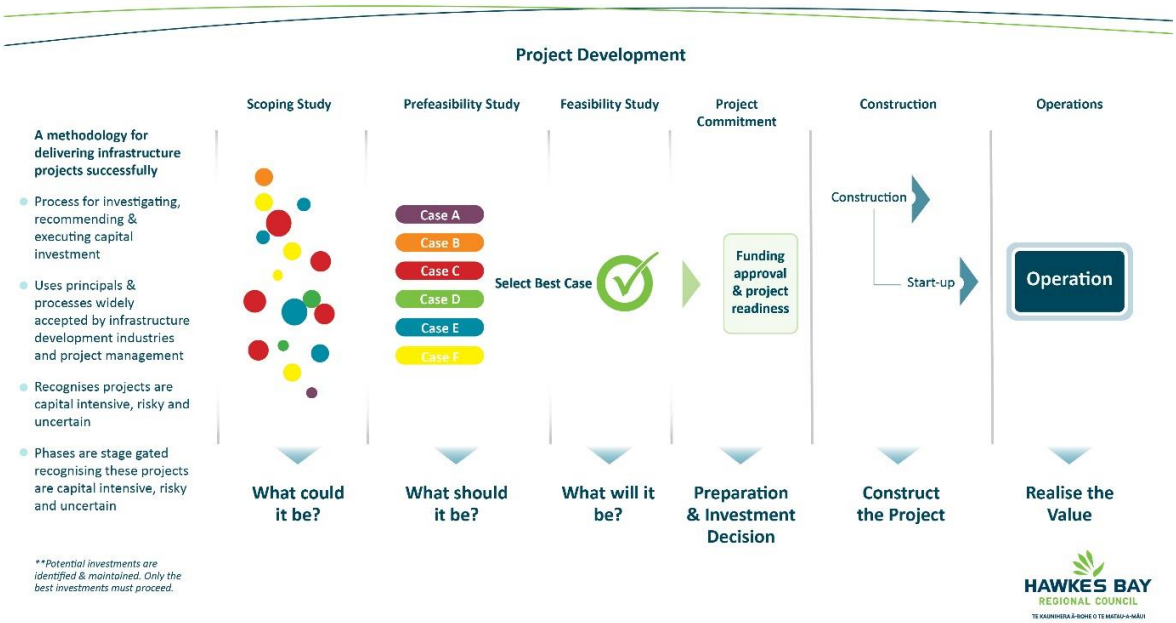
11. On 24 June Council received a ME Research report on the value of water security and its economic impact on the region and the rest of NZ when levels of security are changed in the Heretaunga and CHB districts. This demonstrated the impact on primary sector and beyond and highlighted the economic consequences of a 'do nothing' scenario in the face of looming pressures on our freshwater resource, particularly climate change.

12. This work leveraged off work completed for the TANK process and will continue to be built on and developed through the Heretaunga and CHB projects and the Regional Water Assessment to support policy development and decision making process.

Project Development Process and Delivery Framework

13. Figure 1 graphically depicts the project development phases and the delivery process adopted for this work. It is a common methodology used and adapted as needed in the development and construction of capital infrastructure projects. It was also a preferred methodology used by Crown agencies in the past. As a stage gated process, decision makers are provided the opportunity at specific points in the process to reassess and confirm ongoing viability and determine the next phase project plan is appropriate and in accordance with expectations.

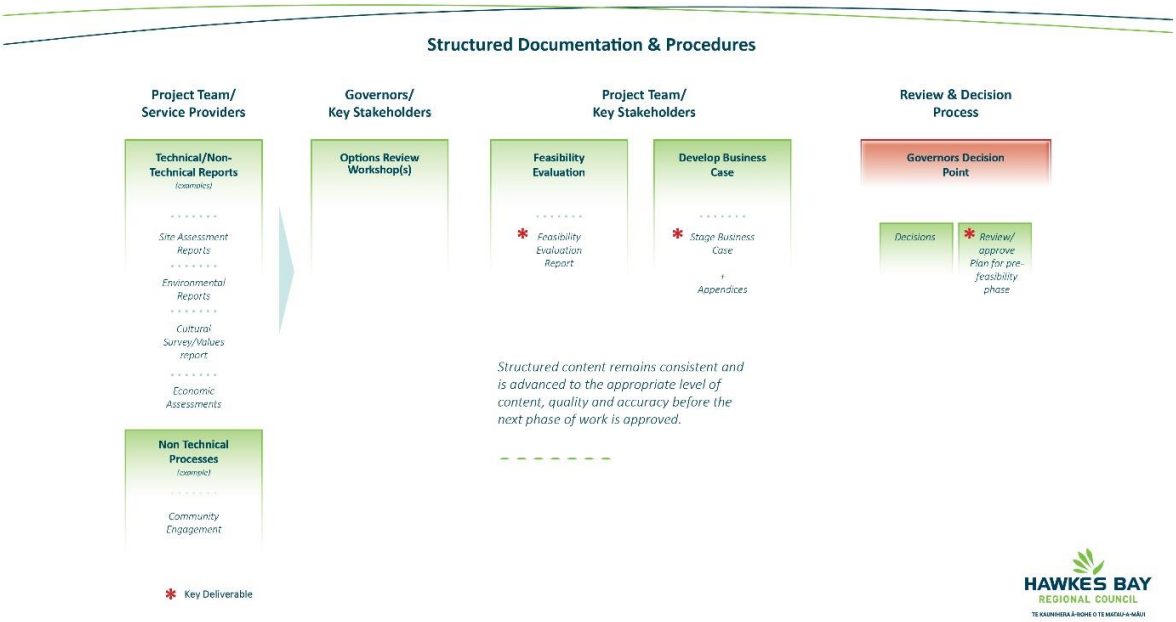
Figure 1 – Project Delivery Methodology



14. Supporting the staged delivery process will be a structured set of documentation and procedures providing Decision Makers with a consistent framework and an appropriate level of detail at each phase for evaluating options and selecting the preferred course of action to proceed. This is graphically described in Figure 2 and demonstrates how the culmination of reports will be presented as options for review and discussion with governors before the business case and feasibility evaluation report are completed and presented to Council for decision.

15. The format of the Business Case will adhere to Treasury's Better Business Case framework to align with best practice and expectations for capital investment proposals. It will provide the added benefit of positioning HBRC to leverage Crown funding quickly when and if opportunities arise and delivers to reporting and delivery requirements under the PGF Funding Agreement.

Figure 2 – Structured Documentation and Procedures

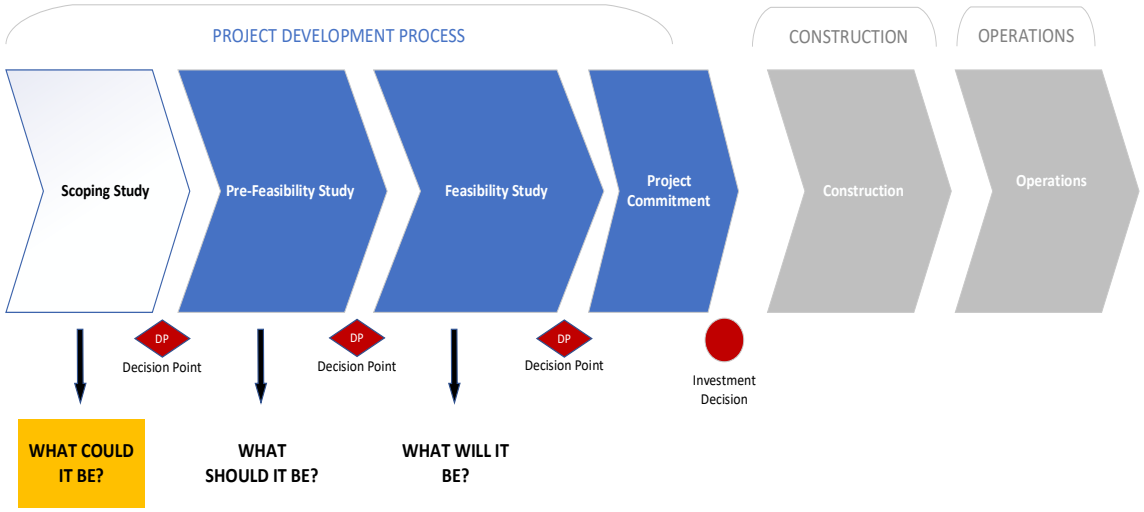


Scoping Phase

16. Figure 3 outlines the process steps for decision making necessary to progress this project and identifies the importance of scoping phase in shaping the direction of the project by asking the question "What could it be" before undertaking the detailed work necessary to answer the next question, "What should it be?"

17. We are fortunate that the scoping phase for the Heretaunga project can leverage and build upon previous investigations completed in 2010 and 2011 to investigate larger scale storage sites in the Ngaruroro Catchment … ...

Figure 3 – Heretaunga Water Security Project Scoping Study



Problem Statement, scope and objectives

18. The Heretaunga Water Security Project aims first and foremost to mitigate the impacts of declining groundwater levels from groundwater abstraction to:

    18.1. Protect ground water dependent ecosystems and improve the overall health of our waterways, and

18.2. Provide existing consent holders (including Napier and Hastings) confidence of a secure and reliable water supply to sustain their current level of investment or community planning.

Additionally, the solution aims to deliver "new" water to:

18.3. Promote iwi well-being through access to a new allocation of water available at times of high and medium flow

18.4. Allow issuing of new consents to support smart growth to continue to contribute to the region's economic future.

Scoping Level Technical Assessment of storage sites

19. In 2010 and 2011 a specialist consultancy, Tonkin & Taylor, completed a report for HBRC identifying potential storage sites in the Ngaruroro Catchment using a blend of a sophisticated desktop assessment and analysis. T&T have been engaged to update its earlier analysis by adding small to medium scale sites and specific environmental flow objectives to the site selection criteria. This approach has significantly reduced the time taken to procure this information. At the time of writing the updated report remains in draft form.

20. Promising sites identified in 2010 and 2011 will be weighted towards their ability to harvest surface water to provide for growth as well as improving security of supply for existing users. This work will revisit the sites identified and shortlisted in 2010 and 2011 but this time sought to also identify small-modest scale storage ideally located to feed water back into the Ngaruroro River and lowland streams that are affected by groundwater takes during periods of low flows.

Establishing Requirements

21. Scoping phase activities will analyse storage volumes required to offset the current impact of groundwater abstraction and as such maintain environmental outcomes based on current climate. This is considered the minimum requirement and therefore the minimum scale for any storage solution.

22. **Minimum Requirement:** To deliver environmental outcomes based on current climatic conditions. The essential requirement here is to offset the impacts of groundwater abstraction on the flow of the lowland streams and Ngaruroro River.

22.1. The minimum required storage volumes have been assessed based on demand scenarios for offsetting streamflow depletion using flow data supplied by HBRC. The estimated target annual storage volumes to meet the water demand are in the order of 5M m3 for the lower Ngaruroro and 2M m3 in the Karamu Stream. Supply of both the Ngaruroro River and Karamu Stream from a storage of approx. 7M m3 is also an option.

22.2. The Ngaruroro volume is based on–modelling of a minimum flow of 2.4 m3/s at Fernhill. Ngaruroro augmentation assumes storage releases to offset groundwater depletion when the river flow is near to or below the minimum flow. While the intention is not to underwrite minimum flow, the proposed release regime could potentially maintain the river flow at or above the minimum flow nearly all the time.

23. Analysis of future climatic and demand projections together with further hydrological investigations during the pre-feasibility phase will allow the additional water storage needs to be gauged. Crude estimates have been provided to support Councillors considering what problem and need this solution should be addressing.

24. **Intermediate Requirement:** To maintain environmental outcomes and modest growth options for future climatic conditions, based on NIWA Modelling. The essential requirement here is to provide an allocation of new water to future proof against a changing climate.

24.1. As an estimate, an allowance of 30% to 50% more demand should be calculated resulting from climate change.

24.2. To maintain environmental outcomes for future climatic conditions this would translate crudely to 10M m3 (40% x 7).

25. **Maximum Requirement:** To maintain environmental outcomes for future climatic conditions **and** provide additional supply to meet anticipated demand and growth.

25.1. Informed by the studies in 2010/11, the assessed new potential irrigation need was between 22-25M m3 for approx. 6400 ha (irrigated pasture or equivalent). This excludes the effects of climate change. Note that we have retained this metric as a proxy for ”growth” volumes to save time. Additional water could equally support future-proofing of municipal or industrial requirements, or even greater environmental flows.

25.2. Providing an allowance for climate change effects (based on 40%) on the upper limit of “new” water and adding the future climate change environmental water a total of 45M m3 is crudely estimated.

26. It should be noted that the estimates allowing for “new” water and climate change effects are demand volumes. Actual storage capacities required would be smaller due to some refill. A summary of these volumes are detailed in Table 1.

Table 1 Summary of storage volumes required to meet minimum to maximum requirements

Requirement	Range	Comment
Minimum Requirement Environmental offset (no climate change)	5-7M m3	2M m3 to augment lowland streams 5M m3 to augment Ngaruroro River
Intermediate Requirement Environmental water and modest growth with climate change	7-11M m3	7M m3 total to offset current abstraction 3M m3 assumed allowance for climate change effects (based on 40% of 7M m3)
Maximum Requirement Upper limit of “New” Water with climate change	Approx. 45M m3	25M m3 assumed upper limit for “new” water (without climate change) 10M m3 assumed allowance for climate change effects on the upper limit of “new” water (based on 40% of 25M m3) 10M m3 environmental water with climate change

Preferred Sites

27. Once finalised, T&T’s update will identify the most favourable sites that could potentially meet all or some of these requirement criteria. The decisions today will inform the analysis of which sites should be brought back to Council for pre-feasibility recommendations. We have elected not to identify all sites in this still draft report in order to allow for due process with landowners and other affected or interested parties to avoid any unnecessary speculation or anxiety amongst these groups. Once finalised the report will be publically available.

28. It is perhaps worthwhile confirming that, consistent with both TANK and the draft Water Conservation Order, T&T’s brief includes instructions to avoid sites that sit within the mainstem of the Ngaruroro River and/or above the Whanawhana cableway.

The decision

29. Ultimately the direction staff are seeking today is to confirm the requirements so that further analysis can be completed and site recommendations for pre-feasibility investigations can be made. In terms of the processes described earlier this would represent the conclusion of the scoping phase by identifying “What could it [the solution] be?”

What challenge is the storage solution to address?

For decision today

Scoping Phase | Pre-Feasibility Phase | Feasibility Phase

	Requirements of Solution	Volume	What Could It Be?	What Should it Be?	What Will it Be?
1	Environmental: Offset current abstraction	5-7M m3	• Preferred lowland site(s)	The preferred site(s) recommended following pre-feasibility assessment	The preferred site(s) developed and consented
2	Environmental **Plus**: Climate Change impacts and growth	7-11M m3	• Preferred lowland site(s) • plus preferred mid/upper catchment site.		
3	Environmental Plus **Plus** Long term future-proofing for community.	11M m3 + (up to 45M m3)	• Preferred lowland site(s) AND/OR • 2 or more mid/upper catchment sites.		

Strategic Fit

30. Provided HBRC remains a facilitator, assistant and sponsor of the scheme the proposal remains aligned with Council's Strategic Plan objectives. As no equity or investment recommendations are proposed no assessment of HBRC's investment policies has been included in this analysis.

31. Council has already confirmed the strategic alignment of the Water Security Programme.

Climate Change Considerations

32. The ME Research report presented to Council on 24 June provided some analysis on the impacts of climate change on the primary sector in the event that less water is available to extractive users in order to protect environmental ecosystems and human health.

33. This season has emphasised the toll that a severe drought places on the both the community and the environment. These projects remain an important additional component of the region's climate change adaptation strategy.

Considerations of Tangata Whenua

34. The Provincial Development Unit's position paper "Water Storage and the Provincial Growth Fund" includes the following statement under the heading "PGF Investment Principles"

    34.1. *Māori land development: Projects will be prioritised that support Māori to achieve higher returns from their land by addressing access to water. There are catchments where Māori have undeveloped land but low levels of access to water, which creates a barrier to Māori land development. A comparison of Kerikeri and Kaikohe illustrates the issues, where differences in levels of water storage and Māori ownership of land drive very different land prices and economic returns between the two towns. In parts of Northland and East Coast, Māori communities lack water as a key enabler of development.*

35. HBRC's applications to the PGF specifically references the opportunities for these projects to contribute to Māori.

36. TANK has identified that higher temperatures and declining rainfall may reduce water availability, while demand for water is likely to increase. Freshwater resources also have significant cultural significance for Māori. Shading along riverbanks, stream flow and

water quality have effects on aquatic habitats which support mahinga kai – food gathering – which is highly valued.

37. A separate agenda item provided to this Committee speaks to Council's engagement with the relevant regional leaders and responsible iwi authorities on the issue of project governance. This provides both an expectation and a pathway for Tangata Whenua involvement in the project. Until that issue is concluded to the satisfaction of all involved (including the Crown) it is proposed that staff will continue to exclusively engage directly with and brief those authorities (under confidentiality where necessary).

Financial and Resource Implications

38. The 11 March 2020 Corporate and Strategic Water Security report identified the existing LTP and PGF funding sources for this programme. At that time the greater risk was thought to be a failure to conclude full feasibility before June 2021 as a result of time delays in relation to the PGF application process and allocation of dedicated staff resourcing, combined with the general availability of both internal and external subject matter experts.

39. It is likely HBRC will need to continue to resource a comprehensive work programme focussed on regional water security into the next LTP and beyond. Staff will be addressing the longer term resourcing requirements via the business cases for the 2021-31 LTP.

40. In respect of HBRC's financial contribution to or involvement in the ownership and/or construction of any infrastructure, it remains premature to speculate what shape or form that will be until such time as preferred options are under investigation. While it may be possible to align any new requirements with the 2021-31 LTP consultation window, in any regard Council's usual Significance and Engagement criteria will apply which will trigger the need for appropriate community consultation falling outside LTP processes.

Decision Making Process

41. Council and its committees are required to make every decision in accordance with the requirements of the Local Government Act 2002 (the Act). Staff have assessed the requirements in relation to this item and have concluded:

    41.1. The decision does not significantly alter the service provision or affect a strategic asset.

    41.2. The use of the special consultative procedure is not prescribed by legislation.

    41.3. The decision is not significant under the criteria contained in Council's adopted Significance and Engagement Policy.

    41.4. The persons affected by this decision are all ratepayers in the region.

    41.5. The decision is not inconsistent with an existing policy or plan.

    41.6. Given the nature and significance of the issue to be considered and decided, and also the persons likely to be affected by, or have an interest in the decisions made, Council can exercise its discretion and make a decision without consulting directly with the community or others having an interest in the decision.

Recommendations

1. That the Environment and Integrated Catchments Committee receives and considers the "*Heretaunga Water Security*" staff report.

2. The Environment and Integrated Catchments Committee recommends that Hawke's Bay Regional Council:

    2.1. Agrees that the decisions to be made are not significant under the criteria contained in Council's adopted Significance and Engagement Policy, and that Council can exercise its discretion and make decisions on this issue without conferring directly with the community or persons likely to have an interest in the decision.

2.2. Directs staff to prepare a business case for recommendations of a Heretaunga water storage site or sites to be committed to pre-feasibility investigations based on the final report from Tonkin and Taylor and that meets the following objectives:

2.2.1. Minimum Requirement - The site(s) provides a storage volume sufficient to maintain environmental outcomes based on current climatic conditions

OR

2.2.2. Intermediate Requirement - The site(s) provides a storage volume sufficient to maintain environmental outcomes and modest growth options for future climatic conditions, based on NIWA modelling

OR

2.2.3. Maximum Requirement - The site(s) provides a storage volume sufficient to maintain environmental outcomes for future climatic conditions, and provide additional supply to meet the foreseeable needs of future generations.

Authored & Approved by:

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STRATEGIC PLANNING

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

Subject: FARM ENVIRONMENT MANAGEMENT PLANS

Reason for Report

1. This item provides the Committee with explanations of what Farm Environmental Management Plans (FEMPs) are in the Tukituki Catchment, including what the purpose of having such a Plan is and how they work to achieve their purpose. The item also explains how the FEMPs fit into Council's regulatory framework and provides an update on related statistics. There will be a presentation made on the day to support the key aspects of this report.

Executive Summary

2. In the Tukituki Catchment the Board of Inquiry (BOI) envisaged that making Farm Environmental Management Plans (FEMP) mandatory by 31 May 2018 would provide a summary at farm scale of the potential risks in a farming operation and an opportunity for the landowner to describe how those risks would be managed and reduced over time. The Tukituki Catchment Plan management approach focuses on reducing contaminants entering surface and ground water. The nutrient budget from the FEMP becomes a hugely important tool for managing DIN at a sub-catchment level.

3. Any property, regardless of the farm system type, or position on the scale of environmental sustainability, has something to gain from a good FEMP. A good FEMP is comprehensive, with an individualised environmental plan that matches the owner's farm system. Each landowner has their own values, vision or aspirations for the farm, family, and financial context. The FEMP is a platform for telling the environmental stewardship story of the landowner.

How do FEMPs work to achieve their purpose?

4. In the Tukituki catchment a FEMP is currently viewed as a fine scale tool for identifying contaminant risk on each paddock and identifies areas of greatest contaminant/nutrient loss on a property. The areas on a farm of greatest concern are called Critical Source Areas (CSA). These are contaminant/nutrient holding areas with a pathway to water. Identified CSA are from a variety of scenarios and in some circumstances only become a CSA under specific conditions or seasons of the year. The FEMP provides mitigation to reduce those losses, these are prioritised by way of an action plan which is agreed with the landowner.

5. The action plan is specific, measurable, assignable, realistic, and time bound (SMART) and is an auditable works program. The FEMP owner will must plan to complete mandatory mitigations over the next 3-5 years and prioritise when in the farming calendar each task best fits. A FEMP targets the 4-major contaminants that degrade water quality from agriculture. These are:

   5.1. Sediment

   5.2. Phosphorous

   5.3. *E. coli* / Faecal contamination

   5.4. Nitrogen.

6. HBRC has an accreditation scheme for candidates who want to become accredited as a FEMP provider. There are currently 14 approved providers completing FEMPs, in the height of Tukituki delivery there were 24 approved providers.

Incorporated Good Management Practice (GMP)

7. GMP was developed over the past decade by industry bodies, each of which has their own industry standard to manage land in a sustainable manner. In recent times, HBRC has partnered with DairyNZ and developed a winter grazing GMP and a Riparian Planting Guide. GMP is recognized as low-cost environmental mitigation and deemed co-beneficial with economics. In New Zealand, GMP is widely accepted as the industry environmental standard of operating.

8. The FEMP recognises what GMP are already adopted on farm and prescribes what should be adopted to further decrease the environmental footprint of the farming system. The 4-key principles behind all GMP are:

    8.1. Efficient nutrient cycling and

    8.2. Protection/enhancement of soil health

    8.3. Animal welfare

    8.4. Water Quality improvement.

Regulation

9. All properties greater than 10 ha, within the Tukituki Catchment, have required FEMPs since 31 May 2018. FEMP summaries have been submitted to HBRC, including the nutrient budget numbers for the associated property and faming system.

10. The data extracted from the FEMP summaries has informed the regulation team regarding properties which may require production land use consents in the Tukituki Catchment by the 31 May 2020 deadline, for:

    10.1. Farm properties which are unable to comply with the stock exclusion rules

    10.2. Farm properties or farm enterprises exceeding 10 ha (apart from low intensity systems), where the nitrogen leached from the property exceeds the Tukituki LUC Natural Capital: Nitrogen Leaching Rates in Table 5.9.1D.

11. Land use production consents are also required for properties located within a sub-catchment which is exceeding the dissolved inorganic nitrogen (DIN) limit (based on a five-year rolling average).

12. Of the current 1034 FEMPs, approximately 273 required a land use production resource consent related to N leaching at either an individual basis or on a sub catchment basis, by 31 May 2020.

13. Due to the impact of Covid-19 and the ongoing drought, an interim process was established to process the Tukituki land use consents.

14. To date (22 June 2020) 25 full applications and 139 pre-applications have been received by HBRC.

15. To remain a permitted activity under the rules of the Tukituki Catchment Plan, a properties FEMP must be kept up to date and accurately reflect the current farming system, with a minimum review cycle of three years.

16. The Tukituki Catchment Plan (2015) Schedule XXII requirements (FEMP template) was one of the most stringent in New Zealand and remains so even by today's standards.

17. A variation of the FEMP will be required for properties within the TANK catchments, in order for them to maintain their permitted activity status.

Strategic Fit

18. FEMPs are strategically aligned with the top three priorities (2017-2021) and the newly adopted 2020-2025 strategic plan. Firstly, *Water Quality, Safety and Certainty*; driving on farm change and sustainability to deliver catchment water quality targets and objectives.

19. Secondly, FEMP encompasses all 7-attributes of the Smart Sustainable Land Use desired outcomes. The Tukituki FEMP delivery of on-farm mitigation and GMP works to achieve those attributes, the area of land now being managed by a FEMP is 250,000 ha.
20. FEMPs are slowly being completed across all of Hawke's Bay by the approved providers and industry bodies. Recently, the Porangahau River Catchment Group completed farm plans in partnership with HBRC and Beef & Lamb NZ (83,000 ha).
21. FEMP is focused on delivering the National Policy Statement for Freshwater Management (NPS-FM) and the National Environmental Standards (NES) regionally. Over the next twelve months the NPS-Biodiversity will become operative and will integrate into the HBRC FEMP Template.
22. In New Zealand FEMPs will be mandatory and enforceable in each region under the new NPS-FM & NES. The new policy has identified and prioritised high risk farming activities (winter grazing) and at risk/degraded catchments to work with first.
23. Also, the Ministry for Primary Industries (MPI) has designed an Integrated Farm Planning (IFP) framework/package, which will further support HBRC in FEMP delivery.
24. HBRC will work in partnerships with the sector to deliver regional FEMP requirements under the new policies.
25. FEMP links to and supports a wide range of other HBRC programmes and initiatives including regulation, catchment management, science, biosecurity, biodiversity, and policy and planning.

Update

26. Since the last report to council on June 2019 the FEMP Audit Pilot project was completed and the Auditor manual finalised. The FEMP audit looks at the adherence of the FEMP to the Tukituki Schedule XXII requirements, assesses the nutrient budget robustness and during the site visit, determine the on-farm mitigations to be either on-target to meet objective or not. These three components make up the final audit grade which is a score from A-D. The audit grade is aligned with Environment Canterbury's grading and the Four-E's of the national strategic compliance framework. The 4-Es are:
    26.1. Engage, consult with parties, stakeholders, and community
    26.2. Educate, alert regulated parties to what is required to be compliant
    26.3. Enable, provide opportunities for regulated parties
    26.4. Enforce, breaches and non-compliance dealt with proportionately.
27. The FEMP Auditor Manual was finalised in June 2020. To deliver efficient auditing, a mobile digital platform design was made to allow in situ auditability. The final audit report was templated via the Nintex Platform, which generates the report (hands-free) and audit reporting is visualised via PowerBi.

Considerations of Tangata Whenua

28. The NPS-FM has identified Mahinga Kai as a mandatory metric for regional councils, this metric will be included in the HBRC FEMP template.
29. The FEMP Mahinga Kai section would be done in partnership with Ngati Kahungunu Inc and Te Taiwhenua and give effect to Te Mana o Te Wai as a guiding principle.

Next Steps

30. The lessons learned from Tukituki Implementation have strongly suggested the production of an HBRC FEMP template. This will provide efficiency, consistency, ease of GIS spatial analysis, improved auditability across all FEMP Providers and provide an excellent benchmark for landowners. To be current, the template design must be a modular approach to farm planning, including all externalities and climate change

resilience. The true value of a FEMP is achieved by a long-term sustainability design, not baseline regulatory requirements.

31. Nationally there is a great deal of work underway to partner with the primary sector and MPI/MfE on the coordination of farm planning. Farm plans are critical tools for the NPS-FM implementation and there is the need for the regional sector to align efforts and avoid duplication. It is likely that this will all be bought together in the MPI led Integrated Farm Planning (IFP) project. We have staff connected to both the overall implementation planning and specifically the IFP work.

32. The FEMP Long term plan (LTP) levels of service will likely propose an increase to include another FEMP auditor and inject capacity into the marketplace for farm system expertise to deliver NPS/NES FEMP regionally. The reason being that the deadline for FEMPs to be completed regionally has changed from a 2030 deadline to a 2025 milestone under the new NPS-FM. The approach to this is currently being socialized across various groups in council in order that support for the approach and need for the auditor can be tested.

33. The FEMP Auditor position is still to be finalised by the internal process noted above and then the executive staff appointment process; pending approval it will go to market in July 2020.

Decision Making Process

34. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the "*Farm Environment Management Plans*" staff report.

Authored by:

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Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

Subject: INTEGRATION OF PREDATOR FREE HAWKE'S BAY WITH COUNCIL'S STRATEGIC OBJECTIVES

Reason for Report

1. This report updates the Committee on the expansion of regional predator control networks that 2018-2028 LTP funding is intended to deliver and how that expansion could integrate with other HBRC activities in future to drive greater biodiversity benefits. Included also, is the overview proposing how monitoring and reporting on the Predator Free Hawke's Bay (PFHB) programme may be undertaken.

Executive Summary

2. Biodiversity is a strategic priority of Council and Predator Free 2050 is a specific goal in our strategic plan achieved through the expansion of predator control within our region.

3. Predators (particularly possums, mustelids, rodents and feral cats) are amongst the top three factors causing biodiversity decline in New Zealand. HBRC has been investing in predator control for over 20 years, through its 700,000 ha Possum Control Area programme and its site specific predator control programme which supports community groups across the region. In the last decade predator control has accelerated through innovative largescale predator suppression across 50,000 ha in Poutiri Ao o Tane, Cape to City and Whakatipu Mahia with these three projects now under the broad banner of Predator Free Hawkes Bay (PFHB).

4. Completing delivery of the Whakatipu Mahia project allows predator control resources to be targeted to other parts of the region in line with the HBRC strategic goal intermediate outcome "Hawke's Bay has a comprehensive regional network of predator control programmes". This is also the key programme delivering on the strategic plan action "Expand 'Cape to City' in a network of predator control initiatives across Hawke's Bay".

5. To achieve the best biodiversity outcomes, these predator suppression networks will be large (10,000+ha), maintained long-term and aligned with Ecosystem Prioritisation sites, threatened species locations, and other relevant programmes

Strategic Fit

6. Biodiversity is one of four key priority areas in HBRC's Strategic Plan. Predator Free 2050 is a specific goal within this plan which is achieved through the expansion of predator control within our region. The importance of predator control in our region in delivering greater biodiversity recovery is highlighted in research, HBRC outcome monitoring (for example Possum Control and Bird Recovery in an Urban Landscape), https://www.pfhb.nz/assets/Document-Library/McLennan-2019-Cape-to-City-Bird-Counts.pdf, and independent reports such as the Parliamentary Commissioner for the Environments report. "Taonga of an island nation – Saving New Zealand's birds" (pgs 45-52).

7. The current strategic plan intermediate outcome "Hawke's Bay has a comprehensive regional network of predator control programmes" and the associated strategic plan action "Expand 'Cape to City' in a network of predator control initiatives across Hawke's Bay" received investment by Council in the 2018-2028 LTP.

8. This programme of work links with a range of other activities both at site and across broader programmes. Examples would be hapū management plans, operational plans for hotspot sites and broader scale programmes such as catchment management planting and the Possum Control Area programme.

Background

9. At its meeting on 8 April 2020 the Committee received an overview of HBRC catchment services section biosecurity activities which included the Predator Free Hawke's Bay programme.

10. HBRC has been investing in predator control for over 20 years. Initially through its Possum Control Area programme and site specific control with community groups across the region. This has accelerated in the last decade through innovative largescale predator control across 50,000 ha in Poutiri Ao o Tane, Cape to City and Whakatipu Mahia which sit under the broad banner of Predator Free Hawkes Bay (PFHB). Leadership and delivery alongside other partners of these programmes has given HBRC significant insight into what is required to be successful in landscape scale predator control.

11. Over the last two years the majority of PFHB resources has been dedicated to delivery of the Whakatipu Mahia project. Whakatipu Mahia is currently New Zealand's largest mainland possum eradication ever attempted. The eradication of possums and 85% reduction of mustelids and feral cats will create the opportunity for a transformational ecological restoration project on the Mahia Peninsula. The project is currently on track to successfully deliver possum eradication and predator suppression across the peninsula meeting all its contractual targets to PF2050 Ltd by December 2021. It is also on track to transition full management of the project to the Whakatipu Mahia charitable trust led by Rongomaiwahine iwi and the farming community.

Discussion

12. Predator control is highlighted as one of the top three actions required in New Zealand to reverse the current decline in biodiversity. While community catchment initiatives have a water quality, nutrient or erosion focus the communities supporting these often have a range of other values they see as important including biodiversity and native species recovery. HBRC biosecurity predator control investments are an important complementary investment to support these community values and aspirations alongside those primarily designed to improve water quality.

13. One of the reasons of the success of the Possum Control Area programme is its scale. Predator pests are often highly mobile moving kilometres across farmland. When individual farms, or small numbers of farms, undertake predator control they are at risk of constant reinvasion. When larger areas (10,000+ ha) undertake predator control the core area that is protected by the pest control investment is much greater which in turn leads to increased biodiversity outcomes from this investment. In addition larger areas can take better advantage of natural barriers to reinvasion such as rivers and engage a greater number of the community into pest management work.

14. As has happened with our Possum Control Area programme, these larger areas can be connected up over time to produce regional scale and return on the investment. A regional predator control suppression network will therefore deliver the best benefits to biodiversity when it is in these larger 10,000 ha + areas. These areas will be targeted to where there are regional biodiversity clusters and aligned to the Ecosystem Priority site or other relevant HBRC programmes.

15. While some predator free resources will be needed to continue to support Whakatipu Mahia post PF2050 Ltd contract delivery, these will be significantly reduced. This allows resources to be targeted to other parts of the region to deliver the HBRC strategic goal intermediate outcome "Hawke's Bay has a comprehensive regional network of predator control programmes" and the associated strategic plan action "Expand 'Cape to City' in a network of predator control initiatives across Hawke's Bay".

16. Over the last two years the Catchment Services team has been working with the Endangered Species Foundation and the Department of Conservation to better understand regional biodiversity values as they relate to native species. This builds on and complements the Ecosystem Prioritisation programme and provides an opportunity to strategically target the expansion of the regional predator control networks to clusters of high biodiversity value. It also helps HBRC understand when other business as usual

resources such as catchment and biosecurity programmes can align with threatened species locations to drive increased biodiversity benefits.

17. Using our knowledge from the areas we have been working in to date and our knowledge on both habitats and species, an internal process is underway to identify and then review the options for future areas across the region for the next round of investment. Once concluded this proposal will be bought back to Council for discussion.

Predator Free Hawke's Bay reporting and level of service

18. The Whakatipu Mahia project has had a range of specific monitoring and reporting deliverables through its contract with PF2050 Ltd. These have included quarterly progress reports and specific pest reduction targets. Key HBRC reporting and monitoring deliverables proposed for Predator Free Hawke's Bay are:

    18.1. The number of hectares delivered annually and cumulatively within the Predator Free HB programme with a minimum target of 10-15,000ha per annum

    18.2. As part of the biosecurity section annual report an outline of work completed, its integration and alignment with other catchment based activity, and potential benefits to native species including where appropriate existing outcome monitoring results

    18.3. Inclusion of the PFHB programme in the biosecurity operational plan prepared in April to May of each calendar year for the upcoming financial year.

19. It is not proposed that additional specific outcome monitoring will take place in the areas where predator control is targeted as there is sufficient evidence already that removing predators brings general benefit to a range of native species. It is proposed that existing outcome monitoring in areas like Cape to City will continue and this will provide an indication of outcome benefits as it relates to native species more broadly.

20. In addition, within some areas where predator control will be targeted there will be existing monitoring already in place by community groups or other agencies. Where possible the results of this monitoring will be accessed over time to see if predator control outcome benefits are being realised in those programmes where they are part of the expanded network of predator control.

Considerations of Tangata Whenua

21. Predator Free Hawke's Bay has a range of implications for Tangata Whenua as predator control delivers to a number of important environmental and cultural outcomes and role as Kaitaiki. Longer term PFHB also provides potential employment and capability building opportunities.

Next Steps

22. The proposed next area after Whakatipu Mahia in the expanded regional network of predator control sites to get high quality predator control is under development and the outcome of the internal consideration of this will come to Council through the development of the Long Term Plan.

Decision Making Process

23. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the *"Integration of Predator Free Hawke's Bay with Council's Strategic Objectives"* staff report.

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Approved by:

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Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

Subject: RIGHT TREE RIGHT PLACE UPDATE

Reason for Report

1. This report updates the Committee on progress to date on the Right Tree Right Place (RTRP) project and outlines a direction of travel for the preparation of a business case for the 2021-2031 Long Term Plan (TP) based on the "Climate. Smart. Recovery." theme.

Executive Summary

2. The region faces significant challenges around the adverse impacts of erosive processes and corresponding sedimentation alongside its response to the climate change challenge. The scale of the regional challenge is substantial with anywhere from 250-380,000 ha of land defined as highly erodible by modelling and likely therefore in need of some planting solution.

3. The HBRC strategic plan goal "By 2050, all highly erodible land is under tree cover" will therefore require investment of around $600m or more to be achieved. The Erosion Control Scheme, spaced poplar and willow pole planting, self regeneration of areas, riparian and broader afforestation tools will all need to be part of the tool kit.

4. In terms of current investment, pole planting and our grant funding model through the ECS are keystone investments to help reduce sediment and erosion across the region. There is however an opportunity to significantly increase the impact of HBRC afforestation activities and reduce regional sediment loss by complementing ECS grant funding with a funding model that is able to be scaled up to the regional planting challenge we face. This requires an investment in demonstrating the viability of a integrated on farm self funding planting model. The self funding model needs to partly or fully fund HBRC borrowing or other capital raising mechanisms and deliver a return to land owners.

5. A self funding planting model has the potential to double the erosion and sediment reduction within the region over a three decade period compared to grant funding alone (attached). This would be a long term "Climate. Smart. Recovery." impact investment. Its purpose would be to recycle HBRC afforestation capital and demonstrate the opportunity for private capital investment in the regional afforestation challenge in an integrated on farm context.

Strategic Fit

6. The desired outcomes and actions are in the strategic plan 2020-2025 and include:

   6.1. By 2050, all highly erodible land is under tree cover

   6.2. Accelerate riparian planting and fencing in priority catchments

   6.3. Incentivise afforestation of erosion prone land.

7. A self funding RTRP planting programme aligns strongly to all of these goals. In addition planting the right tree in the right place delivers a wide range of benefits including opportunities for carbon sequestration and regional carbon neutrality, as well as improved climate resilience. Diversification and inclusion of more trees in the agricultural landscape can also lead to reduced externalities, positive impacts on freshwater and marine ecology, more biodiversity and increased farm profitability.

8. The RTRP project links to and supports a wide range of other HBRC programmes and initiatives including catchment management, science, FEMPs, biosecurity, biodiversity, and policy and planning.

Background

9. In December 2019 the EICC received a number of presentations on the Right Tree Right Place (RTRP) project funded jointly by HBRC and Te Uru Rakau. Council indicated then that they would like to explore HBRCs role in regional afforestation options for the 2021-2031 Long Term Plan (LTP). On 5 February 2020 a report went to council discussing some principles for any potential RTRP investment. The committee directed that this report be amended. On 23 March a key workshop proposed with councilors on the RTRP project was cancelled as the Covid-19 outbreak in NZ unfolded.

10. The RTRP project is an important project in providing additional context on regional afforestation options in Hawke's Bay. It includes a detailed technical and spatial analysis of what tree species might be planted where, wood processing opportunities, an assessment of ecosystem services, farmer perspectives on afforestation and farm case studies.

11. The report looked at the 'Right Tree in the Right Place' as a key tool to reduce regional erosion and sediment loss. The scale of regional sediment loss and the associated regional afforestation challenge is significant.

12. At a 1000 tonnes sediment per square kilometre per annum sediment yield Sednet modelling indicates 250000 ha of Hawkes Bay country is at 'high' risk of erosion. When a 750-1000 tn/km^2 per annum sediment yield is included at risk areas increase to 380,000 ha. Areas identified as at risk within the model require appropriate tree cover to reduce risk and enhance resilience. Around 90% of sediment loss is controlled through closed canopy tree cover and up to 60% controlled through spaced poplar and willow erosion plantings. Even when the impact of sediment and additional weather events at harvest is considered, closed canopy tree cover gives a net reduction in sediment from erosion.

13. It is important to note that Sednet is only a model and may not represent reality 'on farm'. That said, across 500,000ha of farm planning in the Horizons region for their SLUI programme Sednet has mapped reasonably well overall on a per hectare basis on farm. Areas on a farm that Sednet indicated was at risk of erosion, but which an on farm assessment showed were not at risk were essentially balanced out by areas that Sednet said were not at risk – but in fact were considered at risk after an on farm assessment. What this means is that it is likely that around 200,000 ha (or more) will be best protected by plantings to significantly reduce regional sediment loss from erosion.

Discussion

Required level of regional investment in tree planting

14. If around 200,000 ha requires a planting solution and we use an average per hectare planting cost of $3000/ha the investment required to achieve the strategic goal "By 2050 all highly erodible land is under tree cover" is around $600 million. This may be at the low end, dependent on mix of forest type as diverse native stands for example are more expensive to establish. As HBRC does not have the capacity to grant fund to this level of investment it means that we need to find complementary funding mechanisms to gain additional impact on regional sediment loss beyond what is achievable by grant funding alone.

15. The high level impact of different levels of investment on a regional planting programme and regional sediment loss is outlined in the attachment. These look at four scenarios where HBRC invests. These scenarios are:

    15.1. $90m over three decades in the Erosion Control Scheme

    15.2. $150m in the ECS over three decades

    15.3. $150m over three decades with 50% of that capital recycled every decade

15.4. $150m invested with 50% of capital recycled and external partner investment of $1 for each $4 invested by HBRC.

16. Broadly this illustrates the potential additional reduction in regional sediment loss that can be achieved with a self funding (capital recycling) programme.

Self funding integrated on farm planting initiatives - an HBRC impact investment to change the afforestation funding model

17. A self funding planting model that can partly or fully fund its own planting activity over time would recycle HBRC afforestation capital and demonstrate the opportunity for private capital investment in the regional afforestation challenge in an integrated on farm context. The major shift proposed in this paper is that Council invests in proving up whether a "Climate. Smart. Recovery" focused self funding planting model can be successful in a public/private impact investment context. The potential funding model, partnerships, co design with our farming community, policy requirements and operational execution will receive investment in year one and two of the 2021-2031 LTP. Should that due diligence prove the model has the opportunity to be successful, investment would be upscaled in year three of the LTP into on ground planting programmes. Any planting would integrate with and complement the current ECS (including pole planting), Ecosystem Priority and Environmental Enhancement programmes.

18. If a self funded model is possible this has the potential to more than double the regional reduction in sediment and erosion over a three decade timeframe compared to our grant funding investment alone. At both a regional and national level the need for this self funding model is critical, as the total investment required to achieve the scale of planting needed is unattainable through grant funding alone.

19. These self funding initiatives could include third party equity investments and profit share, HBRC debt funding, a freshwater bond or other options. Revenue streams will come from carbon, manuka honey and timber.

20. The principal objective of a HBRC impact investment in the RTRP project is to prove that an integrated on farm planting programme (as opposed to whole farm afforestation) is an investible proposition for other investors. In doing so HBRC will both open up the opportunity for private capital to invest in the regional planting programme required for significant impact on erosion and be able to recycle its own capital.

Indicative financial analysis

21. An illustrative financial analysis for a self-funding planting programme under two scenarios is provided in attachment two. In each scenario, 300 hectares is planted on private land, with a mix of indigenous, eucalyptus and manuka forestry. In this example Council manages loan funding for the planting costs, with interest and repayments recovered from plantation cashflows generated via the Emissions Trading Scheme and manuka honey profit share.

22. In scenario one, planting costs are subsidised by One Billion trees or other similar central government grant funding, and in Scenario two it is assumed no subsidies are available. Conceptually the ability to self-fund an integrated planting programme is achievable under both scenarios, although returns to land owners are achieved earlier when subsidies are available (7 years after planting with subsidies, versus 11 years without).

23. This financial analysis is illustrative only and excludes impacts of inflation or key risk factors. Detailed modelling and sensitivity analysis would form part of the feasibility project included in a new LTP work programme.

RTRP case study – Ruakutiri farm

24. In the RTRP project a farm case study of a 1245ha farm in the Ruakituri valley was presented that had 310ha from a desktop analysis that was steeper erodible land that could benefit from tree planting. The overall assessment in the case study by the Ag consultant was that by farming the better producing areas of the farm it could still have as many stock units and the same gross farm income as it had prior to the 310ha being transitioned for tree planting. In attachment 3, a map of that property is provided outlining at a conceptual level how the integrated planting programme could take place:

    24.1. Pinus radiata woodlots (if they are part of the integrated on farm planting for that property) are towards the front of the property where costs to harvest will be lower because of better access

    24.2. High UMF manuka plantations are planted where the conditions optimize the ability to get a honey harvest with minimal dilution by other competing floral sources

    24.3. Eucalyptus or other high carbon species are at the back of the farm where they are unlikely to be harvested and where carbon revenue is the principle revenue stream.

25. Under the proposed programme native tree plantings would be around 50 hectares of each total 300ha planted either in specific woodlots for future sustainable harvest or as companion trees for bees species to the manuka plantation to allow hives to be wintered over on the farm.

Potential investment partners

26. Staff acknowledge that in developing this proposal we understand that the landowner is the primary partner in any investment. They will be making land available and will be expected a return on any offering they make. Ultimately any decisions about afforestation will be theirs to make, including what they plant and who they partner with.

27. Hapū and iwi are potential partners with HBRC in any RTRP investment. The role of trees underpins driving environmental, cultural and economic outcomes and form an important part of the tangata whenua world view and their role as Kaitaiki. Over time any RTRP investment would seek to make the most of the opportunities for potential hapū and iwi partners.

28. Staff have previous experience engaging successfully with the Robertson Foundation (through its New Zealand philanthropic arm the Aotearoa Foundation). This brought direct philanthropic investment and crystalized further non council investment from other partners into the Cape to City, Poutiri Ao o Tane and Whakatipu Mahia projects.

29. Staff are currently in conversations with The Nature Conservancy (TNC) https://www.nature.org/en-us/, one of the world's biggest philanthropic organisations, about our HB water quality context. TNC has a New Zealand branch who are considering options to have greater positive impact on water quality and the environment in New Zealand. TNC has global experience in developing large scale innovative impact investing and philanthropic solutions for some of the most challenging environmental problems. Initial conversations show alignment between the approach proposed in this document and TNC thinking and they are interested in exploring this further with us.

Darby Partners

30. A scalable regional planting solution will require investment by other partners. Darby Partners is one example of a potential public/private partnership explored over the last four months where a third party investor has identified an opportunity to provide capital towards an integrated planting programme, provide a turnkey broader afforestation service to HBRC catchment management staff and share in revenue streams.

31. The indicative financials presented in the attachment are based on original financial modelling work by Darby partners with significant input from the HBRC finance team. Building these sorts of public/private partnerships will be critical to the overall investment level that can be delivered into the RTRP programme. These sorts of partners also bring a wide range of skills to any partnership often focused around finance, investment, and business opportunity. The structure of these partnerships needs to cater for a competitive market and independent advice to landowners.

Changing how programme implementation takes place – Co design with our farming community

32. The most important partnership in the RTRP context is the partnership with our farming community. There is a substantial body of research and survey work now available which outlines farmer views to land use change including tree planting and other activities.

33. Fundamentally while there may be broad themes applicable across farms with similar characteristics and soil types each farm is very individual. Each farmer also has their own values, vision or aspirations for the farm, family and financial context.

34. RTRP programme implementation should be co-designed with farmers starting as early as possible in the process with agreeing the end goals and vision. Concurrently with that co-design it should develop the more detailed aspects of implementation such as funding models, benefits to farmers, process and administration, farmer access to independent advice and criteria to receive funding.

35. The most likely area for a co-design trial for large scale RTRP implementation would be in the Wairoa area to align to HCE and other Catchment Management programme funding. The co-design process needs to be carried out at a scale and profile not previously achieved by soil conservation works within the region if the urgency of farmers towards the planting needed is going to change over the next decade. Catchment management advisors will be key to that, as they hold the relationships with farmers and local knowledge.

HBRC Catchment Management team afforestation tools

36. The Catchment Management team is essentially the team tasked with delivery of 80% of Council's sustainable land interactions with farmers. Their current afforestation tools include:

    36.1. The "Erosion Control Scheme" (ECS) which is targeted to the smaller worst areas of erosion on a property

    36.2. A riparian plants scheme which provides at cost plants for land users planting riparian areas

    36.3. Poplar and willow spaced poles for areas where closed canopy cover forestry is not appropriate or not desired by the land user.

37. In addition to this, the team currently has funding options like One Billion Trees and the Hill Country Erosion programme, but these provide funding and do not provide quality advice on broader afforestation options for a given farm context. This larger scale afforestation advice is a critical gap in council's ability to deliver an effective integrated regional afforestation initiative.

38. When a catchment advisor is on farm they need to be able to deliver advice (most likely through third party service providers with the appropriate integrated planting skills) on a wide range of afforestation options including for 20-50+ ha plantings where a financial return may be possible and the ECS or other afforestation tools do not currently apply. The addition of this broader afforestation tool supports the continuous improvement of the Right Tree Right place toolbox for catchment management staff. It allows catchment management staff afforestation tools so that the toolbox on farm can deal with the whole afforestation context rather than the 20-25% of the erosion context through the ECS and poles.

Social Ecology

39. The partnership with the University of Waikato in a chairs position will be significantly advantageous for this project. Working with landowners to secure land is critical. There is currently an environment of deep miss-trust of afforestation across the pastoral farming sector as the current carbon market is driving whole farm conversions to pine trees. While this project takes a completely different and more sophisticated approach, landowners are nonetheless wary. Understanding this and many other social factors will be crucial for cut through to allow scaling and speeding up access to the right parts of the farm.

Potential uptake of an integrated on farm planting programme

40. The Erosion Control Scheme has a budget of $3.5m for the 2020-2021 financial year. Demand for the ECS already committed before the 2020-2021 is $2.4m, which has been achieved with the scheme operating for only two years. It is highly likely that ECS demand will exceed the budget in the 2020-2021 financial year. Similarly after only one year's operation the Ecosystem Priority sites budget of $200,000 is oversubscribed by about 300%.

41. While the detail of the financial context of any self-funding planting model needs to be worked through it is currently modelled on 100% of planting costs being met by partners other than landusers. Given that the ECS is only 75% grant funded by council and is enjoying good uptake this would suggest that a planting programme 100% funded by Council would be able to receive good uptake over time as well.

Farm planning

42. Farm planning as part of the Client Services team is building momentum to deliver a large number of plans across the region in conjunction with central government freshwater initiatives and regional policy. A strong focus is on the Tukituki and TANK catchments as these have specific farm plan deliverables now in place through plan changes. Farm plans will support the RTRP afforestation context including consistent quality spatial erosion data based on farm assessments. This is a critical as spatial erosion information on individual farms is the foundation to any effective individual farm and catchment based RTRP delivery. Changes will be made to the farm planning requirements to ensure they better support Right Tree Right Place.

RTRP catchment based spatial planning

43. Current planting programmes are planned and executed on an individual property basis with regard to the potential planting options, scale, logistical delivery and financial returns. However, if we looked across 20-30,000 ha as a whole within a catchment, we may well unlock value across increased planting options, increased harvest profitability and logistical benefits. There may also be critical in catchment scale of plantings such as manuka, future siting of key infrastructure such as roads and landings or portable sawmill sites, and an increased ability to attract third party investment into larger scale planting programmes across multiple properties.

Delivering a self funding planting model – appropriate structure

44. The structure associated with the delivery of a self funding model will be important. There are a number of options for structure including a separate team or business unit within Council, a CCO, or a new unit within HBRIC. The key factor is that it is not added to the BAU of any existing function within an organisation as it needs to be appropriately resourced with a clear focus on developing a self funding integrated planting model. It is important that the structure facilitates:

    44.1. A mandate that balances making diversified revenue streams off carbon, timber and honey to offset borrowing costs alongside delivering the range of public good outcomes associated with planting

    44.2. Integration with other parts of council in particular the catchment management, ecosystem priority, biosecurity, science and FEMP teams.

44.3. A mandate to create public/private partnerships that assist in the successful delivery of a self funding planting model

45. Over the period July to October 2020 this structure needs to be clarified so that it can then be set up should Council choose to invest in the RTRP project through the 2021-2031 LTP.

Procurement and capacity

46. There are a range of capacity and procurement questions around the regional afforestation context. Principal amongst there is the ability to have sufficient capacity to deliver any regional afforestation programmes over the next two decades. The actual context of this is not well understood internally (and possibly externally). HBRC needs to lead a project which will more robustly quantify the capacity and procurement needs, current state and required changes for the next decade.

The role of policy

47. Reducing regional sediment levels will require central and/or regional government policy interventions. This is fundamentally because the required scale and urgency of planting required is not the scale and urgency in most farmers minds for their farms. This is not a criticism of the farming community almost all of whom want to be good stewards of the land. Bovine TB, Mycoplasma bovis, drought, commodity price changes and many other things vie for their attention and priority on a day to day basis. Policy and a clear set of guidelines and deadlines will be required to keep the RTRP project elevated in land user priorities over time. However, the timing of policy and how it is implemented is very important. It should be far enough away to allow time to adjust and its delivery should, as much as possible be co-designed with landowners.

Risks

48. There are a range of risks associated with proving up and executing a self funding integrated planting model. These include pests and weeds, fire, roading and harvest risk, carbon and carbon management, farmer uptake, operational execution at scale, complementarity with HBRCs other investments and tree species selection/survival. All of these risks need to be explored in more detail.

Considerations of Tangata Whenua

49. The RTRP project has a range of implications for Tangata Whenua. The range of benefits tree planting brings deliver to a number of important environmental and cultural outcomes and role as Kaitiaki. The project also provides potential employment, investment and capability building opportunities.

Next Steps

50. Staff will take feedback from the Committee and use that to prepare a business case for the LTP, for a new work programme to complete the feasibility of, and subject to success begin investing in, a self-funding planting model which looks in more detail at the range of factors discussed in this agenda item.

Decision Making Process

51. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the *"Right Tree Right Place Update"* staff report.

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Approved by:

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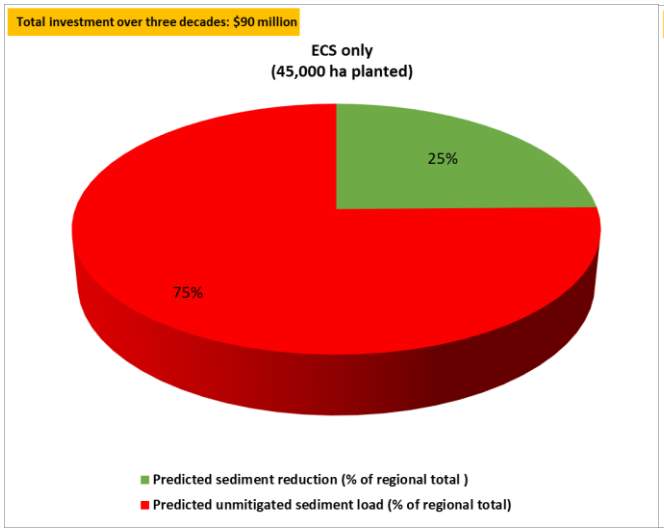
Attachment/s

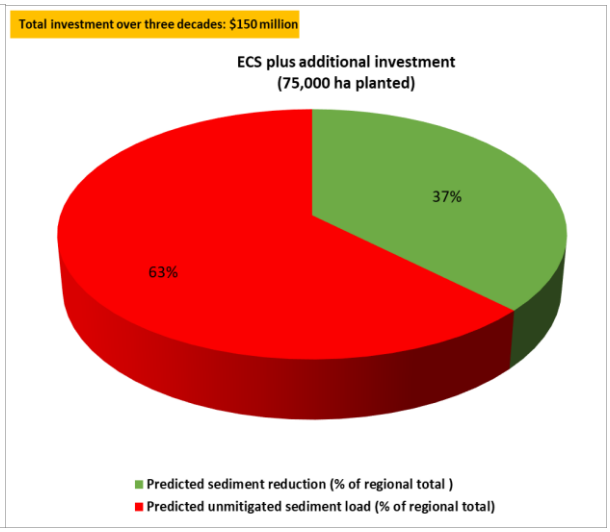
⇩**1** Regional sediment reduction graphs

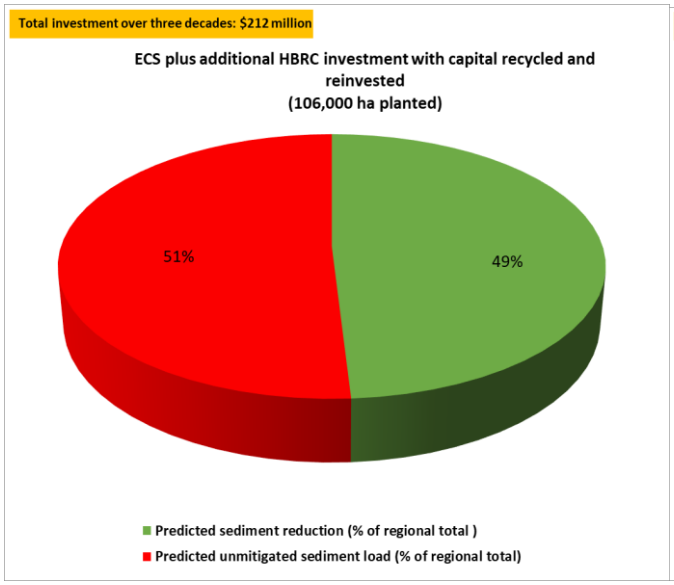
⇩**2** Illustrative high level scenario analysis of self-funding planting model

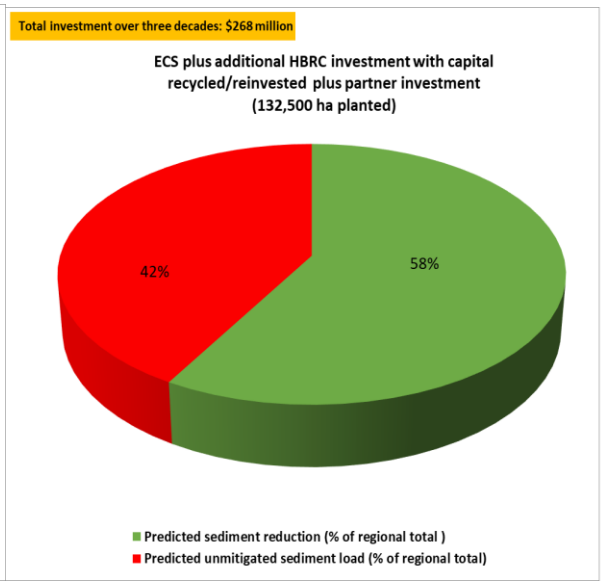
⇩**3** Ruakituri farm case study

Regional sediment reduction based on hectares planted









Appendix (tbc): Illustrative high level scenario analysis of self-funding planting model

DRAFT

Plantation mix assumption:	
Radiata area	0
Manuka area	45
Native forest area	90
Eucalyptus forest area	165
Total Hectares	300

Planting costs financing assumption:	
% funded by HBRC loan:	100%
Loan term:	8 years
Interest rate:	5%

Notes:

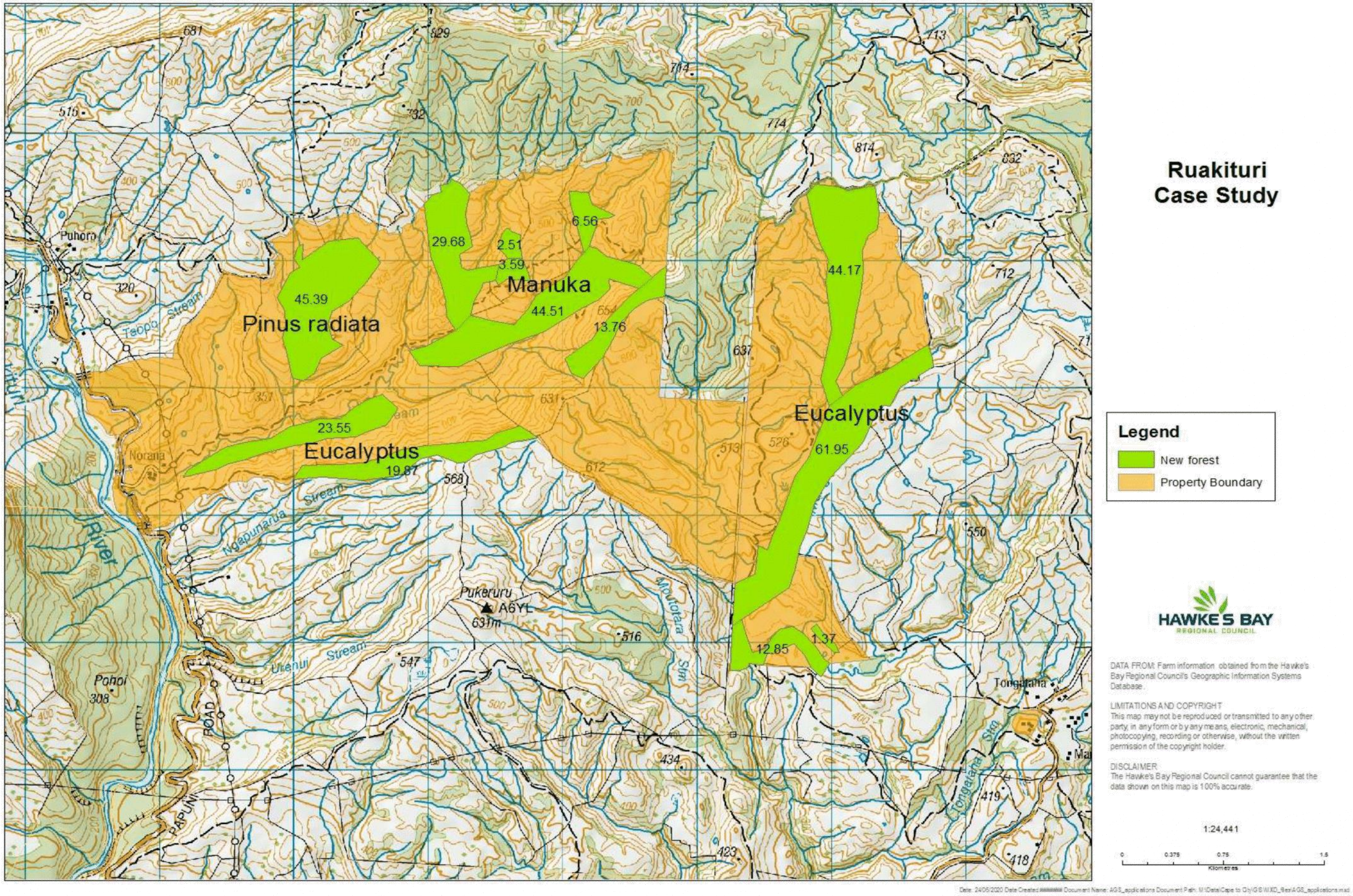
- For simplicity, inflation and NPV have been ignored. A more detailed model would be developed as a deliverable of the feasibility analysis project.
- Model assumes demand for carbon credits in the ETS continues to grow, leading to prices increases per annum (by ~$1 per annum).
- Other costs include project management and insurance.
- Grants/subsidy is modelled on the Billion Tree programme.

Scenario 1: With planting subsidies (NZD $)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Plantation Cashflow before financing																			
Planting costs	$ (696,068)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pest control & advisory costs	$ (127,196)	$ (127,196)	$ (127,196)	$ (19,671)	$ (19,671)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Emmissions Trading Scheme admin costs	$ -	$ (750)	$ (750)	$ (750)	$ (750)	$ (15,750)	$ (750)	$ (750)	$ (750)	$ (750)	$ (15,750)	$ (750)	$ (750)	$ (750)	$ (750)	$ (15,750)	$ (750)	$ (750)	$ (750)
Other costs	$ (51,450)	$ (51,600)	$ (51,750)	$ (51,900)	$ (52,049)	$ (52,199)	$ (52,349)	$ (52,499)	$ (52,649)	$ (52,799)	$ (52,949)	$ (53,098)	$ (53,248)	$ (53,398)	$ (53,548)	$ (53,698)	$ (53,848)	$ (53,997)	$ (54,147)
Emmissions Trading Scheme income	$ -	$ 2,934	$ 17,473	$ 59,161	$ 126,065	$ 182,073	$ 230,175	$ 269,246	$ 285,197	$ 295,290	$ 305,172	$ 307,693	$ 316,829	$ 309,549	$ 316,648	$ 314,229	$ 311,225	$ 305,414	$ 317,182
Manuka honey profit share income	$ -	$ -	$ -	$ -	$ -	$ 26,933	$ 35,910	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888
Grants/subsidy	$ 271,800	$ 453,000	$ 181,200	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total plantation cashflow	$ (602,914)	$ 276,388	$ 18,977	$ (13,160)	$ 53,595	$ 141,056	$ 212,986	$ 260,885	$ 276,686	$ 286,629	$ 281,361	$ 298,732	$ 307,719	$ 300,288	$ 307,237	$ 289,669	$ 301,514	$ 295,555	$ 307,173
Interest	$ (7,454)	$ (33,775)	$ (22,827)	$ (19,100)	$ (15,374)	$ (11,647)	$ (7,920)	$ (4,193)	$ (699)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Repayments	$ -	$ (94,205)	$ (75,364)	$ (75,364)	$ (75,364)	$ (75,364)	$ (75,364)	$ (75,364)	$ (56,523)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Plantation Cash Flow after financing	$ (610,367)	$ 148,408	$ (79,214)	$ (107,624)	$ (37,143)	$ 54,045	$ 129,702	$ 181,328	$ 219,464	$ 286,629	$ 281,361	$ 298,732	$ 307,719	$ 300,288	$ 307,237	$ 289,669	$ 301,514	$ 295,555	$ 307,173
Reserve movements	$ -	$ 148,408	$ (79,214)	$ (107,624)	$ (37,143)	$ 54,045	$ 21,528												
Returns to landowners	$ -	$ -	$ -	$ -	$ -	$ -	$ 108,174	$ 181,328	$ 219,464	$ 286,629	$ 281,361	$ 298,732	$ 307,719	$ 300,288	$ 307,237	$ 289,669	$ 301,514	$ 295,555	$ 307,173
Return to landowner per HA	$ -	$ -	$ -	$ -	$ -	$ -	$ 361	$ 604	$ 732	$ 955	$ 938	$ 996	$ 1,026	$ 1,001	$ 1,024	$ 966	$ 1,005	$ 985	$ 1,024

Scenario 2: Without planting subsidies (NZD $)

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Plantation Cashflow before financing																			
Planting costs	$ (696,068)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pest control & advisory costs	$ (127,196)	$ (127,196)	$ (127,196)	$ (19,671)	$ (19,671)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Emmissions Trading Scheme admin costs	$ -	$ (750)	$ (750)	$ (750)	$ (750)	$ (15,750)	$ (750)	$ (750)	$ (750)	$ (750)	$ (15,750)	$ (750)	$ (750)	$ (750)	$ (750)	$ (15,750)	$ (750)	$ (750)	$ (750)
Other costs	$ (51,450)	$ (51,600)	$ (51,750)	$ (51,900)	$ (52,049)	$ (52,199)	$ (52,349)	$ (52,499)	$ (52,649)	$ (52,799)	$ (52,949)	$ (53,098)	$ (53,248)	$ (53,398)	$ (53,548)	$ (53,698)	$ (53,848)	$ (53,997)	$ (54,147)
Emmissions Trading Scheme income	$ -	$ 2,934	$ 17,473	$ 59,161	$ 126,065	$ 182,073	$ 230,175	$ 269,246	$ 285,197	$ 295,290	$ 305,172	$ 307,693	$ 316,829	$ 309,549	$ 316,648	$ 314,229	$ 311,225	$ 305,414	$ 317,182
Manuka honey profit share income	$ -	$ -	$ -	$ -	$ -	$ 26,933	$ 35,910	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888	$ 44,888
Grants/subsidy	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total plantation cashflow	$ (874,714)	$ (176,612)	$ (162,223)	$ (13,160)	$ 53,595	$ 141,056	$ 212,986	$ 260,885	$ 276,686	$ 286,629	$ 281,361	$ 298,732	$ 307,719	$ 300,288	$ 307,237	$ 289,669	$ 301,514	$ 295,555	$ 307,173
Interest	$ (10,814)	$ (49,001)	$ (33,118)	$ (27,711)	$ (22,304)	$ (16,897)	$ (11,490)	$ (6,083)	$ (1,014)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Repayments	$ -	$ (136,674)	$ (109,339)	$ (109,339)	$ (109,339)	$ (109,339)	$ (109,339)	$ (109,339)	$ (82,004)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Plantation Cash Flow after financing	$ (885,528)	$ (362,287)	$ (304,680)	$ (150,210)	$ (78,048)	$ 14,820	$ 92,157	$ 145,463	$ 193,667	$ 286,629	$ 281,361	$ 298,732	$ 307,719	$ 300,288	$ 307,237	$ 289,669	$ 301,514	$ 295,555	$ 307,173
Reserve movements	$ -	$ (362,287)	$ (304,680)	$ (150,210)	$ (78,048)	$ 14,820	$ 92,157	$ 145,463	$ 193,667	$ 286,629	$ 162,490								
Returns to landowners	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 118,871	$ 298,732	$ 307,719	$ 300,288	$ 307,237	$ 289,669	$ 301,514	$ 295,555	$ 307,173
Return to landowner per HA	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 396	$ 996	$ 1,026	$ 1,001	$ 1,024	$ 966	$ 1,005	$ 985	$ 1,024


Ruakituri Case Study
Legend
New forest
Property Boundary
Pinus radiata
Manuka
Eucalyptus
Eucalyptus
45.39
29.68
2.51
3.59
6.56
44.51
13.76
44.17
23.55
19.87
61.95
12.85
1.37
Puhoro
Teopo Stream
Noriana
River
Ngapunarua Stream
Pukeruru
631m
Urenui Stream
Pohoi
308
ROAD
PAPUNI
Moutotara Stm
Tongataha
HAWKE'S BAY REGIONAL COUNCIL
DATA FROM: Farm information obtained from the Hawke's Bay Regional Council's Geographic Information Systems Database.
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DISCLAIMER
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1:24,441
0 0.375 0.75 1.5
Kilometres

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

Subject: URBANISATION OF HERETAUNGA PLAINS

Reason for Report

1. This item introduces Richard Gaddum and Michael Donnelly and their presentation of "Urbanisation of Heretaunga Plains"

Decision Making Process

2. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the "Urbanisation of Heretaunga Plains" presentation.

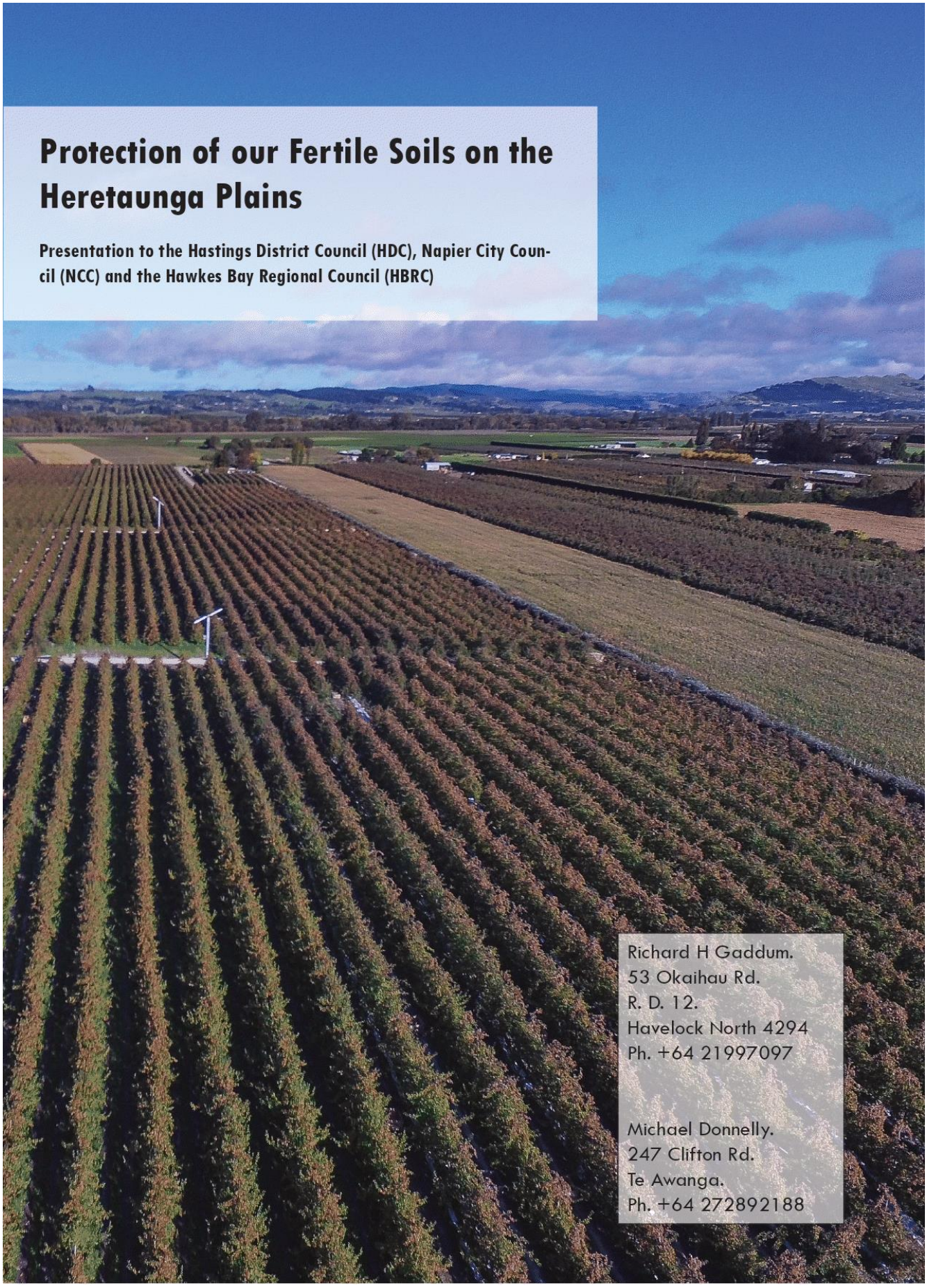
Authored & Approved by:

Leeanne Hooper
GOVERNANCE LEAD

Attachment/s

⇩**1** Protection of Fertile Soil on the Heretaunga Plains

⇩**2** Heretaunga Plains Urbanisation Presentation


Protection of our Fertile Soils on the Heretaunga Plains
Presentation to the Hastings District Council (HDC), Napier City Council (NCC) and the Hawkes Bay Regional Council (HBRC)
Richard H Gaddum.
53 Okaihau Rd.
R. D. 12.
Havelock North 4294
Ph. +64 21997097
Michael Donnelly.
247 Clifton Rd.
Te Awanga.
Ph. +64 272892188

Save Our Taonga

Introduction

Approximately 34,000 ha: Total area of the Heretaunga Plains.
Over 5,550 ha: Now gone forever under concrete and asphalt. (Excludes life style blocks).
Almost 1,000 ha: Planned for urbanisation in 2017 HPUDS document.

The area of the Heretaunga Plains were formed over the last 250,000 years from sediment deposited by the Tutaekuri, Ngaruroro and Tukituki Rivers and from coastal marine deposits, consisting of layers of gravel, sand and silt. Permeable gravel beds form aquifers and the artesian groundwater which provides 85% of the requirements for public water supply, irrigation and industrial use on the Heretaunga Plains and adjacent areas.

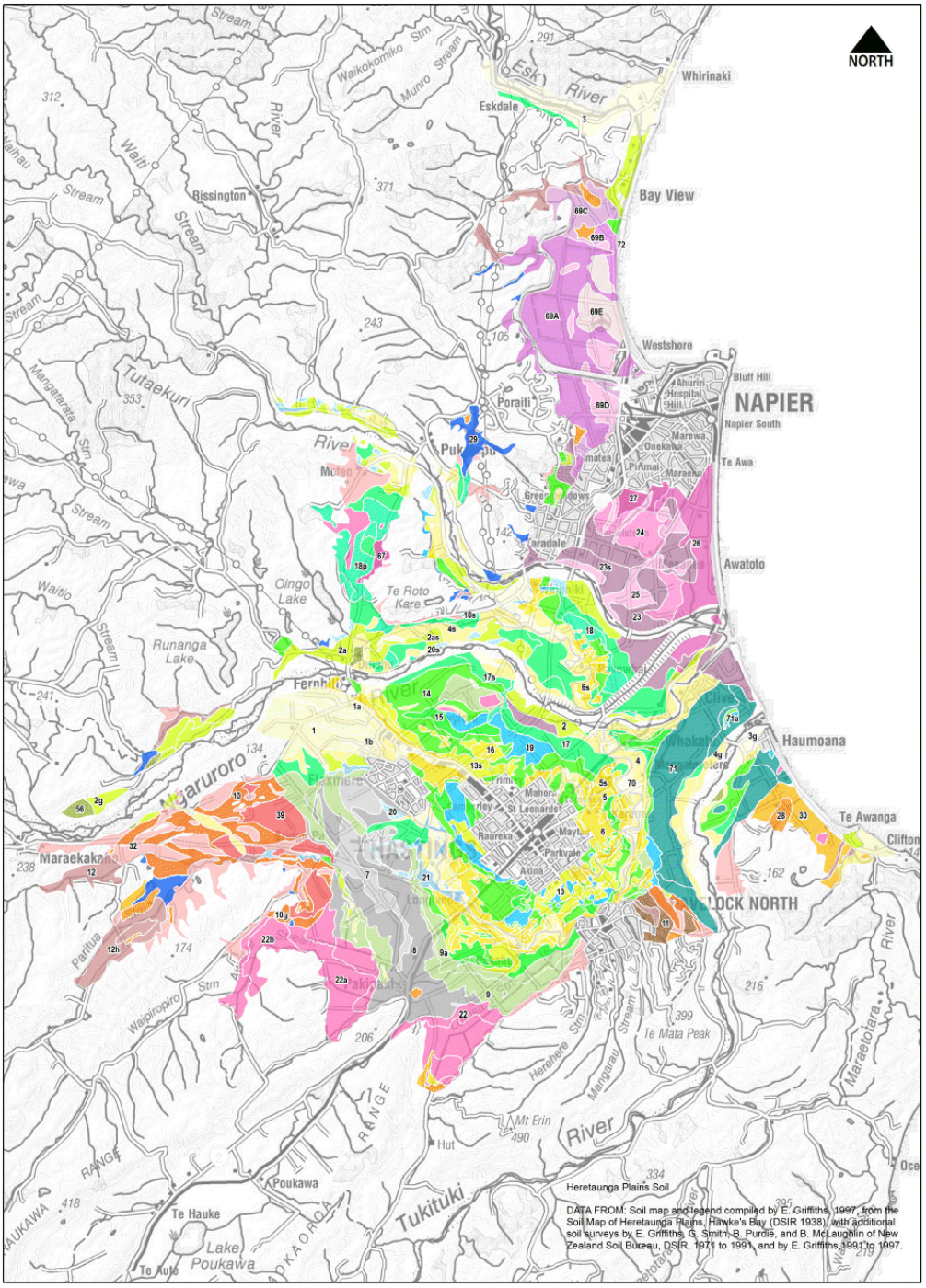
John Bostock, Paul Paynter, Mike Donnelly & Richard Gaddum

The fertile soil, the warm, dry climate of the area, the water for irrigation and great infrastructure to a Port, make the plain an exceptional geographic location for horticulture, viticulture and agriculture. Half of the total New Zealand production of fruit, vegetables and a huge portion of NZ's grapes is produced from the soils of the Heretaunga Plains. It is one of New Zealand's leading wine producing areas.

For too long now, successive councils (Hastings District Council (HDC), Napier City Council (NCC) and the Hawkes Bay Regional Council (HBRC)) have encouraged and supported unsustainable growth of urban developments across the Heretaunga Plains, little by little creeping over these precious fertile soils that feed the local Hawkes Bay markets, as well as National and International markets, locking away forever these soils from any chance of producing food for export, for our children, for our grandchildren and generations to come. This urban and industrial concrete and asphalt is spreading over the Plains like a cancerous creep and is also having a disastrous effect on the aquifer that everyone agrees is the basis of our future sustainability.

Attached to and supporting this presentation are some images that give an overview of the expansion of urban growth on the Heretaunga Plains. To obtain more accurate datasets and historic aerial imagery that may have helped generate greater accuracy in the numbers, was well out of our expertise and capabilities, however for the purposes of the figures, it should go without saying these are approximate only.
However, despite this, these images produce bold assumptions and approximations as to what was pre/post WW2. This was particularly the case at Bay View and Taradale.
C.1940s aerial imagery for those places was challenging to source, so we have simply amalgamated all of what might've been 1940s Taradale and Bay View into Napier's post WW2 figures.

These images clearly depict how urban sprawl has gradually crept over the Heretaunga Plains in the last almost 100 years and as we move forward in time, to cater for our ever increasing population, the pace of this urban sprawl, unless terminated, will gather in pace at an unprecedented and alarming pace covering even more of our fertile soils at a faster rate year on year.
We consider what has happened in the past is a degradation of duty by our elected Councils who have paid scant regard to our sustainability and the plight of future generations and as a result have been responsible for this permanent blight on our landscape. It is NOT too late to rein in on this reckless policy of sacrificing the one scarce commodity that is "non renewable" and that is our fertile soils.



Soil Map of the Heretaunga Plains

Total area of Heretaunga Plains: 34,660 ha
Total area of Class 1 soils on Heretaunga Plains: 7,736 ha.
Total area of Class 2 soils on Heretaunga Plains: 10,270 ha.
Total area of Class 3 soils on Heretaunga Plains: 12,341 ha.
Total area of Class 1, 2 and 3 soils on Heretaunga Plains: 30,347 ha or 87%.
Total area of Class 4, 5c, 6, 7 and River soils on Heretaunga Plains: 4,313 ha or 13%.

LEGEND

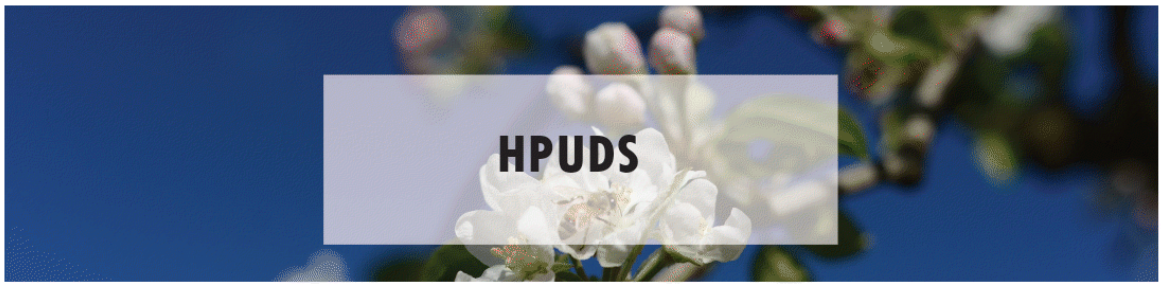
MAP No.	PARENT MATERIAL (greywacke alluvium if not specified) DEPTH (if not specified, >100 cm) TEXTURE	NATURAL DRAINAGE and depth to WATER TABLE (WT) after wet periods	SOIL NAME
1 1a 1b	stony gravels 10-15 cm sand on stony gravels 15-30 cm sand on stony gravels	good WT >120cm	Omahu
2 2g 2a 2as	45-100 cm sand/sandy loam on gravel 30-45 cm sand/sandy loam on gravel >100 cm silt loam on gravel 30-45 cm silt loam on sand	imperfect WT 30-60cm	Flaxmere
3 3g	>45 cm sand 30-45 cm sand on gravel	good WT >60cm	Esk
4 4g 4s	>45 cm sandy loam 30-45 cm sandy loam on gravel 30-45 cm sandy loam on sand	good WT >60cm	Omarunui
5 5s	silt loam 30-45 cm silt loam on sand	good WT >90cm	Twyford
6 6s	sandy loam 30-45 cm sandy loam on sand	good WT >120cm	
7	15-30 cm ash+lapilli on Taupo pumice sand	imperfect WT 30-60cm	Pakipaki
8	20-30 cm ash on Taupo pumice sand	poor WT <30cm	
9 9a	30-60 cm clay loam on Taupo pumice sand >60 cm clay loam on Taupo pumice sand	imperfect WT 30-60cm	Te Awa
10 10g	>45 cm sandy loam on gravel 30-45 cm sandy loam on gravel	good WT 10m	Ngatarawa
11	30-45 cm silt loam on clay from mudstone	poor WT <30cm	Otane
12 12h	>45 cm sandy loam from sandy limestone >45 cm clay loam from clayey limestone	good WT >60cm	Havelock
13 13s	45-60 cm silt loam/clay loam 30-45 cm silt loam/clay loam on sand	imperfect WT 60-75cm	Karamu
14 15	>60 cm silt loam on sand >30 cm clay loam on silt loam	imperfect WT 30-60cm	Hastings
16	>45 cm sandy loam on sand	good WT 75-90cm	Ormond
17 17s	30-45 cm sandy loam/silt loam on old topsoil 30-60 cm sand on sandy loam/silt loam	imperfect WT 30-60cm	Pakowhai
18 18p 18s	30-45 cm silt loam/clay loam on old topsoil <60 cm silt loam/clay loam on peat 30-60 cm sand on silt loam/clay loam	poor WT <30cm	Moteo
19	>30 cm clay loam on silt loam	poor WT <30cm	Kaiapo
20 20s	>45 cm silt loam on sand to gravel at >100cm 30-45 cm silt loam on sand to gravel at >100 cm	poor WT <30cm	Irongate
21	30-100 cm sandy loam on gravel		
22 22a 22b	30-60 cm peaty loam on Taupo pumice sand 60-90 cm peaty loam on Taupo pumice sand >90cm peaty loam on Taupo pumice sand	very poor WT 0cm	Turamoe
23 23s	>30cm silt loam on sandy loam (slightly saline) 30-60 cm sand on silt loam (slightly saline)	imperfect WT 30-60cm	Farndon
24	>30 cm clay loam on sand (saline)	poor WT <30cm	
25	>30 cm sandy loam on sand (very slightly saline)	imperfect WT 30-60cm	
26	>45 cm silt loam on lagoon sediment (saline)	poor WT <30cm	Meeanee
27	30-45 cm clay loam on lagoon sediment (saline)		
28	>30 cm ash on sandy loam (loess) on pan at 40-50cm; on rolling land	poor-water perched on pan	Matapiro
29	30-45 cm silt loam on clay loam from loess alluvium; on valley floors	poor WT <30cm	Okawa
30	>30 cm ash on sandy loam (loess) on pan at 40-50 cm, on terraces	poor-water perched on pan	Warpukurau
32	30-45 cm ashy sandy loam on sandy loam (loess) on pan over gravel at >60 cm	poor-water perched on pan	Poporangi
39	>30 cm ashy sandy loam on gravel	good WT >10 m	Takapau
56	stony gravels	imperfect WT 0-60 cm	Tukituki
67	peat	very poor WT 0 cm	Rotoatara
69A 69B 69C 69D 69E	saline lagoon deposits 30-45 cm clay loam on shelly sand 45-60 cm sandy loam on shelly sandy loam 30-45 cm silt loam on shelly sand 30-45 cm sand on shelly sand shelly gravels	very poor WT 0 cm	Ahuriri
70	deep sand in sand dune	good WT >120 cm	Washpool
71 71a	30-60 cm silt loam on clay from mudstone >60 cm silt loam on clay	imperfect WT 30-60 cm	Mangateretere
72	stony beach gravels	NA	Awatoto

NORTH

Heretaunga Plains Soil

DATA FROM: Soil map and legend compiled by E. Griffiths, 1997, from the Soil Map of Heretaunga Plains, Hawke's Bay (DSIR 1938), with additional soil surveys by E. Griffiths, G. Smith, B. Purdie, and B. McLaughlin of New Zealand Soil Bureau, DSIR, 1971 to 1991, and by E. Griffiths,1991 to 1997.

Legend - Soil Map of the Heretaunga Plains



We have a document called Heretaunga Plains Urban Development Strategy (HPUDS) which is the result of a collaborative approach by the Hastings District Council, Napier City Council and Hawke's Bay Regional Council towards managing urban and industrial growth on the Plains from 2015 to 2045. The joint Strategy was first adopted in 2010, then a reviewed version re-adopted by the three councils in early 2017.
The next review of HPUDS is due 2021/2022.

HPUDS sets a strategic plan to predict and monitor population growth and to target urban and industrial growth areas for development and expansion for the next five years.
In the last 2017 HPUDS document, 491ha (over 1,200 acres) was identified for expansion of urban residential development over the Heretaunga Plains.
A further 150ha for urbanization beyond the above probably required.
110ha for industrial areas, with another 225ha believed to be needed by 2045. 976ha in total; **all planned on fertile soils**. (Over 2,400 acres….!!!)

Included in the 2017 HPUDS document, the following areas have been designated for future urban and industrial development:

1. The new designated areas for Residential Growth areas in Napier take up 277 ha of land. Apart from 43 ha on the "Western Hills", all the rest is on the "Plains" which includes approximately 100 ha in the Te Awa area.
2. In the Hastings area (HDC boundaries), there's 367 ha designated for Residential Growth...!! 257 ha is on the "Plains"...!! Areas off the Plains, such as Haumoana / Te Awanga (East Rd), Maraekakaho Settlement, Middle Rd / Iona Rd and Waimarama, take up the remaining 110 ha.
3. What is termed Residential Reserve areas such as South Pirimai (Napier), and in the Hastings District, Arataki Extension, Middle Rd (in part) which is each side of Te Aute Rd from the Karamu Stream over to Middle Rd, Murdock Rd / Railway Rd South and Wall Rd (in part) are all areas for possible new future residential development on the "Plains". The total area of these areas is approximately 150 ha.
4. The designated Industrial / Business areas are: the Awatoto Growth Area, Napier Business Park, Irongate Industrial, Omahu Industrial, Tomoana Industrial and Whakatu Industrial which in total cover another 110 ha (maybe more). Over and above this, there seems to be another 225 ha required for industrial and business expansion by 2045...!!

So in summary:

1. 491 ha is already earmarked for residential growth in the Napier and Hastings areas... all on the "Plains".
2. An additional 150 ha for possible new residential growth over and above the above.
3. Then there's a further 110 ha already planned for industrial / business development.
4. A further 225ha required for industrial development by 2045.
5. That's a total of **976ha** of our Heretaunga Plains gone...!! Gone forever...!!

THIS CAN NOT BE ALLOWED TO HAPPEN.

	Pre ~WW2	Post ~WW2	TOTAL (ha)
Hastings	1200	900	2100
HNth	150	500	650
Napier	800	2000	2800
	2150	3400	5550

ALL figures are approximate only
Figures supplied by Hawke's Bay Regional Council

Approximately 5,550 hectares of land has been taken for urban development. This area **does not** include lifestyle blocks which also become unproductive and non producing!

THIS ECONOMIC VANDALISM MUST STOP.

HPUDS, as the present standing document, needs to be shaken up, shaken out and revamped to prioritize development off fertile soils and onto unproductive soils.

HPUDS 2017

Areas (Ha) for Residential and Industrial Development

Napier

Bay View	16	
Parklands	42	
Park Island	16	
Riverbend / The Loop	60	
Te Awa	100	
Western Hills	43	(Off Plains)
Total:	277	

Area on Plains. 234ha

Hastings

Brookvale Rd / Romanes Dr	36	
Clive St	4	
Flaxmere	9	
Howard St (to Awahou Stream)	18	
Irongate / York Rd	27	
Kaiapo Rd	73	
Lynhurst	28	
Lyndhurst Extension	34	
Murdock / Copeland	23	
Murdock Rd. West	1	
Northwood	4	
Haumoana / Te Awanga (East Rd)	15	(Off Plains)
Marakakaho Settlement	17	(Off Plains)
Middle Rd / Iona Rd	67	(Off Plains)
Waimarama	11	(Off Plains)
Total:	367	

Area on Plains. 257ha.

Residential Reserve Areas (Red)

Possible new future areas of residential development on the Plains.

South Pirimai	11	
Arataki Extension	16	
Middle Rd (in part)	65	(Te Aute Rd – Karamu Stream. Te Aute Rd – Middle Rd)
Murdock Rd / Railway Rd Sth)	13 & 5	
Wall Rd (in part)	40	
Total:	150	

Designated Industrial / Business Areas (Yellow)

Awatoto Growth Area
Napier Business Park
Irongate Industrial
Omahu Industrial
Tomoana Industrial
Whakatu Industrial
Total: 110ha

Another 225ha required by 2045

Summary:

Residential development for Napier and Hastings on the Heretaunga Plains: **491ha**.

An additional **150ha** for possible new residential growth over and above the above.

A further **110ha** already planned for industrial / business development.

That's a total of **751ha** of our Heretaunga Plains gone...!!

Then there's another **225ha** required for Industrial/Business development by 2045.

Total: 976ha.. Gone forever...!! THIS CAN NOT BE ALLOWED TO HAPPEN.

The city councils are of the view that as all the infrastructure is already in place, the easy and least expensive option is to just tag new developments onto existing roads, water, sewage, waste water systems and power supplies that already exist on the Plains. This is irresponsible negligence by our elected councilors and deserves to be legally challenged.
Elected people within the HDC council; one a recent senior councilor, the other a sitting councilor as well as a senior planner, have openly admitted that the HDC agenda is to continue urban creep across the Plains because all the infrastructure is in place. In other words, it's the easier option and it's cheaper…!!
We consider this attitude to be very short sighted and the actions of a negligent and irresponsible authority, in light of urban process and financial gain by way of rates.
Developing on unproductive land is expensive but by incentivizing and encouraging developers to move to these areas, this is a short term investment worth making when one considers the long term investment in saving our most precious asset forever.

Suggestions For A Solution

So what we suggest is to move urban development off the fertile soils of the Heretaunga Plains.
We believe the way forward is:

1. Build up instead of out on existing urban land. There is a drive for apartment development above existing inner city shopping areas, however the compliance issues make the feasibility of encouraging this initiative very difficult. Short cutting these expensive compliance issues needs to be seriously looked at to incentivize investors to encourage this inner city living. Another "up and not out" regulation that needs to be pursued is all existing consented areas need to be multistoried. No building consent should be issued to single storied buildings on the Heretaunga Plains from now on. We can house many more people on smaller areas than the existing rules allow. Do we want to be likened to Tauranga?

2. Be creative and develop subdivisions on unproductive soils instead of fertile soils. Surrounding the Heretaunga Plains are unproductive hills which are virtually untouched. It is more expensive to develop urban living on these hills which does put developers off investing in these areas. The risk is too high. The HDC, NCC and HBRC need to embrace and support enterprising and innovative development that is not taking place on "stolen" high yielding agricultural land. However, with some creative incentives from councils to encourage investors in these areas, more subdivisions could be developed to take advantage of this huge undeveloped resource. Such as:

- Drop the Development Contributions forced upon developers and add this tax onto the new property owners.

- Make it easier to get Resource Consent and simplify the Resource Management Act to develop subdivisions on unproductive land off the Heretaunga Plains. This includes our systems and rules that make it difficult to change existing zoned areas.

3. Create new and exciting satellite subdivisions that will turn into villages and eventually towns on unproductive land surrounding our two main cities. Examples are:

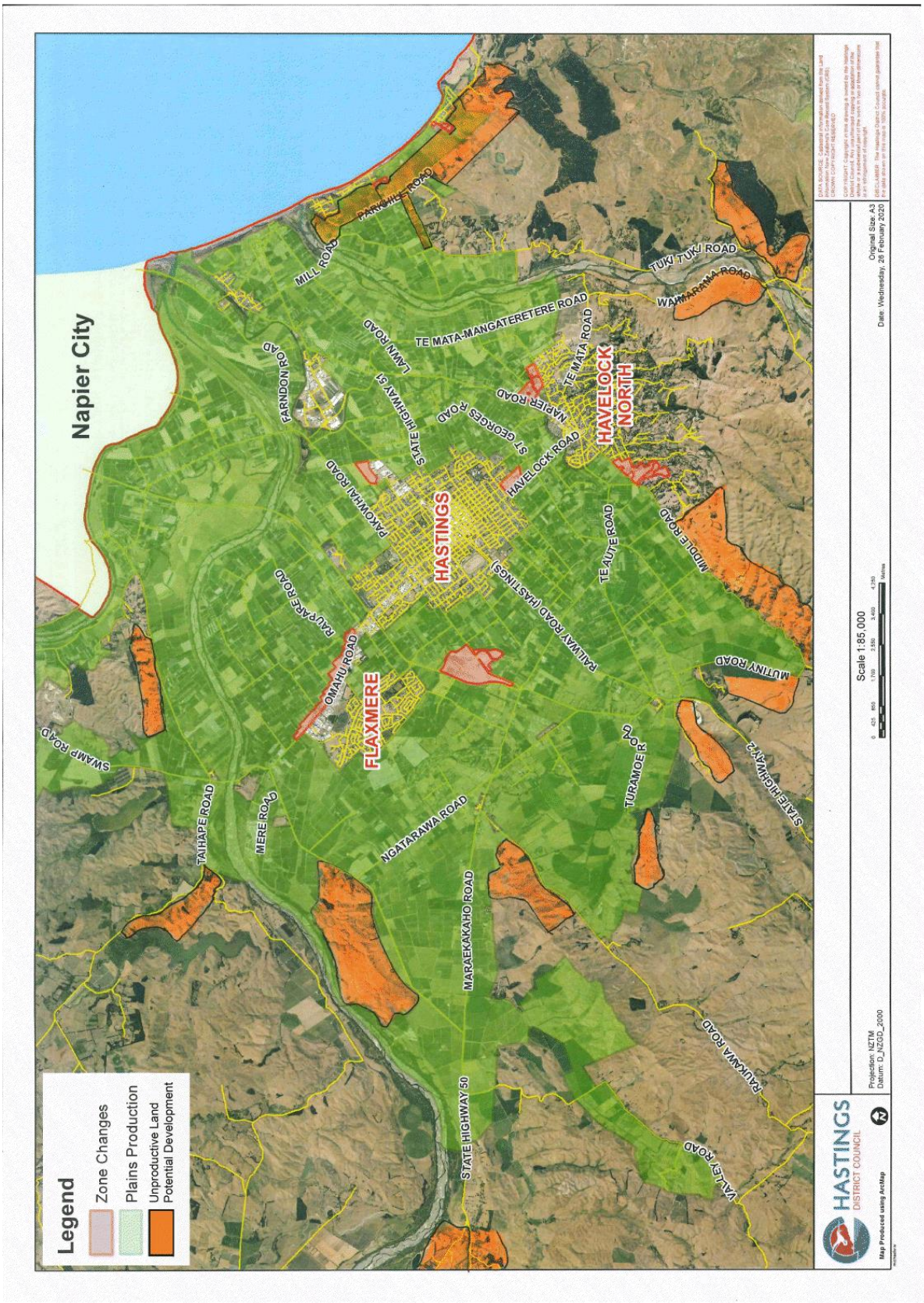
- Te Awanga and Haumoana. This has started and a very popular place to live. More encouragement from councils needs to be promoted rather than objected to such as the case on unproductive land on Raymond Road.

- Maraekakaho. A wonderful settlement has started here and should be encouraged to expand.

- The Havelock hills, off Middle Road south of Havelock North. A 400 residential subdivision has currently got resource consent, however thought needs to given to developing infrastructure to sustain this huge development, plus the much more potential development in the area, such as improved roading, a new school, shopping area and parks.

- More of the hills around and beyond the Heretaunga Plains. See map.

- Waimarama is also a very popular coastal community that is restricted for expansion by zoning issues on the surrounding hills.


Napier City
HASTINGS
HAVELOCK NORTH
FLAXMERE
PARKHILL ROAD
MILL ROAD
TUKI TUKI ROAD
WAIMARAMA ROAD
TE MATA-MANGATERETERE ROAD
TE MATA ROAD
NAPIER ROAD
ST GEORGES ROAD
HAVELOCK ROAD
LAWN ROAD
STATE HIGHWAY 51
FARNDON ROAD
PAKOWHAI ROAD
RAILWAY ROAD (HASTINGS)
TE AUTE ROAD
MIDDLE ROAD
RAUPARE ROAD
OMAHU ROAD
MUTTNY ROAD
SWAMP ROAD
TAIHAPE ROAD
MERE ROAD
NGATARAWA ROAD
TURAMOE R.
STATE HIGHWAY 2
MARAEKAKAHO ROAD
RAUKAWA ROAD
STATE HIGHWAY 50
VALLEY ROAD
Legend
Zone Changes
Plains Production
Unproductive Land
Potential Development
Scale 1:85,000
Original Size: A3
Date: Wednesday, 26 February 2020
Projection: NZTM
Datum: D_NZGD_2000
HASTINGS DISTRICT COUNCIL
Map Produced using ArcMap

Page 9

The Heretaunga Plains were created by the deposits of the Tutaekuri, Ngaruroro and Tukituki Rivers over hundreds of thousands of years. Now those rivers are contained, we **are not** and **will not** ever get these soils enriched again. **What we have got now is all we are going to get.** By covering those rich deposits up with concrete and asphalt, we will never be able to get them back again. They are gone… Gone forever!!

So these incredible Plains comprise some of the best and most fertile land in the world. 3% of New Zealand's land is Class 1 and the Heretaunga Plains is Class 1.
These Plains have the most fertile soils, abundant water supply from deep aquifers, warm dry climate with very high sunlight hours for a long growing season, very modest frost risk, a rainfall of less than 1000mm, excellent infrastructure and situated very close to a Port, which positions this area as some of the best land for growing the best food in the world. This drives the economy, business and jobs.
It is unlikely that we will find any other area in the world that has all these wonderful attributes all lined up together to give us this incredible asset.
Question: Do we appreciate what we have here? If not, we should not squander it senselessly.

It is with horror and despair that one can see from the 1960's through to present day, what appears to have been an undisciplined and piecemeal urban sprawl on the Plains.
This continues to occur under the present HPUDS document at an alarming rate, thus making this document a total ineffectual planning instrument.
We cannot continue to be influenced by existing infrastructure which invariably leads to taking the easy options for future developments.

As a group, we have identified alternative areas for development around Havelock North, out towards Te Awanga and other areas where it is only logical to concentrate future housing developments.
Some tough and enduring protection of fertile soils needs to become THE MAJOR part of any future HPUDS documents.

All three councils now need to give the strongest messages; **"Draw Line in the Soil"** and legislate that **"NO MORE"** land on the Heretaunga Plains is to be taken for urban and industrial development… **EVER!!**
The time is right for: "**Enough is Enough"**; we have no choice but to **"Save our Fertile Soils"**.

Let this be a question for your thoughts:

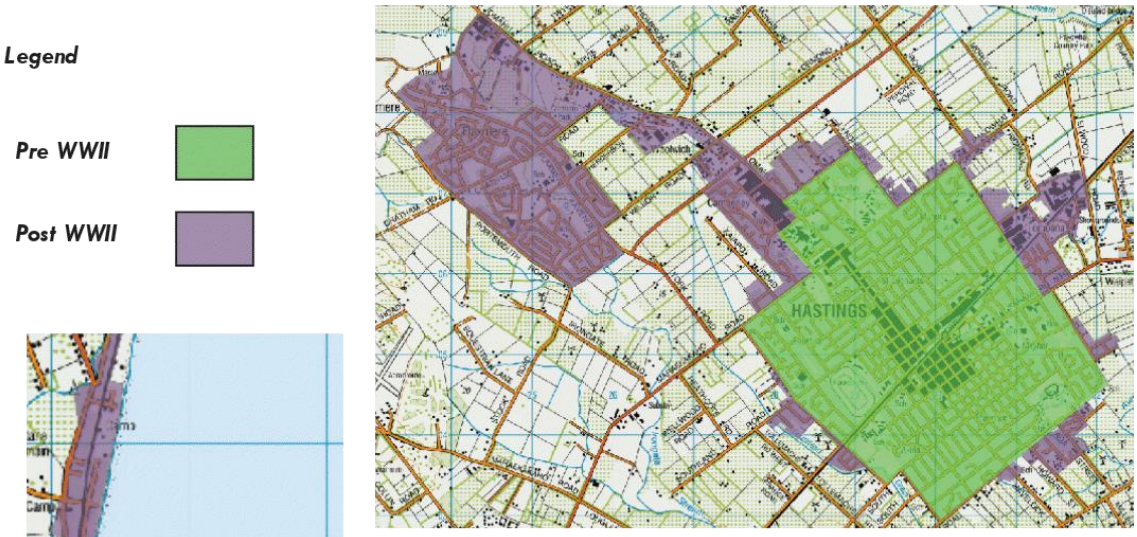
Do the present sitting councilors of all three councils want to be part of and responsible for the present degradation of the fertile soils of the Heretaunga Plains that future generations will look back on and say:
"What the hell were they doing?"
"They weren't bold enough to "Draw a Line in the Soil" and protect our most precious resource. Now we don't have any of our fertile soils left; all we have is unproductive land to feed and sustain ourselves".
Future generations will look upon all three of these present councils with disgust..!!
Do we want to end up like Orange County, California? Millions of orange trees once grew in Orange County, but because of urban sprawl, only a few remain.

Covid 19: A Reflection.

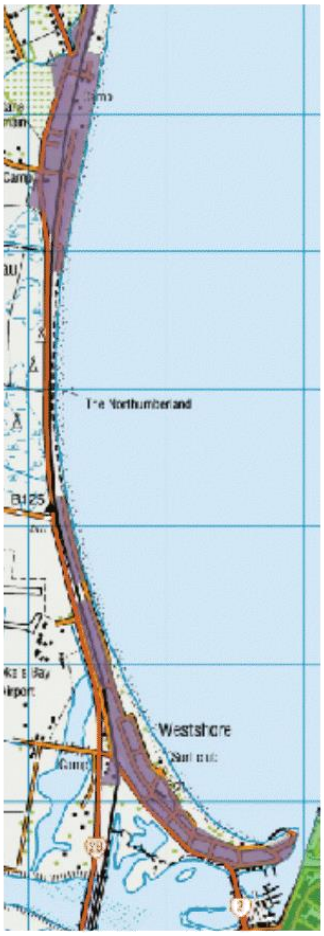
Living in these extraordinary times further reinforces the absolute importance of our food production.

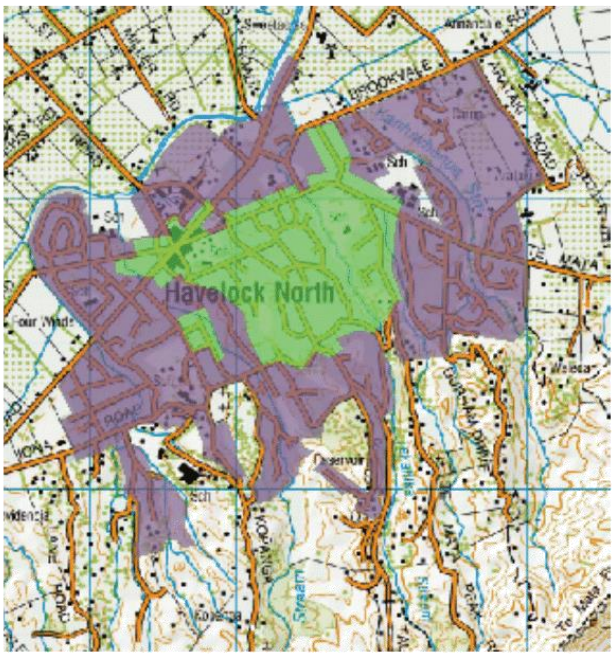
It has been demonstrated, due to this event, just how well poised New Zealand is with it's strong agricultural food based production.
During the lock down period along with other obvious difficulties Hawke's Bay has managed to harvest its bumper crop of horticultural produce. There is absolutely no question of how important the Heretaunga Plains are in growing food and the global hunger and demand for what we can produce.

We must preserve every inch of the soils of the Heretaunga Plains so that our region can not only survive difficult times but prosper in times of adversity.



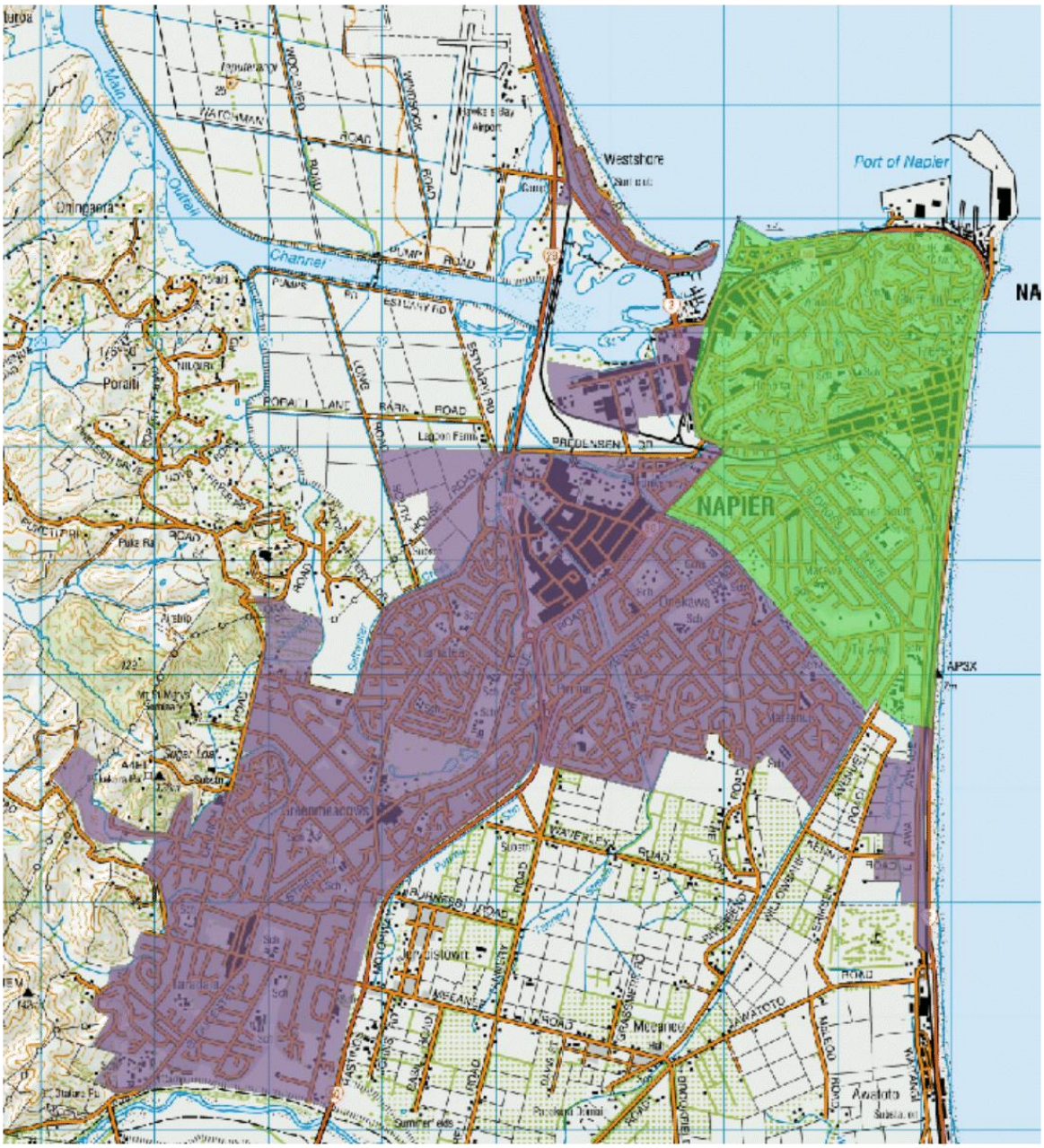
Hastings - Pre WWII vs Post WWII





Havelock North - Pre WWII vs Post WWII

Page 11



Napier - Pre WWII vs Post WWII

Legend

Pre WWII

Post WWII

Page 13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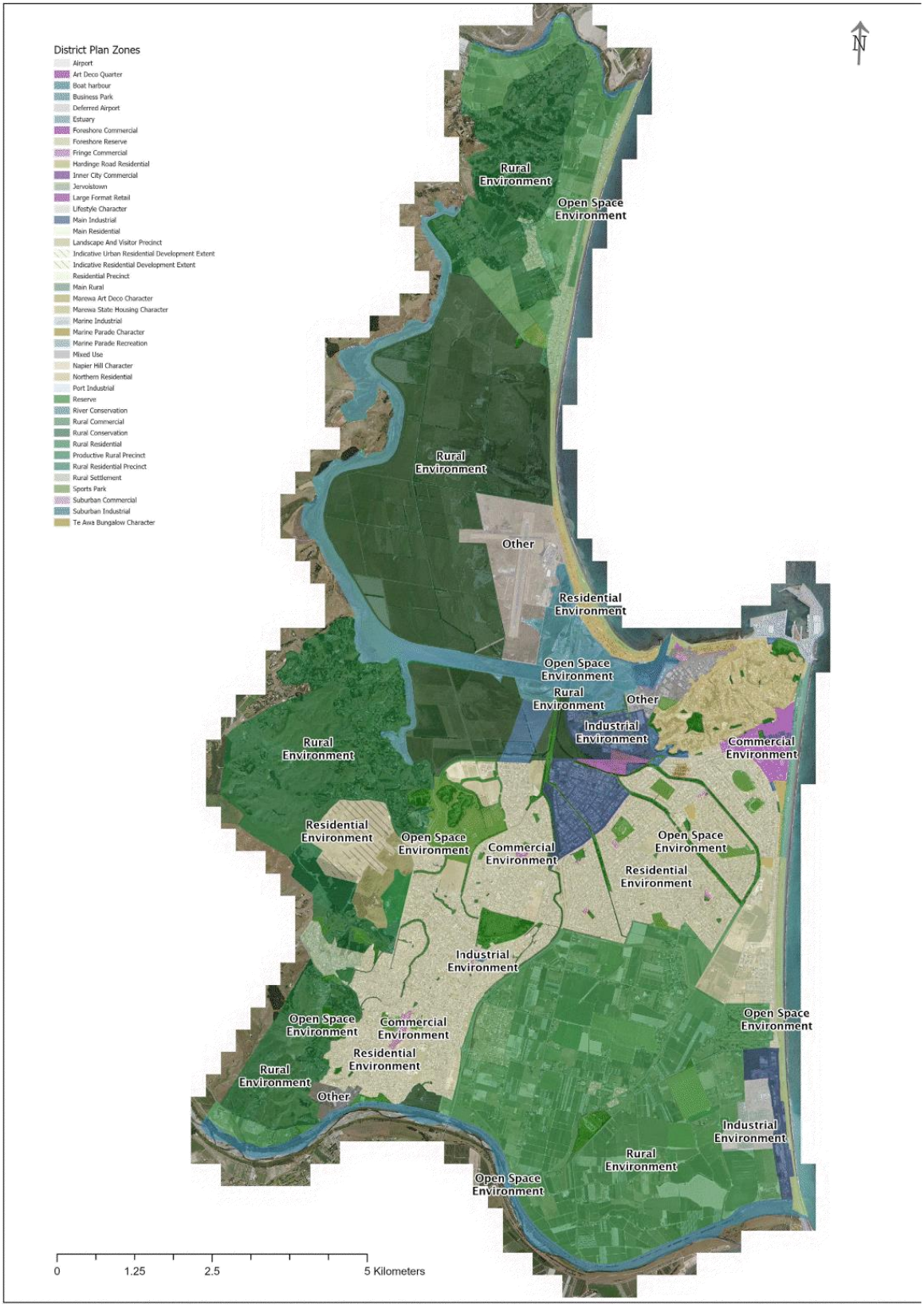
District Plan Zones
Airport
Art Deco Quarter
Boat harbour
Business Park
Deferred Airport
Estuary
Foreshore Commercial
Foreshore Reserve
Fringe Commercial
Hardinge Road Residential
Inner City Commercial
Jervoistown
Large Format Retail
Lifestyle Character
Main Industrial
Main Residential
Landscape And Visitor Precinct
Indicative Urban Residential Development Extent
Indicative Residential Development Extent
Residential Precinct
Main Rural
Marewa Art Deco Character
Marewa State Housing Character
Marine Industrial
Marine Parade Character
Marine Parade Recreation
Mixed Use
Napier Hill Character
Northern Residential
Port Industrial
Reserve
River Conservation
Rural Commercial
Rural Conservation
Rural Residential
Productive Rural Precinct
Rural Residential Precinct
Rural Settlement
Sports Park
Suburban Commercial
Suburban Industrial
Te Awa Bungalow Character
N
Rural Environment
Open Space Environment
Rural Environment
Other
Residential Environment
Open Space Environment
Rural Environment
Other
Industrial Environment
Commercial Environment
Rural Environment
Residential Environment
Open Space Environment
Commercial Environment
Open Space Environment
Residential Environment
Industrial Environment
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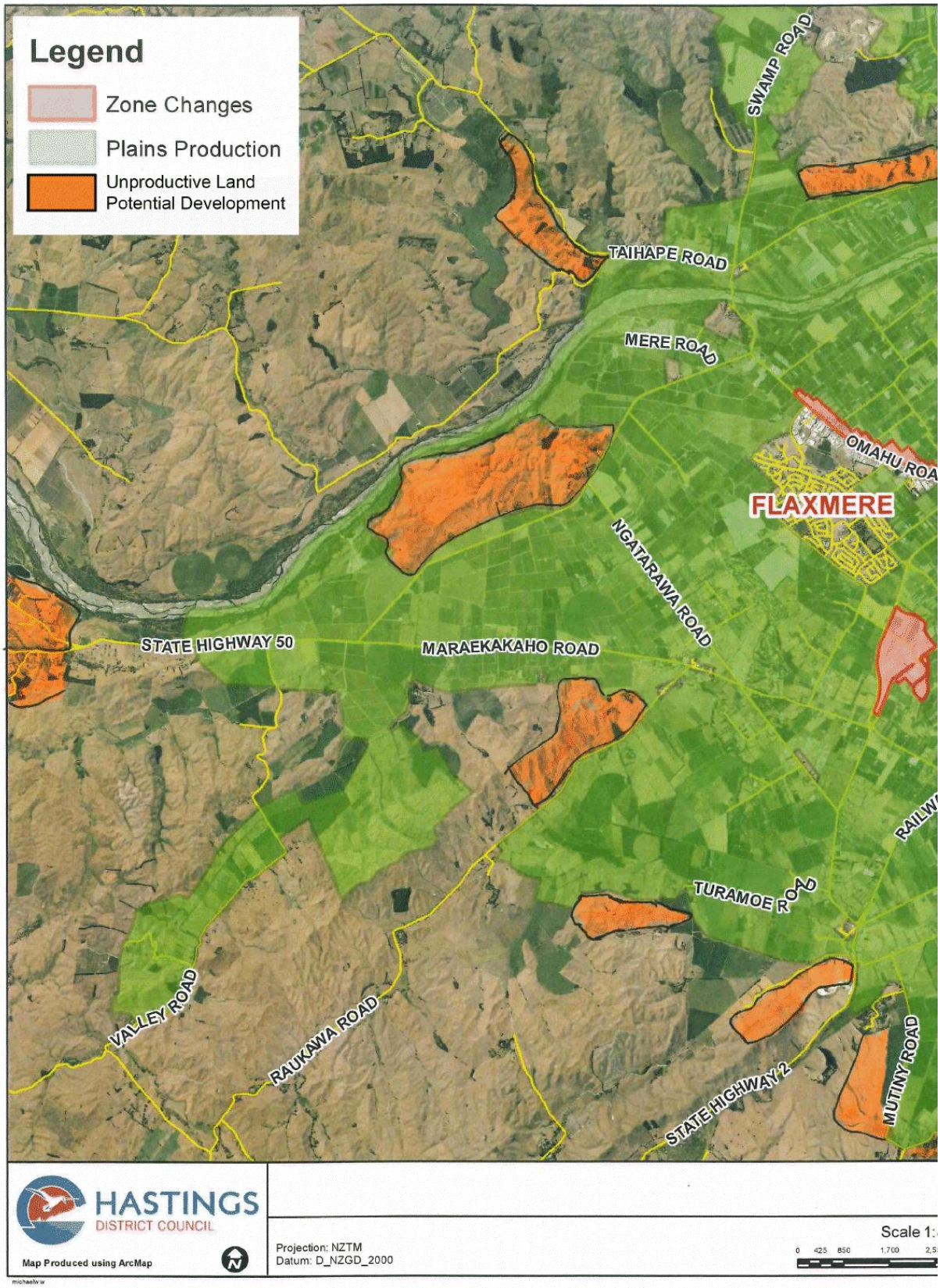
Legend
Zone Changes
Plains Production
Unproductive Land Potential Development
SWAMP ROAD
TAIHAPE ROAD
MERE ROAD
OMAHU ROA
FLAXMERE
NGATARAWA ROAD
STATE HIGHWAY 50
MARAEKAKAHO ROAD
TURAMOE ROAD
VALLEY ROAD
RAUKAWA ROAD
STATE HIGHWAY 2
MUTINY ROAD
HASTINGS
DISTRICT COUNCIL
Map Produced using ArcMap
Projection: NZTM
Datum: D_NZGD_2000
Scale 1:
0 425 850 1,700

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Napier City
FARNDON ROAD
RAUPARE ROAD
MILL ROAD
PAKOWHAI ROAD
PARKHILL ROAD
STATE HIGHWAY 51
LAWN ROAD
HASTINGS
TE MATA-MANGATERETERE ROAD
ST GEORGES ROAD
HAVELOCK ROAD
NAPIER ROAD
TE MATA ROAD
TE AUTE ROAD
HAVELOCK NORTH
MIDDLE ROAD
WAIMARAMA ROAD
TUKI TUKI ROAD
le 1:85,000
2,550 3,400 4,250
Metres
Original Size: A3
Date: Wednesday, 26 February 2020
DATA SOURCE: Cadastral information derived from the Land Information New Zealand's Core Record System (CRS). CROWN COPYRIGHT RESERVED
COPYRIGHT: Copyright in this drawing is owned by the Hastings District Council. Any unauthorised copying or adaptation of the whole or a substantial part of the work in two or three dimensions is an infringement of copyright.
DISCLAIMER: The Hastings District Council cannot guarantee that the data shown on this map is 100% accurate.

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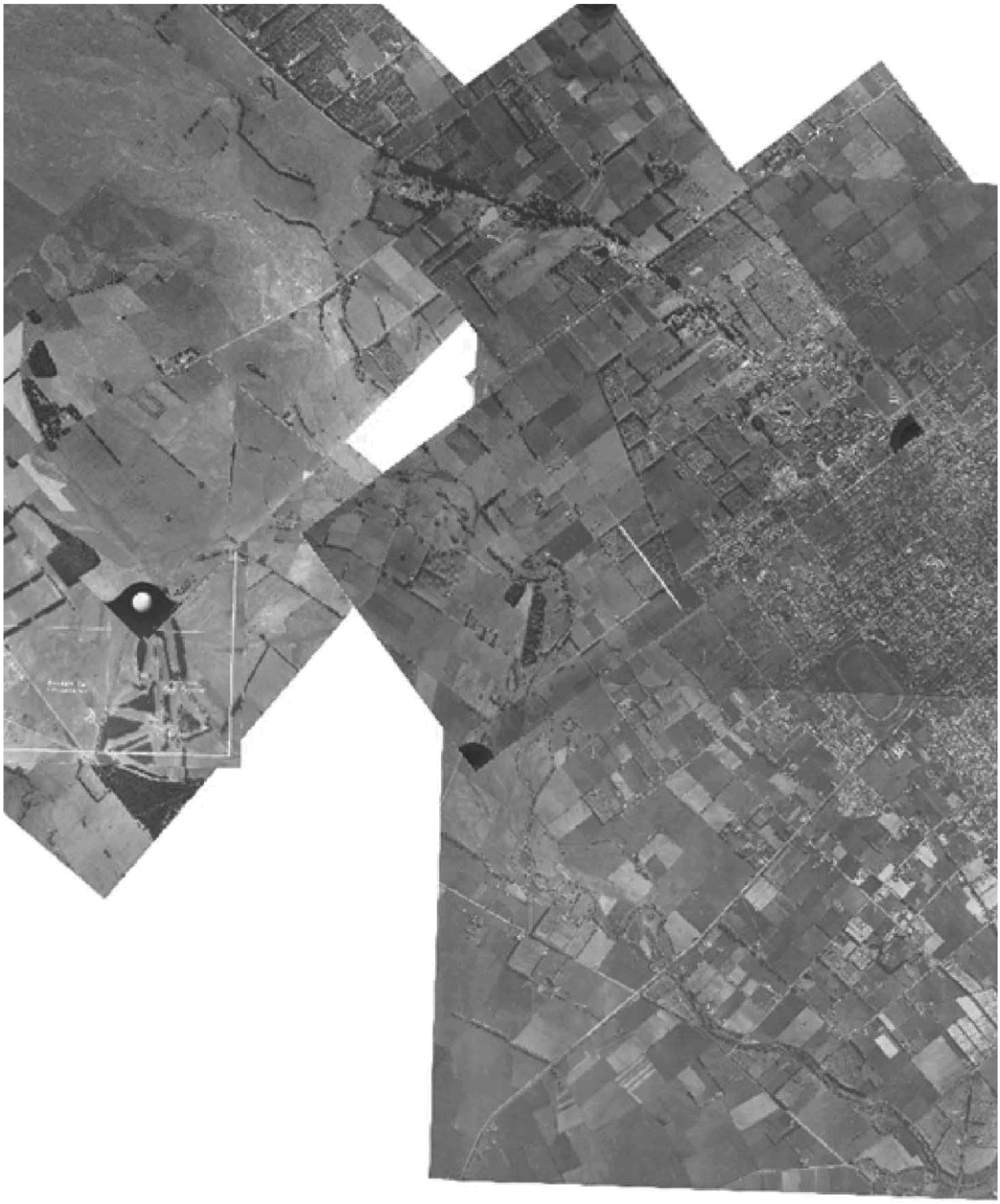
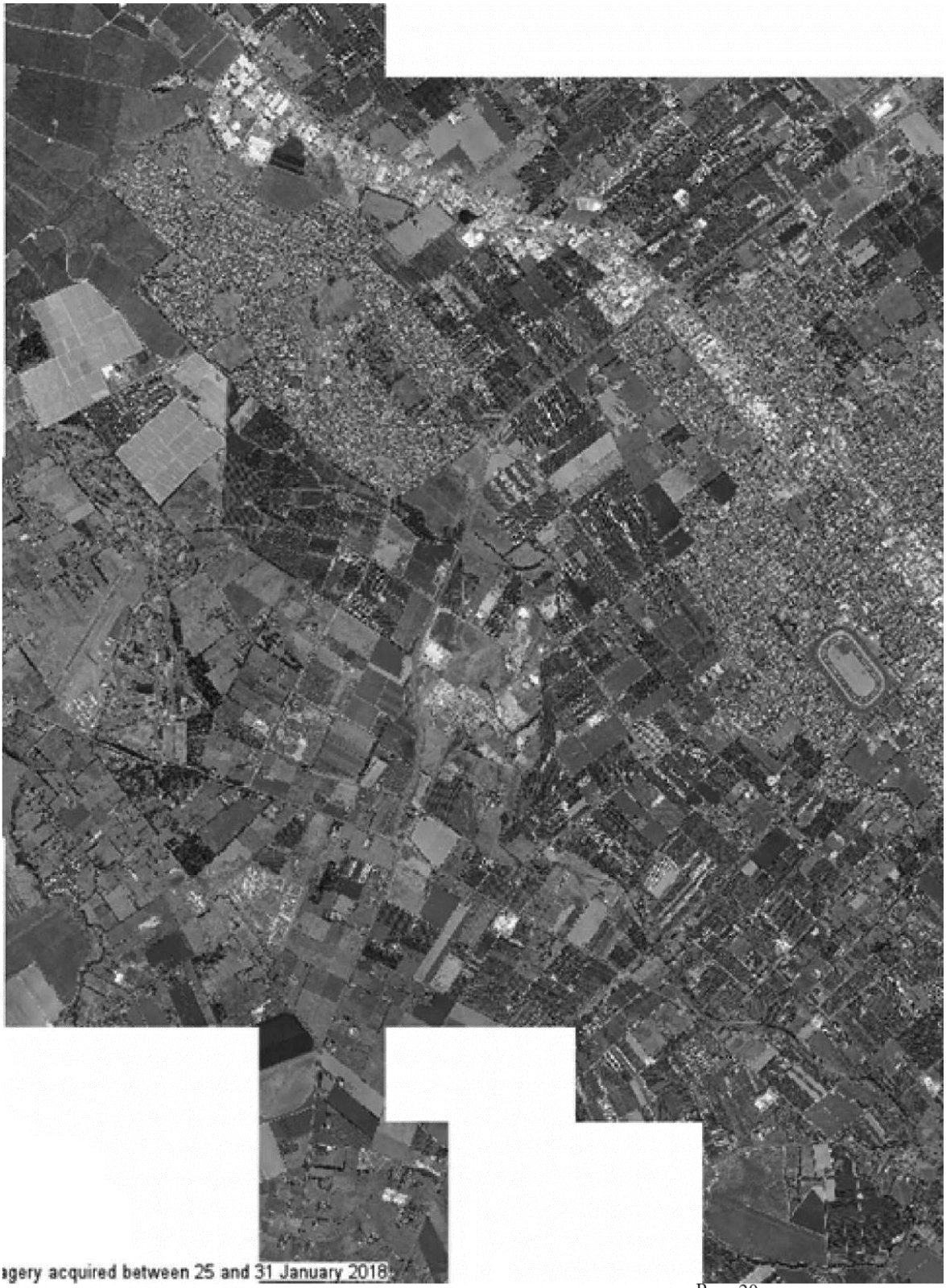


Hastings and surrounds
circa 1940s-50s



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Hastings and surrounds. Jan 2018

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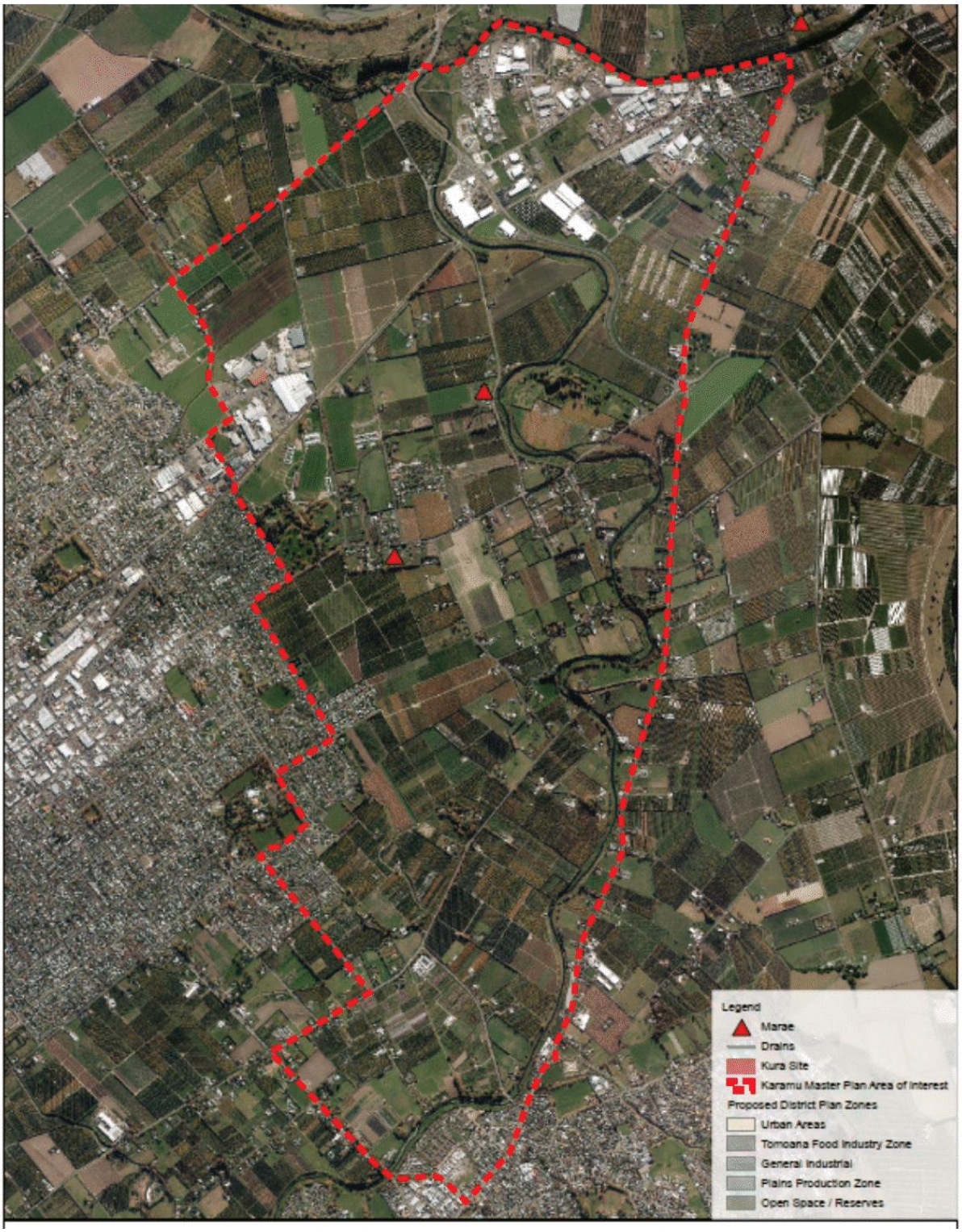
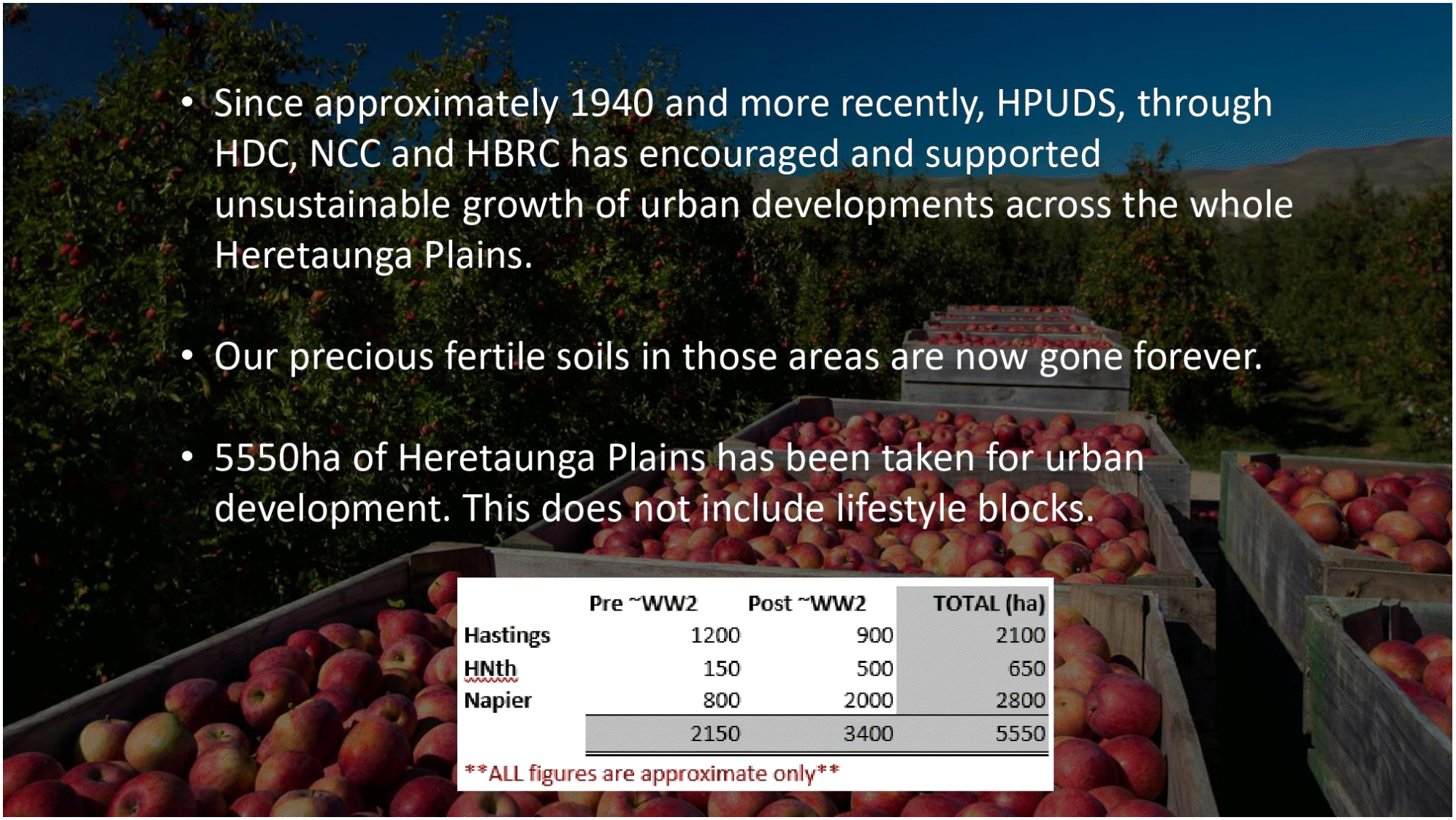

Legend
Marae
Drains
Kura Site
Karamu Master Plan Area of Interest
Proposed District Plan Zones
Urban Areas
Tomoana Food Industry Zone
General Industrial
Plains Production Zone
Open Space / Reserves


Protection of our Fertile Soils
on the Heretaunga Plains

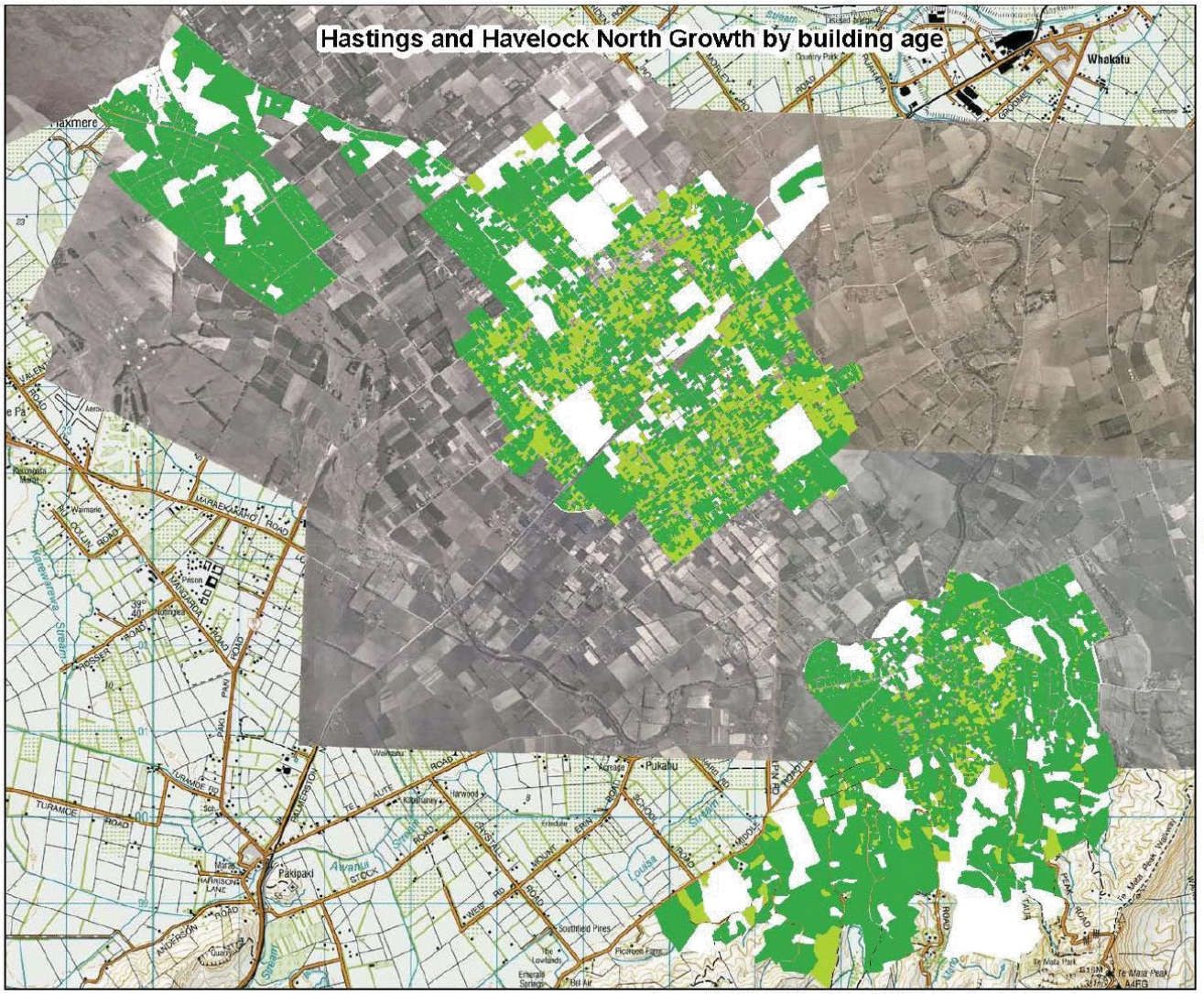


	Pre ~WW2	Post ~WW2	TOTAL (ha)
Hastings	1200	900	2100
HNth	150	500	650
Napier	800	2000	2800
	2150	3400	5550

ALL figures are approximate only

Hastings and surrounds
circa 1940s-50s

Hastings and surrounds. Jan 2018

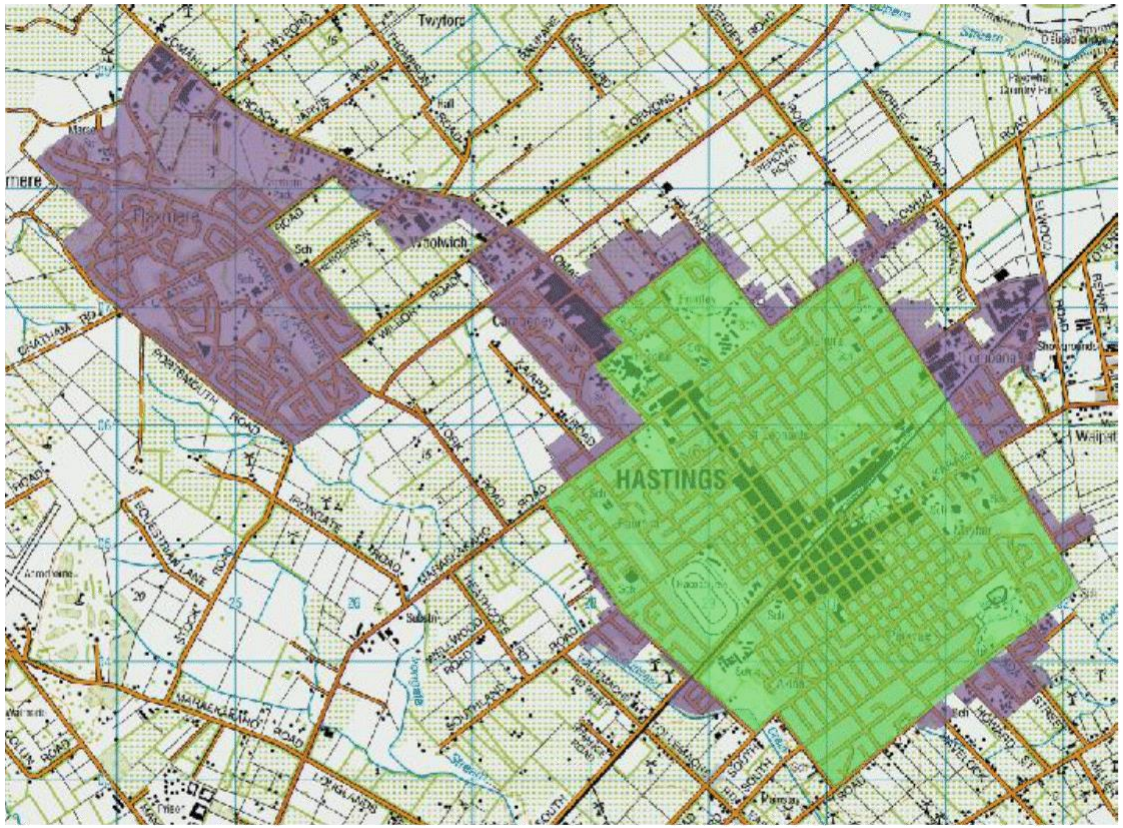


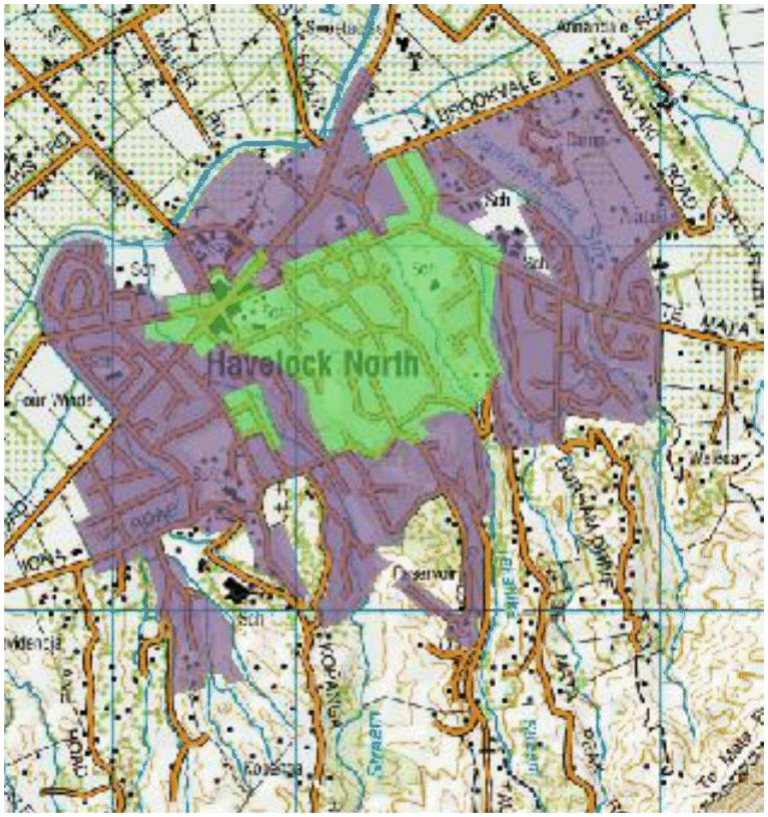
Item 11

Attachment 2

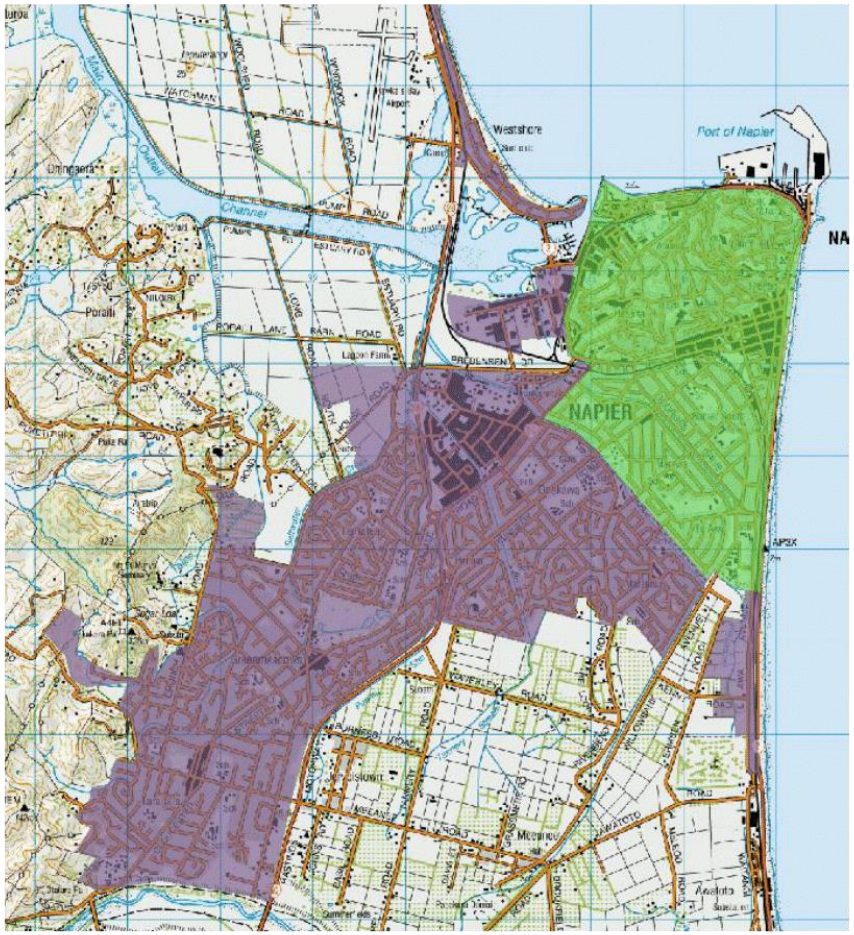
Attachment 2

Item 11





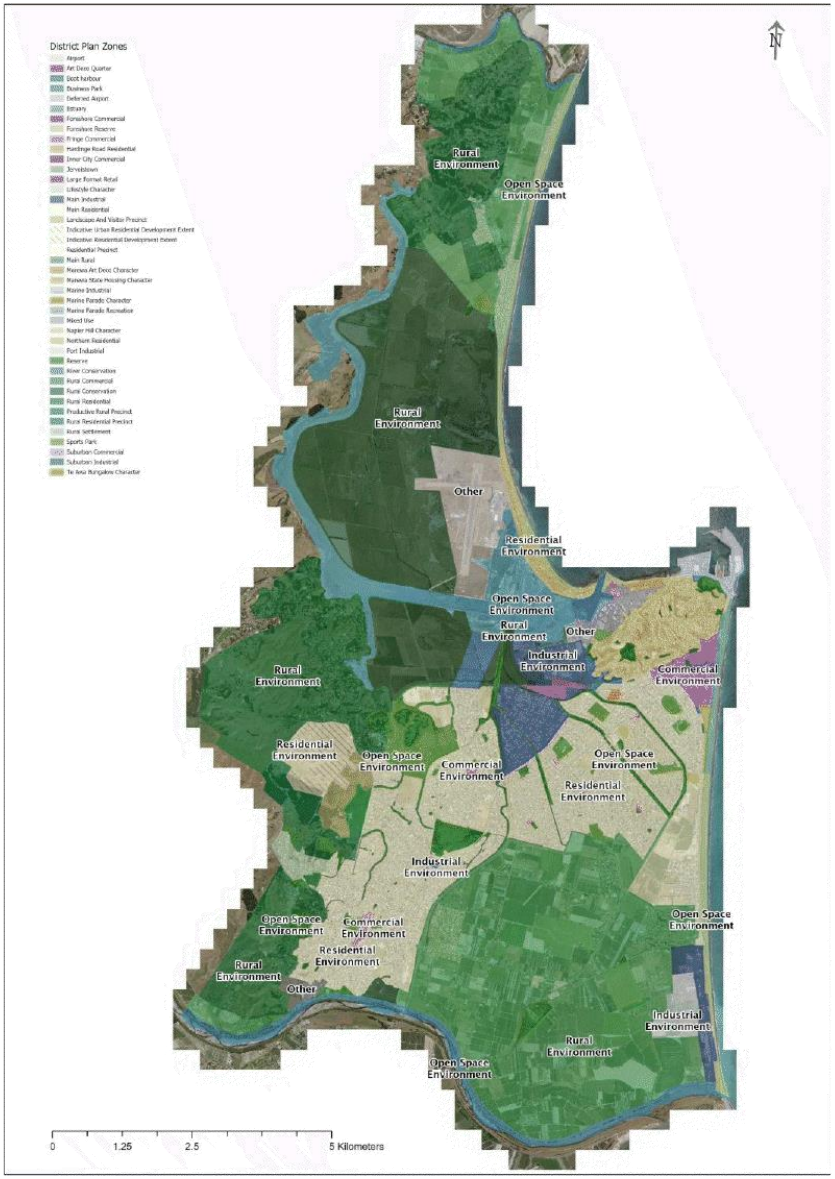
Green areas show pre WWII, Purple areas show growth post WWII

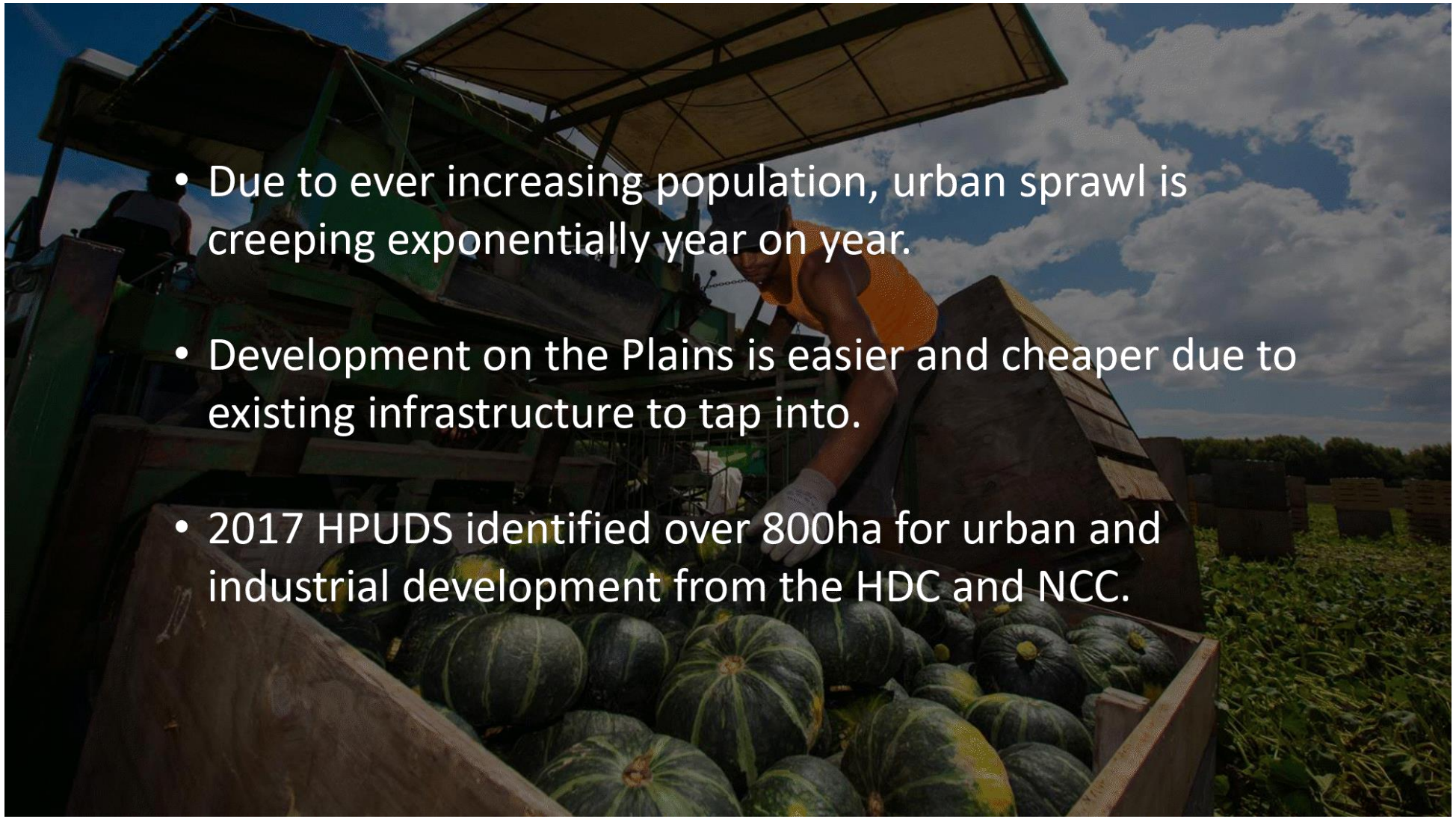


Green areas show pre WWII, Purple areas show growth post WWII

Attachment 2

Item 11




• Due to ever increasing population, urban sprawl is creeping exponentially year on year.
• Development on the Plains is easier and cheaper due to existing infrastructure to tap into.
• 2017 HPUDS identified over 800ha for urban and industrial development from the HDC and NCC.

HPUDS 2017

Areas (Ha) for Residential and Industrial Development

Napier

Bay View	16	
Parklands	42	
Park Island	16	
Riverbend / The Loop	60	
Te Awa	100	
Western Hills	43	(Off Plains)
Total:	277	

Area on Plains. 234ha

Hastings

Brookvale Rd / Romanes Dr	36	
Clive St	4	
Flaxmere	9	
Howard St (to Awahou Stream)	18	
Irongate / York Rd	27	
Kaiapo Rd	73	
Lynhurst	28	
Lyndhurst Extension	34	
Murdock / Copeland	23	
Murdock Rd. West	1	
Northwood	4	
Haumoana / Te Awanga (East Rd)	15	(Off Plains)
Marakakaho Settlement	17	(Off Plains)
Middle Rd / Iona Rd	67	(Off Plains)
Waimarama	11	(Off Plains)
Total:	367	

Area on Plains. 257ha.

Residential Reserve Areas (Red)

Possible new future areas of residential development on the Plains.

South Pirimai	11
Arataki Extension	16
Middle Rd (in part)	65 (Te Aute Rd – Karamu Stream. Te Aute Rd – Middle Rd)
Murdock Rd / Railway Rd Sth)	13 & 5
Wall Rd (in part)	40
Total:	150

Designated Industrail / Business Areas (Yellow)

Awatoto Growth Area
Napier Business Park
Irongate Industrial
Omahu Industrial
Tomoana Industrial
Whakatu Industrial
Total: 110ha

Another 225ha required by 2045

Summary:

Residential development for Napier and hastings on the Heretaunga Plains: **491ha**.

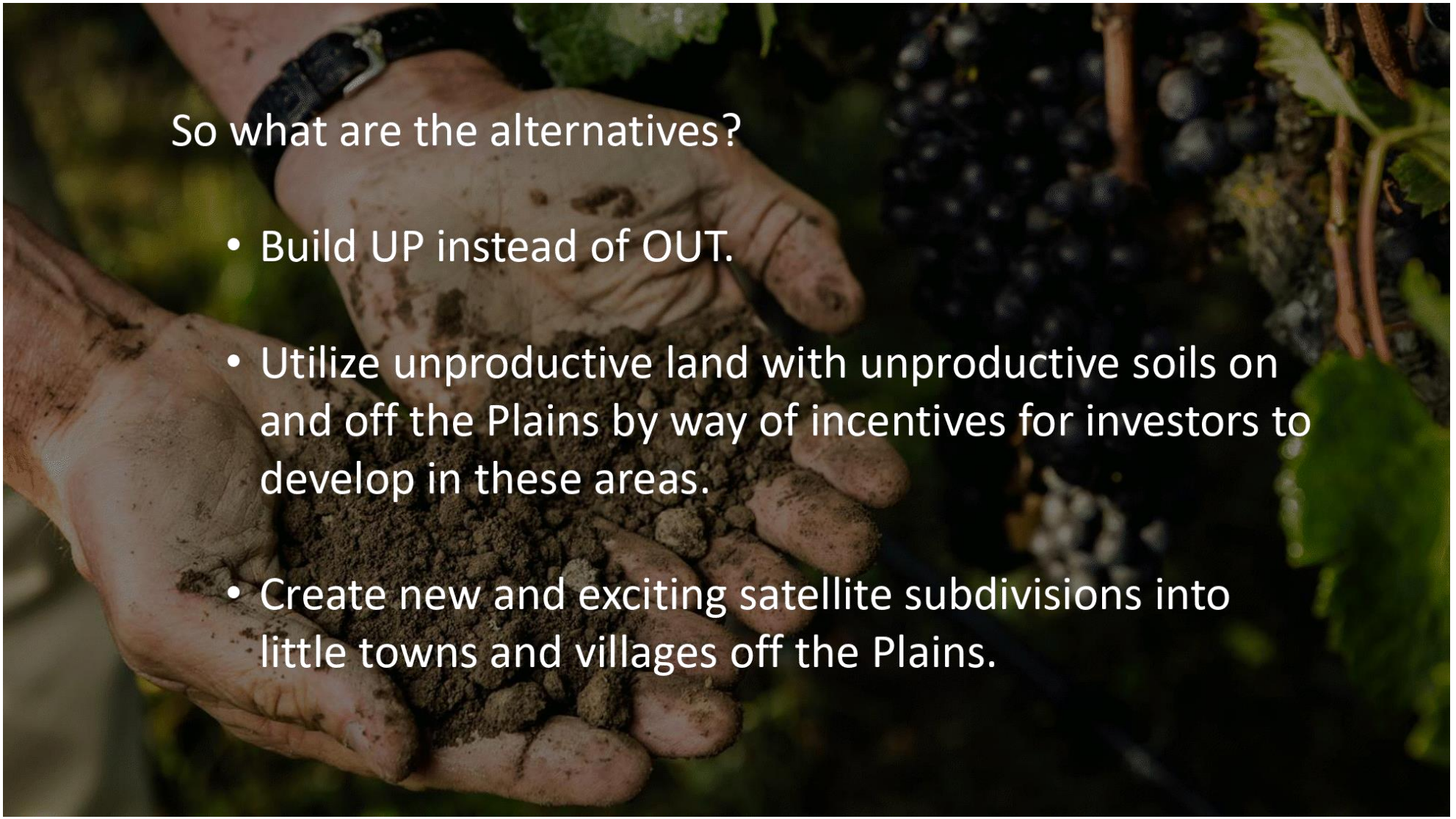
An additional **150ha** for possible new residential growth over and above the above.

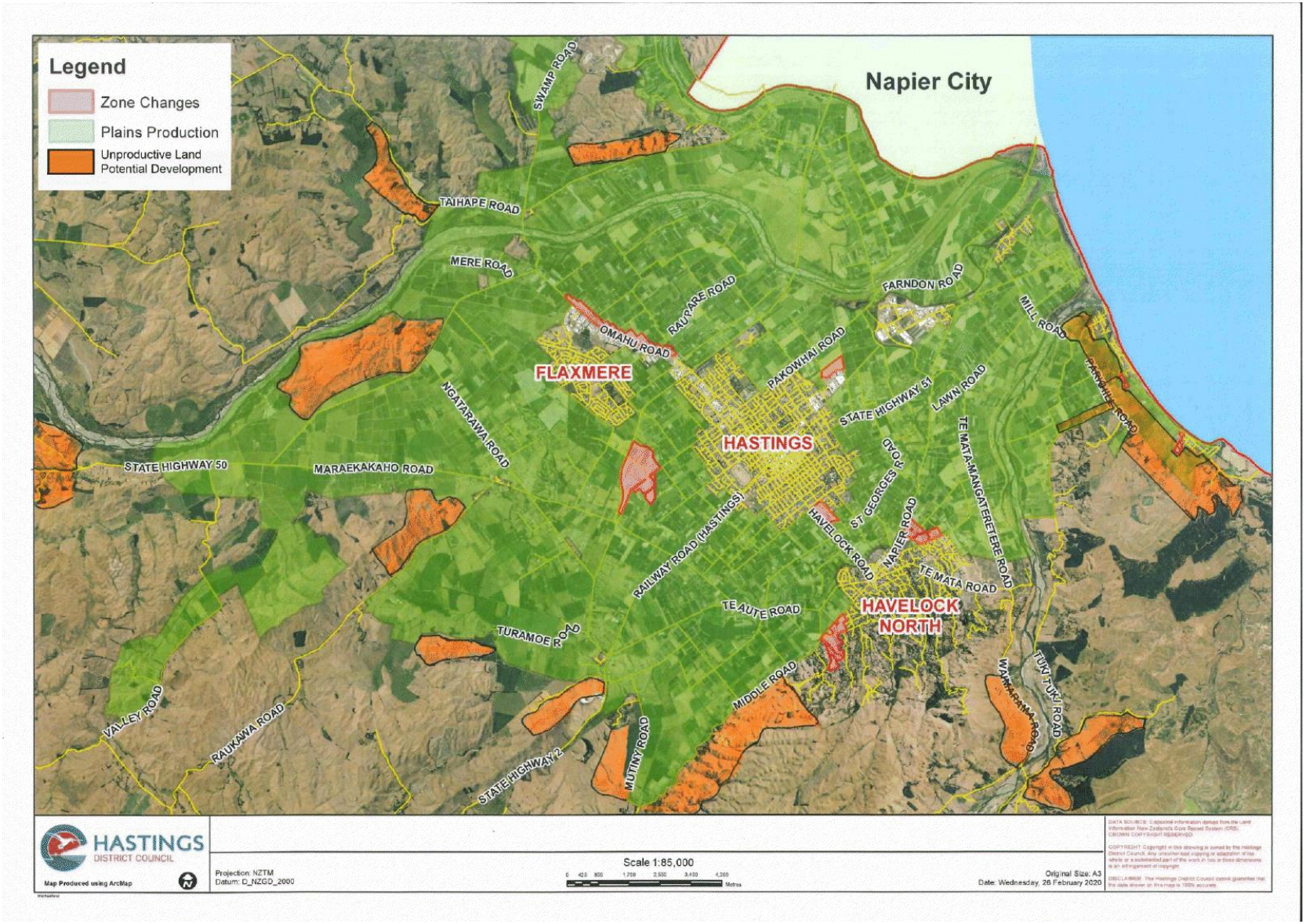
A further **110ha** already planned for industrial / business development.

That's a total of **751ha** of our Heretaunga Plains gone...!!

Then there's another **225ha** required for Industrial/Business development by 2045.

Total: 976ha.. Gone forever...!! THIS CAN NOT BE ALLOWED TO HAPPEN.


So what are the alternatives?
• Build UP instead of OUT.
• Utilize unproductive land with unproductive soils on and off the Plains by way of incentives for investors to develop in these areas.
• Create new and exciting satellite subdivisions into little towns and villages off the Plains.



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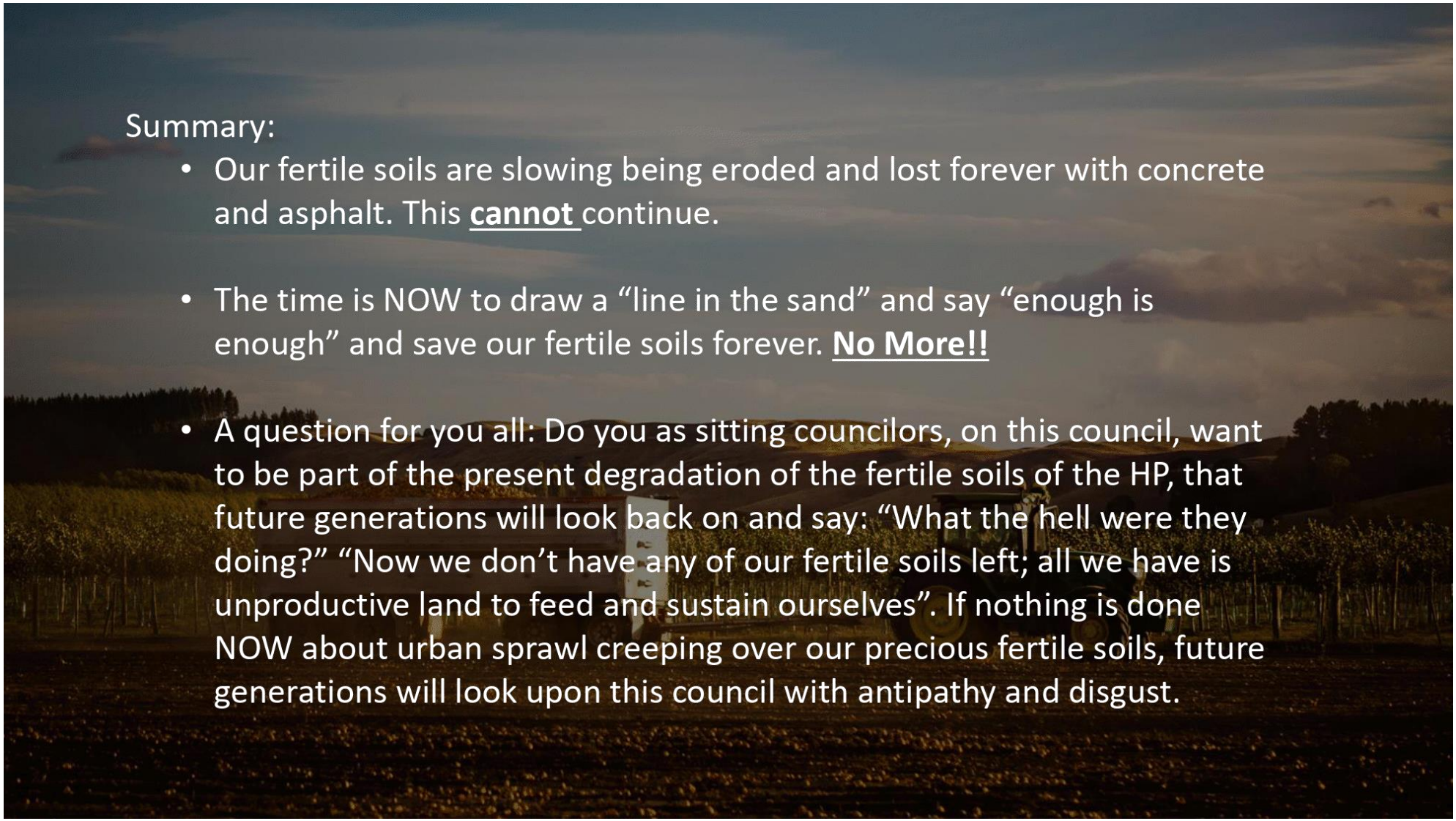
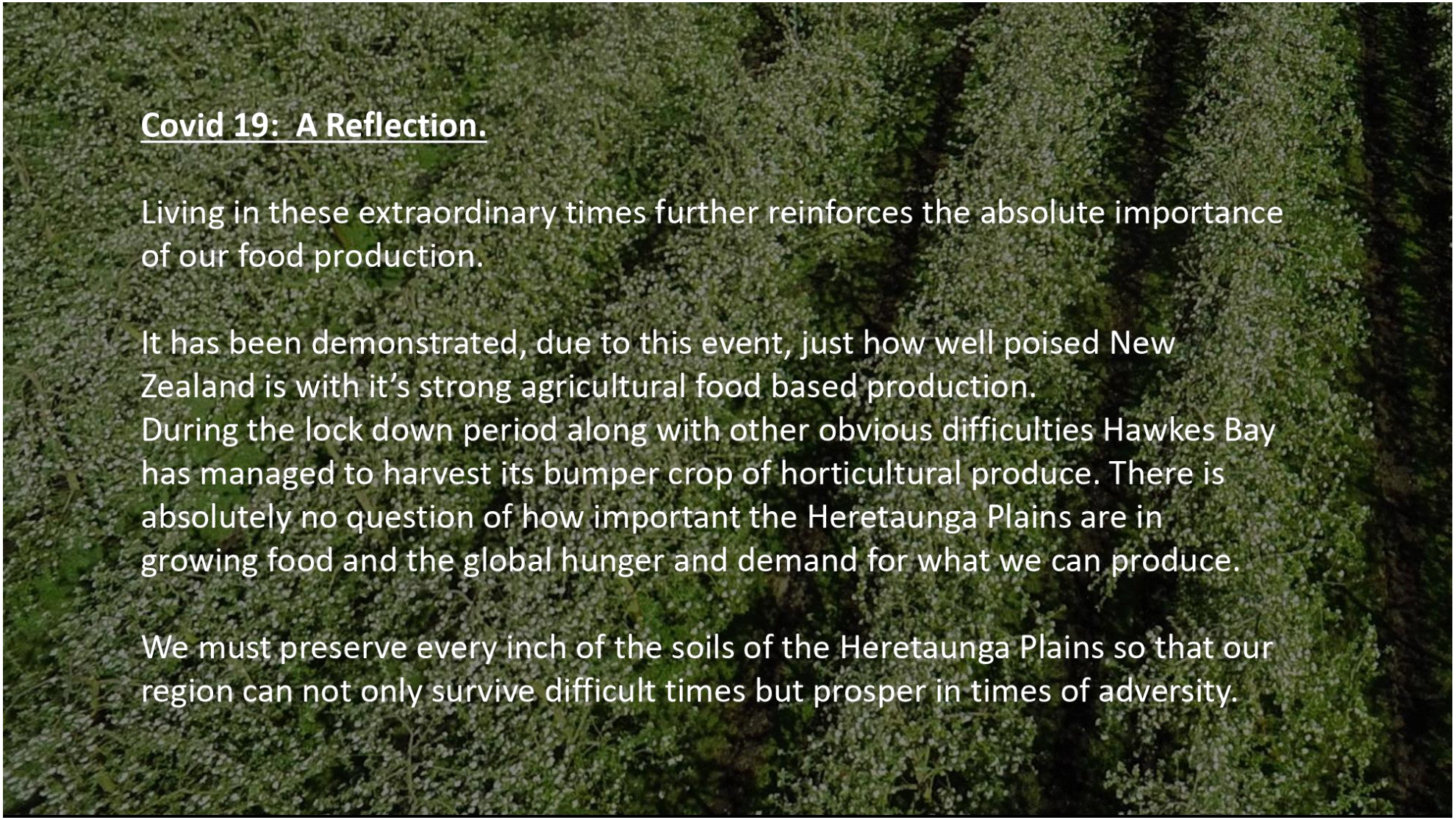
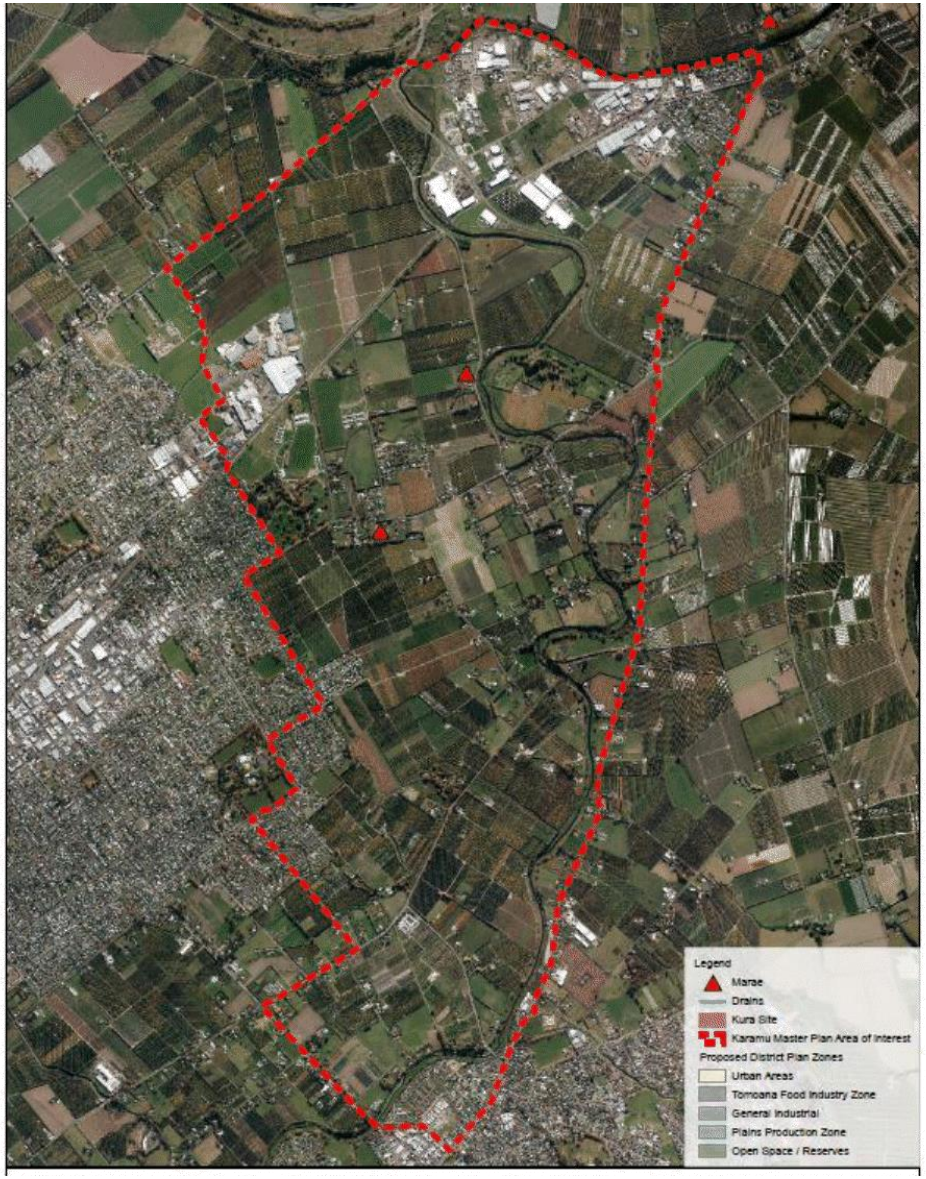

Summary:
• Our fertile soils are slowing being eroded and lost forever with concrete and asphalt. This **cannot** continue.
• The time is NOW to draw a “line in the sand” and say “enough is enough” and save our fertile soils forever. **No More!!**
• A question for you all: Do you as sitting councilors, on this council, want to be part of the present degradation of the fertile soils of the HP, that future generations will look back on and say: “What the hell were they doing?” “Now we don’t have any of our fertile soils left; all we have is unproductive land to feed and sustain ourselves”. If nothing is done NOW about urban sprawl creeping over our precious fertile soils, future generations will look upon this council with antipathy and disgust.


Covid 19: A Reflection.
Living in these extraordinary times further reinforces the absolute importance of our food production.
It has been demonstrated, due to this event, just how well poised New Zealand is with it's strong agricultural food based production.
During the lock down period along with other obvious difficulties Hawkes Bay has managed to harvest its bumper crop of horticultural produce. There is absolutely no question of how important the Heretaunga Plains are in growing food and the global hunger and demand for what we can produce.
We must preserve every inch of the soils of the Heretaunga Plains so that our region can not only survive difficult times but prosper in times of adversity.


Protect our Plains
Protect our Soils
Protect our Taonga
Protect our Future



Item 11

Attachment 2

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

Subject: SCHEME ECOLOGICAL MANAGEMENT AND ENHANCEMENT PLANS- BRAIDED RIVER BIRD CENSUS

Reason for Report

1. This report summarises ecology results from river bird census carried out over Tutaekuri, Ngaruroro and Tukituki (and its tributaries) as part of the Ecological Management and Enhancement Plan (EMEP) effectiveness monitoring.

Executive Summary

2. HBRC has dual statutory obligations concerning braided rivers to:
   2.1. protect the region from flooding events, and
   2.2. maintain the ecological integrity of braided rivers.
3. An EMEP has been developed for Tutaekuri, Ngaruroro and Tukituki rivers, which enables HBRC to avoid or mitigate any potential adverse impacts of flood protection activities on braided rivers, including specific protocols for braided river birds such as banded dotterel and black-billed gull. EMEP also provides for enhancement options so that HBRC achieves no-net loss and net-gain to maintain the health of braided rivers.
4. Braided river birds, the majority of which are classified as 'Threatened' or 'At-Risk', are subject to direct (e.g. beach raking) and indirect (weed invasion, predation, and mostly likely climate change) anthropogenic impacts as well as natural disturbance (e.g. flooding). Therefore, they are determined as good indicators of the effectiveness of the EMEP.
5. Wildlife Management International Ltd was contracted to lead the survey in November 2019 to count all species encountered on Tutaekuri, Ngaruroro, and Tukituki (including Mangaonuku, Waipawa, Tukipo, and Makaretu). The survey was designed so that resulting data would be spatially explicit and informative for identifying 'hotspots' of birds.
6. Total number of banded dotterel (Threatened – Nationally Vulnerable) counted across the survey area is 2308 banded dotterel, which amounts to 12% of its global population. According to the ranking of 119 braided rivers for their banded dotterel population size, Tukituki, Ngaruroro and Tutaekuri rivers support second, third and twelfth most population size in the country.
7. The survey also provided an indication that banded dotterel has shown no obvious decline on HB rivers since 1960s, despite nationally it is declining at an alarming rate (estimated decline of 50% every 20 years or 3 generations of the bird).
8. Given that only braided rivers that have not experienced the significant decline of this species are Greater Wellington Region and Hawke's Bay, there is circumstantial evidence that flood protection activities (e.g. beach raking) which result in creating open gravel habitat is likely to have neutral or positive impacts on braided river birds.
9. As for the distribution of banded dotterel, several segments of rivers were emerged as seemingly hotspots, including lower reaches of Ngaruroro and Tukituki rivers. Tutaekuri supported reasonably high number of this species throughout.
10. It is intended that such census is to be done over three years consecutively to gain representative data on population size and trend, and spatial distribution of river birds. Therefore the 2019 results are baseline and conclusions are preliminary.

Strategic Fit

11. HBRC manages rivers and waterways with maintenance activities (beach raking, spraying and gravel extraction) which could potentially affect the bird life on the river bed. With implementation of the EMEP, collaboration with an ecologist and recognising regional biodiversity, results of the monitoring show that we do achieve the maintenance standard while protecting and enhancing the living species within these areas of the braided rivers.
12. The survey results will inform HBRC and the region of the state and trend of braided river birds which are indicators of the condition of braided river ecosystems, thus the regional biodiversity.

Background

13. The Ecological Management and Enhancement Plan (EMEP) provides detailed information on specific types and locations of ecological values of the Heretaunga Plains Flood Control Scheme (Scheme). It provides guidance on measures which should be taken to avoid inappropriate impacts through operation and maintenance of the Scheme. All work on the scheme is carried out in accordance with:
    13.1. HBRC Environmental Code of Practice for River and Drainage Work 2017
    13.2. River Specific- Ecological Management and Enhancement Plan.
14. The management plan sets our specific guidance for management of the Scheme activities to protect important ecological features of the Scheme. Examples are:
    14.1. Protect specialist bird communities
    14.2. Improve the Schemes terrestrial bird habitat
    14.3. Contribute to the protection of high value forest remnants
    14.4. Improve ecological function of edge protection and buffer zones
    14.5. Minimise release of sediments to aquatic environment
    14.6. Enhance the Schemes functional performance as a wildlife corridor.
15. The Scheme area encompasses a substantial area of braided riverbed, estuarine and coastal beach habitats. The Scheme's berm and escapement contain large areas of exotics, grasses and other natives either for flood protection or biodiversity.
16. Many ecological features of the Schemes (Heretaunga and Tukituki Flood Protection Schemes) covered by the Ecological management and Enhancement Plans are "significant "in terms of Section 6(c) of the Resource Management Act 1991 (the RMA). Under the RMA, HBRC is required to "*recognize and provide for the protection of areas of significant vegetation and significant habitats for indigenous fauna from inappropriate subdivision, use and development.*
17. EMEP has been developed and implemented since 2011, 2015 and 2017 for Ngaruroro, Tutaekuri and Tukituki rivers, respectively. However, effectiveness monitoring had not been carried out for any of the rivers.
18. This 2019 survey forms a core part of the effectiveness monitoring concerning river birds, and is likely the most robust and extensive survey carried out across three of our major braided rivers in the Council's history.

Next Steps

19. Census is planned for spring/summer 2020 and 2021 to provide comprehensive information on river birds from which inferences could be drawn for the effectiveness of EMEP.
20. The monitoring results will inform the review and improvement of the EMEPs.

Decision Making Process

21. Staff have assessed the requirements of the Local Government Act 2002 in relation to this item and have concluded that, as this report is for information only, the decision making provisions do not apply.

Recommendation

That the Environment and Integrated Catchments Committee receives and notes the "*Scheme Ecological Management and Enhancement Plans- Braided River Bird Census*" staff report.

Authored by:

Martina Groves
ACTING REGIONAL ASSET MANAGER

Keiko Hashiba
TERRESTRIAL ECOLOGIST

Approved by:

Chris Dolley
GROUP MANAGER
ASSET MANAGEMENT

Attachment/s

There are no attachments for this report.

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 17 June 2020

Subject: DISCUSSION OF MINOR MATTERS NOT ON THE AGENDA

Reason for Report

1. This document has been prepared to assist Committee members note the Minor Items to be discussed as determined earlier in Agenda Item 5.

Topic	Raised by

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

Subject: WHITTLE RESERVE

That Council excludes the public from this section of the meeting, being Agenda Item 16 Whittle Reserve with the general subject of the item to be considered while the public is excluded; the reasons for passing the resolution and the specific grounds under Section 48 (1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution being:

GENERAL SUBJECT OF THE ITEM TO BE CONSIDERED	REASON FOR PASSING THIS RESOLUTION	GROUNDS UNDER SECTION 48(1) FOR THE PASSING OF THE RESOLUTION
Whittle Reserve	s7(2)(i) That the public conduct of this agenda item would be likely to result in the disclosure of information where the withholding of the information is necessary to enable the local authority holding the information to carry out, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	The Council is specified, in the First Schedule to this Act, as a body to which the Act applies.

Authored by:

Russell Engelke
TEAM LEADER OPEN SPACES

Martina Groves
ACTING REGIONAL ASSET MANAGER

Approved by:

Chris Dolley
GROUP MANAGER
ASSET MANAGEMENT

HAWKE'S BAY REGIONAL COUNCIL

ENVIRONMENT AND INTEGRATED CATCHMENTS COMMITTEE

Wednesday 01 July 2020

Subject: WAIPATIKI RESERVE

That Hawke's Bay Regional Council excludes the public from this section of the meeting, being Agenda Item 17 Waipatiki Reserve with the general subject of the item to be considered while the public is excluded; the reasons for passing the resolution and the specific grounds under Section 48 (1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution being:

GENERAL SUBJECT OF THE ITEM TO BE CONSIDERED	REASON FOR PASSING THIS RESOLUTION	GROUNDS UNDER SECTION 48(1) FOR THE PASSING OF THE RESOLUTION
Waipatiki Reserve	s7(2)(i) That the public conduct of this agenda item would be likely to result in the disclosure of information where the withholding of the information is necessary to enable the local authority holding the information to carry out, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	The Council is specified, in the First Schedule to this Act, as a body to which the Act applies.

Authored by:

Russell Engelke
TEAM LEADER OPEN SPACES

Martina Groves
ACTING REGIONAL ASSET MANAGER

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Chris Dolley
GROUP MANAGER
ASSET MANAGEMENT