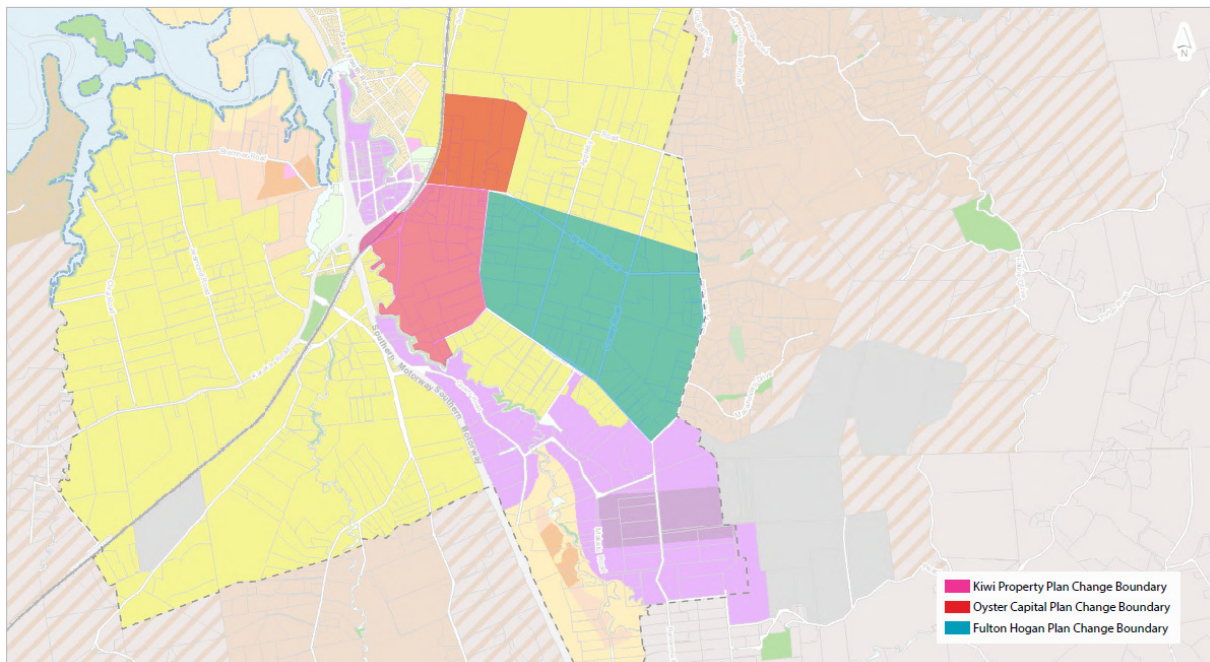


# NGATI TE ATA CULTURAL VALUES ASSESSMENT REPORT

## PROPOSED DRURY EAST PLAN CHANGES

Drury Proposed Plan Changes



**PREPARED FOR BARKER AND ASSOCIATES**

**REPRESENTING**

**KIWI PROPERTY, OYSTER CAPITAL AND FULTON HOGAN**

**(The Developer Group)**

**2019**

## Table of Contents

<b>1. WHAKATAUKI .....</b>	<b>4</b>
<b>2. FOREWARD.....</b>	<b>4</b>
<b>3. INTRODUCTION TO CULTURAL VALUES FOR MANA WHENUA .....</b>	<b>5</b>
3.1. WHAKAPAPA.....	5
3.1.1. Ngāti Te Ata.....	5
<b>4. SCOPE AND ROLE OF THIS CULTURAL VALUES ASSESSMENT.....</b>	<b>7</b>
4.1. STATEMENT OF PURPOSE .....	7
<b>5. STATUTORY .....</b>	<b>9</b>
5.1. PRINCIPLES OF TE TIRITI OR WAITANGI (TREATY OF WAITANGI) .....	9
5.2. RESOURCE MANAGEMENT ACT 1991 .....	10
5.3. AUCKLAND UNITARY PLAN (OPERATIVE IN PART).....	12
5.4. AUCKLAND PLAN 2050 .....	14
<b>6. OUR CULTURAL LANDSCAPE: TRADITIONAL RELATIONSHIP, USE AND OCCUPATION AND HISTORIC HERITAGE VALUES .....</b>	<b>16</b>
6.1. DEFINING CULTURAL LANDSCAPES.....	16
6.2. OBJECTIVES RELATING TO OUR CULTURAL LANDSCAPES .....	17
6.3. CULTURAL RESOURCES WITHIN OUR CULTURAL LANDSCAPE .....	18
<b>7. TE KAITIAKITANGA O TE TAIAO.....</b>	<b>24</b>
7.1. PRINCIPLES AND KAITIAKI APPROACH .....	24
7.1.1. <i>Managing effects</i> .....	26
7.1.2. <i>The highest target or measure in planning rules and regulations</i> .....	27
7.2. ELEMENTS OF THE ENVIRONMENT.....	28
7.2.1. <i>Heritage protection and recognition</i> .....	29
7.2.2. <i>Whenua</i> .....	35
7.2.3. <i>Wai (Water)</i> .....	47
7.2.4. <i>Biodiversity</i> .....	70
7.2.5. <i>Open Space and greenways plans</i> .....	79
7.2.6. <i>Sustainability</i> .....	82
7.2.7. <i>Infrastructure</i> .....	89
7.2.8. <i>Urban Design</i> .....	92
7.2.9. <i>Hauora</i> .....	95
7.2.10. <i>Economic Development</i> .....	101
<b>8. CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>103</b>
8.1. LIST OF RECOMMENDATIONS AND ASPIRATIONS.....	105
<i>Heritage protection and recognition</i> .....	105
<i>Whenua</i> .....	106
<i>Wai</i> .....	108
<i>Biodiversity</i> .....	110
<i>Open Space and greenways plans</i> .....	112

<i>Sustainability</i> .....	113
<i>Infrastructure</i> .....	114
<i>Urban Design</i> .....	114
<i>Hauora</i> .....	115
<i>Economic Development</i> .....	115
<b>9. APPENDICES .....</b>	<b>116</b>
9.1. APPENDIX A: CATALOGUE OF SIGNIFICANT AREAS OF TAONGA RELEVANT TO THE PUKEKOHE, PAERATA, DRURY AND OPAHEKE STRUCTURE PLAN AREAS.....	116
9.2. APPENDIX B: LANDSCAPE MAPS .....	125
9.3. APPENDIX C: WATERWAYS MAPS .....	127
9.4. APPENDIX D: LIST OF PREFERRED PLANTS .....	129
<b>10. GLOSSARY OF MĀORI WORDS AND TERMS .....</b>	<b>133</b>

## 1. Whakatauki

***Mā te whakātu, ka mohio, mā te mohio ka marama, mā te marama ka matau, mā te matau ka ora.***

*With discussion comes knowledge, with knowledge comes light and understanding, with light and understanding comes wisdom, with wisdom comes wellness.*

## 2. Foreward

This cultural values assessment is but a starting point for further engagement and dialogue given the scale, scope and future implications of the proposed Drury East Plan Changes area and process. Initial discussions among Ngati Te Ata have raised the following issues:

Will the proposed Drury East Plan Changes process?

- conflict with our values and our traditional and spiritual relationship to the Drury and Opaheke footprint, the pā maunga, the Manukau Harbour and its many tributaries, and the receiving catchment?
- degrade or adversely impact upon wāhi taonga and mahinga kai areas?
- visually and physically compromise the integrity of maunga view shafts, landscapes and natural features including landforms, ridgelines, trees, bush, wetlands, waterways, and any other natural outstanding features?
- provide an opportunity for us to reinvest in cultural, environmental, social and economic wellbeing with the intention and commitment to developing and maintaining an interactive and positive, long-term working relationship with Auckland Council? Thereto establishing a process for working together for the purpose of achieving mutual and respective objectives.

The ultimate goal is the protection, preservation and appropriate management of natural and cultural resources in a manner that recognises and provides for our interests and values, and enables positive environmental, social and economic outcomes.

Ngati Te Aa supports engagement and involvement that respects and provides for our cultural and traditional relationship to these areas, its unique cultural identity, and input into shaping the physical, cultural, social and economic regeneration of the structure plan areas.

This cultural values assessment uses a lot of Māori words, as such a glossary has been provided at the end of this document.

### 3. Introduction to cultural values for mana whenua

Ngāti Te Ata acknowledges that there are multiple mana whenua customary interests in Tāmaki Makaurau, including across Drury and Opaheke. It is important to recognise that Ngāti Te Ata exercise their mana independently and each have their own tikanga unique to them (while there are some commonalities). It is important to respect the independent mana of each and it cannot be assumed that the tikanga of one on a particular matter will be the same as others.

Each one of us have our own traditions establishing their cultural and spiritual association to the Tamaki isthmus, the spiritual maunga and the surrounding lands and harbours. These accounts are supported by whakapapa, ahi kā roa and iwi /hapū traditions.

#### 3.1. Whakapapa

##### 3.1.1. Ngāti Te Ata

Who Are We: Ko Wai Matou?

*‘We are Ngāti Te Ata’.*

Ngāti Te Ata are one of the mana whenua groups in the Drury, Opaheke, Papakura and Takanini area. Within the wider landscape of Tāmaki Makaurau (Auckland) lay the settlements of the Te Waiohū people (the original inhabitants). Members of the Tainui waka settled around the isthmus and began to intermarry with the ancestors of Te Waiohū. It was this intermarriage and the development of other bonds between the people that settlement established.

Ngāti Te Ata descend from both groups. As the descendants (current generation) we are kaitiaki and we have inherent responsibilities to ensure that we can protect and preserve our taonga for future generations.

#### Whakapapa/Genealogy

Te Huakaiwaka = Rauwhakiwhaki

(Origin of Te Waiohū)

|

Huatau

|

Te Ata i Rehia     =     Tapaue  
(Origin of Ngati Te Ata)     (Waikato Tainui)



*Our Ancestor Te Ata-i-Rehia*

Please note: Ngati Te Ata are also referred to as “iwi” and “manawhenua” in this report.

*‘Ka whiti te ra ki tua o rehua ka ara a Kaiwhare i te rua’*

*‘As long as the sun shines over the west coast Ngāti te Ata will rise from the depths of the  
Manukau’*

#### **4. Scope and role of this cultural values assessment**

This cultural values assessment was commissioned by Barker and Associates on behalf of Kiwi Property, Oyster Capital and Fulton Hogan, whom confirmed our customary interests in the proposed Drury East Plan Changes process, acknowledging that mana whenua are best placed to convey their customs and relationship with their ancestral rohe and taonga and have the expertise to do so.

##### **4.1. Statement of purpose**

This cultural values assessment will:

1. Inform the Developer Group of Ngati Te Ata historical heritage and traditional relationship to the Drury Opaheke areas and wider environs.
2. Identify any issues, concerns or effects of the future development and urbanisation of the project areas on our cultural and natural heritage issues, interests and values.
3. Assist with the identification and formulation of methods to avoid, remedy or mitigate adverse effects on Māori values, or measures to recognise and provide for the relationship of Ngati Te Ata with our ancestral lands and taonga. This may be through recommendations for the proposed Drury East Plan Changes process moving forward.

This report is the product of a gathering of information by Ngati Te Ata available at the time of completing this report. It is important to recognise that any methods suggested in this cultural values assessment are supported by Ngati Te Ata in principle based on the information we currently have. The contents may therefore be subject to any further information that may be supplied throughout the process and preferred methods may change.

This cultural values assessment does not prejudice any outstanding Treaty of Waitangi claims relating to these areas.

Ngati Te Ata have had a long history in resource management and environmental issues within each of their rohe. Many changes over the years have not always been in our best interests. Such change has often resulted in the continual degradation of many of our natural and physical resources, wāhi tapu sites, and other taonga.

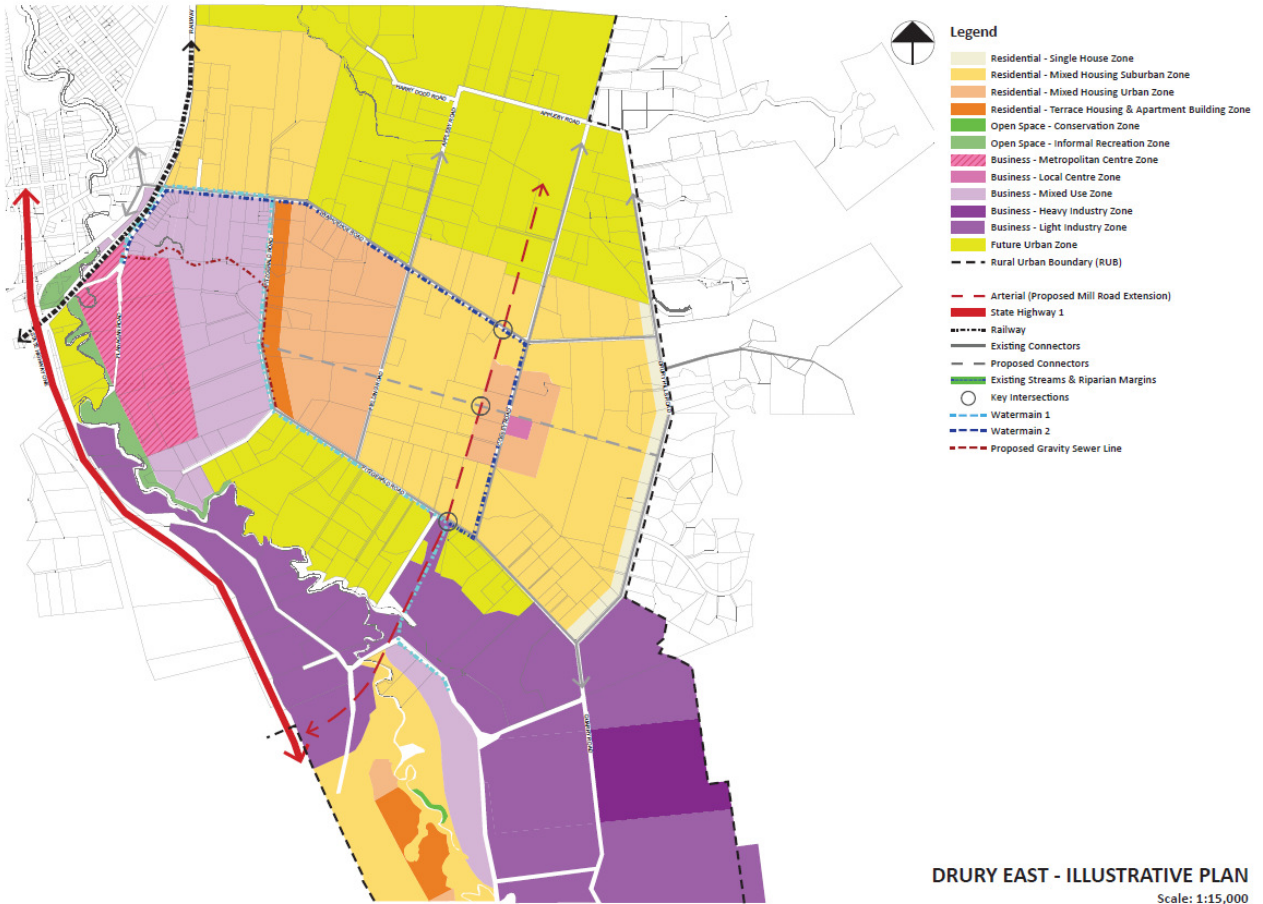
We continue to have a spiritual and emotional relationship to these places. We never forget our connection to these places. They are our inheritance.

##### **Our key objectives for this process:**

1. Acknowledge the relationship Ngati Te Ata has with the proposed Drury East Plan Changes area. This includes our relationships with our culture and traditions with our ancestral lands, water, sites, wāhi tapu, and other taonga.
2. Provide recommendations that will protect the natural and physical resources of the structure plan areas and our relationship with these resources.

- The Developer Group continue to work in conjunction with Ngati Te Ata to protect and preserve traditional lands, taonga and its associated areas within the structure plan areas and wider area.

**Figure 1: Map showing Drury East**





## **5. Statutory**

### **5.1. Principles of Te Tiriti or Waitangi (Treaty of Waitangi)**

Te Tiriti o Waitangi Article II acknowledges mana whenua rangatiratanga and self-determination. Mana whenua will determine how our resources and taonga are to be managed in accordance with our tikanga.

The 1991 Resource Management Act section 8 states that the principles of the Treaty of Waitangi shall be taken into account. Since the mid-1980s a set of principles have emerged from the findings of the Waitangi Tribunal, legal judgements and Crown reports, decisions and policies. These have emphasised tribal rangatiratanga, the active protection of Māori people in the use of their lands, waters and other taonga, and the duty to consult with Māori. Although there is no common agreement on what the status of the principles should be, there is some agreement on core principles and acknowledgement that principles will later evolve.

If the Developer Group are to engage with the meaning of Te Tiriti o Waitangi in their work, then there must clearly be a need for guidelines. For Ngati Te Ata those Te Tiriti o Waitangi principles include the following:

1. Rangatiratanga, the duty to recognise Māori rights of independence, autonomy and self-determination – this principle enables the empowerment of Māori to determine and manage matters of significance to them. Rangatiratanga was traditionally the personal authority that rangatira had over the assets of an iwi or tribe; hapū or sub tribe. Rangatiratanga is embodied within the concept of mana whenua and defines the ability to exercise and manage the relationship between tangata whenua, their culture, traditions and environment. Rangatiratanga incorporates the right to make, alter and/or enforce decisions pertaining to how the whenua is used and managed in accordance with the tikanga and kawa of the relevant iwi/hapū.
2. Shared decision-making, a balance of the kāwanatanga role in Article 1 and the protection of rangatiratanga in Article 2.
3. Partnership, the duty to interact in good faith and in the nature of a partnership. There is a sense of shared enterprise and mutual benefit where each partner must take account of the needs and interests of the other.
4. Active protection, the duty to proactively protect the rights and interests of Māori, including the need to proactively build the capacity and capability of Māori.
5. Ōritetanga to recognise that benefits should accrue to both Māori and non-Māori, that both would each participate in the prosperity of Aotearoa giving rise to mutual obligation and benefits.
6. The Right of Development, the Treaty right is not confined to customary uses or the state of knowledge as at 1840 but includes an active duty to assist Māori in the development of their properties and taonga.
7. Redress, the obligation to remedy past breaches of the Treaty. Redress is necessary to restore the honour and integrity of the Treaty partner, and the mana and status of Māori, as part of the reconciliation process. The provision of redress must also take account of its practical impact and the need to avoid the creation of fresh injustice. Noted, while the obligation of redress sits with the Crown, Auckland Council (through

Council) has a role in the implementation of redress at the regional and local level. The Developer Group too have a role in a more collaborative approach with iwi in a mutually beneficial negotiated way.

## 5.2. Resource Management Act 1991

The purpose of the Resource Management Act 1991 (the Act) is to promote the sustainable management of natural and physical resources in New Zealand. Part 2 of the Act states:

- (2) In this Act, **sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—
  - (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
  - (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and
  - (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Part 2 of the Act includes 'Matters of national importance' (Section 6) and 'Other matters' (section 7). These sections require that 'In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resource:

- '...shall recognise and provide for...' matters of national significance. These include:
  - (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:
  - (f) the protection of historic heritage from inappropriate subdivision, use, and development:
  - (g) the protection of protected customary rights:
- '...shall have particular regard to...' other matters. These include:
  - (a) kaitiakitanga:
  - (f) maintenance and enhancement of the quality of the environment:

Section 8 of the Act also requires that 'In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).'

When taking into account the principles of Te Tiriti o Waitangi, contemporary practical expressions of Rangatiratanga may include active involvement in resource management decision making, and in giving involvement and invested effect through Iwi Tribal Policy Statements, Cultural Values Assessments and the Auckland Council Operative Plans, moving forward. Various other sections of the Act provide some requirement for authorities, resource consent applicants and decision makers in relation to Māori and Māori values. For example, resource consent applications require an assessment of the effects of the activity on the environment. Notably, the assessment of effects must address amongst other matters:

(d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, **spiritual, or cultural value**, or other special value, for present or future generations:<sup>1</sup> [emphasis added].

Section 32 of the Act also requires any evaluation of a plan change to the Auckland Unitary Plan (i.e. to give effect to the structure plan), to summarise:

- all advice received from iwi authorities on the proposal
- how the proposal responds to that advice, including reference to any proposed provisions that are intended to give effect to the advice.<sup>2</sup>

From a mana whenua perspective an on-going relationship with Auckland Council (formed as a partnership between council and the crown) also upholds the principles of Te Tiriti o Waitangi with regard to the relationship, and in carrying out activities on future development sites. This must also be incumbent on those that eventually develop the proposed Drury East Plan Changes areas.

As kaitiaki in this day and age, we should not be boxed in the ‘conversationalist’ corner. We have to work within the New Zealand legal framework. More explicitly, Ngati Te Ata may not have ‘legal title’ to the Drury-Opaheke plan change area sites and therefore cannot express kaitiakitanga as we have traditionally done. The concept of kaitiakitanga (discussed in greater detail in section 8.1) has somewhat evolved. We now have to express kaitiakitanga in other ways conducive to a modern society.

There are two obvious ways that Ngati Te Ata can express kaitiakitanga in its modern sense over the proposed Drury East Plan Changes area:

- Form meaningful working and investment relationships with those who have ‘legal title’ to the land and those who lease/licence the land; and for those people to assist us in expressing kaitiakitanga over the land; and

---

<sup>1</sup> Resource Management Act 1991, Schedule 4(7)(1)(d)

<sup>2</sup> Resource Legislation Amendments 2017 Fact Sheet 3, Ministry for the Environment.

- Ensure that those people involved in the implementation and build of a project (including contractors), while occupying that space, respect our tikanga of which we have kaitiaki obligations to a site.

### **5.3. Auckland Unitary Plan (Operative in part)**

The Auckland Unitary Plan (Operative in part) is the first combined resource management plan for Auckland and replaces the former Regional Policy Statement and 13 district and regional plans, including the Auckland Council District Plan - Operative Franklin Section 2000 and the Auckland Council District Plan - Operative Papakura Section 1999. Chapter A of the unitary plan sets out the plans three key roles as:

- it describes how the people and communities of the Auckland region will manage Auckland's natural and physical resources while enabling growth and development and protecting the things people and communities' value;
- it provides the regulatory framework to help make Auckland a quality place to live, attractive to people and businesses and a place where environmental standards are respected and upheld; and
- it is a principal statutory planning document for Auckland. Other relevant planning documents include the Auckland Plan, the Auckland Long-Term Plan and the Auckland Regional Land Transport Plan.<sup>3</sup>

The regional policy statement contained within Chapter B of the unitary plan sets out an overview of the resource management issues facing Auckland, and the objectives, policies and methods to achieve integrated management of Auckland's natural and physical resources. The district and regional plan provisions within the unitary plan cascade down from the regional policy statement.

While the regional policy statement must be read as a whole, there are particular key aspects we want to highlight.

Issues of significance to Māori and iwi authorities are recognised and set out in Chapter B6.1 of the regional policy statement. These include:

- (1) recognising the Treaty of Waitangi/Te Tiriti o Waitangi and enabling the outcomes that Treaty settlement redress is intended to achieve;
- (2) protecting Mana Whenua culture, landscapes and historic heritage;
- (3) enabling Mana Whenua economic, social and cultural development on Māori Land and Treaty Settlement Land;

---

<sup>3</sup> Auckland Unitary Plan (Operative in part), Chapter A1.1 Purposes of the Auckland Unitary Plan. Accessed 10 July 2018.

- (4) recognising the interests, values and customary rights of Mana Whenua in the sustainable management of natural and physical resources, including integration of mātauranga and tikanga in resource management processes;
- (5) increasing opportunities for Mana Whenua to play a role in environmental decision-making, governance and partnerships; and
- (6) enhancing the relationship between Mana Whenua and Auckland's natural environment, including customary uses.

These issues are supported by objectives and policies which are found in the following chapters:

- B6.2. Recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation
- B6.3. Recognising Mana Whenua values
- B6.4. Māori economic, social and cultural development
- B6.5. Protection of Mana Whenua cultural heritage

In addition to Chapter B6 of the regional policy statement, other chapters also contain objectives and policies that relate to mana whenua. For example, the issues relating to urban growth and form in Chapter B2 states that growth needs to be provided for in a way that, amongst of matters, also '...enables Mana Whenua to participate and their culture and values to be recognised and provided for.'<sup>4</sup>

Structure planning is also provided for in Chapter B2, as a method to enable rezoning of future urban zoned land for urbanisation, in accordance with the structure plan guidelines in Appendix 1 of the Auckland Unitary Plan (OP).<sup>5</sup> Appendix 1 states that when structure plans are prepared iwi planning documents and Treaty settlement legislation should be considered. This includes cultural values assessments such as this one.

This cultural values assessment does not specifically identify all the relevant provisions in the unitary plan. However, as the different elements of the environment are discussed in section 8.2 of this report the key sections of the regional policy statement are identified.

---

<sup>4</sup> B2.1 Issues (8). Accessed 20 July 2018

<sup>5</sup> B2.2.2 Policies (3). Accessed 20 July 2018.

## 5.4. Auckland Plan 2050

The Auckland Plan 2050<sup>6</sup> sets Auckland's long-term strategy; outlining the major challenges facing Auckland and setting the direction for tackling these. It includes the Development Strategy and six outcomes. The six outcomes are:

### 1. Belonging and participation

All Aucklanders will be part of and contribute to society, access opportunities, and have the chance to develop to their full potential.

### 2. Māori identity and wellbeing

A thriving Māori identity is Auckland's point of difference in the world – it advances prosperity for Māori and benefits all Aucklanders.

### 3. Homes and places

Aucklanders live in secure, healthy, and affordable homes, and have access to a range of inclusive public places.

### 4. Transport and access

Aucklanders will be able to get where they want to go more easily, safely and sustainably.

### 5. Environment and cultural heritage

Aucklanders preserve, protect and care for the natural environment as our shared cultural heritage, for its intrinsic value and for the benefit of present and future generations.

### 6. Opportunity and prosperity

Auckland is prosperous with many opportunities and delivers a better standard of living for everyone.

Under the Māori identity and wellbeing outcome are the following directions and focus areas.

Direction	Focus Area
Direction 1: Advance Māori wellbeing	Focus Area 1: Meet the needs and support the aspirations of tamariki and their whānau
Direction 2: Promote Māori success,	Focus Area 2: Invest in marae to be

<sup>6</sup> The Auckland Plan 2050. <https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/auckland-plan/Pages/default.aspx> Accessed 30 July 2018.

innovation and enterprise	self-sustaining and prosperous
Direction 3: Recognise and provide for te Tiriti o Waitangi outcomes	Focus Area 3: Strengthen rangatahi leadership, education and employment outcomes
Direction 4: Showcase Auckland's Māori identity and vibrant Māori culture	Focus Area 4: Grow Māori inter-generational wealth
	Focus Area 5: Advance mana whenua rangatiratanga in leadership and decision-making and provide for customary rights
	Focus Area 6: Celebrate Māori culture and support te reo Māori to flourish
	Focus Area 7: Reflect mana whenua mātauranga and Māori design principles throughout Auckland

## **6. Our Cultural Landscape: Traditional relationship, use and occupation and historic heritage values**

### **6.1. Defining cultural landscapes**

The term cultural landscaping was initially adopted by the Māori arm of the Ministry for the Environment / Manatū Mō Te Taiao. In this, they were acknowledging that in tikanga o te ao Māori all physical landscapes are inseparable from tupuna (ancestors), events, occupations and cultural practices. These dimensions remain critical to cultural identity and to the maintenance of a Māori sense of place. A critical point is that the term 'cultural landscapes' was preferred as it does not make a distinction between urban and rural areas, for the role of Iwi extend across urban and rural divides with all areas holding cultural and spiritual significance. (Rau Hoskins, June 2008).

For Ngati Te Ata, we have a strong taha wairua with the land which provide our people with a sense of meaning, connection and purpose. There is no such thing as an isolated site of importance. All sites are connected under Ranginui and by Papatūānuku. Sites are treasured in their own right but also exist within a tightly connected web of association. Just as no person exists in isolation within their iwi or hapū, no site exists in isolation within our respective rohe.

Tribal landmarks and resources such as maunga and waterways that were present in the time of our ancestor's impact upon our descendants that exist today. If those landmarks and resources are damaged, contaminated or even destroyed the consequences can manifest themselves in the spiritual, physical and mental detachment of the people, leading to cultural disassociation, ill health and even death. These traditional associations are still expressed today in a modern context.

It is often the case that the lack of recorded archaeological sites in an area will lead the developers or planners to the erroneous view that the area has little historical significance or significance to tangata whenua. This is a false assumption.

The heritage and history of the area is a taonga, with the water, coast and landforms being interrelated. The physical and spiritual wellbeing of tangata whenua continues to be linked to their ancestral lands and waterways. There is an enduring physical and spiritual connection with ancestral lands and wāhi tapu and other taonga and those of their tupuna. We have long valued the rich, fertile soil from the volcanic ash and lava strewn across much of Tāmaki Makaurau, especially the Hingaia / Drury-Opaheke area. This was land in which crops flourished, beside wetlands, waterways and harbours which supported prolific fisheries. The reliance (if not over-reliance) of Pākehā writers on archaeological evidence of the occupation of the area by iwi reflects the enormous and rapid loss of land that occurred after 1840. This removed Ngati te Ata iwi from most of their tribal lands, and many of the cultural practices associated with the land were ended.



It was only much later in the colonial period that pollution, drainage, reclamation and overfishing too began to devastate our traditional food sources in Te Mānukanuka o Hoturoa (Manukau Harbour) and its adjacent waterways.

## **6.2. Objectives relating to our cultural landscapes**

Across Tāmaki Makaurau some cultural sites and landscapes have been successfully preserved in part because they also happen to share environmental, scientific or historic value. However, relying on the shared worth of a site to safeguard its cultural value is no longer sufficient in a growing metropolitan environment like Tāmaki Makaurau. The effects of urban modification or demolition on a site can be irreversible. Thus, the cultural and spiritual aspects of an area need to be given as much weighting and consideration as any other unique feature that deserves protection.

Our cultural landscapes of the Drury and Opaheke areas have been irreversibly damaged by intensive development, urban pollutants and long-term quarrying. The extent of this damage is such that the best way to acknowledge and recognise our cultural landscapes is through new design possibilities that clearly exemplify our cultural associations.

The issue for us now is how does Ngati Te Ata and the Developer Group make a valued contribution back to the whole area and uplift and enhance its cultural integrity? How do we secure real cultural, environmental and economic gains moving forward?

Within our cultural landscape, the key cultural resources of Drury and Opaheke that we have a traditional and historic relationship to are:

- Tupuna maunga
- Nga Taonga i Tuku Iho (the many isolated wāhi tapu and wāhi taonga in the area that collectively exemplifies the networked pā occupation that existed)
- Te Mānukanuka o Hoturoa
- All the waterways<sup>7</sup>
- Ara hīkoi (traditional walking tracks)
- Ara tapu (walking tracks of the spirits: the path that leads to Rerenga Wairua through the West Coast, or the walking tracks that leads to an urupā)

As well as their volcanic origins, the regional significance of the maunga of Tāmaki Makaurau stems from the cultural history and present-day importance of each site for iwi. With this in mind the challenge is to fully integrate the future planning and development of Drury and Opaheke within the wider cultural landscape. To provide the context of cultural connection one must also have regard to the physical landscape as it was when the occupation took place.

---

<sup>7</sup> A list of waterways is included in Appendix A (Catalogue of significant areas of taonga relevant to the Drury and Opaheke structure plan areas)

### 6.3. Cultural resources within our cultural landscape

Ngati Te Ata have a long history with and a traditional relationship to the Drury and Opaheke areas. The following section is a generalised statement about our cultural landscapes in the Drury and Opaheke areas. Ngati Te Ata recognise that each iwi will have its own specific relationship to these areas and the cultural resources within them. As such this section does not offer a complete view of our respective cultural landscapes.

In addition to this generalised statement a catalogue of some sites of value and significance to Ngati Te Ata is included in Appendix A. While some sites are recorded in this catalogue it should be noted that this is not all sites, and that Ngati Te Ata should be engaged for all development proposals within the proposed Drury East Plan Changes area.

It should also be noted that other work outside this cultural values assessment is currently being undertaken to identify and discuss our various cultural landscapes in greater detail. Previous cultural values assessments prepared for other projects also contribute to the discussion on our respective cultural landscapes.

The areas in and around Drury and Opaheke have always been regarded by us as having a strategic position to Tāmaki Makaurau. Numerous iwi and hapū were mobile throughout the area, whether visiting, passing through or conquering. As a result, a number of complex inter-tribal relationships developed around the harbour shoreline.

From an archeological perspective, pre-European Maori settlement patterns in Papakura district suggest the area was intensively settled by Maori. As with elsewhere in the Auckland region, Maori settlement was generally focused along the coast and navigable waterways, on the good agricultural soils and major land route-ways. Within the Papakura district the main concentration of settlement was along the shores of the Manukau Harbour and on the higher ground on the western slopes of the Drury - Papakura Hills to the east and south. Archaeological survey of the Manukau Harbour shoreline, creeks and inlets of Papakura district have consistently identified high numbers of archaeological sites, the majority being shell middens

Ngāti Te Ata, Ngāti Tamaoho, Te Ākitai Waiohūa and Ngāi Tai Ki Tāmaki and were all living as neighbours and are related to each other. However, there was rivalry between the iwi over ownership of land and Ngati Te Ata had built defenses in anticipation of conflict in close vicinity to Tamaoho. Members of the Tainui waka settled around the isthmus and began to intermarry with the ancestors of Te Waiohūa. It was this intermarriage and the development of other bonds between the people that settlement established. Maori had their food production organised into gardening and fishing circuits themselves dictated by soils, fish stocks and the Maori calendar (maramataka). There were many fishing stations (waahi nohoanga) supported by gardens around the headlands of the Manukau harbour. These satellite-fishing stations supported the main Pa.

In pre-European times the landscape would have been more varied with swamps and bush. It was a well-travelled route and considered a 'gateway' into areas of settlement, resource use and occupation. Wāhi nohoanga are still known among iwi today on the many headlands and promontories around Te Mānukanuka o Hoturoa. Numerous creeks originating from deep swamps dissected Manukau making travel difficult and reducing the amount of firm and

habitable land. However, the drainage and settlement of these places, the swamps and wetlands has caused immeasurable damage to the mauri (life force) of waterways, and the cultural offence due to practices such as sewage and farm effluent discharge, sediment intrusion from poor farming practices, and industrialised impacts.

Although large parts of the Tamaki Isthmus were cleared of bush, significant areas remained within our respective mana whenua rohe, particularly in Te Hunua – the forested Hunua range to the east – but also around Te Mānukanuka o Hoturoa and its lush wetlands.

From vantage points, it was possible to observe waka movements and receive early warning of the approach of friend or foe. Signals could be sent between pā to warn of approaching hostilities.

### ***Te Maketu Pa***

We must first acknowledge and make reference to one of the primary Pa of the area Te Maketu Pa. Te Maketu is a place with a long and rich human history. Its volcanic features and soils, strategic location and temperate climate have attracted human settlement for many hundreds of years. This report focuses upon historic and archaeological records of Maori and European occupation relating to Te Maketu Historic Reserve. Te Maketu was a favourable location for Maori settlement. It was situated in a highly strategic position, on one of the few tracks connecting Auckland and the Waikato. Archaeologist, Alan Clarke, described the importance of Te Maketu's position as follows:

*“Te Maketu guards the Ararimu track which linked the Auckland Isthmus with the headwaters of the Mangatawhiri Creek which was one of the main canoe routes both to Waikato and the Hauraki Gulf in the prehistoric period.*

*One of the three overland trails into the Waikato, the Ararimu track skirted the Papakura swamp before taking a precipitous and rugged course through the densely forested hills to Mangatawhiri Stream.*

*Extensive views of the flat undulating country leading across to the Manukau in the northwest and to the Bombay Hills in the southwest gave it a distinct strategic advantage.*

*Access to these areas was possible for part of the way along two tributary streams of Karaka Creek (ie. the Hingaia and Maketu Streams) which ran in deep and easily navigated in winter allowing access from Manukau harbour to within a few hundred metres of the site of it.”*

An historical explanation for the name Maketu was provided by historian, George Graham. He based his information on recorded conversations with Tamaki elders throughout the late 1800s and early 1900s. It appears, however, that Graham's explanation for Maketu combined several separate incidents. He described Maketu as follows:

*“Lift or pull up with rollers”. Near Bombay. Originally tribal area of Ngariki. Te Korahura of Ngati Paoa attacked them. Battle was called Te Rakahorahora (dried up and withered in the sun) because slain lay all day in a hot summer sun before being eaten by Ngati Paoa. Noia, whose pa was at Maketu attacked Korahura to avenge this and defeated Ngati Paoa at Tuahu (Wairoa district) hence the canoe Kahumauroa was skidded on rollers”.*

Kaumatua (elders) continue the story, explaining that surviving Tangata Whenua later returned and buried the bones. The area was then declared Waahi Tapu.

Te Maketu has also been linked with the place of the same name in Hawaiki, from where the last Maori canoe departed for New Zealand. It has been suggested that Te Maketu was the first place of rest chosen by Maori on their arrival in New Zealand. Certainly, the tropical microclimate of the cones is reminiscent of a warmer, pacific climate



Maketu Pa



Te Wairere (Sacred Waterfall)

From the top of Pukekiwiriki Pa (Red Hill) there are 360 degrees views to all prominent pā on the Tamaaki landscape. The main thoroughfares are clearly visible from the top of this area, in the form of ara hīkoi; waterways including harbours, streams, awa pā; and all those things within Tāmaki Makaurau that make up an interconnected cultural landscape connecting one taonga to another. In these early times the rivers and streams were wider and had different courses than they do now, and waka were able to traverse the district with far greater ease than seems possible today. The main waka route used by all tribes traversing north and south was via the Waikato River (at Awaroa Stream and Purapura), over Te Pae o Kaiwaka (at Waiuku) and then onto Te Mānukanuka o Hoturoa.

As you cast your eyes south towards Drury you are able to see Mt Wiremu and the Hunua rising in the distance. In the times of old (I ngā waa o muaa), promontory areas were favoured for settlement and ara hīkoi connected pā up on the ridge land and hilltops; For example, pā are known to have existed at Pukekiwiriki and what is now known as Stephenson's Quarry. Other pā and features have recently been identified up in the Drury Hills by archaeologists. These are also sited near a water source.

The waterways and other awa were important water corridors for trade, travel, and communication. These included the Ngakaroa Stream, Pahurehure Inlet, Drury and Oira Creeks, Te Maketu Stream, Hunua Stream, Waihoehoe Stream, Whanagapouri Stream, Waipokapū Stream, and Te Mānukanuka o Hoturoa. These continue to flow today scattered throughout the Structure Plan Areas.

Settlement was seasonal as the people stayed at main sites in winter, moved to smaller camps to plant gardens during spring, fished and collected kaimoana from fishing camps in summer and then returned to the main settlements again during autumn to harvest and store crops in preparation for winter.

These gardening and fishing circuits were dictated by soils, fish stocks and maramataka. There were many wāhi nohoanga supported by gardens around the headlands of Te Mānukanuka o Hoturoa. These satellite-fishing stations supported the main pā. An example recalled by an elderly koroua is hī tuna. This happened at the same time every year, by the same local families at the same locations. Now this is not possible because of intensification of development.

Other resources were also collected and harvested, from medicines such as bonjela for our babies, to dyes for our garments, and hanga whare. Volcanic rock was a major resource for stone tool processing and was prevalent throughout the Drury area. There are debitage areas all through the area indicating widespread use of the area by iwi. Repo areas were also used as cache areas for taonga in times of war. All this also forms an important part of our cultural landscape.

When you stand on the top of Pukekura (the Bombay Hills) and State Highway 20 you can see north back towards Pukekiwiriki, and the Manukanuka o Hoturoa and its tributaries. Directly in front is Pouka kai o Akarana and the surrounding hillslopes of Bombay. The Bombay volcanic ring can be seen from the main road and to the west is Te Awanui o Taikehu. Inland from there is Pukekohe Hill and its reserves. This area was important in the late 1800's as the events of war, raupatu and land loss to our peoples were concentrated here. For example, we had military structures that were used to store and house weapons for the land wars. Churches, European settlement, and redoubts of that era are also wayfinding tohu along the timeline of events that had the greatest impacts through time on our people. These many layers of our histories are part of our cultural landscape and are throughout not only the Drury and Opaheke areas but also the Pukekohe and Paerata.

When you stand on Te Awanui o Taikehu you can see the river from one side and out towards Tāmaki Makaurau from the other side. Immediately in front of you is the Pukekohe landscape and the pā site Te Maunu/ Paerata Bluff is prominent on the landscape with the reserve up behind it. The Bombay volcanic cone is visible to the east.

Ridgelines, promontories and headlands are the most likely places to find physical evidence of our cultural heritage. Areas near waterways and the harbour are also likely locations; especially puna because all pā and wāhi noho had a water source.

Our relationship to the water is evidenced by the many marae (and pā remnants) still near the harbour shores. Marae have traditionally enjoyed rights to the water, its resources and access to them. The harbours and adjacent land were used extensively, particularly during the summer months, for fishing camps and the collection of resources from the forests and coasts, including timber, birds and plant fibres. Archaeological evidence shows a clear pattern of site distribution, with settlement particularly focussed on headlands jutting out into the harbour and at the entrance to major estuaries or creeks. These locations provided easy access to the harbour and inland sites, easy waka landing sites, fresh water and land

suitable for seasonal gardens. They would have been visited year after year to keep the gardens and maintain fishing rights.

European settlement and drainage of these places, especially the swamps and wetlands, has caused immeasurable damage to the mauri of waterways. And practises such as sewage and farm effluent discharge, sediment intrusion from poor farming practices, and industrialised impacts are a cultural offence to us.

In the past our key economic drivers were the trade of kai like root crops; supplemented by seafood, fish and birds; and land and other resources. The main modes of transport for trade were waka and by foot. The economic objectives in those days are the same objectives sought today albeit in a slightly different context - to provide for the movement of people, goods and services, the connectivity between iwi whanaunga, and to promote and engage in sustainable economic trade for the social wellbeing of the people. This is no different today in a modern context. The strategic goals of the proposed Drury East Plan Changes area should be to support and create employment for residents, strengthen the local economy and unlock its potential, creating safe and connected neighbourhoods, and optimising the use of land and existing housing stock.

Historically however, such intensive projects alienated us from the Drury and Opaheke areas, divorced from the heart of our cultural nexus. In the twentieth century, a large influx of Māori moved to urban Auckland, including many of our people. Compelled by central and local government policies and financial inducements, our people moved from their wā kāinga and fragmented uneconomic agricultural holdings into industrialised urban centres. This was the experience for many of our people who moved into urban Auckland. Generations of our people continue to reside in and contribute to the development and profile of Auckland city.

As the Māori urban migration accelerated, there was a struggle to adapt to the urban environment, and it was soon apparent that urban areas had failed to keep pace with the growing population of Tāmaki Makaurau and our cultural needs. Our communities developed a number of initiatives to overcome the experience of social, economic, spiritual and political deprivation. We strived to preserve and transpose the values of our traditional culture, to city life. Despite previous challenges our traditional relationship to the Drury and Opaheke areas was never forgotten and can never be extinguished.

That is why it is imperative for us that we have an active and invested role in planning for the future development of the proposed Drury East Plan Changes area. In the past our traditional relationship to our wāhi taonga has suffered as a result of major development, infrastructure and intensive settlement. We have been systematically deprived of the economic gains that have come for so many others but not iwi, the people of the land. That is why it is so critical that the 'four well beings' - cultural, environmental, social and economic well-being, are provided for our people.





## 7. Te kaitiakitanga o te taiao

### 7.1. Principles and kaitiaki approach

***One must understand what is of cultural and environmental significance to our people, our underlying beliefs, values and principles, and therefore what motivates our decisions and responses – our worldview.***

In tikanga o te ao Māori (Māori customs and lore), Māori share a strong belief in Ranginui and Papatūānuku. Resources belong to Papatūānuku who is the nurturer, the giver of life. Therefore, everything born of the mother is alive and has its own life force. All elements of the natural environment possess mauri and all life is related. Humankind, just like birds, fish and other beings, has only user rights with respect to these resources, not ownership.

The relationship between mana whenua and the environment is a symbiotic one of equality and mutual benefit. We are all inter-connected, and therefore have a duty to protect and enhance our natural surroundings, not only for ourselves, but our future generations. Our environment must be looked after so that it sustains our communities.

This knowledge of the workings of the environment and the perceptions of humanity as part of the natural and spiritual world is expressed in the concepts of mauri and kaitiaki. Mauri is a critical aspect of the spiritual relationship of Māori with their environment and specific features (such as maunga and waterways) within it. The condition of these reflects our ability as kaitiaki and predicts our own wellbeing.

As Kaitiaki it is our responsibility to speak for and protect those who cannot speak for themselves the earth, the trees, water, fish, birds, the crabs, every single element on this earth which man has not created, is alive. Every element has wairua and mauri.

Mauri can be described as the life force that is present in all things. Mauri generates, regenerates and upholds creation, binding physical and spiritual elements of all things together. Without mauri things cannot survive. Practices have been developed over many centuries to maintain the mauri of all parts of the world. Observing these practices involves the ethic and exercise of kaitiakitanga.

**Kaitiakitanga** underpins everything we as iwi do in 'our' world. Kaitiakitanga or guardianship is inextricably linked to **tino rangatiratanga** and is a diverse set of tikanga or practices which result in sustainable management of a resource. Kaitiakitanga involves a broad set of practices based on a world and environmental view and is about healing and restoring the land and water. The root word is tiaki, to guard or protect, which includes a holistic environmental management approach which provides for the following:

- restore mana of the Iwi (e.g. Protect sensitive cultural and natural features of the environment)
- restoration of damaged ecological systems
- restoration of ecological harmony
- ensuring that resources and their usefulness increases i.e. plan for the provision for and the restoration of traditional resource areas for future generations (e.g. kaimoana, fish, tuna)



- reducing risk to present and future generations (i.e. plan long term management and use of taonga)
- providing for the needs of present and future generations.

The kaitiaki principle also emanates from the kaupapa. It denotes obligations or responsibilities incumbent on the Iwi, its members and appointed kaumātua and/or kuia or tohunga to carry out functions, be custodians, protectors, and guardians of iwi interests, its taonga and the various resources it owns. Kaitiaki have prescribed methods for carrying out their functions and attempting to meet their stated objectives. Kaitiaki are directly accountable to their iwi, and only mana whenua can be kaitiaki.

The mana of our respective iwi is represented in our manaakitanga and kaitiakitanga over the environment. Each whānau or hapū are kaitiaki for the area over which they hold mana whenua, that is, their ancestral lands and seas. Thus, a whānau or a hapū who still hold mana in a particular area take their kaitiaki responsibilities very seriously. The penalties for not doing so can be particularly harsh. Apart from depriving the whānau or hapū of the life sustaining capacities of the land and sea, failure to carry out kaitiakitanga roles adequately may result in the premature death of members of that whānau or hapū. Kaitiaki is a right, but it is also a responsibility for tangata whenua.

Kaitiakitanga is about managing resources in a sustainable way to provide for future generations and, protecting and enhancing the few remaining remnants of what used to be. Natural resources of land and water are not seen as a commercial resource but a treasured taonga.

The goal is to ensure that the needs of present and future generations are provided for in a manner that goes beyond sustainability towards an approach that enhances the environment. For some iwi, the aspirational desire is to provide a pathway that will return the rōhe to the modern-day equivalent of the environmental state that it was in when Pākehā arrived.

An 'enhancement' approach requires the consideration of, not only individual resource use, activities, buildings, or elements, but also a holistic approach to the whole environment. It aims for positive ecological and social outcomes where the resource use and activities effecting the environment becomes a conduit for producing resources and energy, improving physical and psychological health, remedying past pollution, and transforming and filtering waste into new resources.

Sustainability requires the resource to be maintained at a specified level so that future generations can enjoy the same quality use of the land, air, and water resources that we do currently. The 'enhancement' approach aims not to maintain but, through our actions, to improve the quality of the environment for future generations.

This approach recognises that those that utilise an environmental resource for some type of benefit (whether economic, social, cultural, spiritual and/or environmental) have a responsibility to show a reciprocal benefit back to the environment. This reciprocal approach is not intended to undermine the benefit from using environmental resources but rather to ensure that the use or depletion of environmental resources does not create a burden for

future generations. This may include measures such as having a strategic approach to land development and ensuring there is efficient urban development form.

Māori have been and continue to be part of the development of our towns and cities. Developments of the landscape are a part of Māori history now also; roading, grazing, reserves, buildings, reservoirs, construction, quarrying, wastewater/stormwater disposal. However, some developments have not always been supported by mana whenua. In many cases these developments have damaged or destroyed significant sites and failed to recognise the values held by their kaitiaki. Despite this mana whenua have never ceased visiting these places or appreciating their cultural significance and we still share an interest in the on-going sustainable management of them.

The capacity to exercise kaitiakitanga is dependent upon prudent sustainable management and the protection of natural resources which requires the careful monitoring and safeguarding of the environment. Ngati Te Ata welcome any opportunity to fulfil its role as kaitiaki in a relationship that also provides for future progression and development.

#### 7.1.1. Managing effects

In managing the effects of a resource use or activity, regardless of the magnitude, frequency, or duration of the effect, mana whenua considers that it is necessary to provide a net benefit when considering social, economic, environmental, spiritual and cultural impacts – to strive for environmental enhancement. Therefore, it is necessary to suitably manage any effects so that effects are avoided, remedied, minimised, mitigated, or balanced. Only mana whenua can determine the effects and the degree of those effects on themselves and their values.

This is essentially a hierarchy where the first way to manage an effect is to avoid the effect, the second way is to remedy the effect, and so on through to suitably balancing the effect, what some may call offset mitigation. In managing effects consideration needs to be given to:

- **Avoid:** is there any way to manage the effects to a point where they can be avoided (i.e. no effect occurs)?
- **Remedy:** can the effect be managed to the point that it is eliminated (e.g. cleaning discharges to water so that the water discharge is of a suitable quality)?
- **Minimise:** is there a way to minimise the effect so that the effect is no longer of sufficient frequency or magnitude to cause any concern?
- **Mitigate:** if the effects cannot be adequately avoided, remedied, or minimised, is there something that can be done to mitigate or offset the effect to create a benefit not directly linked to the proposed resource use or activity. (e.g. an effect of discharge to water being offset by additional riparian planting or wetland restoration).
- **Balance:** when taking all the effects into consideration, and considering the relative weight of the effects, do the positive effects adequately balance out the negative effects, and provide environmental enhancement?

### 7.1.2. The highest target or measure in planning rules and regulations

Specific targets and measures will generally be contained in the methods and rules of any amendments to the Auckland Unitary Plan (Operative in Part), once adopted.

The 'highest target or measure' could be a target or measure applied by Iwi, a community, a local authority, the resource user or activity owner, or central government. Regardless, Iwi are generally supportive of the highest target or measure being applied to best achieve the objectives outlined in **Sections 6, 7, and 8** of the Resource Management Act. Iwi encourage the ongoing use of the best practicable option being applied when considering targets or measures.

All Districts/Regions within New Zealand must have a 'Plan'. Within these plans are the visions, objectives, policies and rules for each Region/District. In the case of Auckland, this is the Auckland Unitary Plan.

Rules in a plan are a method for achieving the 'desired' outcome of the plan i.e. the objectives and policies. All rules within these plans are a 'minimum requirement'. Unfortunately, the bare minimum does not give an adequate outcome for the environment.

Mana whenua believe that the minimum requirement is a **starting point**, not an **aspiration** and promotes that more than the minimum be applied to development and outcomes. The 'minimum requirement' is just that, a very bottom line, and in order to enhance and maintain our current base line of slowly declining air, land and water quality, more than the minimum needs to be provided for.

We believe that current rules in the Auckland Unitary Plan allow for some adverse environmental impact to land and waterways, but the cumulative effects of this over many different projects in the same area results in pollution that is not sustainable in a city with an ever-increasing population. We strongly recommend that any project minimises all adverse environmental effects to land or waterways now and in the future through prudent project design. Where possible, the environment must be rehabilitated to negate the impact of historical damage or any effects the project may have had or yet have on the area.

## 7.2. Elements of the environment

All things in the Māori world can be traced and explained through whakapapa. The whakapapa of the natural world – animals, plants, mountains, rivers, lakes, air, and coasts - is linked to that of Māori. Mana whenua have an obligation to ensure that these taonga are protected and managed when passed on to the next generation.

Māori are natural scientists who use environmental indicators as guides to the waiora of an eco-system. In doing so, they complement but do not replace the work of technical scientists. The reverse is also true.

A major natural indicator for Māori includes the life sustaining properties of an eco-system. Does a forest or bush area produce food and shelter that sustains bird and animal life? Does a waterway have sufficient bio-diversity and health that it can provide sustainable harvests of kaimoana of a standard fit for human consumption? Shellfish, berries, fish, medicinal herbs, flax and birdlife are all important indicators for Māori that reveal the strength and health of an eco-system.

As with certain other cultures, Māori holistically view human beings as an integral part of the eco-system and not as a separate entity. All living things share a natural balance, an 'interconnectedness and oneness' akin to a web of which humanity is only a part of. An imbalance in this complex network has a flow on effect that impacts the entire eco-system and ultimately humanity.

These values, passed from generation to generation, are a significant part of the intangible heritage of Māori and overall culture of New Zealand. Like the haka, these values help to make the country a place that is unique internationally.

Ngati Te Ata adheres to these core principles in relation to the environment and apply the philosophies contained within when examining any issues that involve natural resources and eco-systems. We believe it is essential that spiritual and cultural concepts are recognised as key factors in the management of the environment with programmes that actively enhance and facilitate these concepts.

The following sections outline our key issues and concerns for the various elements of our environment. Our recommendations for the future development of Drury and Opaheke are based on our knowledge and tikanga of these areas.

## **7.2.1. Heritage protection and recognition**

### **7.2.1.1. *Physical landscapes***

Physical landscapes are of particular value to mana whenua. They form part of our cultural landscape and are part of who we are and define our history. It is imperative that our landscapes are identified and preserved. This includes but is not limited to view shafts, hilltops, tuff rings, ridgelines, streams, floodplains, estuaries and coastlines.

Future urban development of Drury and Opaheke will potentially significantly change the physical landscape. For us, protection of the physical landscape will be essential otherwise our cultural landscape will be adversely affected.

Tuff rings are not only outstanding geological features worthy of protection but are a valuable source of groundwater recharge. Currently not all tuff rings in the southern area are formally identified and protected through planning provisions (i.e. Auckland Unitary Plan).

To protect ridgelines and hilltops, and view shafts to and from them, building height restrictions and setbacks may need to be implemented. Maps showing identified ridgelines in and around the Drury structure plan areas are in Appendix B.

Flood plains and reclaimed swamps are also an integral part of our landscape. They all at one time were wetlands/swamps that not only performed great ecological benefit but were also a valuable source of food. As development 'progresses' these areas are drained, built up and modified. These areas should be retained and returned to their natural state. This not only benefits the environment by creating habitat for our declining native species, but also adds huge well-being benefits to the people living around the area. Visual amenity has been recognised as being necessary for the physical, emotional and spiritual well-being of humans.

Streams, tributaries, estuaries, coastlines and fresh water springs also form part of our cultural landscape and their preservation, protection and enhancement is paramount. A 20-metre setback is promoted for all stream, estuarine and coastal edges. As these areas usually provide for pedestrian/cycle paths a 20-metre riparian setback is necessary to provide for proper riparian enhancement. Cultural heritage is also less likely to be impacted on if there is a 20-metre riparian margin.

Another way to protect streams and coastal/estuarine environments is the use of 'park edge roads'. This leaves the amenity visually available to the public and increases safety and surveillance. This discourages the dumping of rubbish and garden refuse over back fences.

An example of the provision for 'park edge roads' can be seen in the Drury 1 Precinct. Precinct provisions require 'park edge roads' where subdivision adjoins a public open space zone or a future esplanade reserve (as shown on precinct plan).

**Table 28.** – Issues, concerns and opportunities for Ngati Te Ata (referred to in the tables as Mana Whenua) to be addressed, and possible mechanisms to do so in relation to physical landscapes.

<b>Issues</b>	<ul style="list-style-type: none"> <li>Physical landscapes are an integral part of our cultural landscape and urban development may have a significant adverse effect on these physical landscapes.</li> <li>Identification and preservation of landscapes is required.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>Identify and protect physical landscapes including but not limited to view shafts, hilltops, tuff rings, ridgelines, streams, floodplains, estuaries and coastlines.</li> <li>Protection methods supported include: <ul style="list-style-type: none"> <li>Building setbacks and height restrictions to achieve protection of sightlines to ridgelines and hilltops.</li> <li>20m setback for all stream, estuarine and coastal edges to provide for pedestrian/ cycle paths.</li> <li>‘Park edge roads’ should be used for residential and commercial areas that back on to streams and coastal/estuarine edges.</li> </ul> </li> <li>Wetlands/swamps should be retained and returned to their natural state.</li> </ul>
<b>Relevant planning policy</b>  Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B2. Tāhuhu whakaruruhau ā-taone - Urban growth and form</b></p> <p>B2.1. Issues</p> <p>B2.2. Urban growth and form</p> <p>B2.3. A quality built environment</p> <p>B2.4. Residential growth</p> <p>B2.5. Commercial and industrial growth</p> <p>B2.7. Open space and recreation facilities</p> <p>B2.9. Explanation and principal reasons for adoption</p> <p><b>B4. Te tiaki taonga tuku iho - Natural heritage</b></p> <p>B4.1 Issues</p> <p>B4.2. Outstanding natural features and landscapes</p> <p>B4.3. Viewshafts</p>

	<p>B4.5. Notable trees</p> <p>B4.6. Explanation and principal reasons for adoption</p> <p><b>B5. Ngā rawa hanganga tuku iho me te āhua - Built heritage and character</b></p> <p>B5.1. Issues</p> <p>B5.2. Historic heritage</p> <p>B5.4. Explanation and principal reasons for adoption</p> <p><b>B6. Mana whenua</b></p> <p>B6.1 Issues</p> <p>B6.2 Recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p> <p>B6.3 Recognising Mana Whenua values</p> <p>B6.4. Māori economic, social and cultural development</p> <p>B6.5. Protection of Mana Whenua cultural heritage</p> <p>B6.6. Explanation and principal reasons for adoption</p> <p><b>B7. Toitū te whenua, toitū te taiao – Natural resources</b></p> <p>B7.1. Issues</p> <p>B7.2. Indigenous biodiversity</p> <p>B7.3. Freshwater systems</p> <p>B7.4. Coastal water, freshwater and geothermal water</p> <p>B7.7. Explanation and principal reasons for adoption</p> <p><b>B8. Toitū te taiwhenua - Coastal environment</b></p> <p>B8.1. Issues</p> <p>B8.2. Natural character</p> <p>B8.3. Subdivision, use and development</p> <p>B8.4. Public access and open space</p> <p>B8.6. Explanation and principal reasons for adoption</p>
--	---

### 7.2.1.2. Cultural heritage

Our cultural heritage includes archaeological sites, wāhi tapu and other sites of significance to mana whenua. These sites may have tangible and intangible values, and no one can identify sites of significance but us. The Sites of Significance to Mana Whenua Overlay in the Auckland Unitary Plan is only one method to identify and protect our cultural heritage. There are currently no sites of significance within the structure plan areas that are formally recognised and protected through planning provisions, but this does not mean that they do not exist.

Outside of this cultural values assessment there are other studies and workstreams currently looking at Māori cultural heritage. For example, Auckland Council is working with some iwi to identify Sites and Places of Significance to Mana Whenua.<sup>8</sup> Ngati Te Ata are involved with this work.

Regardless of this the Developer Group need to take into account that there are large areas of land in the middle of the proposed Drury East Plan Changes area that have not yet been part of a cultural heritage survey. This includes the areas from Drury to Bombay, Drury to Paerata, Drury to Tuhimata, these areas should be priority areas for survey within the proposed Drury East Plan Changes area.<sup>9</sup>

The management of our cultural heritage should be consistent with our respective tikanga and kawa. Development can have an adverse effect on our cultural heritage. This could be inappropriate activities being undertaken and/or inappropriate physical developments such as buildings/structures. The use of buffers around our cultural heritage sites is one method that can be used to protect our cultural heritage.

**Table 29.** – Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to cultural heritage.

<b>Issues</b>	<ul style="list-style-type: none"><li>• A need to protect and preserve our remaining cultural heritage from intensification of development within the Southern area.</li><li>• Reliance on scheduled items (e.g. NZAA/CHI places)</li><li>• Incomplete cultural heritage surveys.</li></ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"><li>• Wāhi tapu and other sites of significance are identified and protected.</li><li>• Protection and management of wāhi tapu and other sites of significance (including lands that are no longer in Māori hands)</li></ul>

<sup>8</sup> This work may result in additional places added to Schedule 12 Sites and Places of Significance to Mana Whenua Schedule.

<sup>9</sup> This is outlined in the archaeological report Cultural heritage in the Auckland Region: priority areas for survey and assessment (2001) by Kim Tatton and Auckland Regional Council.



	<p>should be in a manner that is consistent with the tikanga and kawa of the appropriate iwi.</p> <ul style="list-style-type: none"> <li>• Wāhi tapu and other sites of significance should be restored in partnership, where required or desired, with the community, industry, local and central government.</li> <li>• Only iwi should have the right to modify wāhi tapu.</li> <li>• Complete cultural heritage surveys as a priority, including the Drury to Bombay, Drury to Paerata, and Drury to Tuhimata.</li> <li>• Reinstate traditional Māori place names to recognise our cultural heritage.</li> <li>• Iwi should have the first right to name any new roads and access ways to ensure the old names are retained and that the history is relevant to the proposed Drury East Plan Changes area.</li> <li>• Risk assessment and protection mechanisms (accidental discovery protocols).</li> <li>• Buffers should be used around our cultural heritage sites to protect them from inappropriate development.</li> <li>• A 20-metre riparian margin should be used to reduce adverse effects on our cultural heritage.</li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B3. Ngā pūnaha hanganga, kawekawe me ngā pūngao - Infrastructure, transport and energy</b></p> <p><b>B3.2 Infrastructure</b></p> <p><b>B5. Ngā rawa hanganga tuku iho me te āhua - Built heritage and character</b></p> <p>B5.1. Issues</p> <p>B5.2. Historic heritage</p> <p>B5.4. Explanation and principal reasons for adoption</p> <p><b>B6. Mana whenua</b></p> <p>B6.1 Issues</p> <p>B6.2 Recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p>

	<p>B6.3 Recognising Mana Whenua values</p> <p>B6.4. Māori economic, social and cultural development</p> <p>B6.5. Protection of Mana Whenua cultural heritage</p> <p>B6.6. Explanation and principal reasons for adoption</p> <p><b><u>Road naming policies</u></b></p> <p>Auckland Council has road naming guidelines that set out the requirements and criteria of the council for proposed road names.</p> <p>The Auckland Council Road Naming Guidelines allow that where a new road needs to be named as a result of a subdivision or development, the subdivider/developer shall be given the opportunity of suggesting their preferred new road name/s for the local board's approval.</p> <p>Local iwi are consulted on proposed names for roads in the Papakura and Franklin Local Board areas.</p> <p>Auckland Council's road naming criteria typically require that road names reflect:</p> <ul style="list-style-type: none"> <li>• A historical or ancestral linkage to an area;</li> <li>• A particular landscape, environment or biodiversity theme or feature; or</li> <li>• An existing (or introduced) thematic identity in the area.</li> </ul> <p><b><u>Auckland Design Manual</u></b></p> <p><b><u>Te Aranga Principles</u></b></p> <p><a href="http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te_aranga_principles">http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te_aranga_principles</a></p>
--	--

### 7.2.2. Whenua

Mana whenua descend from the land. The word whenua also refers to the placenta. At birth, this is traditionally buried in the land of the hapū, strengthening relationships with the land and with whānau. Land, water, air, flora and fauna are nga taonga i tuku iho, treasures handed down to our descendants.

Without a relationship with the land, mana whenua are dispossessed and have no place to stand. The land gives identity and also tūrangawaewae, a place to stand. Mana whenua have strong spiritual bonds to the land. Papatūānuku our Earth Mother provides unity and identity to the people and sustains us. Papatūānuku is seen as a living organism, sustained by species that facilitate the processes of ingestion, digestion and excretion. Pou whenua, the prestige of the land, relies on marae and human activity for its visible expression and the environment also provides sustenance. In return, mankind as the consciousness of Papatūānuku has a duty to sustain and enhance her life support systems.

Reduction in native ecosystems and changing land use has consequently affected the natural ecosystem balance. This is particularly the case where current land use is not ideal for the area, such as farming on marginal, hilly lands. Attempts to control natural processes have further impacted on the natural ecosystem balance. For example, attempts to control flooding, which occurs naturally and contributes to ecosystem balance, has exacerbated habitat decline, particularly when waters are further contaminated from other land use activities or have a higher than natural sediment loading. Habitats for indigenous flora and fauna are in decline or have been destroyed.

The ability to access and effectively utilise land is intrinsically linked to the ability of iwi to provide for their environmental, social, spiritual, cultural, and economic health and wellbeing.

The mauri of much of the land within our respective rohe has been adversely affected by its historical and current use. Ngati Te Ata seek to restore the mauri of the land in balance with achieving our environmental, social, cultural, spiritual, and economic aspirations. We recognise that restoring the mauri of land needs to occur in partnership with the wider community, local authorities, government, and commercial and industrial users.

Any future development within the Drury and Opaheke areas should demonstrate how it has considered and applied development principles that enhance the environment. Some of these principles are set out below. These principles include, but are not limited to:

- Development should restore the capacity of ecosystems and create or maintain ecosystems that function without human intervention.
- The natural hydrologic functions of a site should be preserved and preferably enhanced. In particular sensitive areas that affect the hydrology should be identified and preserved. This includes streams and their buffers, aquifers, floodplains, wetlands, steep slopes, high-permeability soils and areas of indigenous vegetation.
- Development should ensure clean groundwater recharge. The existing topography of the area should be maintained, and natural hazards should be effectively managed.
- The impacts of stormwater should be minimised to the greatest extent practicable by reducing imperviousness, conserving natural resources and ecosystems, maintaining natural drainage courses, reducing use of pipes, and minimising clearing and

grading. Impervious areas can be minimised by reducing the total area of paved surfaces. Where impervious areas are unavoidable, attempts should be made to break these up by installing infiltration devices, drainage swales, and providing retention areas.

- Mechanisms such as rainwater harvesting, rain gardens, roof gardens, and onsite storage and retention should be encouraged. Runoff storage measures should be dispersed through a site's landscape with a variety of detention, retention, and runoff practices.
- The use of stormwater treatment devices should be encouraged including on-site treatment systems, allowing for emergency storage and retention structures.
- Development should minimise pollution and waste and promote efficient and effective energy conservation and use. Water conservation should also be considered, including beneficial re-use on-site of stormwater and wastewater.
- Development should avoid the risk of cumulative adverse effects across the whole area.
- The diversity and uniqueness of a place should be fully understood and acknowledged (socially, culturally, spiritually, economically, and environmentally). The design of any development should incorporate this diversity and uniqueness, such as culturally appropriate design, interpretive panels, and commemorative pouwhenua.
- The visual amenity of a development should be consistent with the surrounding environment.

### **7.2.2.1. Urban development**

The future development and urbanisation of Drury and Opaheke should not be at the expense of our natural and cultural environment and any new land use and development, should have positive environmental and cultural effects.

The Resource Management Act requires councils to monitor resource consents and compliance. However, our past experiences have been that this is not always carried out or that mana whenua are not kept informed. For us it is critical that future development of Drury and Opaheke is monitored and that appropriate resource consent conditions are applied and carried out. Resource consent conditions should ensure that adverse effects on mana whenua cultural values are avoided, remedied, or at the least mitigated. It is also essential that future development is compliant with the Building Act 2004.

Ngati Te Ata are also concerned that the future development and urbanisation of these areas could have an adverse effect on food production, especially for future generations. The southern areas have long been important horticultural areas due to the quality of the soil. There is a risk that future development and urbanisation will increase the pressure for yet more rural land to become urbanised, especially land just outside the rural urban boundary. This could result in the expansion of the rural urban boundary or removal of it altogether.

There is also a risk that reserve sensitivity concerns from new urban activities could make it more difficult for rural activities to be carried out. Future urban development needs to ensure it does not affect the viability of rural activities. It is also important that rural industries within the structure plan areas can continue to support horticultural food production.

**Table 1.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to urban development.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Inappropriate form, location and scale of urban development.</li><li>• Increased risk of cumulative adverse effects as land uses change and development intensifies.</li><li>• Repeated strategies of planning have been implemented in this area over the last 20 years. Concerns on the stability of the current rural urban boundary and on-going pressures to expand it or remove it all together.</li><li>• Loss of important horticultural land affecting future food production.</li><li>• Extent of previous planning for the two structure plan areas differs E.g. possible land uses already indicated in Pukekohe</li></ul>
---------------	--

	Area Plan 2014, but nothing previously done for Drury.
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• Future planning and development of the areas should have a clear vision that recognises the diversity and uniqueness of the areas. This includes the role the areas have played as the 'food bowl of the south'.</li> <li>• The southern areas continue to play a vital role in food production for future generations. Future urban development needs to recognise that rural activities such as horticulture will continue throughout the wider area. Rural industries that support horticultural food production need to be able to continue within the structure plan area.</li> <li>• Existing and future residents of Drury and Opaheke and subsequent beneficiaries of the development of these areas gain a greater understanding of our history, connection to these places and our values.</li> <li>• Gateways to new town centres should appropriately reflect the character of the areas.</li> <li>• New development should use land efficiently, especially since urban expansion has reduced the extent of rural production land.</li> <li>• Mana whenua have already contributed to previous planning documents and outcomes for the wider southern area. This work should be drawn upon.</li> <li>• Future planning and development should be cohesive and integrated with existing urban areas.</li> <li>• New development should have positive environmental and cultural effects. Future planning should determine where and what are 'no-go areas'; then within those areas determine areas worthy of protection and saving and the corresponding management approach.</li> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> <li>• Require resource consent conditions to be imposed that allow Iwi access to culturally and/or spiritually significant sites and sites of customary activities through the imposition of caveats on titles or providing for the registration of right-of-way servitudes.</li> </ul>

	<ul style="list-style-type: none"> <li>• Ensure in all development proposals that access is retained and improved to water bodies and cultural and/ or spiritual sites.</li> <li>• Management plans will be required as conditions of resource consent to ensure that critical environmental and cultural considerations are taken into account and that on-going monitoring and review occurs.</li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B2. Tāhuhu whakaruruhau ā-taone - Urban growth and form</b></p> <p>B2.1. Issues  B2.2. Urban growth and form  B2.3. A quality built environment  B2.4. Residential growth  B2.5. Commercial and industrial growth  B2.7 Open space and recreation facilities  B2.9 Explanation and principal reasons for adoption</p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues  B6.2. Recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation  B6.3. Recognising Mana Whenua values  B6.4. Māori economic, social and cultural development  B6.5. Protection of Mana Whenua cultural heritage  B6.6. Explanation and principal reasons for adoption</p>

### 7.2.2.2. Soil and earthworks

Soil is an important cultural resource and was used for various activities, such as plant cultivation and dye for garments. In the past iwi modified large areas of land for food production, such as kumara gardens. Kumara were an important source of food and our tupuna would add stone chippings and sand to the soil used for growing kumara. Many of these borrow/excavation pits are still visible today.

Taonga such as carvings and whāriki were stored in peat soils in wetlands to both hide and preserve them during times of trouble. Soil also has an important cleansing role. Only by passing treated waste through Papatūānuku can the mauri of water be restored.

Earthworks/land modification can significantly affect our cultural heritage, especially wāhi tapu or sites of significance. Earthworks can also affect land stability and water sources and result in the release of sediment. Ngati Te Ata have concerns with the large-scale number of earthworks expected as Drury and Opaheke are developed, and the implications that this may have. It is therefore imperative that cultural monitoring is undertaken by our kaitiaki (alongside the project archaeologist) and monitoring agreements with Ngati Te Ata are in place as cultural remnants and taonga will undoubtedly be exposed during future development.

We are also concerned about the source of the large amounts of fill that will be needed for future development. Will it be locally sourced or brought in from outside the areas? If outside the areas, where from and will it be assessed for contaminants? Contaminants, while they can become inert over time, are activated when disturbed. It is our assumption that most of the fill will be overburden from other development and infrastructure projects in Tāmaki Makaurau currently underway.

**Table 2.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to soil and earthworks.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Future development of these areas is expected to result in a significant number of large-scale earthworks. This includes 'cut and fill' used to create roads and various subdivisions to accommodate building platforms. The thresholds for earthworks are problematic i.e. too high.</li><li>• Earthworks may have an adverse effect on cultural heritage, land stability, and the mauri of water.</li><li>• Sediment may be released into the environment, including that from contaminated soils. Potentially contaminated soil may be used as fill.</li><li>• Loss of productive capacity/value of land in the south.</li></ul>
---------------	---



	<ul style="list-style-type: none"> <li>• Degradation of soil from intensification of agricultural practices.</li> <li>• Removal of indigenous vegetation can cause erosion.</li> <li>• Soil erosion can cause sedimentation.</li> <li>• Increased risk of cumulative adverse effects as land uses change and development intensifies.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• Cultural monitoring agreements should be established, and must be undertaken by iwi kaitiaki (alongside the project archaeologist) during any development</li> <li>• Review the Auckland Unitary Plan for provisions on volume of earthworks triggers for mana whenua oversight.</li> <li>• Minimise earthworks and make maximum use of natural ground levels.</li> <li>• The rural productive value of the area, as 'the food bowl of the south' must be recognised.</li> <li>• Ensure sufficient erosion and sediment control measures are in place for earthworks. Earthworks that have the potential to impact on waterways must have sufficient measures in place to ensure that adverse effects on water bodies are managed.</li> <li>• Riparian planting of appropriate, preferably indigenous, species must be promoted and increased to stabilise riverbanks and reduce erosion in the region. Plants should be 'eco-sourced / whakapapa plants' and consistent with local biodiversity.</li> <li>• Riparian vegetation must only be removed from river, lake and coastal/estuarine margins using methods that do not result in increased soil erosion in the long term. Any short-term effects must be managed to minimise any adverse effects.</li> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> </ul>
<b>Relevant planning policy</b>  Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B6. Mana Whenua</b></p> <p>B6.1 Issues</p> <p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p>

Statement provisions.	<p>B6.3 Recognising Mana Whenua values B6.6 Explanation and principal reasons for adoption</p> <p><b>B7. Toitū te whenua, toitū te taiao – Natural resources</b> B7.3. Freshwater systems B7.4. Coastal water, freshwater and geothermal water B7.7 Explanation and principal reasons for adoption</p> <p><b>B9. Toitū te tuawhenua - Rural environment</b> B9.1. Issues B9.2. Rural activities B9.3. Land with high productive potential B9.4. Rural subdivision B9.5. Explanation and principal reasons for adoption</p> <p><b>B10. Ngā tūpono ki te taiao - Environmental risk</b> B10.1. Issues B10.4. Land – contaminated B10.6. Explanation and principal reasons for adoption</p> <p><b><u>National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health</u></b> This has established soil contaminant standards that protect human health for a range of land uses. It aims to identify and assess land affected by contaminants in soil when the land use changes, or the land is being subdivided, and, if necessary, require the remediation of the site or the containment of the contaminants to make the land safe for human use.</p>
-----------------------	---

### 7.2.2.3. Erosion and sediment control

Soil erosion and inappropriate or a lack of sediment control can compromise the mauri of the land, rivers, lakes, and marine environments. It can be caused by activities such as intensive farming and forestry, vegetation clearance, and the development of urban areas (e.g. earthworks). It can also result in the contamination of land and waterways and the loss of important soil nutrients. Activities that accelerate soil erosion must be managed effectively.

It is vital that the significant urban development expected in Drury and Opaheke follows best practice erosion and sediment controls. Current best practise is set out in Auckland Council's Earthworks Erosion and Sediment Control guidance (GD05). This will replace the legacy technical publication TP90.

While the effects of contaminants are most noticeable on water bodies, the sources and causes lie on the land and with how the land is managed. For example, the intensification of agricultural practices throughout our respective rohe increases the nitrogen and phosphorus loads and levels of faecal pathogens entering rivers, lakes, wetlands and estuaries. It also increases the risk of soil degradation, soil compaction, surface water runoff, and sediment loss from hill and flat land areas. The use of flocculants as part of sediment control can also be a contaminant. Flocculants are used when it rains and are generally a chemical poly aluminium chloride (PAC). They can have a devastating effect on the receiving environment if accidental over-dosing occurs.

The removal of indigenous vegetation in favour of pastoral farming, production forestry and roading has caused, and continues to cause, accelerated soil erosion, particularly on hill country. This is delivering inflated loads of sediment to rivers, lakes, estuaries and coastal marine areas and causing significant negative impact on water quality and aquatic biodiversity. The removal of vegetation for urban development, such as roads, subdivision and building platforms, will also have a similar effect.

Clear-felling harvesting practices create the potential for soil erosion which causes sedimentation of receiving waterways and the coastal environment and smothers in-stream habitat and ecological values. This applies both within the context of forestry but can also apply to riparian management particularly invasive/pest plant removal along waterbodies.

Fluctuations in water levels (volume/quantity), accretion (gradual build-up of sediment or other natural material), wave action and water flow can all influence erosion potential, particularly along river and lake banks, around river islands and along the coast.

Iwi kaitiaki must be involved in the monitoring of sediment and silt control management, fencing and mitigation plans during any future development.

**Table 4.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to erosion and sediment control.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Amount of sediment being released into the receiving</li></ul>
---------------	--

	<p>environment.</p> <ul style="list-style-type: none"> <li>• Use of flocculants and potential for accidental overdosing.</li> <li>• Intensification of agricultural practices and levels of contaminants entering waterways or put onto/into land.</li> <li>• Activities that accelerate erosion (e.g. clearance of indigenous vegetation).</li> <li>• Increased risk of cumulative adverse effects as land uses change and development intensifies.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• Effectively manage activities that accelerate soil erosion e.g. vegetation removal and intensive agricultural practises.</li> <li>• Effectively manage the impact of contaminated land on the surrounding environment. Ensure contaminated land is not used as fill.</li> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> <li>• Restore and protect highly erodible lands e.g. retire highly erodible land from farming, prohibit the clearance of indigenous vegetation and soil disturbance on highly erodible land that could cause further erosion and use locally sourced indigenous vegetation during restoration.</li> <li>• Promote the direction of funds to support local reforestation initiatives on marginal lands.</li> <li>• Promote the adoption of best practice land and soil management that minimises soil erosion, nutrient leaching, and sediment and nutrient runoff.</li> <li>• Encourage research directed at developing technology and management practices that will minimise nutrient leaching and runoff.</li> <li>• When undertaking earthworks 'applicants' must strive to achieve a much higher percentage of sediment retention onsite i.e. strive to meet best practice such as GD05, rather than just meeting 'bottom line' minimum requirements such as TP90. There are proven ways to reduce the amount of sediment entering the ecosystem and those which are supported are: <ul style="list-style-type: none"> <li>- create a series of sediment pools instead of just one fore bay silt pond</li> <li>- use of filter/compost socks around cesspits and drains</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- use of an organic flocculent rather than chemical, when a flocculent is necessary. There are a variety of organic flocculent available currently on the market e.g. HaloKlear.</li> <li>- use of super silt fences in conjunction with silt ponds as a 'treatment train approach'</li> <li>- in the absence of silt fences use silt ponds, hay bales</li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional policy statement</b></p> <p><b>B6. Mana Whenua</b>  B6.1 Issues  B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation  B6.3 Recognising Mana Whenua values  B6.6 Explanation and principal reasons for adoption</p> <p><b>B7. Toitū te whenua, toitū te taiao – Natural resources</b>  B7.3. Freshwater systems  B7.4. Coastal water, freshwater and geothermal water  B7.7 Explanation and principal reasons for adoption</p> <p><b><u>Erosion and Sediment Control guidelines (GD05)</u></b>  Auckland Council has worked with industry experts and mana whenua to produce the <b>GD05 document</b>, which provides guidance for regulators and developers to safely and effectively incorporate sediment control practices into all scales of land development.</p> <p><b>A2.0 Fundamental principles of erosion and sediment control</b>  The following ten fundamental principles of erosion and sediment control provide best practice guidance for minimising the adverse effects of erosion and sedimentation through the planning, construction and maintenance phases of a project. These should be followed when preparing and implementing an erosion and sediment control plan:</p> <ol style="list-style-type: none"> <li>1. Minimise disturbance</li> <li>2. Stage construction</li> <li>3. Protect slopes</li> <li>4. Protect watercourses</li> <li>5. Rapidly stabilise exposed areas</li> <li>6. Install perimeter controls and diversions</li> <li>7. Employ sediment retention devices</li> <li>8. Get trained and develop experience</li> <li>9. Adjust the ESC Plan as needed</li> <li>10. Assess and adjust your ESC measures</li> </ol> <p><i>Note: GD05 will replace TP90 – Erosion and Sediment Control</i></p>

	<p><i>Guidelines for Land Disturbing Activities in the Auckland Region (1999, and 2007 update), and supersedes that guideline.</i>  <a href="http://content.aucklanddesignmanual.co.nz/project-type/infrastructure/technical-guidance/Documents/GD05%20Erosion%20and%20Sediment%20Control.pdf">http://content.aucklanddesignmanual.co.nz/project-type/infrastructure/technical-guidance/Documents/GD05%20Erosion%20and%20Sediment%20Control.pdf</a></p> <p><b><u>NZ Transport Agency's 'Erosion and sediment control standard for State highway infrastructure'.</u></b></p> <p>The guidelines have been developed to assist roading practitioners with the selection and design of erosion and sediment control practices. The guidelines demonstrate our commitment to lowering environmental impacts, social and environmental responsibility, and improving the contributions of state highways to the wellbeing of New Zealand. The inspection forms are designed to provide guidance on how to implement erosion and sediment control practices on the ground.</p> <p><a href="https://www.nzta.govt.nz/assets/resources/erosion-sediment-control/docs/erosion-and-sediment-control-guidelines.pdf">https://www.nzta.govt.nz/assets/resources/erosion-sediment-control/docs/erosion-and-sediment-control-guidelines.pdf</a></p>
--	---

### 7.2.3. Wai (Water)

***Ko te wai te ora o nga mea katoa***

***Water is the life giver of all things***

Ngati Te Ata have strong cultural, traditional and historic links with wai. Water is the life giver; it represents the blood of Papatūānuku, the Earth Mother, and the tears of Ranginui, the Sky Father. Streams, rivers, lakes, puna, wetlands and coastal waters are our taonga. These taonga are spiritually significant and closely linked to our identity, and it is the responsibility of our kaitiaki that they protect and manage these taonga for present and future generations. We continue to advocate the importance of healthy uncontaminated water throughout Tāmaki Makaurau.

Waterways are home to our many taniwha that look after our people and ensure their physical and spiritual protection. The wider Drury and Opaheke areas have many significant waterways such as Te Mānukanuka o Hoturoa, Drury Creek, Waihoehoe, Whangapouri Creek, Oira Creek, Ngakaroa Stream, Whangamaire Stream, Hingaia Stream, Te Maketu Stream. These continue to be under threat and our traditional activities, fisheries and access to them are compromised. They are not managed in accordance with our tikanga preferences.

Natural waterways should not be altered (e.g. moved or piped). Nor should a degraded state of a waterway become the 'baseline' when considering future development.

Ngati Te Ata aspire to have waters that are drinkable, swimmable, and fishable. However this is limited by a number of factors such as the concentrations of E.coli, eutrophication, suspended sediments, arsenic and mercury and stormwater runoff contaminants. Iwi have the right to drink clean water at any of our marae throughout Tāmaki Makaurau. It is also our right to eat the kai from our land and waterways without fear of being poisoned or suffering some other aspect of ill health.

Water is highly valued for its spiritual qualities as well as for drinking, transport, irrigation and as a source of kai. Bodies of water that our iwi include in our different whakapapa have mana as ancestors, the Waikato River as an example. Their physical and spiritual qualities are key elements in the mana and identity of iwi, hapū and whānau.

Water is defined in terms of its spiritual or physical state as shown in the table below.

Table 1: Categories of Water

Waiora	Purest form of water, with potential to give and sustain life and to counteract evil.
Waimāori	Water that has come into unprotected contact with humans, and so is ordinary and no longer sacred. Has mauri.

Waikino	Water that has been debased or corrupted. Its mauri has been altered so that the supernatural forces are non-selective and can cause harm.
Waipiro	Slow moving, typical of swamps, providing a range of resources such as rongoa for medicinal purposes, dyes for weaving, eels and birds.
Waimate	Water which has lost its mauri. It is dead, damaged or polluted, with no regenerative power. It can cause ill-fortune and can contaminate the mauri of other living or spiritual things.
Waitai	The sea, surf or tide. Also used to distinguish seawater from fresh water.
Waitapu	When an incident has occurred in association with water, for example a drowning, an area of that waterway is deemed tapu and no resources can be gathered or activities take place there until the tapu is lifted.

Source: E M K Douglas, 1984<sup>10</sup>

Mauri is the binding force between spiritual and physical; when mauri is extinguished, death results. Mauri is the life force, passed down in the genealogy through the atua to provide life. It is also strongly present in water; the mauri of a water body or other ecosystem is a measure of its life-giving ability (or its spiritual and physical health). Where mauri is strong, flora and fauna will flourish. Where it is weak, there will be sickness and decay.

It is therefore imperative that nothing adversely impacts upon its integrity. Such an action detrimentally affects the mauri of the resource and consequently the mana, wellbeing and health of the people. The key here is the importance of not altering the mauri to the extent that it is no longer recognisable as a healthy component, waiora.

Mixing water of different types is a serious concern because the mauri of a water body can be destroyed by an inappropriate discharge, with serious consequences for the ecosystem concerned. For example, the discharge of wastewater or stormwater into natural water (fresh or salt water). Our reliance on the spiritual and physical well-being of the water body will also be affected. The diversion or combining of waters from different sources or catchments is considered inappropriate.

The quality of water determines the relationship that the tribe has with its waters. Environmental degradation, at a national level, has occurred at a large cost and the physical, chemical, and biological quality of water has deteriorated because of both point source pollution (discharges into a body of water at a single location), and non- point source pollution (contamination from diffuse sources).

Mana whenua hold on to the belief that water is pure when it leaves the heavens, and with

<sup>10</sup> E M K Douglas; New Zealand. Commission for the Environment.; University of Waikato. Centre for Māori Studies and Research. 'Waiora, waimaori, waikino, waimate, waitai: Māori perceptions of water and the environment: proceedings of a seminar; Hamilton, NZ: The Centre, 1984



today's technology and in the ever-increasing pollution created by man that there should be a natural treatment train approach to retain the cleanliness of the water from the skies to the sea.

The waters of the Auckland region have been modified to support economic gains, and the impacts of previous poor management practices are increasingly being seen. As a result, human impacts from such uses as farming/agriculture, wastewater discharges, damming, horticulture, urban development, alterations to the natural hydrology (straightening/piping) of rivers and streams, and forestry conversions have modified natural water flows and increased the degree of contaminants that a water body receives resulting in a decrease in water quality of rivers and streams.

Water is a fundamental component for all dimensions of life. Water not only sustains life, but also serves an economic, social, cultural, spiritual, and political purpose. Regardless of the significance of water, the increase in water contamination by cities, industries, and agriculture/horticulture has led to the deterioration of the mauri of water.

### 7.2.3.1. Waterways

In the past waterways provided travel, trade and communication for the tribes, as well as a resource for food. The waterways were the life blood connecting tissue between kāinga, pā, cultivations and traditional collecting resource areas. As such they are a significant part of our cultural landscape.

It is crucial that future urban development of Drury and Opaheke recognises and respects the importance of our coastal and inland waterways; in particular Te Mānukanuka o Hoturoa and the waterways that flow into it.

Ngati Te Ata does not accept the altering of a natural waterway; this alters its natural state. Nor do we accept that because a natural waterway has been previously 'straightened' by previous landowners, that it becomes a 'drain', it still has water flowing within it, water that still has mauri.

Also, we do not accept that because an area of swamp, wetland or stream has become degraded through past land use (e.g. dairy farming, horticulture etc.) that it becomes the 'base line' if the intent is to redevelop it. It is always possible to restore and enhance any degraded waterway through the development process. It is usually only a matter of willingness from the developer and Auckland Council to achieve this.

Maps showing the location of currently mapped permanent and intermittent streams, lakes, dams and coastal water are in Appendix C. A list of waterways is also included in Appendix A.

**Table 9.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to waterways.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Past land uses and practices have altered and degraded waterways.</li><li>• Future urban development could adversely affect waterways e.g. loss of streams, wetlands or floodplains; reduced water quality etc.</li><li>• Increased risk of cumulative adverse effects as land uses change and development intensifies.</li></ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"><li>• Future urban development should protect, rehabilitate and enhance waterways, especially where previous land use has degraded it.</li><li>• Preserve the physical integrity of receiving streams.</li><li>• Streams are well integrated with town centres with use of stream management plans and special policy requirements</li></ul>

	<p>(green space, infrastructure, wider riparian margins).</p> <ul style="list-style-type: none"> <li>• Development around streams/awa is limited to maintain access, preserve amenity, retain views and protect water quality e.g. use of 20m setbacks, use of park edge roads, lower density housing.</li> <li>• Address existing use rights e.g. Industrial land discharges.</li> <li>• Transport network planning across the wider southern area must consider stormwater treatment infrastructure.</li> <li>• Involvement in stormwater management planning and kept informed of the processing of the network discharge consent for the area.</li> <li>• Council to provide watercourse assessment reports which provide baseline information on the existing condition of waterways.</li> <li>• Decisions on use of reserves or similar provision in subdivision applications shall give priority to protecting the water body health regardless of the water body or subdivision size.</li> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> </ul> <p>Proposed developments shall demonstrate how they have considered and applied development principles that enhance the environment including, but not limited to how the development:</p> <ul style="list-style-type: none"> <li>• Preserves and preferably enhances the natural hydrologic functions of the site</li> <li>• Identifies and preserves sensitive areas that affect the hydrology, including streams and their buffers, floodplains, wetlands, steep slopes, high-permeability soils and areas of indigenous vegetation</li> <li>• Maintains recharge of aquifers with clean uncontaminated water</li> <li>• Effectively manages natural hazards</li> <li>• Considers beneficial re-use on-site of stormwater and wastewater</li> <li>• Considers water conservation</li> <li>• Provides for visual amenity consistent with the surrounding</li> </ul>
--	--

	<p>environment</p> <ul style="list-style-type: none"> <li>• Minimising stormwater impacts to the greatest extent practicable by reducing imperviousness, conserving natural resources and ecosystems, maintaining natural drainage courses, reducing use of pipes, and minimising clearing and grading</li> <li>• Providing runoff storage measures dispersed through the site's landscape with a variety of detention, retention, and runoff practices</li> <li>• Where they will be of benefit, encouraging the use of mechanisms such as rainwater harvesting, rain gardens, roof gardens, and onsite storage and retention</li> <li>• Where they will be of benefit, encouraging the use of stormwater treatment devices including on-site treatment systems, allowing for emergency storage and retention structures</li> <li>• Such areas that have unavoidable impervious areas, attempt to break up these impervious areas by installing infiltration devices, drainage swales, and providing retention areas</li> <li>• Minimise imperviousness by reducing the total area of paved surfaces</li> <li>• Maintain existing topography and pre-development hydrological processes.</li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b>  <b>Chapter B Regional policy statement</b></p> <p><b>B6. Mana Whenua</b>  B6.1 Issues  B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation  B6.3 Recognising Mana Whenua values  B6.4. Protection of Mana Whenua cultural heritage  B6.6 Explanation and principal reasons for adoption</p> <p><b>B7. Toitū te whenua, toitū te taiao – Natural resources</b>  B7.3. Freshwater systems  B7.4. Coastal water, freshwater and geothermal water  B7.7. Explanation and principal reasons for adoption</p> <p><b>B8. Toitū te taiwhenua - Coastal environment</b>  B8.1. Issues  B8.2. Natural character</p>

	<p>B8.3. Subdivision, use and development</p> <p>B8.4. Public access and open space</p> <p>B8.6 Explanation and principal reasons for adoption</p> <p><b><u>The New Zealand Coastal Policy Statement</u></b></p> <p><b><u>National Policy Statement for Freshwater Management 2014</u></b>  <b><u>(amended 2017)</u></b></p>
--	--

### **7.2.3.2. Coastal environment**

The mauri of the waters of the coast is of critical importance to Ngati Te Ata, particularly to our coastal marae and hapū. We seek to restore and protect the health and well-being of our harbour and coastal areas. Ngati Te Ata consider that the coastal area is fully integrated with land, air, river and freshwater ecosystems and that all these ecosystems effectively operate as a whole, interrelated and indivisible system. An effect on one ecosystem has the potential to have a flow on effect on any, or all the other ecosystems. Planning and policy should take this integration into consideration.

Anything that occurs in the coastal area, including on or in lands and waters that feed into the coastal area has the potential to impact on our fisheries. Te Mānukanuka o Hoturoa has been and is still affected by environmental concerns arising from multiple projects including stormwater, farmland or other waste runoff and the discharge of raw sewage into its waters through emergency overflow points around the harbour. Commercial fishing and various types of infrastructure running around, under and through the harbour have also impacted upon its integrity as a natural resource and impacts on our customary fishing activities. Fishing and collecting shellfish and other kaimoana/ mātaītai are a hauanga kai historically and culturally significant. Our ability to carry out these activities is affected by a loss of access to these areas. It is essential that any future urban development in and around Drury retains and restores our access to the coast.

Estuaries were particularly important as a source of food. They gave access to the interior of the country and its wealth of other resources such as tall timbered rain forests, abundant bird life, flax swamps and rivers full of eels. Because estuaries were viewed by many European settlers as unproductive wastelands, estuarine land was reclaimed for harbours, and filled in for pasture, sewage schemes and stormwater discharge. Many are still under threat from pollution, reclamation, sedimentation, exotic pest species and extraction of sand and gravel.

Most fresh water eventually makes its way to the coast and so land use practices in the upper freshwater catchments impact on coastal water quality. The contamination of coastal waters has led to the closure of shellfish beds due to health concerns.

Land and water use and activities can contribute to excessive erosion along coastlines (e.g. the clearing of hilly land for farming that sits alongside the coast). Soil erosion has the potential to release nutrients from soil particles into receiving waters which in turn impacts on water quality. Inappropriate uses and development of marginal lands increases the potential for soil and coastal erosion. Coastal erosion and silting from high upstream sediment loading cause the smothering of shellfish beds and fragile estuarine ecosystems. Such areas are nursery grounds for fin-fish and other marine life.

The integrity of sand dunes is important for the effective functioning of coastal ecosystems. Dunes provide habitat for flora and fauna and the ineffective care or management of dune systems can result in major erosion and loss of habitat. Dune vegetation, which stabilises the dune systems, can be damaged or destroyed from inappropriate vehicle movements and other inappropriate public use along the coastal sand dune areas.

Reclamation of coastal and estuarine areas to create additional land for development destroys marine flora and fauna and their habitat. Reclamations that have occurred have

adversely impacted upon our traditional relationship with these coastal areas. Land use changes and practices, stormwater and wastewater discharges have had an adverse impact on coastal ecosystems, modifying the hydrologic regime and the ecological value and quality of coastal waterways. Developments in and around the coastal area, particularly when accompanied with the removal of native flora and fauna, can place pressure on coastal resources, change the character of the coastal landscape, and alter traditional views and features of the landscape.

Inadequate planning for urban or rural development and growth can result in coastal sprawl which impacts on landscape character. This is further aggravated when there are inadequate or failing infrastructure services (water supply, wastewater, stormwater management, solid waste management) in the coastal areas. Structures, such as marinas, wharves, and buildings on, or in the coastal area can have a significant adverse impact on the coastal area and on customary activities. These structures can attract additional people, vehicles and boats to an area which places further pressure on the environment, such as through the risk of additional waste discharge and/or fuel spillage to the marine environment.

Integrated management of coastal areas with land and freshwater systems is critical to the health and well-being of the coastal area. Integrated management can be hindered by different agencies with different responsibilities and a potentially 'silo' approach to ecosystem management. Each silo or part of the management process may not act consistently, collaboratively and cohesively to contribute to the wellbeing of the whole coastal area.

**Table 7.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to the coastal environment.

<b>Issues</b>	<ul style="list-style-type: none"> <li>• Reduction of access to coastal areas for iwi.</li> <li>• Land use practices in freshwater catchments which have the potential to affect coastal waters.</li> <li>• Increased risk of cumulative adverse effects as land uses change and development intensifies.</li> <li>• Coastal sprawl resulting from inadequate planning for growth and failing infrastructure services.</li> <li>• Land use changes, stormwater and wastewater discharges.</li> <li>• Soil erosion along coastlines as a result of land use activities.</li> <li>• Reclamation of coastal and estuarine areas and clearance of native flora and fauna for development.</li> <li>• Structures in the coastal area with the ability to attract more people, vehicles and boats.</li> </ul>
---------------	---

	<ul style="list-style-type: none"> <li>• Commercial and recreational fishing impacts on customary fishing activities.</li> <li>• Closure of shellfish beds as a result of health concerns related to contamination.</li> <li>• Inappropriate vehicular and public use of sand dunes.</li> <li>• Loss of landscape character.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• Protect and enhance the mauri of marine waters.</li> <li>• Retain and restore our access to coastal areas.</li> <li>• Integrated management of coastal areas with land and freshwater systems.</li> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> <li>• Protect, restore and enhance marine biodiversity.</li> <li>• Maintain and enhance coastal water quality.</li> <li>• Protect, enhance, and restore coastal wetlands and riparian margins in coastal areas including coastal dune lands.</li> <li>• Reverse any accelerated eutrophication (in this case, the harmful increase in nutrients) of estuaries and coastal waters caused by human activities.</li> <li>• Ensure there are no direct discharges of contaminants into or onto the coast area, including Te Mānukanuka o Hoturoa; and in particular, there are no discharges in the vicinity of a wāhi tapu, sites of significance, or food gathering areas.</li> <li>• Prohibit direct discharges of any untreated sewage are prohibited (including discharges from boats).</li> <li>• Exclude livestock from waterways, wetlands and estuaries in the coastal area.</li> <li>• Avoid development in the coastal area that has an adverse effect on landscape character.</li> </ul>
<b>Relevant planning policy</b>  Note: For the Auckland Unitary Plan this section only	<b><u>Auckland Unitary Plan (Operative in part)</u></b>  <b>Chapter B Regional Policy Statement</b>  <b>B6. Mana Whenua</b> B6.1 Issues



<p>identifies the key Regional Policy Statement provisions.</p>	<p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation  B6.3 Recognising Mana Whenua values  B6.6 Explanation and principal reasons for adoption</p> <p><b>B8. Toitū te taiwhenua - Coastal environment</b>  B8.1. Issues  B8.2. Natural character  B8.3. Subdivision, use and development  B8.4. Public access and open space  B8.6 Explanation and principal reasons for adoption</p> <p><b><u>The New Zealand Coastal Policy Statement</u></b></p>
---	---

### **7.2.3.3. Water Quality**

Ngati Te Ata aspire to have waters that are drinkable, swimmable, and fishable with the water quality at least at the level it was before Pākehā arrival.

For Ngati Te Ata the quality of water determines our relationship we have with it. The waters of the region have been modified for economic gains, and the effects of poor management practices relating to activities such as farming, horticulture, forestry, damming, wastewater, and urban development are increasingly being seen. These practices have altered the natural hydrology of rivers and streams (e.g. straightening, decreased water flow) and increased pollution. Point source and non-point source pollution has resulted in significant environment degradation, effecting the physical, chemical, and biological quality of water.

Water quality is often poor in areas where high levels of agricultural activity leach pollutants into groundwater. The nature of non-point source pollution, non-compliant discharges of urban run-off, and sewage effluent make it difficult to manage water quality, resulting in the accumulation of contaminants in sensitive environments. Point source discharges, such as those from wastewater treatment plants, can be highly organic and cause a reduction in water oxygen levels. This can stress fish life.

By-products of the previously mentioned activities contribute to the increase in nutrient levels and accumulation of key contaminants in water. Presence of metals such as iron, manganese, boron, mercury, and arsenic can have harmful effects on human health. Likewise, the use of herbicides, pesticides, insecticides, and fungicides are also recognised as potential contaminants of water. Water clarity can be altered by activities such as sand dredging/mining and soil erosion that increases the risk of sedimentation. Increased suspended sediment in waterways can have an adverse effect on ecosystems such as through smothering aquatic life in estuaries.

Contributing contaminants in water degradation are the levels of nitrogen and phosphorous. Nitrogen is found in groundwater (in the form of nitrate) and is monitored for health and environmental reasons. Elevated levels of nitrogen indicate the presence of other pollutants in freshwater and can pollute surface water. A key issue is that, with increasing nitrogen and phosphorous levels, the risk of harmful algal blooms also increases threats to human and animal health. Increasing nutrients also increases nuisance aquatic weed growth and, with increasing algae, reduces water clarity. Elevated pathogen (bacteria, such as E. coli, and viruses) levels in water are a risk to human and animal health.

Another major contributor to the quality of water is the introduction and poor management of pest species. The quality of water and its role in the natural biodiversity of waterways has been greatly altered because of transporting and holding pest fish and plant species. Pest fish (e.g. koi carp, catfish, perch, and tench) have stripped water channels of vegetation as well as excluded or out-competed native fish species. Similarly, pest plants (e.g. hornwort, yellow flag, and alligator weed) are also being transported by water and deposited on lands, where they have dominated and crowded out native flora.

**Table 5.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to water quality.

<b>Issues</b>	<ul style="list-style-type: none"> <li>• Degradation of water quality has happened at a national and local level. Adverse effects are becoming more evident.</li> <li>• Adverse effects caused by past land uses and practices such as farming, horticulture, urban development, point and non-point source discharges, modified waterways and decreased water flow, pest species, erosion and sedimentation, increased nutrient levels</li> <li>• Increased nutrient levels and contaminants in waters are a risk to human and animal health</li> <li>• Increased risk of cumulative adverse effects as land uses change and development intensifies.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• Ngati Te Ata aspire to have waters that are drinkable, swimmable, and fishable with the water quality at least at the level it was before European arrival.</li> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> </ul>
<b>Relevant planning policy</b>  Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.	<p><b><u>Auckland Unitary Plan (operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B6. Mana Whenua</b></p> <p>B6.1 Issues</p> <p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p> <p>B6.3 Recognising Mana Whenua values</p> <p>B6.6 Explanation and principal reasons for adoption</p> <p><b>B7 Toitū te whenua, toitū te taiao – Natural resources</b></p> <p>B7.3. Freshwater systems</p> <p>B7.4. Coastal water, freshwater and geothermal water</p> <p>B7.7. Explanation and principal reasons for adoption</p> <p><b><u>National Policy Statement for Freshwater Management 2014 (amended 2017)</u></b></p> <p><b><u>The New Zealand Coastal Policy Statement 2010</u></b></p>

#### **7.2.3.4. Groundwater, recharge and water allocation**

Ngati Te Ata anticipate the future urban development of Drury and Opaheke will have a significant adverse effect on groundwater in the long-term, especially if the lowering of groundwater levels is permanent. The key issue is to ensure the aquifers do not get contaminated. That's why it is vital to identify puna and the potential impact on these resources.

Groundwater recharge is vital to retain base flows within streams, and to keep aquifers recharged. In some areas (depending on soil type) rainwater can take between 1-100 years to seep down into aquifer. Stream base recharge does not take so long. Piping of any water flow lowers the base flow of a stream and causes higher peak flows. Impervious cover also has a devastating effect on stream base flow health. Up to 10 percent impervious cover of any site reduces base flow by 50 percent. Up to 50 percent and over of impervious cover of an area totally negates the ability for stream base flow recharge (Dr Tom Schueller).<sup>11</sup>

Our maunga and tuff rings are a direct avenue for groundwater recharge because of their porous nature and it is therefore imperative that they are not built upon or modified so they can continue to function as they are intended. Our aquifers are being constantly relied upon as a source of water supply. Aquifer water can take between two and 100 years to regenerate depending on soil type. Some of our aquifer in the Auckland Region are already fully allocated. Others are over allocated and already have saline intrusion. This is not sustainable, and ground water recharge must be applied in all instances. Water allocation must be consistent with restoring and protecting the health and well-being of water bodies within our rohe, including aquifers.

Our aquifer and groundwater resources are slowly depleting and becoming polluted at a fastening rate as our population continues to grow. While not necessarily 'taking groundwater' new houses continuing to be built are taking away the earth's natural way of recharge by way of impervious surfaces. Each new dwelling, road, cycle/pedestrian way prevents rainwater from naturally permeating through the ground

The practice of using soak pits for contaminated road runoff with no prior treatment also adds to the pollution of groundwater. Ngati Te Ata are concerned that contaminant levels measured in groundwater will exceed the permitted activity criteria and will not be consistent with water quality in the receiving environment. On-going discharge of low levels of contaminants into the groundwater, will generate levels of risk to the environment and human health.

Before any future development of Drury and Opaheke is carried out, further information is required to better understand the current state of groundwater and the effects future development may have. For example, what effects will the lowering of groundwater have on aquifers with possible long-term saline intrusion? What are the effects on ground settlement?

---

<sup>11</sup> Dr. Tom Schueller is a leading expert in groundwater recharge, and his evidence was taken into account at an Environment Court hearing regarding the Long Bay marine reserve area during a proposed development.

Our past experiences with large scale housing and industrial subdivisions is that they can cause ground settlement, which is a major concern to us.

**Table 8.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to groundwater, recharge and water allocation.

<b>Issues</b>	<ul style="list-style-type: none"> <li>• Disruption to natural recharge of groundwater and stream base flow due to increased urban development.</li> <li>• Adverse effects of lowering groundwater e.g. ground settlement, saline intrusion.</li> <li>• Increased risk of cumulative adverse effects as land uses change and development intensifies.</li> <li>• Ongoing discharge of low levels of contaminants into groundwater which will adversely affect the environment and human health.</li> <li>• Protection of maunga and tuff rings as an avenue for direct groundwater recharge.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• Ensure groundwater recharge to retain base flows within streams, and to keep aquifers recharged.</li> <li>• Commissioned reports are undertaken to carry out an initial groundwater study based on information and results from previous studies. Ngati Te Ata request to be updated and informed, as these reports become available.</li> <li>• Support the promotion of innovative green business initiatives and practices. For example, the use of low-impact building materials, packed gravel or permeable concrete instead of conventional concrete or asphalt, to enhance replenishment of ground water.</li> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> <li>• The water allocation framework must be underpinned by the following principles: <ul style="list-style-type: none"> <li>- Recognition that mana whenua iwi have rights and interests in water.</li> <li>- Unauthorised water takes are subject to immediate enforcement action to ensure a level playing field for all</li> </ul> </li> </ul>

	<p>water users.</p> <ul style="list-style-type: none"> <li>- All water takes (excluding those required for civil or general emergency) should be accounted for within the allowable limit.</li> <li>- The framework for allocating water to users should focus primarily on ensuring the health and well-being of waterways and secondly on contributing to the long-term economic, cultural, spiritual, environmental, and social well-being.</li> <li>• The water allocation framework must cater for all catchments and particularly consider catchments: <ul style="list-style-type: none"> <li>- that have no significant current or foreseeable demand pressure</li> <li>- that continue to have water available for use and a trend of increasing demand towards full allocation</li> <li>- that are fully allocated</li> <li>- Where water is over allocated and all or any of that over allocation needs to be phased out</li> </ul> </li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B6. Mana Whenua</b>  B6.1 Issues  B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation  B6.3 Recognising Mana Whenua values  B6.6 Explanation and principal reasons for adoption</p> <p><b>B7 Toitū te whenua, toitū te taiao – Natural resources</b>  B7.4. Coastal water, freshwater and geothermal water  B7.7. Explanation and principal reasons for adoption</p> <p><b>B10. Ngā tūpono ki te taiao - Environmental risk</b>  B10.1. Issues  B10.4. Land - contaminated</p> <p><b><u>National Policy Statement for Freshwater Management 2014 (amended 2017)</u></b></p> <p><b><u>The Resource Management (National Environmental Standard for Sources of Human Drinking Water) Regulation 2007</u></b></p>

**Auckland Code of Practice for Land Development and Subdivision<sup>12</sup>**

**Chapter 4. Guidance for Stormwater Code of Practice (2015)**

In particular section 3.20 Groundwater Recharge Pits in Recharge Areas

Groundwater recharge is necessary in areas with peat soils to maintain underlying aquifer water levels and geotechnical stability. Dewatered peat soils are subject to shrinking and ground surface settlement.

The requirement for groundwater recharge is to be considered and specific design and council approval is required for any development in an area where peat soils can be anticipated. In particular, there is a significant area of peat and soils with high organic content in the Papakura area. Refer to Auckland Council technical report TR2013/040 (Stormwater Disposal via Soakage in the Auckland Region) for design guidance for all soakage systems. TR2013/040 also defines the likely extent of peat soils within the legacy Papakura District. However, the presence or absence of peat shall be confirmed by geotechnical investigation. Refer to the Proposed Auckland Unitary Plan (PAUP) and operative district plans for other requirements regarding groundwater recharge in peat areas.  
(<http://www.aucklanddesignmanual.co.nz/project-type/infrastructure/codes-of-practice/stormwatercodeofpractice/guidance/design/GroundwaterRechargePitsinRechargeAreas>)

---

<sup>12</sup> This relates to assets that will be transferred to Auckland Council.

#### **7.2.3.5. Stormwater**

Stormwater is a term commonly used in today's climate as referring to all water run-off, both clean (i.e. from roof tops) and contaminated (from roads, access ways, silt etc.). Past stormwater practice has been to get it all into a pipe and out of the way as fast as possible, usually draining into curb and channel, a cesspit then piped into the nearest waterway. This practice results in mixing stormwater with freshwater. This not only wastes water but also degrades the mauri of the water and is a culturally provocative act in the same vein as discharging treated effluent or waste directly into water.

There has always been a strong argument within New Zealand society regarding economic gain versus environmental and cultural gain. Because money talks, the gains more often than not are weighted on behalf of the economic argument. However, Ngati Te Ata will always advocate the highest level of treatment of stormwater before it is discharged into our waterways, and that the protection of the mauri of all-natural waterways and the food producing capacity of natural waterways is protected and enhanced, as is their life supporting capacity. Our cultural position is that we advocate water conservation and efficient use of water, oppose the direct disposal of any waste into waterways and require that waste pass through the soils, or through other innovative means, before discharge. Iwi living both on the Waitemata and Manukau despair at the despoiling of our harbours, long treasured for their fisheries.

Ngati Te Ata also promote the regeneration of any wetland (even if degraded) as wetlands featured prominently in the past as nature's natural filters. Natural wetlands should not be used as a stormwater filter device, or they will become a source of pollution. Natural wetlands should only be used to filter stormwater once it has passed through at least two forms of treatment.

The mixing of clean roof water runoff and contaminated road water is now considered a wasted resource, and often the cause of stormwater devices becoming 'inundated' during heavy rainfall, leading to further pollution and erosion of natural waterways. Often in the common 'stormwater pond' the sediments that have 'dropped out' during the 'settlement' phase within the ponds are 're-suspended' during heavy rain fall and inundation, and so all those contaminants become 'mobile' again and are flushed out of the pond and into the water ways, making the pond in-effective, and a source of contaminants.

New approaches to treating contaminated road runoff and stormwater in general are constantly being investigated and methods are becoming more 'natural'. Ngati Te Ata currently promote the 'treatment train' approach as current best practice. This promotes at source retention, provides quality contaminant removal, less inundation at the final stage, ensures the cost is more evenly spread, and is easier to maintain.

The treatment train approach includes methods such as roof water detention on site via rain tanks and or soakage pits, where clean rainwater can be reused or used to recharge the underground water systems as first treatment; then road water to vegetated swale and/or rain-garden; and then to a wetland for a final 'polish'. Natural stream greenways are being designed into natural waterways instead of piping to produce a more natural look, and



further treatment. This is particularly important when creating a ‘coastal or stream outfall’, natural vegetated, semi rocked outfall/flow structures also add additional treatment and are more natural.

Rain gardens/swales for contaminated road water retention/detention, underground Stormwater 360 or Hynds Up-Flo devices can be used where a site is already developed if space is available and then a wetland or attenuation device (large vegetated dry swale system) for a final ‘polish’. This system is currently best International practice; it serves to reduce initial runoff by infiltrating the first 10mm back into source, while containing contaminants, and adding to the recharge of the ground water. This also lessens volumes to device, which improves the function of the treatment device.

It is important to note that as time goes by technologies change and monitoring has time to gather data and gain understandings of how stormwater is best treated. At the very least we expect all cesspits to be fitted with a ‘stormwater 360 litter trap’ or ‘enviro-pod’. These devices fit easily into a cesspit and have been designed to fit under the grate for easy convenient installation and cleaning. The reference to and addition of the GD01 stormwater guidelines is promoted.<sup>13</sup> Mana Whenua have had input into these designs and if used in a treatment train approach they an effective guideline to encouraging better stormwater quality outcomes.

Green roofs are also becoming popular mainly in overseas countries, and where pollution is a problem. The green roof concept not only adds to more oxygen being produced but to the health and well-being of people who can grow their own vegetables, fruit trees etc.

The separation of clean roof water from contaminated road runoff must become a priority for all new development, both ‘brown fields’ and ‘greenfield’ development e.g. development of Drury and Opaheke. This is easy enough to do. The provision of roof tanks to capture clean water, which is then reused for outdoor, and some indoor use is important, if we (citizens and residents) are to retain enough available water for future generations. Excess water can then be directed to groundwater recharge via soakage pits, and any additional can then be slowly released into the rest of the infrastructure.

**Table 10.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to stormwater.

<p><b>Issues</b></p>	<ul style="list-style-type: none"> <li>• Mixing of waters, especially clean roof water with contaminated run off.</li> <li>• Treatment of contaminated stormwater – follow best practice.</li> <li>• Efficient use of water.</li> <li>• Increased risk of cumulative adverse effects as land uses</li> </ul>
----------------------	--

<sup>13</sup> This document was produced by Auckland Council to provide guidance on stormwater management devices. Cunningham, A., Colibaba, A., Hellberg, B., Silyn Roberts, G., Symcock, R., Vigar, N and Woortman, W (2017) *Stormwater management devices in the Auckland region*. Auckland Council guideline document, GD2017/001.

	change and development intensifies.
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> <li>• 'Clean' and 'contaminated' waters are not mixed i.e. no direct disposal of any waste into waterways, including wetlands.</li> <li>• Highest level of stormwater treatment should be used before it is discharged into waterways. This includes, but is not limited to: <ul style="list-style-type: none"> <li>- use of 'treatment train' approach</li> <li>- use of raingardens/swales and green roofs</li> <li>- all cesspits to be fitted with a 'stormwater 360 litter trap' or 'enviro-pod'</li> <li>- use of the new GD01 stormwater management devices guideline as an appropriate means to support the mitigation of stormwater issues.</li> </ul> </li> </ul>
<b>Relevant planning policy</b>  Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B3. Ngā pūnaha hanganga, kawekawe me ngā pūngao - Infrastructure, transport and energy</b></p> <p>B3.1. Issues</p> <p>B3.2. Infrastructure</p> <p>B3.5. Explanation and principal reasons for adoption</p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues</p> <p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p> <p>B6.3. Recognising Mana Whenua values</p> <p>B6.6. Explanation and principal reasons for adoption</p> <p><b>B7. Toitū te whenua, toitū te taiao – Natural resources</b></p> <p>B7.3. Freshwater systems</p> <p>B7.4. Coastal water, freshwater and geothermal water</p> <p>B7.7. Explanation and principal reasons for adoption</p> <p><b><u>The New Zealand Coastal Policy Statement 2010</u></b></p> <p><b><u>Auckland Code of Practice for Land Development and Subdivision</u></b></p>

	<p><b>Chapter 4. Guidance for Stormwater Code of Practice (2015)</b></p> <p>The purpose of this is provide minimum standards for the design and construction of new public stormwater assets and of new assets which are to be vested in council ownership. This is to be used in conjunction with GD01 and GD04.</p> <p><b><u>Stormwater Management Devices in the Auckland Region (GD01)</u></b></p> <p>This guideline document ‘...provides detailed design considerations aligned with the Auckland Council philosophy of stormwater management – where cultural values, social needs and natural features are considered as part of the functional design of the stormwater network – to achieve a resilient and sustainable outcome under the principles of water sensitive design.’<sup>14</sup> This will replace TP10.</p> <p><b><u>Water Sensitive Design for Stormwater in the Auckland Region (GD04)</u></b></p> <p>This guideline document provides overall guidance on the principles and process of water sensitive design.</p>
--	--

<sup>14</sup> Cunningham, A., Colibaba, A., Hellberg, B., Silyn Roberts, G., Symcock, R., Vigar, N and Woortman, W (2017) Stormwater management devices in the Auckland region. Auckland Council guideline document, GD2017/001. Page iii

### 7.2.3.6. Wastewater

The discharge of human effluent into natural water bodies is culturally offensive and unacceptable. Only land-based treatment through Papatūānuku can cleanse this type of waste. Our preference is for land-based disposal or at least a significant percentage of it.

New ideas and innovative technologies need to be explored for the treatment of wastewater. For example, using power free natural aerating processes, instead of mechanical pumps etc. to treat wastewater to advanced secondary levels. Nature is one huge recycling mechanism. It harnesses these forces that have been quietly working together for thousands of years to break down and decompose waste all around us. It then positions them in an enclosed ecosystem that simulates the forest floor, to treat and break down your wastewater until it is perfectly safe to be re-introduced into the environment, via the soil.

Moving up the chain of life-forms capable of digesting solid matter from human and food wastes, early conclusions form the opinion that early vermiculture and biological processes offered by far the best means of treatment for solid waste, without using mechanical or electronic means. It has been shown, through extensive trialling worldwide, these vermiculture processes which reduce the solids by up to 95 percent, are unmatched by any other process. There are no mechanically moving parts in these processes and nature's power is free.

Ngati Te Ata assume all future urban development in Drury and Opaheke will be reticulated i.e. no on-site waste disposal. We are concerned what the effects of both residential and industrial trade wastes will be on existing infrastructure.

**Table 11.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to wastewater.

<b>Issues</b>	<ul style="list-style-type: none"> <li>• Discharge of effluent into natural water bodies is culturally offensive, land-based treatment is required instead.</li> <li>• Effects of new urban development on existing wastewater infrastructure including increased risk of cumulative adverse effects as land uses change and development intensifies.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• Land-based treatment of effluent is preferred.</li> <li>• Exploration of natural processes rather than mechanical to treat wastewater, including vermiculture.</li> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> </ul>
<b>Relevant planning policy</b>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p>

<p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b>B3. Ngā pūnaha hanganga, kawekawe me ngā pūngao - Infrastructure, transport and energy</b></p> <p>B3.1. Issues B3.2. Infrastructure B3.5. Explanation and principal reasons for adoption</p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation B6.3. Recognising Mana Whenua values B6.6. Explanation and principal reasons for adoption</p> <p><b>B7. Toitū te whenua, toitū te taiao – Natural resources</b></p> <p>B7.3. Freshwater systems B7.4. Coastal water, freshwater and geothermal water B7.7. Explanation and principal reasons for adoption</p> <p><b><u>On-site Wastewater Management in the Auckland Region (GD06)</u></b></p> <p>This is currently a draft document but aims to provide 'technical guidance for the design, installation, and management of on-site wastewater systems, in accordance with site and soil conditions encountered in Auckland.'<sup>15</sup> It will eventually replace TP58.</p>
---	---

<sup>15</sup> Z, Chen and G Silyn Roberts. (2018) On-site Wastewater Management in the Auckland Region. Auckland Council guideline document, GD2018/006. Draft for consultation. Page i.

#### 7.2.4. Biodiversity

Biodiversity is integral to Ngati Te Ata. We are not separated from it; rather it is part of us and our conception of health and wellbeing. Biodiversity continues to be under threat despite successive plans to turn the tide. Its value cannot be over-estimated, and it is interwoven with many of our traditional values and practices. As kaitiaki Ngati Te Ata take an ecosystem view and we have a responsibility to manage and protect healthy ecosystems and the biodiversity that they support.

Increasing biodiversity can positively affect three realms:

- **Ecosystem:** Diverse ecosystems are better able to maintain high levels of productivity during periods of environmental variation than those with fewer species.
- **Economic:** Stabilised ecosystems ensure the delivery of ecological goods (e.g. food, construction materials, and medicinal plants) and services (e.g. maintain hydrological cycles, cleanse water and air, and store and cycle nutrients).
- **Social:** Visual and environmental diversity can have positive impacts on community and psychological well-being.

Indigenous vegetation is a significant element of biodiversity. Post-1840, much of the indigenous vegetation in Tāmaki Makaurau has been removed, and most indigenous flora and fauna are threatened by a lack of adequate legal protection, incompatible adjacent land uses and human-related impacts within their catchments.

The loss of habitat and introduced pests have been a major reason for the decline and extinction of many indigenous plant and animal species. Losing an indigenous species impacts on the whakapapa of the landscape and threatens the viability of Māori culture and traditional activities. Extinction or decline of a species or habitat has an impact on mātauranga about the ecosystem and environment and the information that can usefully be passed on to future generations. To promote the return of native birds and insects back into the surrounding environment, waterways and streams such as Slippery Creek need to be cleared of all rubbish and planted out with indigenous vegetation.

The introduction of foreign species into New Zealand ecosystems has also had devastating effects on indigenous species and their habitats. Many of these introduced species are invasive pests (plants, animals, and micro-organisms) that have caused harm to the environment, economy, and/or human health. Weed species such as wattle, privet, woolly night shade, agapanthus and others should be removed, and other exotic species should be replaced with indigenous species that are 'eco-sourced / whakapapa plants'.

The loss of indigenous trees and plants from the productive and human-occupied landscape continues to compromise the health of the natural environment by lessening the area of suitable habitat for taonga species, severing the vegetation corridors that are essential for the dispersal of indigenous species, and reducing the contaminant buffering and cleansing function that indigenous vegetation can perform. Ngati Te Ata are concerned that inefficient resource development, use, associated activities and infrastructure risks are compromising

and depleting the remnants of natural vegetation that remain in the region and serve as a reminder of the original natural character of the landscape.

Existing pockets of native planting must be protected, enhanced and actively managed. Ecological corridors can provide important links between larger areas of high value indigenous habitats. These corridors should include, but are not limited to appropriate riparian margins, gully systems, esplanade reserves, and vegetation planted alongside road corridors.

Any loss of native vegetation must be offset by the planting of other native varieties, replacing ‘like for like’ wherever possible. However, the indiscriminate use of indigenous plant material not sourced from local plant material (i.e. not ‘eco-sourced / whakapapa plants’) for restoration and development rehabilitation projects continues to alter the natural character of the region and the genetic composition of the remaining natural plant and animal populations. Such use needs to give consideration to strengthening the genetic pool of indigenous species.

An example of area specific provisions in the Auckland Unitary Plan that seek to enhance the ecology of the area can be found in the Drury 1 Precinct. Precinct provisions require riparian margins to be planted either side to a minimum width of 10m measured from bank of the stream. Planting is also required to be native vegetation that are ‘eco-sourced / whakapapa plants’ and consistent with local biodiversity.

Further provisions are currently proposed to the Drury 1 Precinct through Private Plan Change 6. This proposes an additional policy (Policy 14) to address the consideration of restoration of the Drury Creek Islands Recreation Reserve (Department of Conservation administered islands).

*Proposed Policy 14. Where offset mitigation is required to address adverse effects on ecology values, the preference is for this to be directed to the Drury Creek Islands Recreation Reserve.*

Ngati Te Ata support the use of these area specific provisions, such as these in Drury 1 Precinct to achieve improved ecological and biodiversity outcomes.

**Table 14.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to biodiversity.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Biodiversity is integral to mana whenua.</li><li>• Biodiversity is under continued threat, through a lack of inadequate legal protection, incompatible adjacent land uses and human-related impacts within their catchments.</li><li>• Significant loss of indigenous flora and fauna is a primary risk to biodiversity.</li></ul>
---------------	--

<p><b>Mana whenua recommendations and aspirations sought</b></p>	<ul style="list-style-type: none"> <li>• Embrace and empower kaitiakitanga and rehabilitate and heal the natural systems that support us all.</li> <li>• Restore iwi capacity to manage our natural and physical resources according to our own preferences.</li> <li>• Support iwi monitoring of the effectiveness of environmental regulation in the protection of our cultural resources, biodiversity, wāhi tapu and other taonga within our respective rohe.</li> <li>• Policies, planning, and best practice must ensure no further net losses of valuable ecosystems, and a measurable expansion of areas of regionally and culturally significant vegetation.</li> <li>• Support area specific planning provisions such as riparian planting requirements.</li> <li>• Promote the use of 'eco-sourced / whakapapa plants' that are indigenous plants and trees from within the Drury and Opaheke areas.</li> <li>• Establish new and enhance existing ecological corridors as a high priority.</li> <li>• Implement programmes such as riparian planting and protect sensitive receiving environments and protect and enhance water quality e.g. all permanent waterways to be fenced from livestock and planted, where appropriate, with indigenous vegetation to minimise the effects of land use practices and enhance biodiversity.</li> <li>• Remove or reduce pest species (plant and animal) from existing locations and prevent establishment in new locations.</li> <li>• Proposed developments must demonstrate how they have considered and applied development principles that enhance the environment including, but not limited to how the development: <ul style="list-style-type: none"> <li>- restores the capacity of ecosystems</li> <li>- creates or maintains ecosystems that function without human intervention.</li> </ul> </li> <li>• Encourage landowners to take out protective covenants to protect remnant stands of indigenous vegetation.</li> </ul>
<p><b>Relevant planning</b></p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p>



<p><b>policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b>Chapter B Regional Policy Statement</b></p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues</p> <p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p> <p>B6.3. Recognising Mana Whenua values</p> <p>B6.6. Explanation and principal reasons for adoption</p> <p><b>B7 Toitū te whenua, toitū te taiao – Natural resources</b></p> <p>B7.1 Issues</p> <p>B7.2. Indigenous biodiversity</p> <p>B7.7. Explanation and principal reasons for adoption</p>
--	---

#### **7.2.4.1. Indigenous vegetation**

Native trees and biodiversity are what make Aotearoa unique. Prior to the arrival of Europeans, native trees were abundant, and used only following karakia and for specific purposes. To mana whenua these old trees were tupuna taonga, living entities that commanded respect. Following the arrival of Europeans, entire regions were 'clear-felled' then burnt, before being turned into farmland. Profit was made from the trees, either used for building houses within the country, or exported by the ship full. Imagine the greed of being able to destroy thousands of hectares of forest, hundreds and thousands of years old, there for 'the taking'. Unfortunately, our current Auckland Council Unitary plan does not offer blanket protection to these remaining old trees. Each tree has to be individually protected if not within a covenant. Ngati Te Ata believe that all trees over 200 years old should be automatically protected.

There are so many exotic plants and trees within our society today, and not all of them are welcome. Some have proven to be pests, while others drop their leaves in the autumn and block stormwater infrastructure, while adding to the nitrate content within the waterways. There are also a lot of 'hybrid' trees and plants around, as people meddle with nature to achieve 'better looking' or 'better producing' trees/plants. It is distressing to see areas denuded of original flora. Some areas were specifically named because of a particular tree species that thrived there, only today to find not even one still flourishing.

Ngati Te Ata would like to collaborate with the Developer Group, Auckland Council and other stakeholders to initiate a 15-year planting programme for the Drury and Opaheke areas. We also support and promote the use of eco-sourced / whakapapa plants and trees and would like input into the selection of plant species planted. This will enable original species to be returned to the areas from locally sourced seed. This in turn promotes the return of the native bird and insect species back into the immediate and surrounding environment. Using native species in key locations that express seasonal change and variety is also encouraged. This will reinforce associations with the wider and former landscape of the areas, as well as respect the importance of these seasonal changes in life. Many native species demonstrate clear seasonal variations through their flowers, seeds and foliage.

An example of provision for the use of eco-sourced / whakapapa plants is the Drury 1 Precinct. These precinct provisions require riparian planting to be eco-sourced / whakapapa native vegetation and consistent with local biodiversity.

**Table 15.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to indigenous vegetation.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Lack of blanket tree protection to old trees.</li><li>• Use of inappropriate trees/plants, especially exotics.</li><li>• Loss of traditional trees/plants has affected our cultural landscape.</li></ul>
---------------	--

	<ul style="list-style-type: none"> <li>Increased risk of cumulative adverse effects as land uses change and development intensifies.</li> </ul>
<b>Mana whenua recommendations and aspirations sought</b>	<ul style="list-style-type: none"> <li>Tree surveys should be undertaken to identify all native trees.</li> <li>All trees over 200 years should be protected (without the need to individually identify them).</li> <li>Collaboration between Ngati Te Ata and the Developer Group, Auckland Council and other stakeholders to undertake a 15-year planting programme.</li> <li>Ngati Te Ata to have input in the selection of appropriate indigenous trees and plants, and involvement in the design of wetland planting. A preferred planting list is included in Appendix D.</li> <li>Promote the use of eco-sourced / whakapapa plants and trees from within the Drury and Opaheke areas. Eco-sourced / whakapapa plants must be used where adjacent to areas of high ecological and conservation value and should be encouraged for all landscape plantings elsewhere.</li> <li>When making decisions on future development projects, cumulative effects must be considered.</li> </ul>
<b>Relevant planning policy</b>  Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B4. Te tiaki taonga tuku iho - Natural heritage</b></p> <p>B4.1. Issues</p> <p>B4.5. Notable trees</p> <p>B4.6. Explanation and principal reasons for adoption</p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues</p> <p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p> <p>B6.3. Recognising Mana Whenua values</p> <p>B6.6. Explanation and principal reasons for adoption</p> <p><b>B7 Toitū te whenua, toitū te taiao - Natural resources</b></p> <p>B7.1 Issues</p> <p>B7.2. Indigenous biodiversity</p> <p>B7.7 Explanation and principal reasons for adoption</p>

#### 7.2.4.2. Wetlands (Repo)

Wetlands are an integral component within the whakapapa of rivers and lakes and they provide an important habitat for fish and other taonga species. They also provide important ecosystem services such as reducing peak flood flows, increasing low flows, and trapping and removing sediments and nutrients.

The continued decline in healthy wetland state and function has resulted in losses of important hauanga kai and habitat for natural materials used for cultural purposes and practices (flora and fauna). In turn, this has diminished the ability of our iwi to maintain conservation practices of whakatupua and rāhui.

Many of the region's wetlands and floodplains are no longer in a suitable state to perform their functions, in particular as a spawning ground for indigenous fish. This is coupled by a reduction in the connectivity between freshwater systems and habitat due to infrastructure such as culverts, weirs and/or dams. In planning for the future urban development in Drury and Opaheke we expect Auckland Council to encourage improvements to local hydrology (where possible) to support healthy wetland function, and the restoration of locally appropriate wetland biodiversity.

Water takes from wetlands are to be restricted to promote healthy wetland function. Planning rules and policies must prevent any further reduction in wetland area or wetland condition.

**Table 16.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to Wetlands.

<b>Issues</b>	<ul style="list-style-type: none"><li>• The health, function and extent of wetlands continues to decline.</li><li>• The health, function and extent of wetlands should be restored and enhanced.</li><li>• Increased risk of cumulative adverse effects as land uses change and development intensifies.</li></ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"><li>• Support the establishment of programmes to restore and expand wetland habitat. These programmes should be developed and implemented to achieve a measurable increase in the quality of wetlands, and should ideally include, but not be limited to:<ul style="list-style-type: none"><li>- restoring existing wetlands</li><li>- removing and/or controlling plant and animal pests</li><li>- using technology such as constructed wetlands where this is feasible</li><li>- expanding the size of those wetlands where this is feasible</li><li>- re-establishing wetlands adjacent to lakes and rivers</li></ul></li></ul>

	<p>where land is available, and conditions remain suitable for wetlands</p> <ul style="list-style-type: none"> <li>- identifying and setting aside government and local authority owned land for the creation and enhancement of wetlands.</li> <li>• When making decisions on future development projects, cumulative effects must be considered.</li> <li>• Water levels of all significant wetlands shall be maintained and stabilised to prevent further deterioration in wetland ecological condition and, where possible, wetland water levels shall be restored to enhance habitat and expand wetland area. Where necessary, this shall be achieved by placing restrictions on the amount of surface and subsurface drainage installed adjacent to wetlands.</li> <li>• Ensure that all land use practices that have the potential to impact on wetlands have efficient sediment, drainage, discharge, fertiliser application, and riparian buffer control practices in place to ensure that adverse impacts on wetlands are prevented.</li> <li>• No discharges of point or non-point source wastewater to ecologically or culturally significant wetlands.</li> <li>• All stormwater discharged to ecologically or culturally significant wetlands shall be treated in such a way that ensures the ecological condition and cultural use of the wetland is not compromised.</li> <li>• Establish or maintain 'buffer zones' of appropriate indigenous plant species around all significant wetlands to protect them from the effects of land use and to help reduce fluctuations in wetland water levels.</li> <li>• Where appropriate land is available, and it is feasible, flood plains shall be restored to function as natural overflow areas along rivers and streams and to link more naturally with adjacent wetlands.</li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues</p> <p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p>

Statement provisions.	<p>B6.3. Recognising Mana Whenua values  B6.6. Explanation and principal reasons for adoption</p> <p><b>B7 Toitū te whenua, toitū te taiao - Natural resources</b></p> <p>B7.1 Issues  B7.3. Freshwater systems  B7.7 Explanation and principal reasons for adoption</p> <p><b>B8. Toitū te taiwhenua - Coastal environment</b></p> <p>B8.1. Issues  B8.2. Natural character  B8.3. Subdivision, use and development  B8.6 Explanation and principal reasons for adoption</p>
-----------------------	---

### 7.2.5. Open Space and greenways plans

Ngati Te Ata advocates that more open space is needed in urban environments. It is our expectation that a fundamental aim of Auckland Council would be to maintain and encourage kaitiaki responsibility of mana whenua by implementing a partnership approach to the sustainable management of physical resources, including parks and open spaces in, Drury and Opaheke. We acknowledge that there will be issues for mana whenua, relating to wāhi tapu, protection and restoration of the mauri of natural eco-systems of land, water and air, the harvesting of kai and cultural materials, as well as the future management of significant open spaces.

We support the development of internal neighbourhood parks and open space buffer zones. Internal neighbourhood parks are for passive and active recreation and open space buffer zones help to 'soften the edge' of new urban development. Where possible the natural and cultural landscape should be preserved in the design and long-term maintenance of open space.

Ngati Te Ata also support the use of 'park edge roads' along open space zones and esplanade or recreation reserves, rather than private property backing onto these spaces. This encourages a sense of public responsibility for these spaces and can help to reduce instances of illegal dumping. An example of the provision for 'park edge roads' can be seen in the Drury 1 Precinct.

Ngati Te Ata support the use of greenways plans. Greenways plans should provide cycling and walking connections that are safe and enjoyable, while also improving local ecology and access to recreational opportunities. We support walkways that connect people to place and in particular access to the coastal margin. The objective being the long-term improvement of walking, cycling and ecological connections across the Auckland region. The primary reasons we support this are that the network typically follows natural landforms such as streams and coastlines, crosses existing parkland as well as man-made features such as streets and motorways. If people have access to the coastal margin and the lowland streams catchment then attention will start to focus on the restoration and healthy upkeep of these waterways and Te Mānukanuka o Hoturoa. We need to find innovative connectivity solutions to connect Drury East residents and users with the Drury West community.

Ngati Te Ata want the waterways in Drury and Opaheke to be waterways to be proud of. They will hopefully be clean and have local walking and cycling paths connecting our neighbourhoods from one side of the Ngakaroa stream to the other (from Drury East to Drury West) and re-establish a new portage from one harbour to the other. This is why it is so crucial to re-establish these connections through landscape, cultural, heritage, geological, environmental and water linkages.

**Table 17.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to open space.

<b>Issues</b>	<ul style="list-style-type: none"> <li>Urban development in Drury and Opaheke should provide open spaces that protect and enhance our cultural and natural landscapes.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>The Developer Group and Auckland Council should implement a partnership approach to the sustainable management of Drury and Opaheke's natural and physical resources, including parks and open spaces.</li> <li>Cultural values and mana whenua associations should be known and understood before the type and location of open spaces are decided.</li> <li>Tikanga Māori and customary activities should influence how parks and open spaces are planned, developed and managed.</li> <li>The focus should be on visually and physically connecting Drury and Opaheke's network of parks, open spaces and streets to create opportunities for residents to move around their neighbourhoods and to enhance native biodiversity.</li> <li>Manawhenua should have First Rights of Naming reserves and open spaces.</li> <li>Require subdivision and new development to provide open space/reserves next to oceans, lakes and rivers. This will protect the water body, allow access, increase biodiversity, and enhance ecosystems.</li> <li>Open space buffer zones and internal neighbourhood parks should be encouraged.</li> <li>Encourage the use of 'park edge roads' along open space zones and esplanade or recreation reserves.</li> <li>Develop greenways plans that provide cycling and walking connections that are safe and enjoyable, while also improving local ecology and access to recreational opportunities.</li> <li>Ngati Te Ata wish to continue to be involved in the development of a Blue-Green network for the Drury and Opaheke areas.</li> </ul>
<b>Relevant planning policy</b>  Note: For the	<u><b>Auckland Unitary Plan (Operative in part)</b></u>  <b>Chapter B Regional Policy Statement</b> <b>B2 Tāhuhu whakaruruhau ā-taone - Urban growth and form</b>



<p>Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p>B2.1 Issues  B2.2. Urban growth and form  B2.7. Open space and recreation facilities  B2.9. Explanation and principal reasons for adoption</p> <p><b>B6. Mana Whenua</b>  B6.1. Issues  B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation  B6.3. Recognising Mana Whenua values  B6.6. Explanation and principal reasons for adoption</p> <p><b>B8. Coastal environment</b>  B8.4. Public access and open space  B8.6. Explanation and principal reasons for adoption</p> <p><b><u>Auckland Design Manual</u></b>  <b>Te Aranga Principles</b>  <a href="http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te_aranga_principles">http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te_aranga_principles</a></p>
---	--

### 7.2.6. Sustainability

Sustainable development for Ngati Te Ata means all new development should mostly, if not totally, be self-reliant and self-sustainable. Sustainable development is the organising principle for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. The desired result is a state of society where living conditions and resource use continue to meet human needs without undermining the integrity and stability of the natural system. This means that sustainable development can meet the needs of the present without compromising the ability of future generations.

There are many options for sustainability, with solar panels and green roofs to roof water capture for re-use and groundwater recharge being among a few. Each new development should be considering '*Where is my generated power coming from?*' and '*How can we not waste any of the good clean water that falls from the sky?*'. Sustainability also includes the retention of landscapes, cultural, visual and archaeological features, and enhancement of streams, bush areas, flora and fauna. Sustainable development also needs to consider the potential or actual effects of climate change and the risks associated with natural hazards. Natural hazards can pose a risk to human health, property and the environment, and development that ignores these risks is not sustainable in the long term.



### 7.2.6.1. Sustainable Development

All mana whenua of Tāmaki Makaurau are having to ‘culturally accommodate’ another million people in our respective rohe by 2040. Our challenge is to reduce and manage our ecological footprint. Ngati Te Ata support proposals for energy efficiency and transition away from fossil fuels. We support zero waste minimisation initiatives and proposals to reduce, reuse and recycle.

Ngati Te Ata promotes sustainable development and believe that all new development should in some form, if not in most ways, be self-reliant and sustainable. There are many options for sustainability to be built into the build design, e.g. solar panels, green roofs, and water recycling. Ideally all houses should achieve at least a 6-star level from New Zealand Green Building Council ‘Homestar’ or an equivalent standard. Achieving this would ensure new houses are typically better quality than a house built to just the building code i.e. warmer, drier, healthier and cost less to run.<sup>16</sup>

Solar power is a renewable energy source, and unlike many other energy sources it does not disrupt the local environment or annoy people. Solar panels are inexpensive to maintain (after initial costs of installation) and can be an efficient energy source for households and street lighting.

Green roofs can provide insulation, noise attenuation and reduce energy use. They can also sustain a variety of plants and invertebrates and provide a habitat for various bird species. By acting as a stepping stone habitat for migrating species they can link species together that would otherwise be fragmented.

Current stormwater and wastewater management practices often contravene our principles. Water recycling is a major opportunity that should be pursued, and primary stormwater retention and treatment methods should be universally applied. Rainwater can also be collected and used by households.

Developments are not sustainable if their waste products and wastewater cannot be managed consistently with our cultural values. Discharging hazardous, toxic, wastewater into our waterways and water bodies remains a cultural and spiritual offence. It is one of the greatest contributors to Māori ill health. Others may not understand that but our wairua does. The use of potentially contaminated fill during development is also an unsustainable practice that should be avoid. Any contaminated land should be remediated.

Consistent use of sustainable practices can, over time, have cumulative positive effects and help to enhance the state of the environment.

**Table 12.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to sustainable development.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Significant growth in Tāmaki Makaurau (including the southern structure planning areas) requires mana whenua to ‘culturally</li></ul>
---------------	---

<sup>16</sup> <https://www.nzgbc.org.nz/homestar> accessed 9 October 2018.

	<p>accommodate' a significant amount of people.</p> <ul style="list-style-type: none"> <li>• Ecological footprint needs to be reduced and managed. This includes reducing greenhouse gas emissions, restricting urban sprawl, and using more sensitive urban design.</li> <li>• Unsustainable development is inconsistent with our cultural values, especially when does not manage wastewater and waste products appropriately.</li> <li>• New development should be sustainable and self-reliant.</li> <li>• Operational costs can be a barrier to trying new methods to achieve better environmental outcomes e.g. stormwater infrastructure.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• Support energy efficiency, transition away from fossil fuels and zero waste minimisation initiatives.</li> <li>• New development should incorporate sustainable options and housing should achieve at least a 6-star level from New Zealand Green Building Council 'Homestar' (or equivalent). This includes but is not limited to green roofs, solar panels and recycling of water and other resources.</li> <li>• New development should have positive impacts on the environment e.g. enhance water quality, increase biodiversity connections, and remediate contaminated land.</li> <li>• Significantly improve stormwater and wastewater management and treatment to acknowledge our cultural values.</li> <li>• Support the use of LID (Low impact design) principles in all new subdivisions and developments.</li> </ul>
<b>Relevant planning policy</b>  Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B2. Tāhuhu whakaruruhau ā-taone - Urban growth and form</b></p> <p>B2.1 Issues</p> <p>B2.3. A quality built environment</p> <p>B2.4. Residential growth</p> <p><b>B3 Ngā pūnaha hanganga, kawekawe me ngā pūngao - Infrastructure, transport and energy</b></p> <p>B3.1. Issues</p> <p>B3.2. Infrastructure</p> <p>B3.4. Energy</p>

	<p>B3.5. Explanation and principal reasons for adoption</p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues</p> <p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p> <p>B6.3. Recognising Mana Whenua values</p> <p>B6.6. Explanation and principal reasons for adoption</p> <p><b>B7 Toitū te whenua, toitū te taiao - Natural resources</b></p> <p>B7.1. Issues</p> <p>B7.2. Indigenous biodiversity</p> <p>B7.3. Freshwater systems</p> <p>B7.4. Coastal water, freshwater and geothermal water</p> <p>B7.7. Explanation and principal reasons for adoption</p>
--	--

### **7.2.6.2. Natural hazards**

Natural hazards are environmental events that are not caused by human interference with the environment but occur because of nature's activities. However, the magnitude or the consequences of these events can be exacerbated by human activity, such as increased frequency and severity of landslips through poor land management practices. Natural hazards are a concern, as they have the potential to affect human health, property, and the environment, yet they cannot necessarily be managed in the same manner as natural resources.

Global warming and climate change are likely to result in a rise in sea levels; more extreme weather events; changes to rainfall patterns; increased erosion; changes in the population density and distribution of fish and wildlife; and changes in the viability of cultural and/or spiritual resources and activities. They could also increase droughts, which in turn effects water bodies. For example, a reduction of 'summer low flows' could create greater stress for aquatic life. Increases in storm flows can increase the potential to scour life and habitats out of water ways (particularly smaller more open streams).

The region is prone to flooding particularly as it is susceptible to tropical storms. There are steep river catchments that receive intense and localised rainfall, there are low lying areas of flood plain that are intensively farmed, and some land management practices allow or have allowed extensive land clearance resulting in increased runoff and erosion. Flooding in coastal areas may arise from tsunamis, or from high tides coupled with storm events.

Natural hazard risk management is very important to ensuring the safety of people, communities, marae, and areas of cultural and spiritual significance. Activities and resource use practices should occur in a way that does not increase the risk of a natural disaster occurring or increase the magnitude of the effects from a natural event should it.

Inappropriate subdivision, land use, or development can increase the risk of some natural hazards occurring and the magnitude of any effects when hazardous events do occur. For example, building houses in an area prone to flood or tsunami creates a risk that residents or buildings are endangered if a flood or tsunami was to occur. There are parts of Drury and Opaheke that are subject to flooding, especially the Slippery Creek catchment in Drury. Consideration should be given to turning low-lying flood prone areas back into wetlands rather than using for urban development such as housing.

Coastal erosion and land instability cause environmental as well as cultural and/or spiritual impacts particularly on wāhi tapu and sites of significance (e.g. human remains being exposed through coastal erosion and land use creating landslips).

Property owners may have an expectation that properties already developed in hazard zones should be permitted to erect protection structures. The erection of these structures may enable the well-being of an individual or particular group, but may have an adverse effect on landscape, indigenous fauna and flora, and culturally and/or spiritually sensitive sites. Balance is required between utilising hazard management protection mechanisms, such as groynes, walls, and stop banks to protect property, and protecting areas of significance to Māori and avoiding adverse effects on the environment.

**Table 13.** Issues, concerns and opportunities for mana whenua to be addressed, and possible mechanisms to do so in relation to natural hazards.

<b>Issues</b>	<ul style="list-style-type: none"> <li>• Natural hazards, climate change and global warming can have a negative effect on human health, property, natural environment, and areas of cultural and spiritual significance e.g. sea level rise and increase in coastal inundation and flooding, increase in erosion and droughts, reduced viability of cultural and/or spiritual resources and activities.</li> <li>• Natural hazards cannot necessarily be managed in the same manner as natural resources. Appropriate natural hazard risk management is required.</li> <li>• The effects of natural hazards can be exacerbated by inappropriate subdivision, land use or development e.g. increased frequency or severity of landslips caused by poor land management practices.</li> <li>• Increased risk of cumulative adverse effects as land uses change and development intensifies.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• New land use and structures shall avoid creating actual or potential adverse effects, including an increase to the risk or magnitude of a natural hazard event.</li> <li>• Preference is given to any new or changing land use, subdivision or development avoiding, rather than mitigating, any natural hazard.</li> <li>• Existing land use, activities, and structures in areas where natural hazards occur are encouraged to change land use or activities and shift, abandon or suitably modify structures to withstand the potential effect of a natural hazard event.</li> <li>• Encourage low-lying areas prone to flooding to be turned back into wetlands rather than using for urban development such as housing.</li> <li>• Risk of adverse effects on human, cultural, spiritual, or environmental well-being shall be prioritised over risks to individual properties when assessing natural hazard risks and/or the need for hazard protection structures.</li> <li>• Where it is practical, and environmentally, culturally, and/or spiritually preferable, a 'soft' engineering solution should be utilised over a 'hard' solution (e.g. the use of swales rather than</li> </ul>

	<p>concrete channels).</p> <ul style="list-style-type: none"> <li>• If an existing or proposed natural hazard protection structure adversely affects human, cultural, spiritual, or environmental well-being then alternative solutions are encouraged and expected.</li> <li>• Hazard management structures, activities, and schemes and their ongoing function should strive to maintain and restore ecosystem function and habitat, and cultural and/or spiritual well-being.</li> <li>• Where there is existing development and the effects on cultural and/or spiritual values and the environment are adverse, the concept of 'managed retreat' should be applied. This means existing structures are not replaced or maintained, and no new structures are allowed to be erected.</li> <li>• Where culturally and/or spiritually sensitive sites or sites of significance are subject to natural hazards, in which human intervention has played no role, then we should be advised to enable our correct protocols and procedures to be adopted to address the situation.</li> <li>• The cumulative adverse effect of land use and structures on natural hazards shall be avoided or managed consistent with the above recommendations, such that there is no increased risk to human life, structures, cultural, spiritual or environmental well-being.</li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B2. Tāhuhu whakaruruhau ā-taone - Urban growth and form</b></p> <p>B2.4. Residential growth</p> <p><b>B10. Ngā tūpono ki te taiao - Environmental risk</b></p> <p>B10.1. Issues</p> <p>B10.2. Natural hazards and climate change</p>



### 7.2.7. Infrastructure

Planning for the future urban development of Drury and Opaheke needs to ensure new and/or upgraded infrastructure will be provided to meet the demands of growth. Currently inadequate and outmoded infrastructure is not keeping up with the rate of growth and is contributing to environmental degradation. For example, we are concerned with leaking and deteriorating stormwater and wastewater pipes and wastewater overflows. Non-compliant and unconsented Wastewater Treatment Plants do not meet acceptable environmental standards and many need to be upgraded. There are better alternatives out there in treating wastewater.

Transport is a vital part of creating healthy and connected communities. This is as true today as it was in our past - our old transport routes are an important part of our cultural landscape. Transport options will need to be improved within Drury and Opaheke with a focus on creating environments for people not cars and de-emphasising road building. Pedestrian and cycling options are an important part of this. More roads just equal more vehicles. Accessible and affordable public transport is also essential. For example, our kaumātua need to be able to conduct tribal duties, often at night, throughout their rohe. Broadband supports our intent to live locally but be global players. Fast broadband is required for rural and urban areas. This will support our people and help us deliver services to them more efficiently and effectively.

Like other development within the Drury and Opaheke areas, it is important that future and existing infrastructure also uses a water sensitive design approach.

**Table 19.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to infrastructure.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Provision of infrastructure is not matching the pace of urban growth.</li><li>• Inadequate and deteriorating infrastructure such as wastewater and stormwater pipes are causing adverse environmental effects.</li><li>• Wastewater Treatment Plants are problematic and better options exist.</li><li>• Transport options need improving to create healthy and connected communities.</li><li>• Fast broadband is needed.</li><li>• Provision of infrastructure should use a water sensitive design approach.</li></ul>
<b>Mana whenua</b>	<ul style="list-style-type: none"><li>• Actively explore alternative wastewater treatment and disposal</li></ul>

<b>recommendations and aspirations</b>	<p>options including removal of trade wastes, recycling of grey water, disposal to land (or other innovative methods) and not using water as a waste transport system.</p> <ul style="list-style-type: none"> <li>• De-emphasise road building and car parking and create people-friendly environments, including pedestrian and cycling networks.</li> <li>• Reduce current transport congestion levels.</li> <li>• Support fast broadband rollout including to rural areas.</li> <li>• Support and encourage the use of water sensitive design in the provision of infrastructure.</li> </ul>
<b>Relevant planning policy</b>  <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B2. Tāhuhu whakaruruhau ā-taone - Urban growth and form</b>  B2.1 Issues  B2.2 Urban growth and form  B2.3. A quality-built environment  B2.9. Explanation and principal reasons for adoption</p> <p><b>B3 Ngā pūnaha hanganga, kawekawe me ngā pūngao - Infrastructure, transport and energy</b>  B3.1. Issues  B3.2. Infrastructure  B3.3. Transport  B3.5. Explanation and principal reasons for adoption</p> <p><b>B6. Mana Whenua</b>  B6.1. Issues  B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation  B6.3. Recognising Mana Whenua values  B6.6. Explanation and principal reasons for adoption</p> <p><b>B7. Toitū te whenua, toitū te taiao – Natural resources</b>  B7.1. Issues  B7.3. Freshwater systems  B7.4. Coastal water, freshwater and geothermal water</p>

	<p><b><u>Draft Auckland Regional Land Transport Plan 2018-2028</u></b></p> <p>Māori Outcomes – five strategic pou for Māori aspirations include: cultural identity, economic well-being, leadership and influence, infrastructure and property, and natural environment.<sup>17</sup></p> <p><b><u>National Code of Practice for Utility Operators' Access to Transport Corridors</u></b></p> <p><b><u>National Environmental Standards for Electricity Transmission Activities 'NESETA'</u></b></p> <p><b><u>National Environmental Standards for Telecommunication Facilities 'NESTF'</u></b></p> <p><b><u>Compliance with NZECP 34:2001 under Electricity Act 1992</u></b></p>
--	---

<sup>17</sup> Draft Auckland Regional Land Transport Plan 2018-2028, Auckland Transport, pages 10-11. Accessed 27 July 2018.

### 7.2.8. Urban Design

When it comes to urban design, mana whenua are often frustrated that our culture is rarely reflected in the urban built environment, particularly across Auckland, which Ngati Te Ata identify as a unique cultural landscape featuring significant historical pa on volcanic cones. Indigenous, local character is a vital ingredient in good urban design, in contrast to the increasingly homogenised urban environments that arise out of globalisation. Urban design that responds to cultural-specific values and features will foster healthy expressions of different cultural identities and realities within our urban environments.

Te Aranga Māori Design Principles are a set of outcome-based principles founded on intrinsic Māori cultural values and designed to provide practical guidance for enhancing outcomes for the design environment. These principals have been adopted by Auckland Council and are being applied to all projects with iwi involvement within the Auckland region. Ngati Te Ata have been involved since the inception of these principles and believe that planning for the future development of the Drury and Opaheke areas provides an opportunity to incorporate and activate Te Aranga design principles.

Ngati Te Ata believe that incorporating our history of early Māori occupation into the design enhances an appreciation for sites of significance and assists the wider community in understanding the uniqueness of its environment and the people who lived in it. Our cultural design narrative can be expressed through artworks, storyboards and pou whenua, and the use of colours, building materials and Māori symbols where appropriate.

During future consultation on this project we expect these principles to be fundamental and to be applied wherever possible to underpin our relationship to these significant areas.

The principals are summarised below. You will also see the essence of these principles reflected throughout this cultural values assessment.

- **Mana:** Treaty based relationships. We require a high-level Treaty based relationships with all key stakeholders which recognise our status as mana whenua in Tāmaki Makaurau so that we can better fulfil our roles as kaitiaki in an engaging way. Such relationships can then inform our participation in collaborative design and the development processes. Such relationships are a precursor to actualising the other six principles.
- **Whakapapa:** Names/Naming. Ancestral or historical events. Names provide entry points for exploring historical narratives, tupuna and critical events relating to development sites.
- **Tohu:** The wider cultural landscape acknowledges wider significant iwi land marks and the ability to inform the design of projects. Such tohu can include wāhi tapu, maunga, awa, puna and ancestral kāinga.
- **Taiao:** Natural environments, exploring opportunities to bring natural landscape elements back into urban modified areas – trees, water, insects, birds, aquatic life, mahinga kai allow for active kaitiakitanga.
- **Mauri Tu:** Environmental health, ensuring emphasis on maintaining or enhancing environmental health and life essence of the wider site – in particular focussing on the quality of wai, puna (fresh water springs), whenua and soil and air.

- **Mahi Toi:** Creative endeavour drawing on names, local tohu and appropriate plant species to develop strategies to creatively re-inscribe iwi narratives into architecture, interior design, landscape, urban design and public art. Iwi designers and artists are readily available to assist in such collaborative projects.
- **Ahi Ka:** Visibility and living presence, we need to explore opportunities to facilitate living presences for iwi and hapū to resume ahi-ka and kaitiaki roles.

In addition to Te Aranga Principles, Ngati Te Ata expect the development of Drury and Opaheke should also reflect other important urban design values. For example, quality urban places should invoke emotion, feelings and experience when entering and leaving an area, it should feel like you are arriving at a destination. A place should be welcoming, non-threatening, whānau ora; a place of spiritual well-being. People should have a strong sense of place, and strong cultural values should be evident. This includes linkages between ranginui, whenua and moana, and recognition of the life-giving element of wai.

Places should reflect diversity and be a place of gathering (people from the four winds of all cultures). Public spaces should not be corporate spaces (i.e. no advertising) and they should be simplistic in design, not over whelmed with art and sculpture. A mix of appropriate lighting should be used dependant on the situation e.g. ambient, bright, strong. Public spaces should be designed to encourage a sense of ownership by everyone.

Urban places should be designed to be self-contained using sustainable resources. Strong geological and conservational values should be evident and views to other significant places should be utilised.

**Table 27.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to urban design.

<b>Issue</b>	<ul style="list-style-type: none"> <li>• Māori culture is rarely reflected in the urban built environment of Tāmaki Makaurau.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• Te Aranga Principles should be incorporated and activated into the structure plan process.</li> <li>• Future development should show how Te Aranga Principles have been considered and applied. This includes but is not limited to how the development understands, acknowledges and incorporates the diversity and uniqueness of the development location (socially, culturally, spiritually, economically, and environmentally), and whether it provides for visual amenity consistent with the surrounding environment.</li> <li>• Other urban design values should also be incorporated. For example, we support the use of 'park edge development/park edge roads' as a design feature. These can help foster a sense of ownership, increase safety and surveillance (e.g. deterrent to</li> </ul>

	illegal dumping), increase visual and landscape amenity, and a higher likelihood or better opportunity to protect our cultural values.
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B2. Tāhuhu whakaruruhau ā-taone - Urban growth and form</b></p> <p>B2.1 Issues</p> <p>B2.3. A quality-built environment</p> <p>B2.5. Commercial and industrial growth</p> <p>B2.7. Open space and recreation facilities</p> <p><b>B4. Te tiaki taonga tuku iho - Natural heritage</b></p> <p>B4.1 Issues</p> <p>B4.2. Outstanding natural features and landscapes</p> <p>B4.3. Viewshafts</p> <p>B4.6. Explanation and principal reasons for adoption</p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues</p> <p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p> <p>B6.3. Recognising Mana Whenua values</p> <p>B6.5. Protection of Mana Whenua cultural heritage</p> <p>B6.6. Explanation and principal reasons for adoption</p> <p><b>B7 Toitū te whenua, toitū te taiao – Natural resources</b></p> <p>B7.1. Issues</p> <p>B7.2. Indigenous biodiversity</p> <p>B7.3. Freshwater systems</p> <p>B7.4. Coastal water, freshwater and geothermal water</p> <p>B7.5. Air</p> <p>B7.7. Explanation and principal reasons</p> <p><b><u>Auckland Design Manual</u></b></p> <p><b>Te Aranga Principles</b></p> <p><a href="http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te_aranga_principles">http://www.aucklanddesignmanual.co.nz/design-thinking/maori-design/te_aranga_principles</a></p>

### 7.2.9. Hauora

#### 7.2.9.1. *Health and well-being of our people*

Ngati Te Ata actively supports the health and welfare of our respective iwi. We have a primary responsibility for the good health and well-being of all our people, but especially our kaumātua and rangatahi. We support and advocate for healthy lifestyles, healthy communities and healthy neighbourhoods, and we also extend our manaakitanga to the wider communities.

Ngati Te Ata promote longevity and meaningful lives, and respect and care for our kaumātua. We recognise their importance in maintaining our cultural traditions and passing on our cultural knowledge. With age, our roles and responsibilities change including a greater role on the paepae and responsibilities for our mokopuna. Mobility is a key issue for our kaumātua, so they can conduct tribal duties throughout our rohe. Therefore, access to safe and affordable transport (including public transport) is important, especially at night. Access to healthcare facilities is also important. Rates remission is another opportunity for Council to provide support to our kaumātua.

We have our rangatahi and mokopuna foremost in our aspirations, they are our future and must be supported. We have a youthful population and they are over represented in statistics for unemployment, low education attainment, crime, substance abuse and preventable health problems.

Ngati Te Ata note that some of the existing urban areas of Papakura are currently areas of the highest deprivation, including some areas that have a higher percentage of Māori population.<sup>18</sup> We do not want to see future development continue this trend for our people. Instead we want to maximise the potential of our next generation of whānau to support our own autonomy, and to contribute within the wider Drury and Opaheke communities.

Ngati Te Ata have initiatives to support and improve the health and well-being of our people. These need to be explained, explored and extended, to provide good background and foundation for our people to form and develop sound and healthy lifestyles and choices. For example, whare oranga have made a significant contribution to health by supporting physical activity and weight loss, diabetes prevention and smoke-free programmes. By being situated on marae, whare oranga have been able to bring a focus on the health and healthy lifestyles of both haukāinga and manuwhiri.

Our marae are an intrinsic part of our health and wellbeing and it is essential we are able to carry out our cultural activities as we see fit. However, our marae can be subject to reverse sensitivity issues, especially as urban development encroaches around them.

---

<sup>18</sup> As measured by the New Zealand Index of Multiple Deprivation (IMD). This measures seven domains of deprivation: employment, income, crime, housing, health, education and access to services. [http://www.imd.ac.nz/NZIMD\\_Single\\_animation\\_w\\_logos/atlas.html](http://www.imd.ac.nz/NZIMD_Single_animation_w_logos/atlas.html) accessed 29 August 2018.

Access to healthy and affordable housing is a fundamental requirement to ensure the health and welfare of mana whenua. Adequate housing is a key contributor to our spiritual, cultural, social, and economic welfare. However, there is a lack of access to this and there are barriers to establishing papakāinga. Barriers should be removed through the Unitary Plan process to support and ensure that we are able to provide accommodation to mana whenua in locations of our choosing and in accordance with our own preferences. Raising capital on collectively-owned land or in the face of financial hardship are major challenges.

Quality housing needs to be built on ancestral land, land where we have a traditional relationship to and/or on land adjacent to our marae papakāinga. Ngati Te Ata are a tribal people and it should be acknowledged and supported that we may choose to live communally and, in a manner, consistent with our own cultural values and preferences.

Ngati Te Ata recognises that other southern iwi groups are at varying stages of their respective Treaty Settlements and that every Treaty settlement is specific to each iwi alone. How each iwi chooses to implement and use its Treaty settlement can only be determined by that iwi. However, we recognise that one method to reoccupy our respective traditional lands is through subdivision rights. For example, Ngati Te Ata could purchase a larger block of land and then subdivide to create land packages for its whānau. This would provide an opportunity for Ngati Te Ata to reoccupy its traditional lands and contribute towards addressing our housing needs.

Papakāinga options should be actively supported. These options will provide for the needs of Ngati Te Ata and be consistent with our values in support of our health and wellbeing. They will include leading-edge innovative and sustainable design solutions such as use of grey water recycling, rainwater retention tanks, stormwater swales, innovative wastewater initiatives, and passive solar design. Regulatory and financial constraints on the development of Māori Land or other suitable land should be removed in deference to decision-making processes driven by mana whenua.

We note that the Proposed Waikato District Plan<sup>19</sup> includes new and amended provisions relating to Māori freehold land which we support. These rules for the development of Māori land are aligned with Te Ture Whenua Māori Act 1993. One of the methods proposed in the plan is the use of concept management plans that have been approved by the Māori Land Court.

The future urban development of Drury and Opaheke provides an opportunity for us to reoccupy and develop at least some ancestral land within our respective rohe.

**Table 22.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to the health and wellbeing of our people.

<p><b>Issues</b></p>	<ul style="list-style-type: none"> <li>• Our rangatahi are over represented in statistics for unemployment, low education attainment, crime, substance abuse and preventable health problems.</li> </ul>
----------------------	--

<sup>19</sup> Notified 18 July 2018



	<ul style="list-style-type: none"> <li>• Our kaumātua need access to safe, accessible and affordable transport, particularly to enable them to carry out their tribal responsibilities. They also need financial support e.g. opportunities for rates remission.</li> <li>• Support is required for various Ngati Te Ata health and well-being initiatives including those focussed on health and rangatahi.</li> <li>• There is a lack of quality, affordable and healthy housing, especially on ancestral land.</li> <li>• There are financial and regulatory barriers to developing Māori Land, including establishing papakāinga.</li> <li>• Support for mana whenua in the physical reoccupation of our ancestral rohe such as on marae.</li> <li>• Marae can face reverse sensitivity issues especially as urban development encroaches around them.</li> <li>• Mana whenua seek to reoccupy their lands.</li> <li>• Create land packages for whānau and ensure benefit from Treaty Claims settlement.</li> <li>• Address housing needs in the context of a high growth population.</li> </ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"> <li>• The Developer Group can offer support to: <ul style="list-style-type: none"> <li>- our various health and well-being initiatives</li> <li>- healthy lifestyles, recreation and sport for our people</li> <li>- our whare oranga associated with marae through collaboration and funding</li> <li>- upskilling and training of our rangatahi</li> <li>- reducing beneficiary dependency and the attainment of meaningful employment</li> <li>- our rangatahi as first home buyers</li> <li>- the safe transport of our kaumātua in support of their tribal duties and their mobility</li> <li>- assistance in the provision of healthy and affordable</li> </ul> </li> </ul>

	<p>accommodation including review of rates relief options</p> <ul style="list-style-type: none"> <li>- our access to quality affordable housing</li> <li>- Ngati Te Ata (iwi) housing including their location, design quality, funding, and removal of regulatory compliance costs.</li> </ul> <ul style="list-style-type: none"> <li>• The Developer Group and Auckland Council support mana whenua reoccupying their tribal lands inter alia through the right to subdivide their lands within the rohe.</li> <li>• The Developer Group and Auckland Council provides infrastructure support where possible for subdivision purposes.</li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B2. Tāhuhu whakaruruhau ā-taone - Urban growth and form</b></p> <p>B2.1. Issues</p> <p>B2.2. Urban growth and form</p> <p>B2.3. A quality-built environment</p> <p>B2.4. Residential growth</p> <p>B2.5. Commercial and industrial growth</p> <p>B2.7. Open space and recreation facilities</p> <p>B2.8. Social facilities</p> <p>B2.9. Explanation and principal reasons for adoption</p> <p><b>B3 Ngā pūnaha hanganga, kawekawe me ngā pūngao - Infrastructure, transport and energy</b></p> <p>B3.3. Transport</p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues</p> <p>B6.2. Recognition of the Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p> <p>B6.3. Recognising Mana Whenua values</p> <p>B6.4. Māori economic, social and cultural development</p> <p>B6.6. Explanation and principal reasons for adoption</p>

### 7.2.9.2. Air

Discharges to air from development and land-use activities can cause poor air quality. This may impact adversely on the health and well-being of our people, as well as on the environment, hauanga kai, and our cultural values and/or activities. Impacts on human health can be specific to an individual and linked to their overall holistic health profile

Discharges include but are not limited to industrial discharge, domestic discharge (e.g. home fires), the spraying of farm effluent, dust and noise, coal dust emitted during transport (this applies to other material that can emit particles or dust during transport), fertiliser application (top dressing), vehicle emissions, and volatile organic compounds that can present through vehicle emissions in urban areas.

Fine particles from industrial processes, smoke from fires and vehicle emissions are the most significant activities impacting on air quality in the region and are particularly a problem in winter. Poor air quality that can affect human health can occur inside homes due to inadequate heating and/or ventilation, and the use of some heating appliances. Human and animal health can be affected by poor air quality from individual and cumulative discharges. Increased population and urban development contribute to increased emissions.

Air pollution can cause a reduction in visibility and impede views of maunga, landmarks, the sea, the awa, etc. Noise pollution from traffic, trains, planes and industry disrupt proceedings on marae and cultural and/or spiritual practices. Light pollution from developments impact on celestial darkness and the ability to learn and give effect to mātauranga Māori around cosmology and astronomy.

Controls must ensure that any discharge to air does not compromise the life supporting capacity and quality of air within our rohe so that our health, amenity values, or property are not adversely affected.

**Table 21.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to air.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Discharges to air can reduce air quality and cause noise pollution and light pollution.</li><li>• Discharges to air can have a significant adverse effect on human health, the environment and cultural values and practises. Effects can be cumulative.</li></ul>
<b>Mana whenua recommendations and aspirations</b>	<ul style="list-style-type: none"><li>• Encourage industry to implement industry best practice or best practicable option for improving air quality.</li><li>• Promote public transport to reduce vehicle emissions.</li><li>• Manage the effects on amenity values of an area due to contaminants, dust, odour, light, or noise.</li></ul>

	<ul style="list-style-type: none"> <li>When making decisions on future development projects, cumulative effects must be considered.</li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B7. Toitū te whenua, toitū te taiao – Natural resources</b></p> <p>B7.1. Issues</p> <p>B7.5. Air</p> <p>B7.7. Explanation and principal reasons for adoption</p>

### 7.2.10. Economic Development

Breaking barriers to achieve our economic independence Ngati Te Ata seek that the Developer Group support to help develop a sustainable economic base that will nurture our iwi. We first need to fund and produce our own economic development reports which characterises our current status and proposes actions which will realise our economic aspirations. We do not believe that the Auckland Council Economic Development Strategy done back in 2011 went far enough to acknowledge us and our contribution and give substance to facilitating our respective iwi as major economic investors and contributors. Nor did it adequately consider our positioning in a global economy.

Ngati Te Ata are interested in innovation, new ideas, research and development, technological advancement, entrepreneurship and sustainable housing, and eco-businesses including tourism. We intend to create jobs for our people. We support business and are interested in joint venture opportunities which benefit us and the wider community. We are interested in working with both the Developer Group and Auckland Council to actively pursue these interests.

Ngati Te Ata want to help improve the fiscal savings record of our people. In this regard, we are interested in initiating and supporting options to establish a financial institution that caters for Māori savings needs. It would include improving access and advice to Māori and providing mechanisms which better meet our financial management needs.

Ngati Te Ata are living in a time of change. We must strategise now to provide for our future and that of our mokopuna and not be left behind. Ngati Te Ata believe that we are disadvantaged in most of the key economic indicators including employment, saving, housing and education. These trends need to be reversed which will require commitment and innovation and support from Auckland Council.

Our respective Treaty settlements will contribute towards providing an economic base for each iwi.<sup>20</sup> Our economic welfare is part of our sustainability as iwi and is a major factor influencing our health and welfare. Each iwi has their own economic strategies and policies and run various other initiatives in support of the education, training, employment and the health and welfare of our iwi.

**Table 20.** Issues, concerns and opportunities for Mana Whenua to be addressed, and possible mechanisms to do so in relation to economic development.

<b>Issues</b>	<ul style="list-style-type: none"><li>• Lack of acknowledgement in the 2011 Auckland Council Economic Development Strategy.</li><li>• Mana whenua are disadvantaged in most of the key economic indicators. This significantly effects our health and well-being.</li><li>• Breaking barriers to achieve economic independence that will</li></ul>
---------------	--

<sup>20</sup> Some iwi within the southern group have completed their Treaty settlement, while other iwi are still engaged in the process.

	<p>support iwi.</p> <ul style="list-style-type: none"> <li>It is a time of change and need to ensure iwi are not left behind.</li> </ul>
<p><b>Mana whenua recommendations and aspirations</b></p>	<ul style="list-style-type: none"> <li>The Developer Group and Auckland Council support for the achievement of our economic independence including through provision of expertise and funding.</li> <li>Planning and policy provisions that allow us to realise value and sustainable income from our asset holdings and future economic opportunities.</li> <li>The Developer Group and Auckland Council support for a housing and economic report for each iwi.</li> </ul>
<p><b>Relevant planning policy</b></p> <p>Note: For the Auckland Unitary Plan this section only identifies the key Regional Policy Statement provisions.</p>	<p><b><u>Auckland Unitary Plan (Operative in part)</u></b></p> <p><b>Chapter B Regional Policy Statement</b></p> <p><b>B2 Tāhuhu whakaruruhau ā-taone - Urban growth and form</b></p> <p>B2.1 Issues</p> <p>B2.2. Urban growth and form</p> <p>B2.5. Commercial and industrial growth</p> <p>B2.8. Social facilities</p> <p>B2.9. Explanation and principal reasons for adoption</p> <p><b>B6. Mana Whenua</b></p> <p>B6.1. Issues</p> <p>B6.2. Recognition of Treaty of Waitangi/Te Tiriti o Waitangi partnerships and participation</p> <p>B6.4. Māori economic, social and cultural development</p> <p>B6.6. Explanation and principal reasons for adoption</p>

## 8. Conclusions and recommendations

The ultimate goal for Ngati Te Ata is the protection, preservation and appropriate management of our natural and cultural resources in a manner that recognises and provides for our interests and values, and enables positive environmental, social and economic outcomes. We support engagement and involvement that respects and provides for our cultural and traditional relationships to Drury and Opaheke, its unique cultural identity, and input into shaping the physical, cultural, social and economic regeneration of these areas.

This cultural values assessment provides a generalised statement about our cultural landscapes in the Drury and Opaheke areas, we have our own specific relationship to these areas and the cultural resources within them. As such this cultural values assessment does not offer a complete view of our respective cultural landscapes.

Ngati Te Ata seeks to have meaningful relationship with the Developer Group 'rangatira to rangatira' and with Auckland Council, including the Franklin and Papakura Local Boards. We have a lot to offer and contribute to the development of Drury and Opaheke and this can be best realised if we are at the decision-making table. We are forward looking, optimistic, creative and purposeful and our mokopuna are foremost in our mind as we endeavour to design a healthy and prosperous future. We seek to mitigate past wrongdoings which occurred through breaches of our rights under Ti Tiriti o Waitangi. The provision of eventual settlement and redress will provide a foundation for mana whenua, a foundation which will allow us to support the aspirations of our people and their social and economic needs and to reoccupy our traditional rohe.

This cultural values assessment represents only a starting point for initial engagement and will require further consultation and dialogue between Ngati Te Ata, the Developer Group and Auckland Council. Further discussion will be needed around the implications of the future development of Drury and Opaheke to identify information gaps in our thinking, raise issues or opportunities we had not foreseen, and clarify and reach agreement of those issues as identified in this assessment. It is intended that this assessment will assist with ongoing decision making from all relevant parties involved and ensure that mana whenua issues, concerns, interests and values are provided for, including resource consent requirements.

This cultural values assessment sets out our aspirations for Ngati Te Ata and the future development of Drury and Opaheke. In doing so it identifies issues and areas of concern for us, including some effects, that may be caused by the future development and urbanisation of Drury Opaheke and the surrounding areas. Only Ngati Te Ata can identify effects on our respective iwi and cultural values and they may be actual, potential or cumulative effects. In order to identify ways to avoid, remedy, mitigate or balance these effects it is important to recognise these issues and potential effects early during the planning stages.

As a meaningful partnership between Ngati Te Ata and the Developer Group we expect the Developer Group to clearly show how they have responded to this cultural values assessment, including our recommendations. This is also relevant to other parties involved

in the future development of Drury and Opaheke. This should be evident throughout the structure planning process and any subsequent plan changes.

For Ngati Te Ata it is vital that the following key outcomes are provided for during the early planning stages and the subsequent development of the Proposed Drury East Plan Change areas (Drury and Opaheke):

- The mana of our respective iwi is upheld, acknowledged and respected.
- Our iwi can assert their rangatiratanga over their ancestral taonga.
- As kaitiaki, our iwi may fulfil their obligations and responsibilities to their people and future generations as custodians, protectors and guardians of the iwi interests, its taonga and the various resources it owns.
- Tikanga Māori is observed throughout the planning processes and development of Drury and Opaheke. This will support the wellbeing of our iwi, and the existing and future residents of these areas and acknowledges the special ancestral, cultural and spiritual association that our iwi have to these areas.
- The natural and cultural landscapes in and around Drury and Opaheke are **enhanced** through good management and design, and the provision and long-term operation of appropriate infrastructure. This includes remedying adverse effects cumulatively caused by past activities and development and avoiding cumulative adverse effects in the future. This may mean that achieving the rules in the Auckland Unitary Plan as a 'bare minimum' are not sufficient and a higher best practice will be needed.
- The existing and future residents of Drury and Opaheke and subsequent beneficiaries of the development of these areas gain a greater understanding of our history, connection to these places and our values.
- Ngati Te Ata are able to access and undertake customary activities and resource use in these areas especially including along the margins of waterways.
- Culturally and/or spiritually significant sites are restored in partnership, where required or desired, with the community, industry, local and central government.
- Protect the integrity of Right of First Refusal on Crown lands. Those preparing plans or activities on land owned by a Crown Body being the Crown, a Crown Entity, State Owned Enterprise or company wholly owned by these bodies, and including local authority land derived from the Crown, must consider that Crown lands may be available to Iwi under existing and future settlement agreements. Arrangements for crown land administered by or transferred to local authorities are to be tested to see if the right of First refusal process is affected.

This cultural values assessment also contains a wide range of recommendations and they are set out comprehensively at the end of each topic under *8.2 Elements of the Environment*. These recommendations vary from broad to the very specific and will need to be implemented at the various stages of planning and development. They are relevant to everyone who has an interest in the Drury and Opaheke areas including: Ngati Te Ata; The Developer Group, Auckland Council and its council-controlled organisations; infrastructure providers; landowners and the public (i.e. the existing and future residents and workers of the area). Ngati Te Ata recognises that some recommendations may be more relevant to some iwi than others, however they are all broadly supported by southern iwi.



Any methods suggested in this cultural values assessment to help realise our aspirations and recommendations are supported in principle based on the information we currently have. It should be recognised that this support may change as our knowledge and understanding changes and as 'best practice' techniques develop and evolve. As with any development, as plans become more detailed and specific, our preferred methods may change and as such each development should always be considered on a case-by-case basis.

While this cultural values assessment should be read in full, the recommendations have also been compiled into a single list and are set out below.

## **8.1. List of recommendations and aspirations**

### **Heritage protection and recognition**

#### *Physical landscapes*

- Identify and protect physical landscapes including but not limited to view shafts, hilltops, tuff rings, ridgelines, streams, floodplains, estuaries and coastlines.
- Protection methods supported include:
  - Building setbacks and height restrictions to achieve protection of sightlines to ridgelines and hilltops.
  - 20m setback for all stream, estuarine and coastal edges to provide for pedestrian/ cycle paths.
  - 'Park edge roads' should be used for residential and commercial areas that back on to streams and coastal/estuarine edges.
- Wetlands/swamps should be retained and returned to their natural state.

#### *Cultural heritage*

- Wāhi tapu and other sites of significance are identified and protected.
- Protection and management of wāhi tapu and other sites of significance (including lands that are no longer in Māori hands) should be in a manner that is consistent with the tikanga and kawa of the appropriate iwi.
- Wāhi tapu and other sites of significance should be restored in partnership, where required or desired, with the community, industry, local and central government.
- Only iwi should have the right to modify wāhi tapu.
- Complete cultural heritage surveys as a priority, including the Drury to Bombay, Drury to Paerata, Drury to Tuhimata, and Pukekohe to Bombay.
- Reinstate traditional Māori place names to recognise our cultural heritage.
- Risk assessment and protection mechanisms (accidental discovery protocols)
- Cultural heritage is less likely to be impacted on if there is a 20-metre riparian margin.

## **Whenua**

### *Urban development*

- Future planning and development of the areas should have a clear vision that recognises the diversity and uniqueness of the areas. This includes the role the areas have played as the 'food bowl of the south'.
- Existing and future residents of Drury and Opaheke and subsequent beneficiaries of the development of these areas gain a greater understanding of our history, connection to these places and our values.
- Gateways to new town centres should appropriately reflect the character of the areas.
- New development should use land efficiently, especially since urban expansion has reduced the extent of rural production land.
- Mana whenua have already contributed to previous planning documents and outcomes for the wider southern area. This work should be drawn upon.
- Future planning and development should be cohesive and integrated with existing urban areas.
- New development should have positive environmental and cultural effects. Future planning should determine where and what are 'no-go areas'; then within those areas determine areas worthy of protection and saving and the corresponding management approach.
- When making decisions on future development projects, cumulative effects must be considered.
- Require resource consent conditions to be imposed that allow Iwi access to culturally and/or spiritually significant sites and sites of customary activities through the imposition of caveats on titles or providing for the registration of right-of-way servitudes.
- Ensure in all development proposals that access is retained and improved to water bodies and cultural and/ or spiritual sites.
- Management plans will be required as conditions of resource consent to ensure that critical environmental and cultural considerations are taken into account and that on-going monitoring and review occurs.

### *Soil and earthworks*

- Cultural monitoring agreements should be established, and must be undertaken by iwi kaitiaki (alongside the project archaeologist) during any development
- Review the Auckland Unitary Plan for provisions on volume of earthworks triggers for mana whenua oversight.
- Minimise earthworks and make maximum use of natural ground levels.
- The rural productive value of the area, as 'the food bowl of the south' must be recognised.
- Ensure sufficient erosion and sediment control measures are in place for earthworks. Earthworks that have the potential to impact on waterways must have sufficient measures in place to ensure that adverse effects on water bodies are managed.

- Riparian planting of appropriate, preferably indigenous, species must be promoted and increased to stabilise riverbanks and reduce erosion in the region. Plants should be 'eco-sourced / whakapapa plants' and consistent with local biodiversity.
- Riparian vegetation must only be removed from river, lake and coastal/estuarine margins using methods that do not result in increased soil erosion in the long term. Any short-term effects must be managed to minimise any adverse effects.
- When making decisions on future development projects, cumulative effects must be considered.

#### *Erosion and sediment control*

- Effectively manage activities that accelerate soil erosion e.g. vegetation removal and intensive agricultural practises.
- Effectively manage the impact of contaminated land on the surrounding environment. Ensure contaminated land is not used as fill.
- When making decisions on future development projects, cumulative effects must be considered.
- Restore and protect highly erodible lands e.g. retire highly erodible land from farming, prohibit the clearance of indigenous vegetation and soil disturbance on highly erodible land that could cause further erosion and use locally sourced indigenous vegetation during restoration.
- Promote the direction of funds to support local reforestation initiatives on marginal lands.
- Promote the adoption of best practice land and soil management that minimises soil erosion, nutrient leaching, and sediment and nutrient runoff.
- Encourage research directed at developing technology and management practices that will minimise nutrient leaching and runoff.
- When undertaking earthworks 'applicants' must strive to achieve a much higher percentage of sediment retention onsite i.e. strive to meet best practice such as GD05, rather than just meeting 'bottom line' minimum requirements such as TP90. There are proven ways to reduce the amount of sediment entering the ecosystem and those which are supported are:
  - create a series of sediment pools instead of just one fore bay silt pond
  - use of filter/compost socks around cesspits and drains
  - use of an organic flocculent rather than chemical, when a flocculent is necessary. There are a variety of organic flocculent available currently on the market e.g. HaloKlear.
  - use of super silt fences in conjunction with silt ponds as a 'treatment train approach'
  - in the absence of silt fences use silt ponds, hay bales

## Wai

### *Waterways*

- Future urban development should protect, rehabilitate and enhance waterways, especially where previous land use has degraded it.
- Preserve the physical integrity of receiving streams.
- Streams are well integrated with town centres with use of stream management plans and special policy requirements (green space, infrastructure, wider riparian margins).
- Development around streams/awa is limited to maintain access, preserve amenity, retain views and protect water quality e.g. use of 20m setbacks, use of park edge roads, lower density housing.
- Address existing use rights e.g. Industrial land discharges.
- Transport network planning across the wider southern area must consider stormwater treatment infrastructure.
- Involvement in stormwater management planning and kept informed of the processing of the network discharge consent for the area.
- Council to provide watercourse assessment reports which provide baseline information on the existing condition of waterways.
- Decisions on use of reserves or similar provision in subdivision applications shall give priority to protecting the water body health regardless of the water body or subdivision size.
- When making decisions on future development projects, cumulative effects must be considered.

Proposed developments shall demonstrate how they have considered and applied development principles that enhance the environment including, but not limited to how the development:

- Preserves and preferably enhances the natural hydrologic functions of the site
- Identifies and preserves sensitive areas that affect the hydrology, including streams and their buffers, floodplains, wetlands, steep slopes, high-permeability soils and areas of indigenous vegetation
- Maintains recharge of aquifers with clean uncontaminated water
- Effectively manages natural hazards
- Considers beneficial re-use on-site of stormwater and wastewater
- Considers water conservation
- Provides for visual amenity consistent with the surrounding environment
- Minimising stormwater impacts to the greatest extent practicable by reducing imperviousness, conserving natural resources and ecosystems, maintaining natural drainage courses, reducing use of pipes, and minimising clearing and grading
- Providing runoff storage measures dispersed through the site's landscape with a variety of detention, retention, and runoff practices
- Where they will be of benefit, encouraging the use of mechanisms such as rainwater harvesting, rain gardens, roof gardens, and onsite storage and retention
- Where they will be of benefit, encouraging the use of stormwater treatment devices including on-site treatment systems, allowing for emergency storage and retention structures

- Such areas that have unavoidable impervious areas, attempt to break up these impervious areas by installing infiltration devices, drainage swales, and providing retention areas
- Minimise imperviousness by reducing the total area of paved surfaces
- Maintain existing topography and pre-development hydrological processes.

#### *Coastal environment*

- Protect and enhance the mauri of marine waters.
- Retain and restore our access to coastal areas.
- Integrated management of coastal areas with land and freshwater systems.
- When making decisions on future development projects, cumulative effects must be considered.
- Protect, restore and enhance marine biodiversity.
- Maintain and enhance coastal water quality.
- Protect, enhance, and restore coastal wetlands and riparian margins in coastal areas including coastal dune lands.
- Reverse any accelerated eutrophication (in this case, the harmful increase in nutrients) of estuaries and coastal waters caused by human activities.
- Ensure there are no direct discharges of contaminants into or onto the coast area, including Te Mānukanuka o Hoturoa; and in particular, there are no discharges in the vicinity of a wāhi tapu, sites of significance, or food gathering areas.
- Prohibit direct discharges of any untreated sewage are prohibited (including discharges from boats).
- Exclude livestock from waterways, wetlands and estuaries in the coastal area.
- Avoid development in the coastal area that has an adverse effect on landscape character.

#### *Water Quality*

- Ngati Te Ata aspire to have waters that are drinkable, swimmable, and fishable with the water quality at least at the level it was before the European settlers arrival.
- When making decisions on future development projects, cumulative effects must be considered.

#### *Groundwater, recharge and water allocation*

- Ensure groundwater recharge to retain base flows within streams, and to keep aquifers recharged.
- Commissioned reports are undertaken to carry out an initial groundwater study based on information and results from previous studies. Ngati Te Ata request to be updated and informed, as these reports become available.
- Support the promotion of innovative green business initiatives and practices. For example, the use of low-impact building materials, packed gravel or permeable concrete instead of conventional concrete or asphalt, to enhance replenishment of ground water.
- When making decisions on future development projects, cumulative effects must be considered.

- The water allocation framework must be underpinned by the following principles:
  - Recognition that mana whenua iwi have rights and interests in water.
  - Unauthorised water takes are subject to immediate enforcement action to ensure a level playing field for all water users.
  - All water takes (excluding those required for civil or general emergency) should be accounted for within the allowable limit.
  - The framework for allocating water to users should focus primarily on ensuring the health and well-being of waterways and secondly on contributing to the long-term economic, cultural, spiritual, environmental, and social well-being.
- The water allocation framework must cater for all catchments and particularly consider catchments:
  - that have no significant current or foreseeable demand pressure
  - that continue to have water available for use and a trend of increasing demand towards full allocation
  - that are fully allocated
  - Where water is over allocated and all or any of that over allocation needs to be phased out

#### *Stormwater*

- When making decisions on future development projects, cumulative effects must be considered.
- 'Clean' and 'contaminated' waters are not mixed i.e. no direct disposal of any waste into waterways, including wetlands.
- Highest level of stormwater treatment should be used before it is discharged into waterways. This includes, but is not limited to:
  - use of 'treatment train' approach
  - use of raingardens/swales and green roofs
  - all cesspits to be fitted with a 'stormwater 360 litter trap' or 'enviro-pod'
  - use of the new GD01 stormwater management devices guideline as an appropriate means to support the mitigation of stormwater issues.

#### *Wastewater*

- Land-based treatment of effluent is preferred.
- Exploration of natural processes rather than mechanical to treat wastewater, including vermiculture.
- When making decisions on future development projects, cumulative effects must be considered.

#### **Biodiversity**

- Embrace and empower kaitiakitanga and rehabilitate and heal the natural systems that support us all.
- Restore iwi capacity to manage our natural and physical resources according to our own preferences.

- Support iwi monitoring of the effectiveness of environmental regulation in the protection of our cultural resources, biodiversity, wāhi tapu and other taonga within our respective rohe.
- Policies, planning, and best practice must ensure no further net losses of valuable ecosystems, and a measurable expansion of areas of regionally and culturally significant vegetation.
- Support area specific planning provisions such as riparian planting requirements.
- Promote the use of 'eco-sourced / whakapapa plants' that are indigenous plants and trees from within the Drury and Opaheke areas.
- Establish new and enhance existing ecological corridors as a high priority.
- Implement programmes such as riparian planting and protect sensitive receiving environments and protect and enhance water quality e.g. all permanent waterways to be fenced from livestock and planted, where appropriate, with indigenous vegetation to minimise the effects of land use practices and enhance biodiversity.
- Remove or reduce pest species (plant and animal) from existing locations and prevent establishment in new locations.
- Proposed developments must demonstrate how they have considered and applied development principles that enhance the environment including, but not limited to how the development:
  - restores the capacity of ecosystems
  - creates or maintains ecosystems that function without human intervention.
- Encourage landowners to take out protective covenants to protect remnant stands of indigenous vegetation.

#### *Indigenous vegetation*

- Tree surveys should be undertaken to identify all native trees.
- All trees over 200 years should be protected (without the need to individually identify them).
- Collaboration between Ngati Te Ata, Auckland Council and other stakeholders to undertake a 15-year planting programme.
- Ngati Te Ata to have input in the selection of appropriate indigenous trees and plants, and involvement in the design of wetland planting. A preferred planting list is included in Appendix D.
- Promote the use of eco-sourced / whakapapa plants and trees from within the Drury and Opaheke areas. Eco-sourced / whakapapa plants must be used where adjacent to areas of high ecological and conservation value and should be encouraged for all landscape plantings elsewhere.
- When making decisions on future development projects, cumulative effects must be considered.

#### *Wetlands*

- Support the establishment of programmes to restore and expand wetland habitat. These programmes should be developed and implemented to achieve a measurable increase in the quality of wetlands, and should ideally include, but not be limited to:
  - restoring existing wetlands
  - removing and/or controlling plant and animal pests

- using technology such as constructed wetlands where this is feasible
- expanding the size of those wetlands where this is feasible
- re-establishing wetlands adjacent to lakes and rivers where land is available, and conditions remain suitable for wetlands
- identifying and setting aside government and local authority owned land for the creation and enhancement of wetlands.
- When making decisions on future development projects, cumulative effects must be considered.
- Water levels of all significant wetlands shall be maintained and stabilised to prevent further deterioration in wetland ecological condition and, where possible, wetland water levels shall be restored to enhance habitat and expand wetland area. Where necessary, this shall be achieved by placing restrictions on the amount of surface and subsurface drainage installed adjacent to wetlands.
- Ensure that all land use practices that have the potential to impact on wetlands have efficient sediment, drainage, discharge, fertiliser application, and riparian buffer control practices in place to ensure that adverse impacts on wetlands are prevented.
- No discharges of point or non-point source wastewater to ecologically or culturally significant wetlands.
- All stormwater discharged to ecologically or culturally significant wetlands shall be treated in such a way that ensures the ecological condition and cultural use of the wetland is not compromised.
- Establish or maintain 'buffer zones' of appropriate indigenous plant species around all significant wetlands to protect them from the effects of land use and to help reduce fluctuations in wetland water levels.
- Where appropriate land is available, and it is feasible, flood plains shall be restored to function as natural overflow areas along rivers and streams and to link more naturally with adjacent wetlands.

### **Open Space and greenways plans**

- The Developer Group should implement a partnership approach with Ngati Te Ata and other Southern Iwi to the sustainable management of Drury and Opaheke's natural and physical resources, including parks and open spaces.
- Cultural values and mana whenua associations should be known and understood before the type and location of open spaces are decided.
- Tikanga Māori and customary activities should influence how parks and open spaces are planned, developed and managed.
- The focus should be on visually and physically connecting Drury (East and West) and Opaheke's network of parks, open spaces and streets to create opportunities for residents to move around their neighbourhoods and to enhance native biodiversity.
- We should have First Rights of Naming reserves and open spaces.
- Require subdivision and new development to provide open space/reserves next to oceans, lakes and rivers. This will protect the water body, allow access, increase biodiversity, and enhance ecosystems.
- Open space buffer zones and internal neighbourhood parks should be encouraged.



- Encourage the use of 'park edge roads' along open space zones and esplanade or recreation reserves.
- Develop greenways plans that provide cycling and walking connections that are safe and enjoyable, while also improving local ecology and access to recreational opportunities.
- We should continue to be involved in the development of a Blue-Green network for the Drury and Opaheke areas.

## **Sustainability**

### *Sustainable Development*

- Support energy efficiency, transition away from fossil fuels and zero waste minimisation initiatives.
- New development should incorporate sustainable options and housing should achieve at least a 6-star level from New Zealand Green Building Council 'Homestar' (or equivalent). This includes but is not limited to green roofs, solar panels and recycling of water and other resources.
- New development should have positive impacts on the environment e.g. enhance water quality, increase biodiversity connections, and remediate contaminated land.
- Significantly improve stormwater and wastewater management and treatment to acknowledge our cultural values.
- Support the use of LID (Low impact design) principles in all new subdivisions and developments.

### *Natural hazards*

- New land use and structures shall avoid creating actual or potential adverse effects, including an increase to the risk or magnitude of a natural hazard event.
- Preference is given to any new or changing land use, subdivision or development avoiding, rather than mitigating, any natural hazard.
- Existing land use, activities, and structures in areas where natural hazards occur are encouraged to change land use or activities and shift, abandon or suitably modify structures to withstand the potential effect of a natural hazard event.
- Encourage low-lying areas prone to flooding to be turned back into wetlands rather than using for urban development such as housing.
- Risk of adverse effects on human, cultural, spiritual, or environmental well-being shall be prioritised over risks to individual properties when assessing natural hazard risks and/or the need for hazard protection structures.
- Where it is practical, and environmentally, culturally, and/or spiritually preferable, a 'soft' engineering solution should be utilised over a 'hard' solution (e.g. the use of swales rather than concrete channels).
- If an existing or proposed natural hazard protection structure adversely affects human, cultural, spiritual, or environmental well-being then alternative solutions are encouraged and expected.

- Hazard management structures, activities, and schemes and their ongoing function should strive to maintain and restore ecosystem function and habitat, and cultural and/or spiritual well-being.
- Where there is existing development and the effects on cultural and/or spiritual values and the environment are adverse, the concept of 'managed retreat' should be applied. This means existing structures are not replaced or maintained, and no new structures are allowed to be erected.
- Where culturally and/or spiritually sensitive sites or sites of significance are subject to natural hazards, in which human intervention has played no role, then we should be advised to enable our correct protocols and procedures to be adopted to address the situation.
- The cumulative adverse effect of land use and structures on natural hazards shall be avoided or managed consistent with the above recommendations, such that there is no increased risk to human life, structures, cultural, spiritual or environmental well-being.

### **Infrastructure**

- Actively explore alternative wastewater treatment and disposal options including removal of trade wastes, recycling of grey water, disposal to land (or other innovative methods) and not using water as a waste transport system.
- De-emphasise road building and car parking and create people-friendly environments, including pedestrian and cycling networks.
- Reduce current transport congestion levels.
- Support fast broadband rollout including to rural areas.
- Support and encourage the use of water sensitive design in the provision of infrastructure.

### **Urban Design**

- Te Aranga Principles should be incorporated and activated into the structure plan process.
- Future development should show how Te Aranga Principles have been considered and applied. This includes but is not limited to how the development understands, acknowledges and incorporates the diversity and uniqueness of the development location (socially, culturally, spiritually, economically, and environmentally), and whether it provides for visual amenity consistent with the surrounding environment.
- Other urban design values should also be incorporated. For example, Ngati Te Ata support the use of 'park edge development/park edge roads' as a design feature. These can help foster a sense of ownership, increase safety and surveillance (e.g. deterrent to illegal dumping), increase visual and landscape amenity, and a higher likelihood or better opportunity to protect our cultural values.

## **Hauora**

### *Health and well-being of our people*

- Auckland Council to support:
  - our various health and well-being initiatives
  - healthy lifestyles, recreation and sport for our people
  - our whare oranga associated with marae through collaboration and funding
  - upskilling and training of our rangatahi
  - reducing beneficiary dependency and the attainment of meaningful employment
  - our rangatahi as first home buyers
  - the safe transport of our kaumātua in support of their tribal duties and their mobility
  - the Developer Group and Auckland Council assistance in the provision of healthy and affordable accommodation including review of rates relief options
  - our access to quality affordable housing
  - iwi housing including their location, design quality, funding, and removal of regulatory compliance costs
- The Developer Group and Auckland Council support mana whenua reoccupying their tribal lands inter alia through the right to subdivide their lands within the rohe.
- The Developer Group and Auckland Council provides infrastructure support where possible for subdivision purposes.

### *Air*

- Encourage industry to implement industry best practice or best practicable option for improving air quality.
- Promote public transport to reduce vehicle emissions.
- Manage the effects on amenity values of an area due to contaminants, dust, odour, light, or noise.
- When making decisions on future development projects, cumulative effects must be considered.

## **Economic Development**

- The Developer Group and Auckland Council support for the achievement of our economic independence including through provision of expertise and funding.
- Planning and policy provisions that allow us to realise value and sustainable income from our asset holdings and future economic opportunities.
- Auckland Council support for a housing and economic report for each iwi.

## 9. Appendices

### 9.1. Appendix A: Catalogue of significant areas of taonga relevant to the Pukekohe, Paerata, Drury and Opaheke structure plan areas.

Information Source: Historical Assessment Southern Structure Plan

CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
1138-R12/742	Railyards	Drury Railyards	Archaeological Site.	103 Flanagan Rd	1773261 5891495	Built Heritage
14071-R12/755	Military Head Quarters	General Camerons HQ –65th Regiment	Archaeological Army Site	111 Fitzgerald Rd	1773921 5891336	
319-R12/756	Taenga Waka	Slippery Creek Landing	Maritime Site	31-37 Bremner Rd	17772732 5891336	Refer CHI 14072
14702-R12/754	REDOUBT	Slippery Creek Wharf Site	Commissariat Redoubt - Archaeological	31-37 Bremner Rd	1772750 5891894	Paa?
14087- R12/773	Village	Drury Village	Built Heritage	200-212 Great South Rd	1773411 5892169	
14087-R12/911	Military Camp ditch and bank	65th Paddock, 65th Regiment	Archaeological Site	270 Flanagan Rd	1773206 5890887	Could be maori paa features?
17871-R12/967	Ditches, terraces, ford, dam	65th Paddock, 65th Regiment trenches	Archaeological Site	270 Flanagan Rd	1773230 5890859	More Features? Flanagans Mill?
1873		TREES	Kahikateas	205 Sutton Rd		
2455/6922/704B	Built Heritage/House	Building Dwelling	Pay Masters House: Historic	201 Jesmond Rd	1771687 5891097	relocated

CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
			Heritage			
15892		Building	Former Runciman Post Office: historic Heritage	Railway Siding 68 Pitt Rd	1772917 5891080	
15990		Building Site: Service Station	Historic Built Heritage	45 Pitt Rd	1172904 5890696	
16004	Historic Saleyards	Opaheke Saleyards	Historic Structure	201 Opaheke Rd	1774016 5893936	
17016	US Military Camp	Ophakeke West	Historic Site	211 Opaheke Rd	177452 5893811	
17017	US Military Camp	Opaheke East	Historic Site	154 Ponga Rd	1775073 5893692	
1716	Historic Site	Opaheke Railway Station	Historic Structure	174 Opaheke Rd	1773939 5894065	
19274	Building	Clarke Dairy and Kitchen	Historic Structure	1159 Gt South Rd	1773440 5889644	
19295	Well	Clarke Well	Historic Structure	1159 Gt South Rd	As above	
19272	Building	Clarke Homestead	Historic Structure	1159 Gt South Rd	As above	

Southern Motorway Assessment: Clough and Associates						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
14826-R12/766	Midden		Archaeological Site-Maori Heritage		1770832 5892671	Clough & Ass
4516 R11/1633	Flour Mill Upper	Historic	Archaeological		1769316	Intact Part within the

Southern Motorway Assessment: Clough and Associates						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
1270	Puhinui  Flour  Mill	Flour  Mill Site	Site		5902494	motorway designation, Clough and Ass.
16012- R12/676  2779	Midden		Archaeological Site, Maori		1771011 5896510	Midden Destroyed Outside, Clough and Ass
18828- R12/1067 - 9291	Midden		Archaeological Site, Maori		Mapped CBMS	
18227- R12/1066- 9504	Mudsnail Midden		Archaeological Site, Midden		Mapped CBMS	

Drury South Business District Archaeological Assessment: Russel Foster and Associates						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
R12/721	Findspot	Adze	Taonga	Drury South B District	Peach Hill	Archaeological Assessment
R12/330	Midden		Archaeological Site	DSBD	By a small stream	Revisited by ARC not found again.
R12/67	Te Maketu Paa		Archaeological Site	DSBD		Extensive Report Ian Lawlor: History of the Paa Cultural Significance
R12/278	Paa		Archaeological Site	DSBD		
R12/5	Paa		Archaeological Site	DSBD		

Drury South Business District Archaeological Assessment: Russel Foster and Associates						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
R12/66	Paa		Archaeological Site	DSBD		
R12/278	Large Paa		Archaeological Site	DSBD	Ballard's Cone	

Drury Hills Archaeological Assessment: Rod Clough and Associates						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
R12/331 CHI:9284	Pits, middens, terraces				177638 5892025	Largely destroyed
R12/336	Terraces	Drury Hills	Archaeological Site	493 Drury Hills Rd	1776021 5891821	Rod Clough and Ass part good condition in bush
R12/337	Terrace/Pit	Drury Hills	Archaeological Site	493 Drury Hills Rd	1775974 5891780	Rod Clough and Ass Thick shell deposits, hangi stones
R12/334	Possible Paa	Drury Hills	Archaeological Site	493 Drury Hills Rd	No features left 1776818 5892641	Revisited but no features
R12/332 CHI:9381	Pits	Drury Hills	Archaeological Site		Found on spur next to basalt quarry 1776076 58901682	Revisited but original features not found, bulldozed for water tank.  Partially destroyed
R12/335 9710	Pit /Midden/Terrace	Drury Hills	Archaeological Site	493 Drury Hills Rd	1776023 5891750	Further Assessment needed

Drury Hills Archaeological Assessment: Rod Clough and Associates						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
R12/338 9382	Pits, terraces and middens	Drury Hills	Archaeological Site	493 Drury Hills Rd	1776219 5891679	1982 good condition  2002 Poor condition
R12/338	Series of 5 pits	Drury Hills	Archaeological Site	493 Drury Hills Rd		Further Assessment needed
R12/673	Processing Area	Drury Hills	Archaeological Site	493 Drury Hills Rd	1776045 5892182	Stone working debitage, 2002 house constructed.
R12/675	Basalt Quarry Complex	Drury Hills	Archaeological Site	493 Drury Hills Rd	Elizabeth Place 1776156 5891705	Site Continues  Well preserved regenerating bush
R12/1100 14079	Basalt Quarry Complex	Drury Hills	Archaeological Site	493 Drury Hills Rd	South of Caldicott Property 1775945 58919139	Deep deposits
R12/749	Cossey Family Home	Drury Hills	Archaeological Site	493 Drury Hills Rd	Cossie Rd 1776827 5892393	Probable natural terrace
R12/1100	14079	-----	Stone working area associated with nearby basalt quarries (c.1900-1910)	1775945	5891913	Under native trees/ modified by driveway

Auranga Archaeological Assessment: CFG						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS



Auranga Archaeological Assessment: CFG						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
18827/R12_1066	Midden	Auranga	Archaeological Site	479 Oira Rd	1770684 5891817	Esplanade Reserve (Auranga)
18827/R12_1067	Midden	Auranga	Archaeological Site	478 Bremner Rd	1770880 5892311	Esplanade Reserve (Auranga)
R12/762	Midden	Auranga	Archaeological Site	Drury Islands	1759028 5889308	Cfg Consultants
R12/763	Midden	Auranga	Archaeological Site	Drury Islands		
R12/764	Midden	Auranga	Archaeological Site	Drury Islands		
R12/766	Midden	Auranga	Archaeological Site	Drury Islands		
R12/767	Midden	Auranga	Archaeological Site	Drury Islands		
R12/1068	Midden	Auranga	Archaeological Site	Drury Islands		
R12/1115	Midden	Auranga	Archaeological Site	Drury Islands		
Te Maunu A Tu: Coulthards Scenic Reserve	Paerata Bluff Paa Site	Drury	Archaeological Site	Western Bluff of Paerata Ridge	1770298 5885220	Franklin CHI Inventory
R12-4	Pukekiwiriki Paa and Aparangi	Papakura	Archaeological Site	Redhill	867-575	RUB
R12-65	Pits and Terraces		Archaeological Site	Between Hunua Rd and Hays.	862-567	RUB
R11/995	Midden	Hingaia	Archaeological Site		795-601	RUB
R12/167	Settlement	Hingaia	Archaeological Site	Small Stack east of Parerekau	804-541	RUB

Auranga Archaeological Assessment: CFG						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
R12/171	Paa Pits and Terraces	Hingaia	Archaeological Site	Knoll 150 m3 west of S Motorway	825-550	RUB
R12/191	Pit/Midden	Parerekau Island	Archaeological Site		799-591	RUB
R12/192	Midden	Parerekau Island	Archaeological Site		795-579	RUB
R12/193	Midden	Parerekau Island	Archaeological Site		795-579	RUB
R12/194	Midden	Parerekau Island	Archaeological Site		802-586	RUB
R12/195	Pit/Midden	Parerekau Island	Archaeological Site		803-586	RUB
R12/196	Midden	Parerekau Island	Archaeological Site		803-585	RUB
R12/197	Pit	Parerekau Island	Archaeological Site		803-583	RUB
R12/198	Pits	Parerekau Island	Archaeological Site		797-577	RUB
R12/199	Shell Midden	Hingaia	Archaeological Site		2679600 6456900	RUB
R12/203	Shell Midden	Hingaia	Archaeological Site		2679600 6455400	RUB
R12/667	Shell Midden	Hingaia	Archaeological Site		2680980 6458113	RUB
R12/678	Shell Midden	Hingaia	Archaeological Site		2681200 6458100	RUB
R12/679	Shell Midden	Hingaia	Archaeological Site		2680000 6457150	RUB
R12/680	Shell Midden	Hingaia	Archaeological Site		2679950 6457090	RUB

Auranga Archaeological Assessment: CFG						
CHI/NZAA	SITE	NAME	CATEGORY	ADDRESS	LOCATION	COMMENTS
R12/681	Shell Midden	Hingaia	Archaeological Site		2679590 6457100	RUB
R12/682	Shell Midden	Hingaia	Archaeological Site		2679600	RUB
R12/841	Find Spot: adze, paddle	Pukekohe	Archaeological Site	Cape Hill Road	243800 621800	NZAA  Area of skirmish Land Wars
R12/356	Terrace/Pit	Drury	Archaeological Site	Ramarama	1774233 5884936	NZAA
R12/282	Find Spot: adze, paddle	Pukekohe	Archaeological Site	Cape Hill Road	E1770535N 5883829	NZAA  Area of skirmish Land Wars

Reserves and Parks in or around structure plan areas	
<ul style="list-style-type: none"> <li>• Raventhorpe Scenic Reserve</li> <li>• Red Hill Scenic Reserve (including Waipokapū Stream Conservation Area – formerly known as Hays Stream Conservation Area) *</li> <li>• Mangan Bush</li> <li>• Dominion Reserve</li> <li>• Te Koiwi Park</li> <li>• Boundary Rd Reserve</li> <li>• Short Street Reserve</li> <li>• Drury Domain</li> <li>• Hingaia Stream Esplanade Reserve</li> <li>• Drury Complex Reserve</li> <li>• Ngakarua Reserve</li> <li>• Te Maketu Historic Reserve (formerly known as Pratts Road Historic Reserve) *</li> <li>• Stone Rd Quarry Reserve</li> <li>• Drury Islands</li> </ul>	<ul style="list-style-type: none"> <li>• Rutherford Rd Nature Reserve</li> <li>• Coulthards Scenic Reserve</li> <li>• George Kern Scenic Reserve</li> <li>• Anselmi Ridge Reserve</li> <li>• Ernie's Reserve Brownlie Lake</li> <li>• Roseville Park</li> <li>• Bledisloe Park</li> <li>• Hickeys Reserve</li> <li>• Kayes Reserve</li> <li>• Kennelly's Park</li> <li>• Rosa Birch Park</li> <li>• O'Connor Drive Reserve</li> <li>• Kitchener Rd Reserve</li> <li>• Pukekohe Hill Reserve</li> </ul>
* Name changed through Ngāti Tamaoho settlement legislation.	

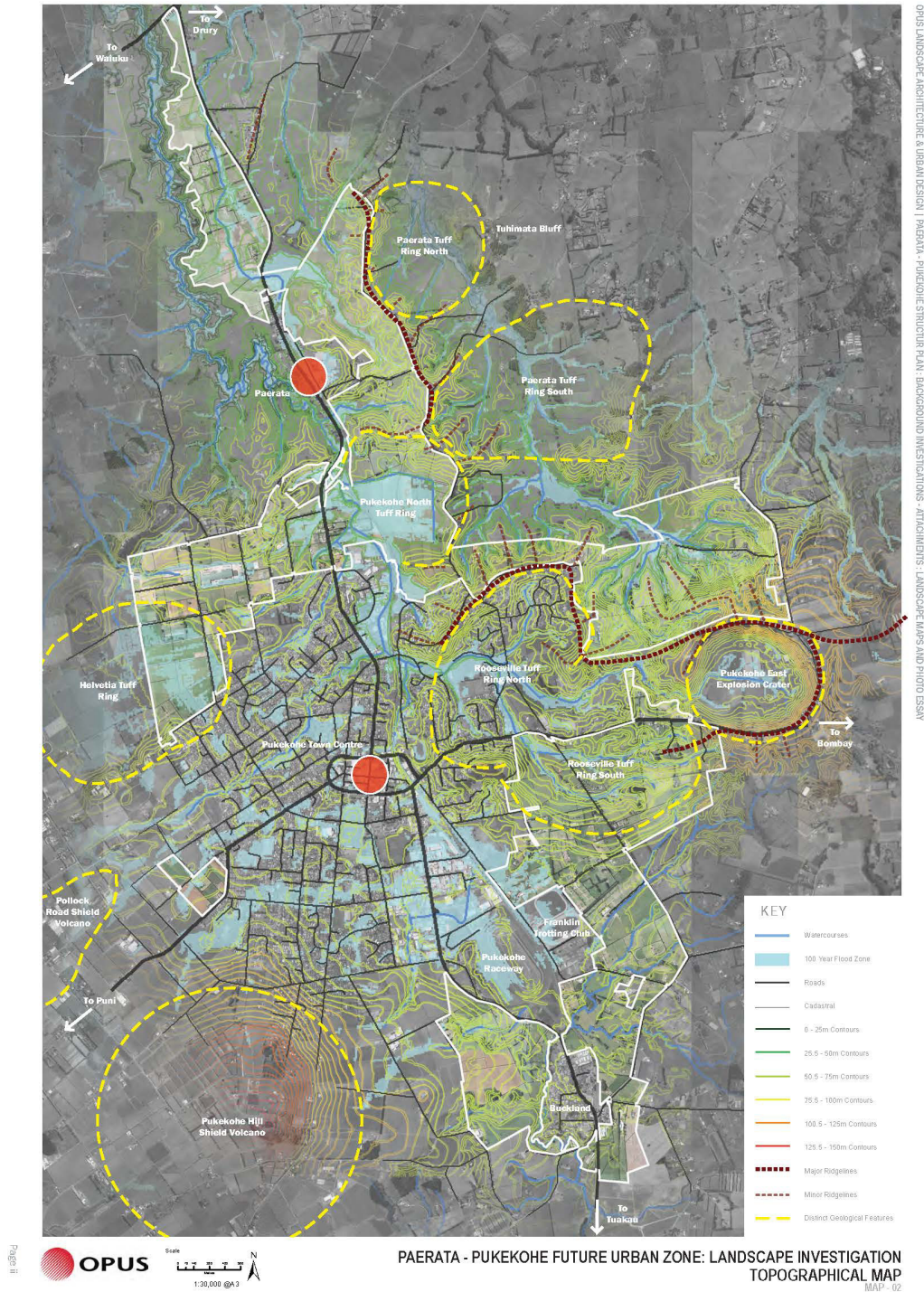
Natural Features/Aquifers/Waterways	
Volcanic Cones and	<ul style="list-style-type: none"> <li>• Pukekohe</li> <li>• Onewhero</li> </ul>

Tuff Ring	<ul style="list-style-type: none"> <li>• Bombay</li> <li>• Hingaia</li> <li>• Karaka</li> </ul>
Aquifers	<ul style="list-style-type: none"> <li>• Kawa</li> <li>• Waitemata</li> <li>• Pukekohe</li> </ul>
Streams, Waterways and Catchment	<ul style="list-style-type: none"> <li>• Whangapouri Stream</li> <li>• Oira Creek</li> <li>• Ngakaroa Stream</li> <li>• Whangamarie Stream</li> <li>• Hingaia Stream</li> <li>• Te Maketu Stream (formerly known as Maketu Stream) *</li> <li>• Pahurehure Inlet</li> <li>• Drury Creek</li> <li>• Waihoehoe Stream (formerly known as Waihoihoi Stream) *</li> <li>• Waipokapū Stream (formerly known as Hays Creek) *</li> <li>• Te Mānukanuka Hoturoa (the Manukau Harbour)</li> <li>• Papakura Stream</li> <li>• Otūwairoa Stream (formerly known as Slippery Creek) *</li> <li>• Mangapū Stream (formerly known as Symonds Stream) *</li> </ul>
* Name changed through Ngāti Tamaho settlement legislation.	

Ara Hīkoi:	
Areas ara hīkoi located	Ara hīkoi
<ul style="list-style-type: none"> <li>• Papakura</li> <li>• Drury</li> <li>• Hingaia</li> <li>• Paerata</li> <li>• Pukekohe</li> <li>• Pahurehure</li> </ul>	<ul style="list-style-type: none"> <li>• Waipapa to Hingaia and inland</li> <li>• Pukekiwiriki to Hunua</li> <li>• Pukekiwiriki to Hingaia</li> <li>• Drury to Paerata to Pukekohe</li> </ul>

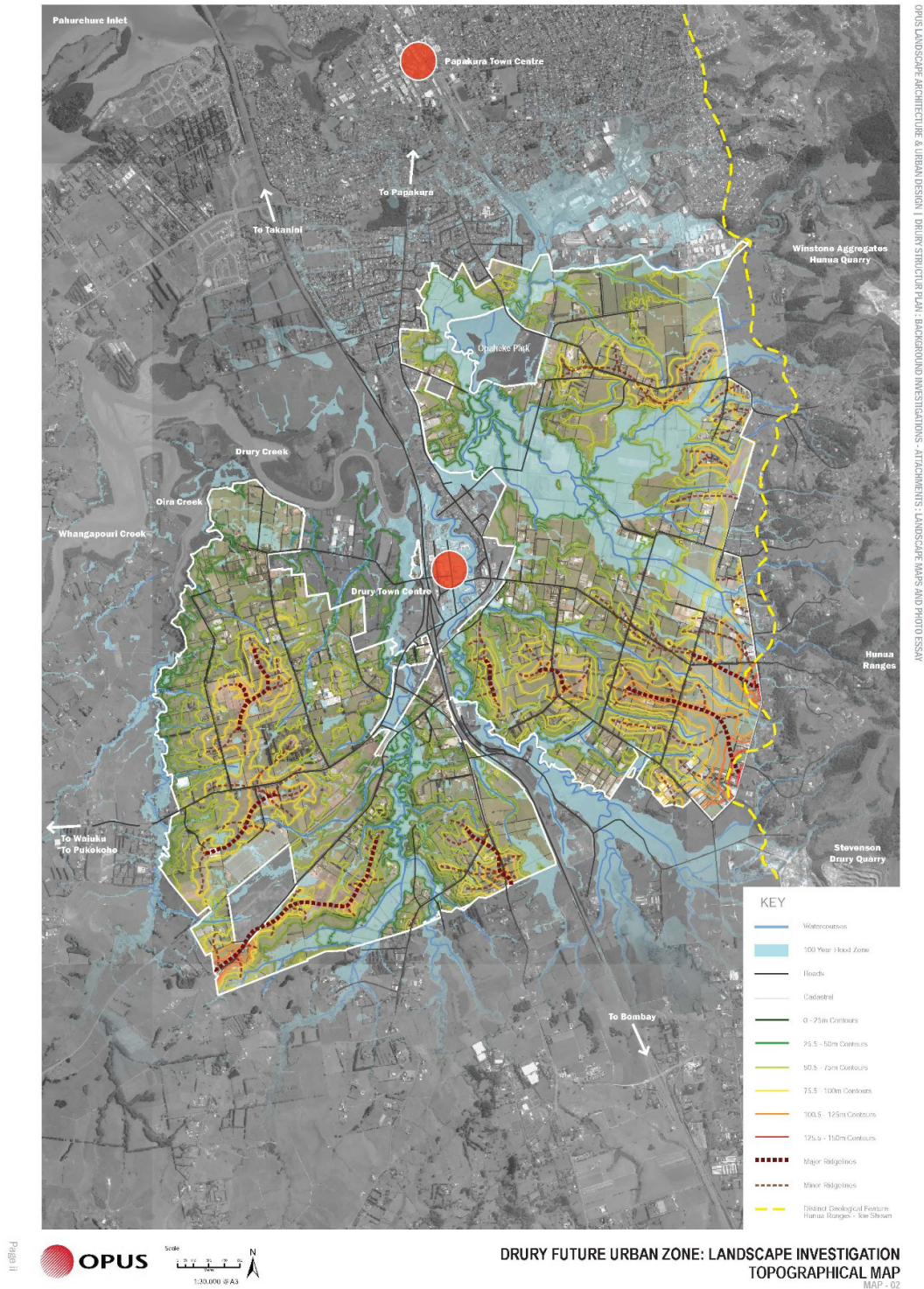
## 9.2. Appendix B: Landscape maps

**Map 1:** Map showing tuff rings, explosion crater and ridgelines in and around the Pukekohe-Paerata structure plan area. Map is from Paerata- Pukekohe Structure Plan Landscape and Visual Assessment Background investigations for Auckland Council, prepared by Opus Consultants for Auckland Council, August 2017.





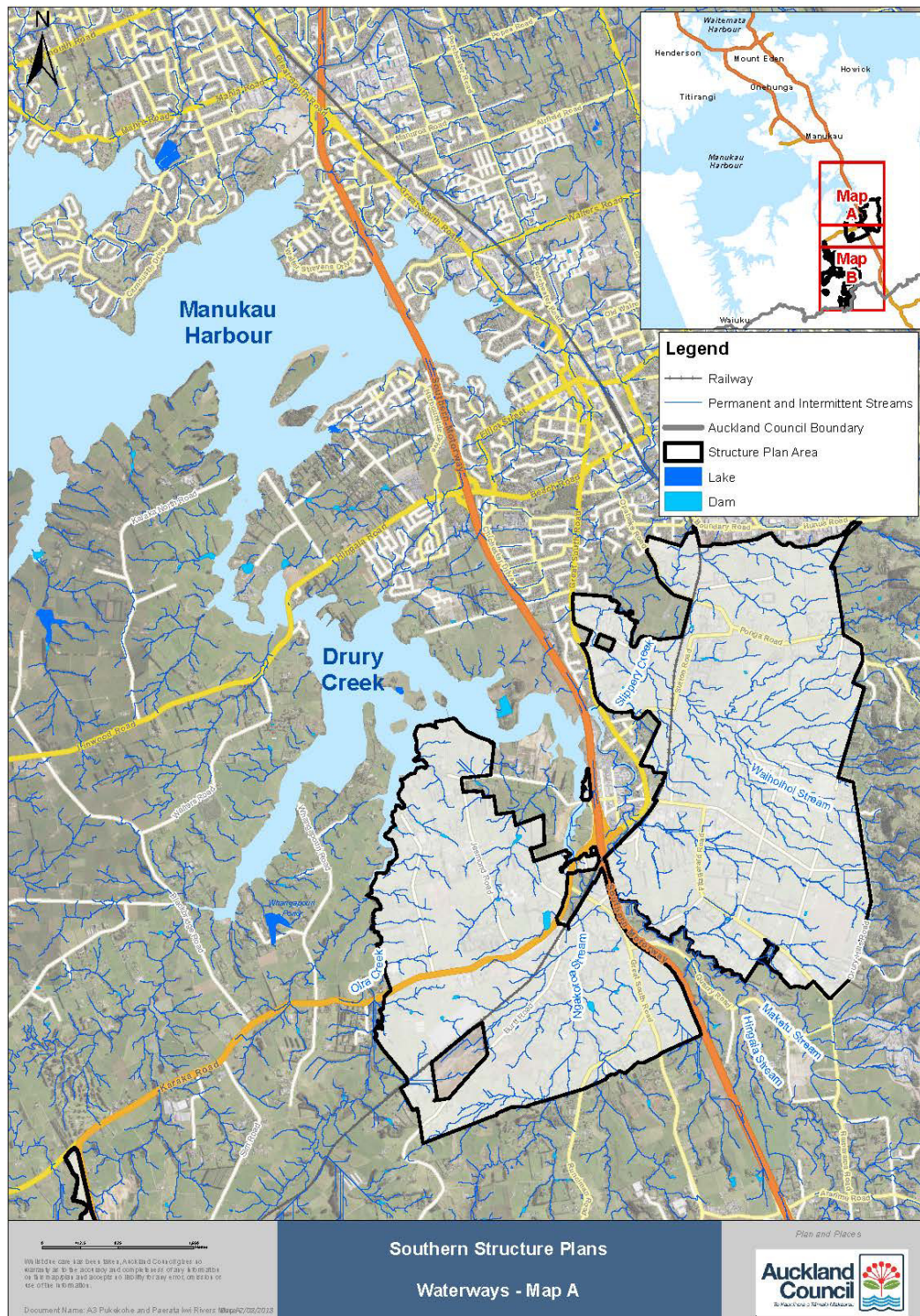
**Map 2:** Map showing ridgelines in and around the Drury structure plan area. Map is from Drury Structure Plan: Background Investigations Landscape and Visual Assessment Attachments: Landscape Maps and Photo Essay, prepared by Opus Consultants for Auckland Council, 4 August 2017.





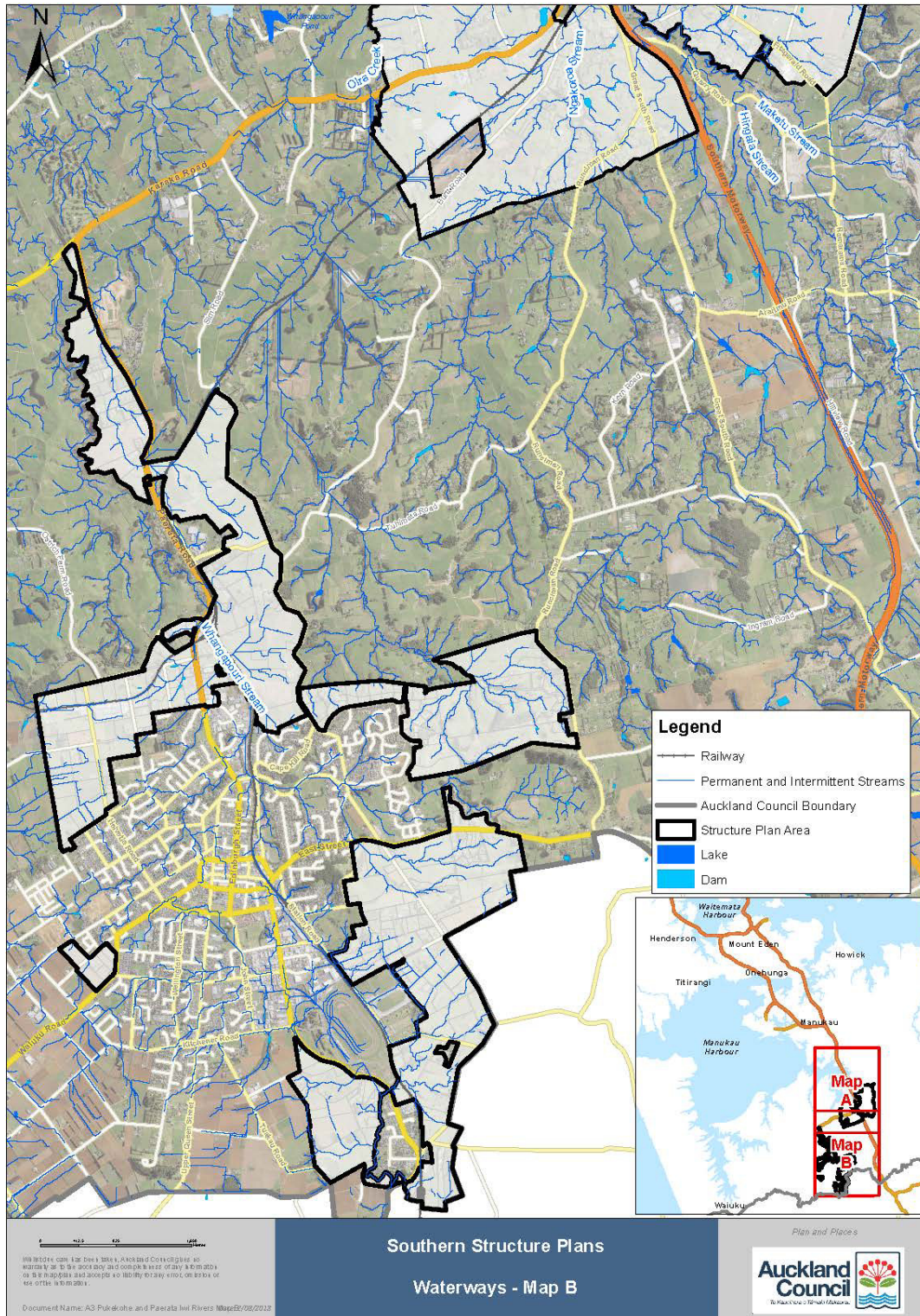
### 9.3. Appendix C: Waterways maps

**Map 1:** Map showing known permanent and intermittent streams, lakes, dams and coastal water in and around Drury and Opaheke. Map produced using Auckland Council dataset August 2018. Note the dataset used to create this map has not yet been updated to recognise any geographic name changes resulting from any Treaty settlements.





**Map 2:** Map showing known permanent and intermittent streams, lakes, dams and coastal water in and around Pukekohe and Paerata. Map produced using Auckland Council dataset August 2018. Note the dataset used to create this map has not yet been updated to recognise any geographic name changes resulting from any Treaty settlements.





#### 9.4. Appendix D: List of preferred plants

Species	Common name	Depth range
<b>Esplanade reserve: Coastal Bank Revegetation</b>		
<i>Astelia banksii</i>	coastal astelia	
<i>Coprosma robusta</i>	karamu	
<i>Cordyline australis</i>	cabbage tree / ti kouka	
<i>Hebe stricta</i>	koromiko	
<i>Sophora microphylla</i>	kowhai	
<i>Macropiper excelsum</i>	kawakawa	
<i>Vitex lucens</i>	puriri	
<i>Phormium tenax</i>	NZ flax/ harakeke	
<i>Myoporum laetum</i>	ngaio/ mousehole tree	
<i>Pseudopanax lessonii</i>	houpara/ coastal five finger	
<i>Metrosideros excelsa</i>	pohutukawa	
<i>Entelea arborescens</i>	whau	
<i>Cyathea dealbata</i>	silver fern	
<i>Dicksonia fibrosa</i>	wheki-ponga	
<i>Pittosporum crassifolium</i>	karo	
<i>Blechnum novae-zelandiae</i>	kiokio	
<i>Coprosma</i> sp.		
<i>Pittosporum eugenioides</i>	tarata/ lemonwood	
<i>Kunzea ericoides</i>	kānuka/ white tea-tree	
<i>Leptospermum scoparium</i>	mānuka/ tea-tree	
<b>Wetland and stream: Bank planting</b>		
<i>Sophora microphylla</i>	kowhai	
<i>Macropiper excelsum</i>	kawakawa	

<i>Vitex lucens</i>	puriri	
<i>Hebe stricta</i>	koromiko	
<i>Phormium tenax</i>	NZ flax	
<i>Carex lessoniana</i>	ruatahi	
<i>Phormium cookianum</i>	wharariki/ mountain flax	
<i>Cyathea dealbata</i>	silver fern	
<i>Dicksonia fibrosa</i>	wheki-ponga	
<i>Pittosporum crassifolium</i>	karo	
<i>Coprosma robusta</i>	karamu	
<i>Blechnum novae-zelandiae</i>	kiokio	
<i>Myoporum laetum</i>	ngaio	
<i>Coprosma</i> sp.		
<i>Kunzea ericoides</i>	kānuka/ white tea-tree	
<i>Leptospermum scoparium</i>	mānuka/ tea-tree	
<b>Wetland: Margin moist soil planting</b>		
<i>Cortaderia fulvida</i>	toetoe	
<i>Phormium tenax</i>	NZ flax/ harakeke	
<i>Cordyline australis</i>	cabbage tree / ti kouka	
<i>Blechnum novae-zelandiae</i>	swamp kiokio	
<i>Carex virgata</i>	small samp sedge	
<i>Carex secta</i>	makura/ purei	
<i>Sophora microphylla</i>	kowhai	
<i>Macropiper excelsum</i>	kawakawa	
<i>Carex flagellifera</i>		
<i>Kunzea ericoides</i>	kānuka/ white tea-tree	
<i>Leptospermum scoparium</i>	mānuka/ tea-tree	
<b>Wetland: Shallow bench (0-0.3m)</b>		

Apodasmia similis	oioi/ jointed wire rush	0-0.3m
Baumea arthropphylla		0-0.1m
Carex secta	makura/ purei	0-0.4m
Carex ustulatus	giant umbrella sedge	0-.1m
Eleocharis acuta	sharp spike sedge/ spike rush	0-.1m
Bolboschoenus fluviatilis	march clubrush/ river bulrush	0-.15
<b>Wetland: Shallow pond slopes (0.3-1.1m)</b>		
Baumea articulata	jointed twig rush	0-0.36m
Eleocharis sphacelata	kuta	0-01.5m
Schoenoplectus tabernaemontani	lake clubrush/ softstem bulrush	0-1.2m
Typha orientalis	raupo/ bulrush	0-1m
<b>Wetland: Open water (1.1-2m)</b>		
Myriophyllum propinquum	water milfoil	0-3.5m
Nitella hookeri	stonewort	0.3-10m
Ruppia polycarpa	horses mane weed	0.1-3m
<b>Stream: Edge planting</b>		
Carex dissita	purei/flat leaved sedge	
Carex secta	makura/ purei	
Carex lessoniana	spreading swamp sedge	
Carex virgata	small swamp sedge	
Dacrycarpus dacrydioides	kahikatea/ white pine	
Kunzea ericoides	kānuka/ white tea-tree	
Leptospermum scoparium	mānuka/ tea-tree	
<b>Stream: Marginal planting</b>		

Carex lambertiana	forest sedge	
Carex virgata	small swamp sedge	
Cordyline australis	cabbage tree / ti kouka	
Kunzea ericoides	kānuka/ white tea-tree	
Leptospermum scoparium	mānuka/ tea-tree	
Carex secta	makura/ purei	
Cortaderia fulvida	toe toe	
Carex lessoniana	ruatahi	

## 10. Glossary of Māori words and terms

This glossary of Māori words and terms has been prepared to aid understanding of these words and terms as they are used in this document only. We recognise that each iwi may have a different dialect that can change the spelling or meaning of a word or phrase. The context of how words are used can also change the meaning and emphasis of words. As such this glossary should not be used in relation to any other document.

For the purposes of this cultural values assessment Ngati Te Ata agreed to use macrons instead of double vowels. However, it is recognised that each iwi has its own preference on this. In recognition of this the glossary lists both spellings, but only uses macrons within the body of the cultural values assessment.

Word / term	Definition / explanation
<b>ahi kā roa</b> <b>ahi kaa roa</b>	Long burning fires of occupation, continuous occupation - title to land through occupation. ( <a href="https://maoridictionary.co.nz">https://maoridictionary.co.nz</a> )
<b>ara hīkoi</b> <b>ara hiikoi</b>	walking track
<b>ara tapu</b>	Lit. sacred pathway
<b>atua</b>	supreme being or deity
<b>awa</b>	river / stream / creek
<b>awa pā</b> <b>awa paa</b>	Paa that are built in vicinity of river, historically these paa were seasonal, and as the paragraph stated they were part of the whaanau, hapuu & iwi networks of connectivity whether by water or by land.
<b>hanga whare</b>	To build or erect a building or a structure, in this paragraph the koorero acknowledges the abundant natural resources that would assist this kaupapa.
<b>hapū</b> <b>hapuu</b>	Kinship group, clan, tribe, subtribe section of a large kinship group and the primary political unit in traditional Māori society. It consisted of a number of whānau sharing descent from a common ancestor, usually being named

	after the ancestor, but sometimes from an important event in the group's history. A number of related hapū usually shared adjacent territories forming a looser tribal federation (iwi). ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> )
<b>hauanga kai</b>	A Waikato exclusive word meaning ancient kai gathering areas that are still largely able to be accessed today.
<b>haukāinga</b> <b>haukaainga</b>	home, true home, local people of a marae, home people ( <a href="https://maoridictionary.co.nz/">https://maoridictionary.co.nz/</a> )
<b>hauora</b>	health / state of wellness
<b>hī tuna</b> <b>hii tuna</b>	(verb) to fish for eels
<b>hui</b>	gathering, meeting, assembly, seminar, conference ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> )
<b>iwi</b>	A number of hapū related through a common ancestor, a section of a large kinship group
<b>iwi taonga</b>	(treasures valued by Maaori) acknowledging the value that Maaori give to the various elements that make up the Maaori natural world.
<b>kai</b>	(noun) sustenance (food, water, etc.) (verb) to eat / consume
<b>kaimoana</b>	food from the sea
<b>kāinga</b> <b>kaainga</b>	(noun) home, address, residence, village, settlement, habitation, habitat, dwelling ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> )
<b>kaitiaki</b>	(noun) trustee, minder, guard, custodian, guardian, caregiver, keeper, steward ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> )
<b>kaitiakitanga</b>	Guardianship, including stewardship; the processes and practices of looking after the environment. Guardianship is rooted in tradition.

<b>karakia</b>	prayer
<b>kaumātua</b> <b>kaumaatua</b>	Adult, elder, elderly man, elderly woman, old man a person of status within the whanau ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> )
<b>kaupapa</b>	topic / issue
<b>kawa</b>	A specific protocol that pertains to an area or an iwi.
<b>kāwanatanga</b> <b>kaawanatanga</b>	governance
<b>kōrero</b> <b>koorero</b>	(verb) to tell, say, speak, read, talk, address  (noun) speech, narrative, story, news, account, discussion, conversation, discourse, statement, information  ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> )
<b>koroua</b>	elderly man / grandfather
<b>kuia</b>	elderly woman / grandmother
<b>mātaitai</b> <b>maataitai</b>	Fishing and collecting shellfish and other kaimoana / mātaitai is a hauanga kai historically and culturally significant.
<b>mahinga kai</b>	food gathering places (rivers, bush, sea, gardens etc)
<b>mana</b>	authority / status / prestige
<b>manaakitanga</b>	hospitality / generosity
<b>mana whenua</b>	The people of the land who have mana or customary authority; their historical, cultural and genealogical heritage are attached to the land and sea.
<b>Manatū Mō Te Taiao</b>	Ministry for the Environment

<b>manuwhiri</b>	visitor / guest
<b>Māori</b> <b>Maaori</b>	Mana whenua and mataawaka. One of the hereditary strands of the Austronesia nations. The native people of New Zealand.
<b>marae</b>	The enclosed space / courtyard in front of a meeting house where people gather. Often used to include the complex of buildings around the marae.
<b>maramataka</b>	Māori lunar calendar based on a 30-day cycle
<b>mātauranga</b> <b>maatauranga</b>	knowledge
<b>maunga</b>	mountain, mount or peak. Also refers to volcanic cones.
<b>mauri</b>	life force
<b>mihimihi</b>	introductory speeches
<b>moana</b>	sea / ocean / large lake
<b>mokopuna</b>	grandchild / descendant
<b>Nga taonga i tuku iho</b> <b>Ngaa taonga i tuku iho</b>	A treasure passed down through the generations, either tangible (whenua etc) or intangible (reo etc). heritage / cultural property / heirloom
<b>ōritetanga</b>	Equal rights and opportunities of all citizens as identified in Article 3 of the Treaty of Waitangi. In context of this document, it refers to mutual benefits.
<b>pā</b> <b>paa</b>	Māori settlements and villages
<b>Pākehā</b>	A New Zealander of European descent



<b>Paakehaa</b>	
<b>papakāinga</b> <b>papakaainga</b>	original home, home base, village, communal Māori land ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> )
<b>Papatūānuku</b>	Earth Mother
<b>pouka kai o Akarana</b>	the food bowl / food vessel of Akarana
<b>pou whenua</b>	A post placed prominently in the ground to mark possession of an area or ownership over it. Sometimes they were carved.
<b>puna</b>	freshwater springs
<b>rāhui</b> <b>raahui</b>	(Verb) To put in place a temporary ritual prohibition, closed season, ban, reserve - traditionally a rāhui was placed on an area, resource or stretch of water as a conservation measure or as a means of social and political control for a variety of reasons which can be grouped into three main categories: pollution by tapu, conservation and politics. Death pollutes land, water and people through tapu. A rāhui is a device for separating people from tapu things. After an agreed lapse of time, the rāhui is lifted. A rāhui is marked by a visible sign, such as the erection of a pou rāhui, a post. It is initiated by someone of rank and placed and lifted with appropriate karakia by a tohunga.  (Noun) flock, herd, mob, swarm, cluster  (Noun) bundle  ( <a href="https://maoridictionary.co.nz">https://maoridictionary.co.nz</a> )
<b>rangatahi</b>	youth
<b>rangatira</b>	chiefs
<b>rangatiratanga</b>	chiefly autonomy, chiefly authority, the right to exercise authority
<b>Ranginui</b>	Sky Father
<b>raupatu</b>	To take without the right to / to confiscate

<b>repo</b>	(Noun) swamp, bog, marsh ( <a href="https://maoridictionary.co.nz">https://maoridictionary.co.nz</a> )
<b>rohe</b>	region, district or area.
<b>taha wairua</b>	spiritual association
<b>Tāmaki Makaurau</b> <b>Taamaki Makaurau</b>	Auckland
<b>tangata whenua</b>	indigenous people of the land.
<b>taniwha</b>	(noun) water spirit, monster, dangerous water creature, powerful creature, chief, powerful leader, something or someone awesome - taniwha take many forms from logs to reptiles and whales and often live in lakes, rivers or the sea. They are often regarded as guardians by the people who live in their territory, but may also have a malign influence on human beings. ( <a href="https://maoridictionary.co.nz">https://maoridictionary.co.nz</a> )
<b>taonga</b>	A treasured item. It can be tangible or intangible.
<b>Te Mānukanuka o Hoturoa</b> <b>Te Maanukanuka o Hoturoa</b>	The Manukau Harbour
<b>Te Tiriti o Waitangi</b>	The Treaty of Waitangi
<b>tikanga o te ao Māori</b> <b>tikanga o te ao Maaori</b>	Māori customs and lore
<b>tikanga</b>	customary lore and practice, Māori protocols
<b>tino rangatiratanga</b>	self determination
<b>tohu</b>	The wider cultural landscape acknowledges wider significant iwi land marks and the ability to inform the design of projects.

<b>tohunga</b>	expert, specialist
<b>tuna</b>	(noun) eel of various species, including the longfin eel ( <i>Anguilla dieffenbachii</i> ) and shortfin eel ( <i>Anguilla australis</i> ). ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> )
<b>tupuna/tūpuna (pl)</b>	ancestors
<b>tupuna Maunga</b>	ancestral mountain
<b>tupuna taonga</b>	living entities that commanded respect
<b>tūrangawaewae</b> <b>tuurangawaewae</b>	a place to stand
<b>urupā</b> <b>urupaa</b>	burial ground, cemetery, graveyard ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> )
<b>wā kāinga</b> <b>waa kainga</b>	tribal communities
<b>wāhi noho</b> <b>waahi noho</b>	summer sites
<b>wāhi nohoanga</b> <b>waahi nohonga</b>	encampments, fishing stations
<b>wāhi taonga</b> <b>waahi taonga</b>	natural and physical resources
<b>wāhi tapu</b> <b>waahi tapu</b>	Sacred place, sacred site – a place subject to long-term ritual restrictions on access or use, e.g. a burial ground, a battle site or a place where tapu objects were placed. ( <a href="http://maoridictionary.co.nz/">http://maoridictionary.co.nz/</a> ).
<b>wai</b>	water

<b>waiora</b>	health, wellbeing
<b>wairua</b>	spirit / soul
<b>waka</b>	An ancestral canoe that people of Māori descent trace their origins to. In modern terms, a waka is a vehicle or mode of transport.
<b>whakapapa</b>	genealogy that links us to our ancestors. (Io, Rangi and Papa)
<b>whakatupua</b>	To raise or grow, in this context to grow food.
<b>whānau</b> <b>whaanau</b>	family, the smallest social unit of Māori groupings.
<b>whānau ora</b> <b>whaanau ora</b>	safe and healthy
<b>whanaunga</b>	(noun) relative, relation, kin, blood relation ( <a href="https://maoridictionary.co.nz">https://maoridictionary.co.nz</a> )
<b>whare oranga</b>	health units on marae
<b>whāriki</b> <b>whaariki</b>	(noun) floor covering, ground cover, floor mat, carpet, mat ( <a href="https://maoridictionary.co.nz">https://maoridictionary.co.nz</a> )
<b>whenua</b>	land, country, earth, ground