Boffa Miskell

MASTERPLAN

KIMIHIA LAKES DEVELOPMENT

FEBRUARY 2021

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Cover photograph: Kimihia Lakes Development Site, © Bryan Sanson, 2019

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KIMIHIA OPEN PIT COAL MINE (1955)

EXECUTIVE SUMMARY

PROJECT OVERVIEW

The site, located between McVie Road and the new Waikato Expressway, is approximately 200 hectares comprising an area that was originally the bed of Lake Kimihia, which was partly drained and then mined for coal from the 1950s until 2015. Most of the mine infrastructure has now been removed and the open cast pit is now refilling with stormwater and groundwater from the wider catchment.

'Fill it...and they will come'

The above is a quote from the development project team is premised on the belief that if those with the vision and strength to develop the retired mine site, will provide the catalyst to draw the community back and restore the mana for all to enjoy. Metephorically this refers to the aspect of as the lake slowly rises (fills up) so returns the mana and the people.

The closed Huntly East Mine site was purchased by the Kimihia Lakes Development Team (Client) with a vision of developing the majority of this land as a destination multi-purpose recreation, education and natural park and provide an environmental and economic legacy for the benefit of the Huntly community and Waikato region.

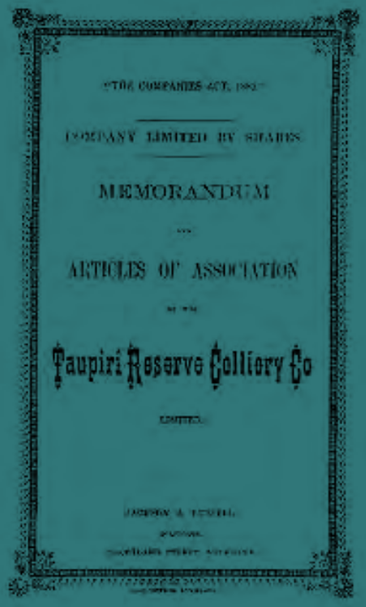
The central premise to the park is the re-instatement and restoration of the historical Kimihia Lake and to enhance the wider environment, through education, experience and involvement. The scale of this vision is vast, as is the landholding area involved, which enables the development of a facility that is not only for the Huntly community, but as a regionally significant tourist attraction.

The site will be publicly accessible, but not publicly owned; as such it will not be subject to the usual constraints of a council or central government owned reserve. It will be capable of activation to provide a significant range of recreation, education, and commercial tourism activities on one site, at a larger scale than is typical of other similar sized lakes in the North Island.

The planned residential development on the north facing hillside looking over the mine site is a secondary objective, aimed at providing a source of capital for the development of the recreation and events park activities. It is likely that a development partner will be involved in the residential development. This will contribute to government objectives of increasing housing supply, which is in demand regionally.

The Project is also strategically aligned with the outcomes sought within the central government led Hamilton to Auckland Corridor Plan (H2ACSP)3, the Vision and Strategy for the Waikato River, the Waikato-Tainui Environmental Plan and Te Waka's Waikato Regional Economic Development Programme 2018-2020. During the past year the Kimihia Lakes Development Team has engaged with several potential user groups, community stakeholder organisations (e.g. Huntly Community Board, Sport Waikato, Hamilton-Waikato Tourism, Momentum Waikato, Karioi Trust), and commercial operators to develop initial plans for the type, scale and location of activities and facilities on the site.

KIMIHIA LAKES DEVELOPMENT SITE (2019)



THE COMPANIES ACT, 1903

COMPANY LIMITED BY SHARES

MEMORANDUM

AND

ARTICLES OF ASSOCIATION

OF THE

Taupiri Reserve Colliery Co

LIMITED.

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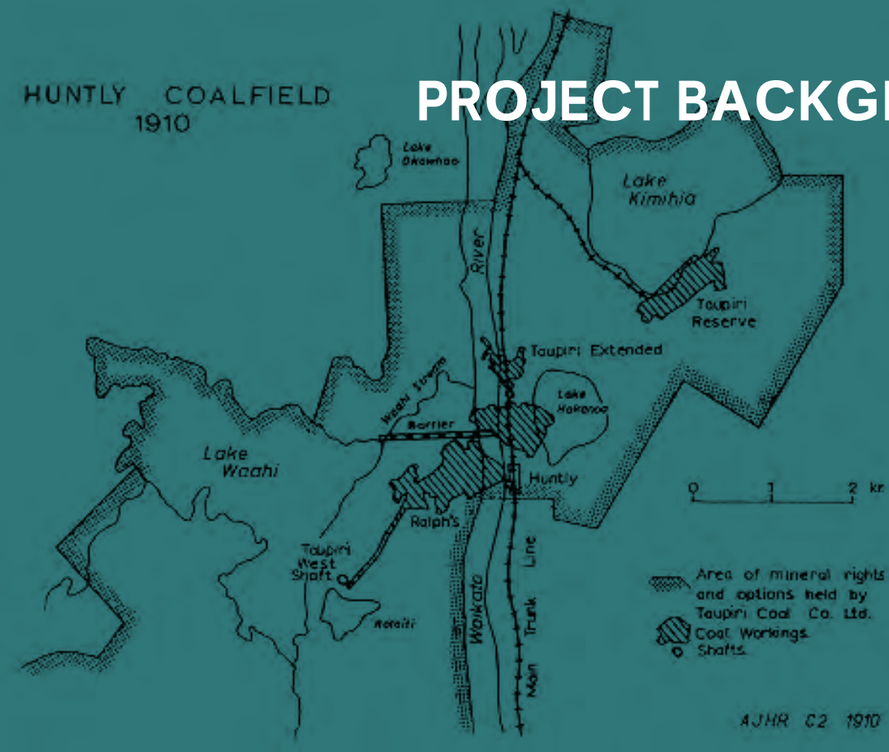
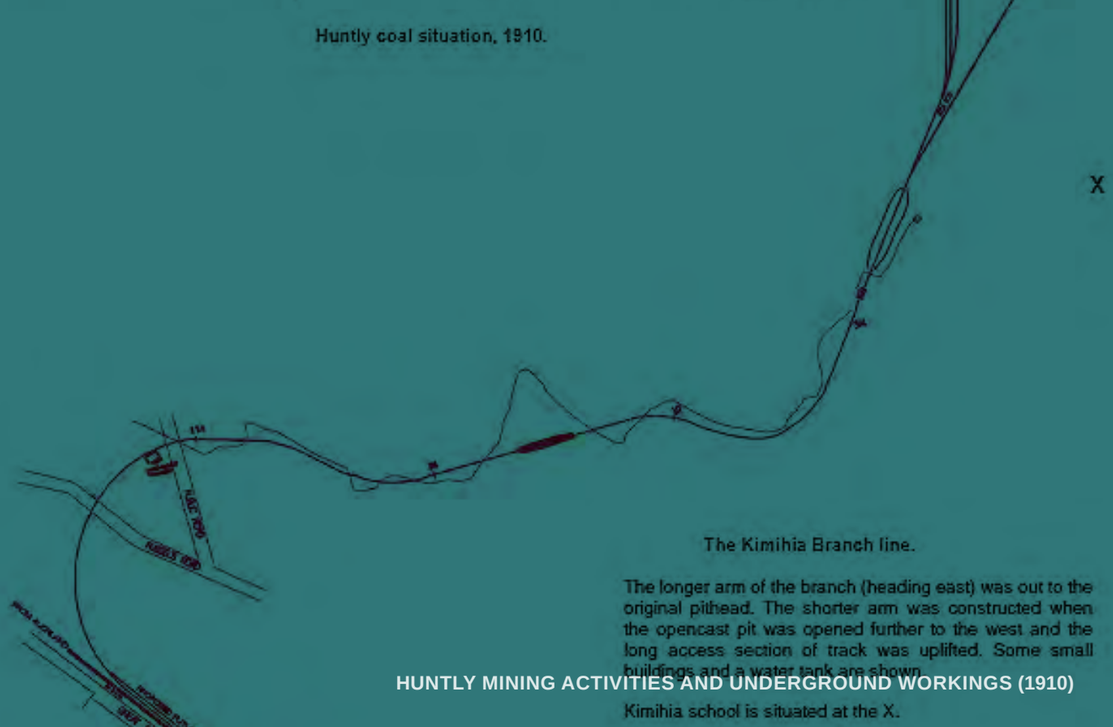
PROJECT BACKGROUND



Huntly coal situation, 1910.



The Kimihia Branch line.

The longer arm of the branch (heading east) was out to the original pithead. The shorter arm was constructed when the opencast pit was opened further to the west and the long access section of track was uplifted. Some small buildings and a water tank are shown.

Kimihia school is situated at the X.

HUNTLY MINING ACTIVITIES AND UNDERGROUND WORKINGS (1910)

PROJECT BRIEF

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PROJECT VISION

"He pikinga roto, he hikinga waka - A rising lake lifts all boats".

The principled approach of the Kimihia Lakes Development Masterplan ('The Project') is premised on the mantra that was first quoted by Norm Hill of Waahi Whanui (ex. Boffa Miskell Limited). This quote affirms the belief that if all involved work towards supporting a common vision, it will ensure everyone rises together and successfully realise the dream.

The scope of the Project has two components:

- Development of the Kimihia Lakes Recreation and Events Park; and
- Residential development on land overlooking the park.

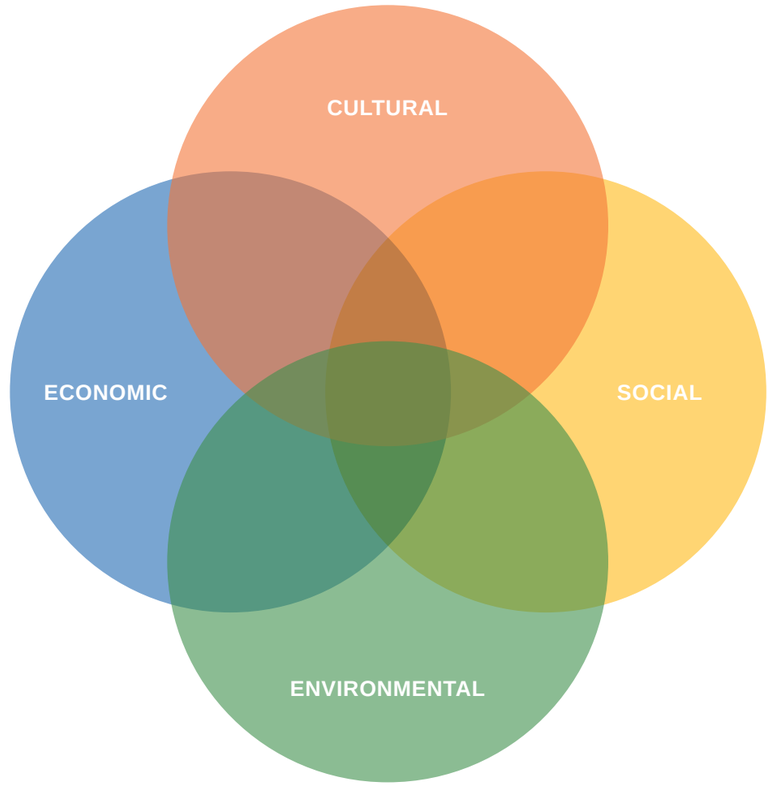
The primary vision is the development of the recreation and events park including the rehabilitation and restoration of the site, the development of complementary activities including water-based recreation (swimming, kayaking, waka ama), music and other speciality events, overnight accommodation, a coalfields museum, cultural interpretation, an outdoor education centre (offering environmental and physical education skills training), and informal use of the site for other activities such as walking, cycling and picnicking.

The rehabilitation of the site will be programmed to align with the progressive filling of the lake which is estimated to take between five to 10 years. The rehabilitation will recreate some of the former ecological values of Kimihia Lake and recognise the cultural values that remain in this area. Rehabilitation work will comprise riparian plantings alongside the future lake edge, and amenity and ecological restoration of the streams, wetlands and bush clad gullies on the lake surrounds. The residential development area is within the overall catchment rehabilitation programme and will be designed as a fully integrated 'village eco system'.

PROJECT OBJECTIVES

The Project has the following objectives, to achieve the Project Vision:

1. Restoration and enhancement of the natural environmental qualities of the lake and its source catchment;
2. Provide a publicly accessible and high amenity recreation facility for the Huntly community that contributes to the 'lake network' in the district (e.g. allowing certain events to be spread across them);
3. Offer outdoor education and recreation experiences to primary and secondary school students from Huntly and rangatahi in the Waikato-Tainui rohe, as well as students in the wider catchment of Waikato District and urban centres of Hamilton and Auckland
4. Provide skills training opportunities for local youth on-site (e.g. through 'on the job' training or as part of school/tertiary education courses), in environmental restoration, construction, hospitality, and the operation of commercial recreation activities;
5. Generate new employment opportunities and income for the local workforce and attract visitors from outside the Hamilton-Waikato District to contribute to growth of the local economy;
6. Put Huntly 'on the map' of a trail of tourism destinations along the Hamilton -Auckland corridor;
7. Provide a complementary destination to various cultural tourism projects centred on the Waikato River, which are currently being pursued by other parties. The park's cultural heritage role will be to show respect for its mining history (including the local miners who were predominantly of Māori or European descent). The centrepiece facility will be an existing coalfields museum planned to be relocated to the site (occupying the former Huntly railway station).
8. Co-ordinate and co-operate activities with neighbouring facilities/ activities including Huntly Speedway, Huntly Gun Club, Rotongaro-Huntly Pony Club, Huntly Half-Marathon, Hakanoa Lake walkway, and the accessible by Expressway Hampton Downs Raceway, the Jet Sprint Boats and Dragstrip at Meremere, Cambridge Avantidrome and Karapiro Rowing Centre.



"HE PIKINGA ROTO, HE HIKINGA WAKA -

A RISING LAKE LIFTS ALL BOATS."

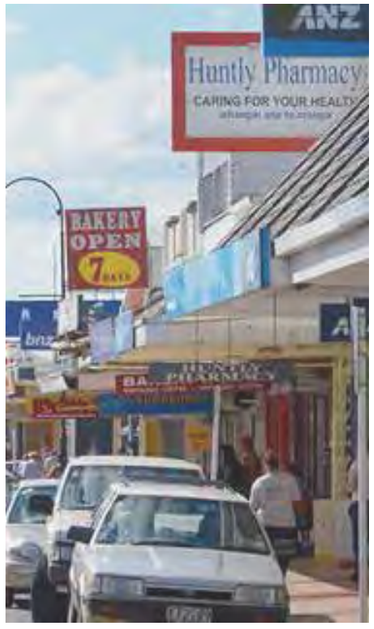
STAKEHOLDERS

IWI | HĀPU

Iwi & hāpu groups as Mana Whenua of the rohe in which Huntly / Raahui Pookeka and Kimihia Lake are contained.

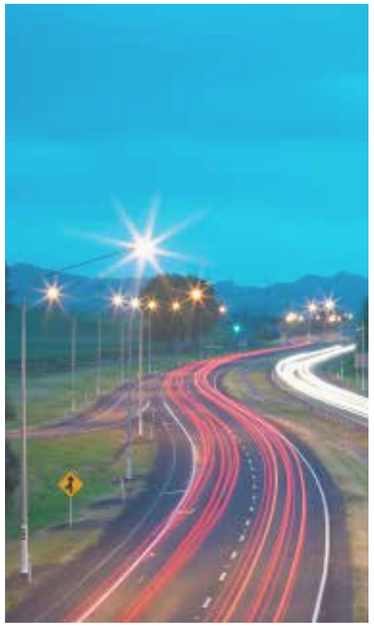
HUNTLY COMMUNITY

The people of Huntly; of all ages, gender, ethnicity and occupation, who live, work, learn and play in Huntly.



BUSINESS OPERATORS

Huntly business and education owners and operators, and other businesses and business people with interests in Huntly.



WAKA KOTAHI / NZTA

The national transport authority, which has delivered the Waikatō Expressway and possible links to Huntly.

LOCAL GOVERNMENT

Waikatō District Council, comprised of staff, Group Managers, Councillors, the CEO and Mayor.

CENTRAL GOVERNMENT

Government Departments and Ministers, including Treasury, Transport, Regional Development and Conservation.

PROJECT TEAM

Boffa Miskell

ROLES & RESPONSIBILITIES

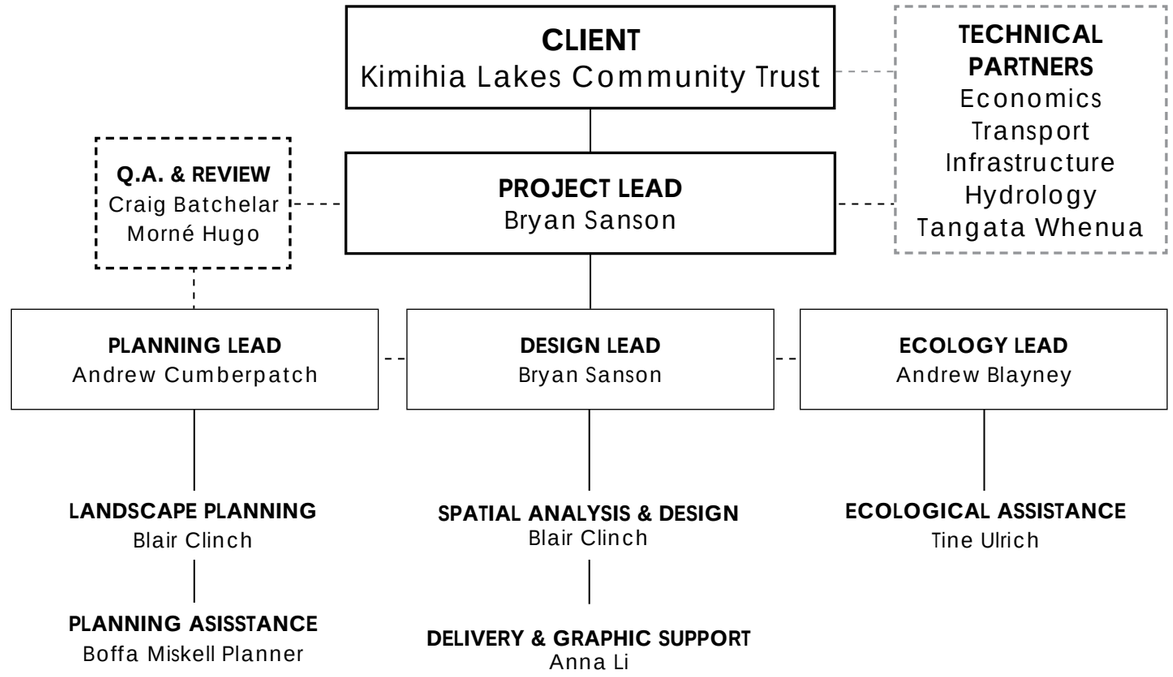
Bryan Sanson is the Project Lead in delivering the Kimihia Lakes Development Masterplan. Bryan is the key point-of-contact for the client; Kimihia Lakes Community Trust, and is responsible for arranging collaboration and engagement with key stakeholders.

Bryan is supported in the delivery of this visionary and ambitious masterplan by an experienced Project Team, with Andrew Cumberpatch providing planning leadership, and Andrew Blayney leading the ecological restoration component. Bryan is the design workstream lead.

The leaders are supported by an experienced team; efficiently delivering high-quality documentation that conveys the strategic and spatial intent of The Project.

Craig Batchelar and Morné Hugo provide Quality Assurance and Review; bringing their vast experience in Spatial Planning and Design to challenge any assumptions, to ensure that the developing and final masterplan is founded on a strong rationale, and representative of the Project Vision, Objectives, and international best-practice.

Technical Partners have provided expertise relating to the economic viability of The Project, and the hydrology and likely final lake level, through a Catchment Assessment. These Partners, along with any other required technical fields, will be drawn upon throughout the development of the masterplan and beyond, providing rigor and integrity to the proposal, through a collaborative and coordinated approach.



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Quality Assurance & Strategy Review

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Associate Partner | Landscape Architect
Quality Assurance & Design Review

WORKSTREAMS

TRANCHE ONE - MASTERPLAN

Tranche One consists of the three initial workstreams in order to gain a better understanding of the site and its surroundings. These workstreams are the Catchment Assessment (undertaken by Tonkin & Taylor), the Development Business Case (by Strateg.Ease), and finally the Concept Masterplan of the Project site (by Boffa Miskell Ltd) which is what this document is. The intent of the Masterplan document is to:

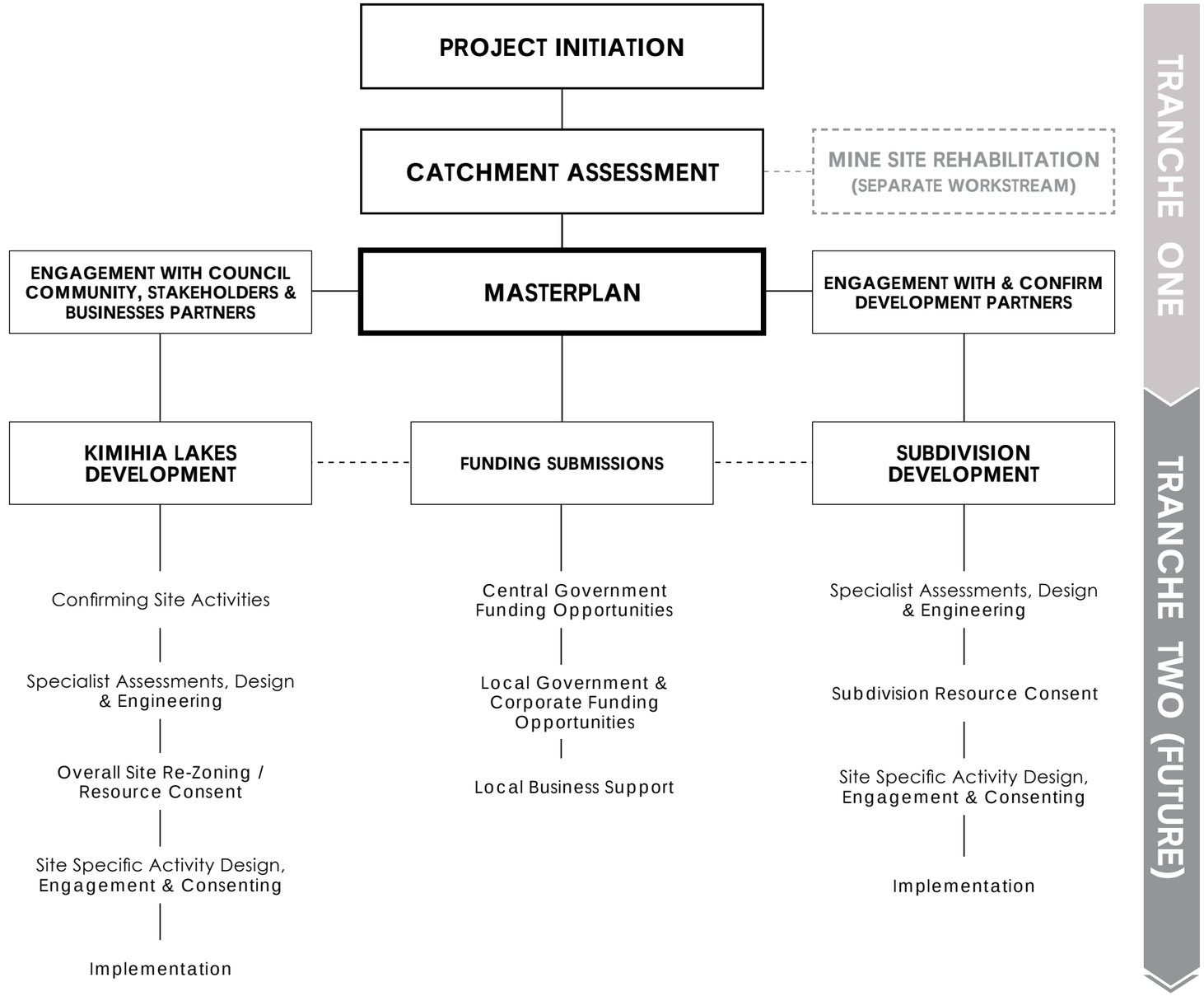
- Capture the vision for park development, the range and scale of associated activities and their arrangement on the site;
- Provide a visual aid for funding applications (both regional and national) and further developing Project partnerships;
- Provide a platform for on-going stakeholder engagement on the Project;
- Support the current submission on the Proposed Waikato District Plan and inform subsequent stages of the Waikato District Plan Review process; and
- Provide a framework for the coordination and delivery of the site rehabilitation programme.
- Providing guidance around current and future workstreams

TRANCHE TWO (FUTURE)

Tranche Two expands on the foundation work from the Catchment Assessment and Masterplan in Tranche One and identifies key areas of focus for the next phase of works.

A preliminary diagram of what these workstreams could be and how they may be structured are illustrated in the adjacent flow diagram. These workstreams are indicative only and subject to refinement and change as we move through the process.

These future workstreams become more focused, technical and help focus resources and decision making with the intention of final built form and development implementation.



NATIONAL POLICY STATEMENTS

National Policy Statements (NPS) enable government to prescribe objectives and policies for matters of national significance which are relevant to achieving the sustainable management purpose of the RMA.

The NPS for Urban Development Capacity (NPS UDC) recognises the significance of well-functioning urban environments, with particular focus on ensuring that local authorities through their planning, both:

- Enable urban environments to grow and change in response to the changing needs off the community and future generations, and
- Provide enough space for their populations to happily live and work, including releasing land in greenfield areas.

It is noted that a new NPS on Urban Development (the NPS-UD), which was under consultation between August-October 2019 and is understood to be in effect by mid-2020, will replace the existing NPS UDC.

The NPS for Freshwater Management (NPS-FM) requires regional councils to set objectives for the state of the fresh water bodies in their regions and to set limits on resource use to meet these objectives. The NPS-FM sets national bottom lines for freshwater management units which are not standards to aim for, but rather the minimum state that must be maintained and improved over time.

NATIONAL ENVIRONMENTAL STANDARDS

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) ensures that land affected by contaminants in soils is appropriately identified and assessed before it is developed, and if necessary, is remediated or the contaminants contained to make the land safe for human use. The NESCS makes reference to activities in the Hazardous Activities and Industries List (HAIL), and will be relevant to the site as a historic coal mine; an activity specified on the HAIL list.

The National Environmental Standard for Sources of Human Drinking Water sets requirements for protecting sources of human drinking water like a lake, river or groundwater, from being contaminated. The standard applies to source water before it is treated and only sources that supply drinking water for people, and as such will be a relevant consideration if the lake is intended to be used in the future as a water source.

WAIKATO REGIONAL POLICY STATEMENT

The Regional Policy Statement (RPS) provides an overview of the resource management issues in the Waikato Region and the ways in which integrated management of the region's natural and physical resources will be achieved. The RPS sets the overall regional direction for the Waikato by providing a sustainable framework to help achieve community aspirations over a 10-year period.

The RPS identifies future growth areas throughout the region and sets policies and methods to ensure this growth is met in an integrated manner. The residential growth allocation for Huntly between 2006 and 2061 is expected increase from 6,915 to 12,2275 with an average density target of 12-15 households per hectare . Despite a small portion of the Kimihia Lakes site being allocated towards residential land use, it will contribute to meeting the demand for housing in Huntly.

VISION AND STRATEGY FOR WAIKATO RIVER

The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 gives effect to the Deed of Settlement signed by the Crown and Waikato-Tainui on 17 December 2009 and has an overarching purpose to restore and protect the health and wellbeing of the Waikato River for future generations.

Section 9(2) of the Settlement Act confirms that the Vision and Strategy for Waikato River (Te Ture Whaimana o Te Awa o Waikato) applies to the Waikato River and activities within its catchment affecting the Waikato River.

As well as being deemed part of the Waikato Regional Policy Statement in its entirety pursuant to Section 11(1) of the Settlement Act, the Vision and Strategy prevails over any inconsistent provision in a national policy statement, and Sections 11 to 15 of the Settlement Act prevail over Sections 59 to 77 of the RMA.

RESOURCE MANAGEMENT ACT RESPONSIBILITIES

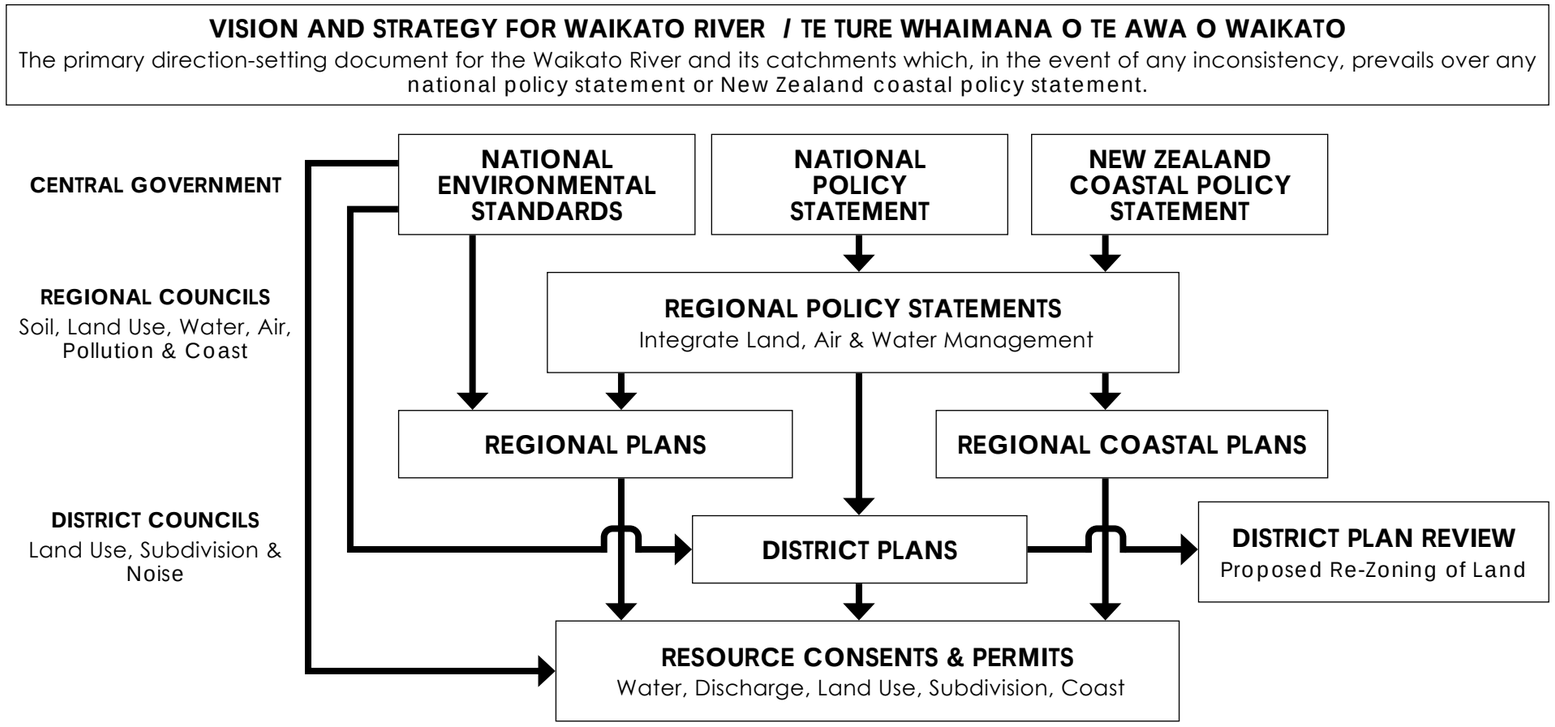
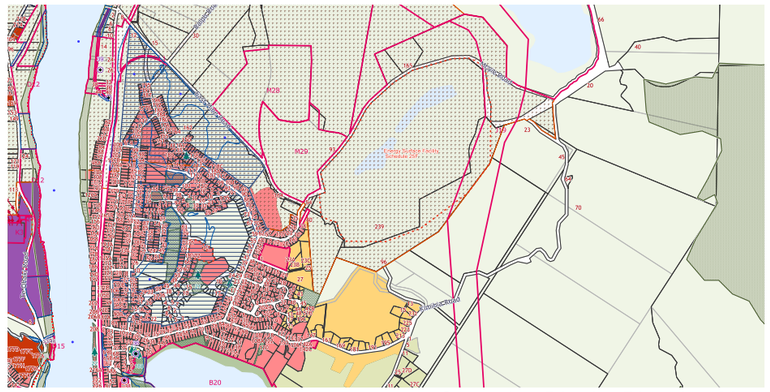


Diagram Above: Planning Instruments under the Resource Management Act 1991

DISTRICT PLAN ZONING

OPERATIVE

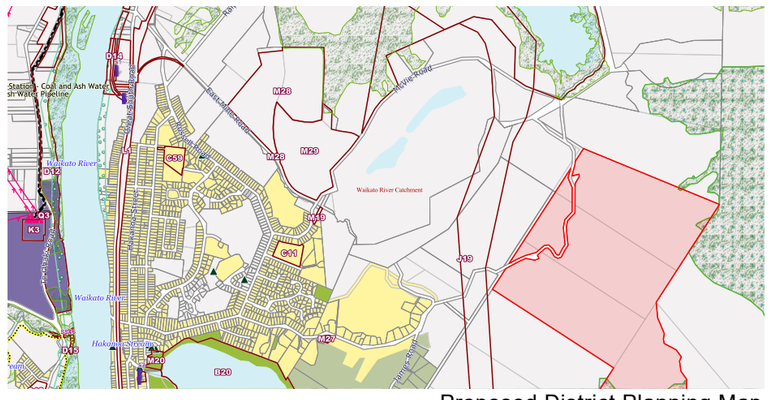
Under the Operative Waikato District Plan the site is predominantly zoned Rural, with New Residential Zoning in the south of the site, the Coal Mine Policy Area overlaying the extent of the former mine, the Energy Surface Facility overlaying the majority of the site and Designation J19 (Waikato Expressway) through the eastern portion of the site. The neighbouring north-western site is designated by Waikato District Council for landfill/ refuse purposes.



Operative District Planning Map

PROPOSED

The Waikato District Plan is currently being reviewed with the Proposed Waikato District Plan (PDP) notified in July 2018. The zoning under the Proposed District Plan is similar to the operative zoning, however the Energy Surface Facility and Coal Mine Policy Area overlays have been removed, so that the site is zoned predominantly Rural and the previous New Residential Zone renamed to Residential.



Proposed District Planning Map

SUBMISSION TO PDP

In October 2018, Kimihia Lakes Development Team made a submission to the PDP seeking to introducing a specific zone called the Kimihia Lakes Recreation & Events Zone. The zone proposes to include only that land and lake that is privately owned and excludes the existing lake owned and managed by the Department of Conservation. The central premise to the park is the re-instatement and restoration of the historical Kimihia Lake and to enhance the wider environment, through education experience and involvement. The vision for the landholding is that it will be developed not only as a facility for the Huntly Community, but also as a regionally significant tourist attraction.

The submission incudes proposed district plan provisions to enable the development including objectives, policies, rules and activity specific conditions. The District Plan Review is currently at the hearings stage of the plan review process.

RESOURCE CONSENTS

REGIONAL PLAN

Resource consent may also be required from Waikato Regional Council. Activities such as land disturbance and vegetation clearance, water takes and stormwater diversion and discharges normally require resource consent depending on the scale of works. It is likely that permits will be required to take and store water for potable water supply and discharges of stormwater and wastewater. The site will likely need to be re-contoured and shaped to be better suited to the future uses of the area. Activities like culverts, bridges and erosion control will require a land use consent from the Waikato Regional Council.

DISTRICT PLAN

Depending on timing, any resource consents required arising from the master plan will be assessed under the operative provisions of the Waikato District Plan, the rules in the Proposed District Plan with immediate legal effect and potentially rules within any future Kimihia Lakes Recreation & Events Zone.

STRATEGIC CONTEXT

HAMILTON TO AUCKLAND CORRIDOR

The Hamilton to Auckland Corridor plan is a joint agency initiative to provide better planning and funding for infrastructure in the corridor between Auckland and Hamilton. The project will develop a spatial plan and establish an ongoing growth management partnership for the corridor which accelerates identified transformational opportunities; outlines key housing, employment, social, environmental and network infrastructure priorities over the next 30 years; and identifies planning, development, infrastructure, mitigation and restoration works required and funding and legislative projects.

WAIKATO EXPRESSWAY

Construction of the Huntly section of the Waikato Expressway commenced in 2015 and is now operational, opening in March 2020. At this stage the Expressway designation does not include any on or off-ramp connections to Huntly, however the community's desire for an interchange off the Expressway connecting to Huntly has been expressed and highlighted in Waikato 2017 and the Waikato Blueprint.

WAIKATO 2070

Waikato 2070 is the long term (50 year) growth and economic development strategy (draft) for the Waikato District. It will inform how, when and where growth occurs in the district over the next 50 years and aims to achieve Council's vision of creating and nurturing liveable, thriving and connected communities. The strategy combines economic and community development aims with future land use infrastructure planning and growth patterns.

The Huntly and Ohinewai Development Plan identifies the Kimihia Lakes area as:

- Having a development timeframe of 3-10 years.
- Being a 'Special Activity Precinct' for 'Recreational Purposes' only.

BLUEPRINT

The Waikato District Blueprint provides a high-level 'spatial picture' of how the district could progress over the next 30 years, and addresses the community's social, economic and environmental needs, and responds to its regional context. The Blueprint works to achieve the overall vision of the Council for the district – "liveable, thriving and connected communities". Themes were identified in the Blueprint and 15 Local Area Blueprints developed based on community workshops.

The Blueprint identifies the top priority initiatives for Huntly as being:

- Building a strong identity for the town.
- Promoting a Puketirini and Kimihia Employment, Skills and Technology cluster.
- Promoting a Puketirini and Kimihia Building Fabrication Construction cluster.
- Supporting the central interchange off the Waikato Expressway.

The preparation of a strategy for the clean-up for the lakes and addressing any other environmental issues resulting from mining activity is identified as a high priority for the community.

0 SITE BACKGROUND

KIMIHIA COAL MINE (1901)

REGIONAL CONTEXT

Boffa Miskell

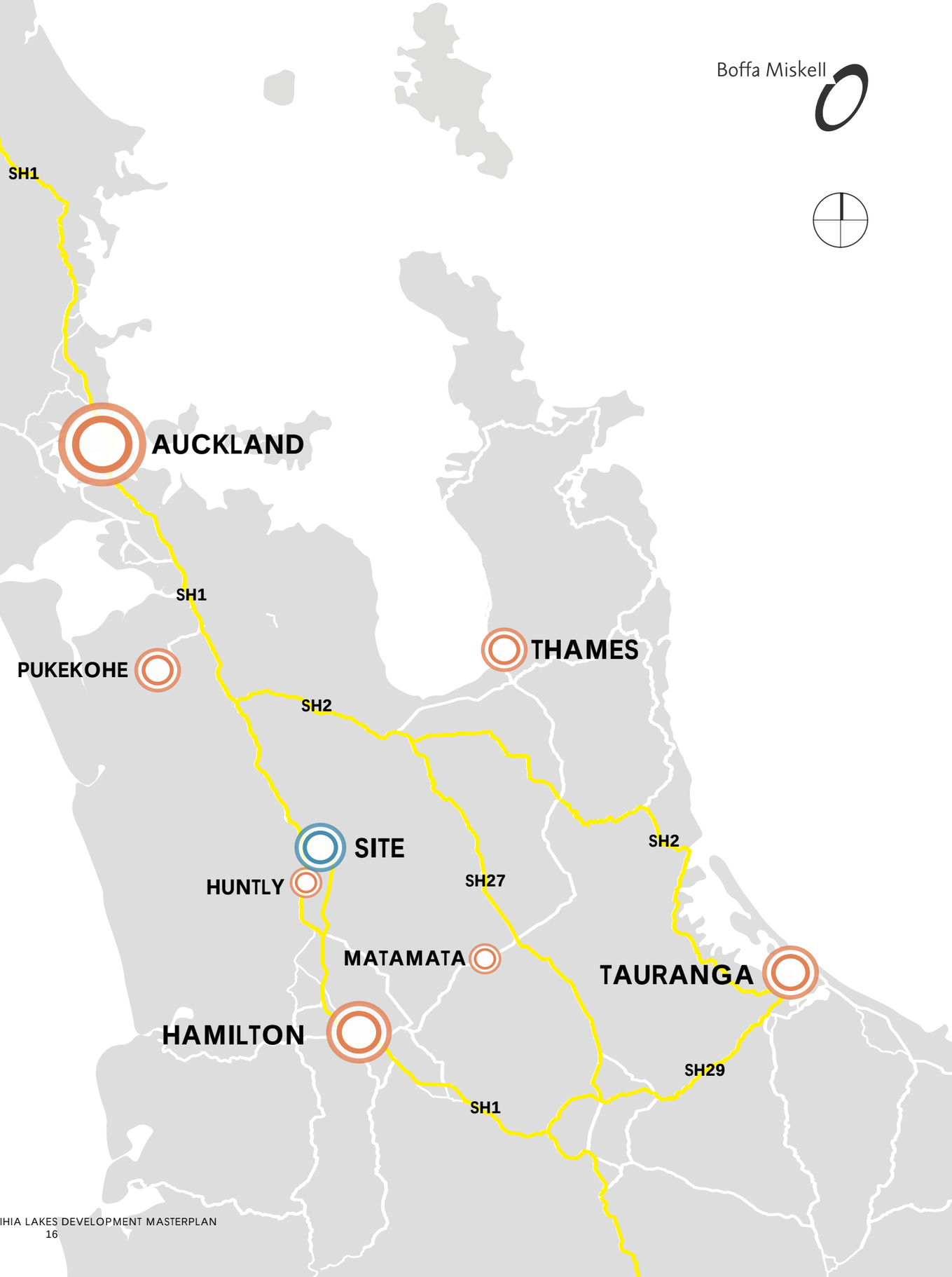
INTRODUCTORY BACKGROUND

The Site, located in Huntly, is within the convergence of the three major centres of Auckland, Hamilton and Tauranga; commonly referred to as “The Golden Triangle”.

The Golden Triangle represents the strong spatial, tourism and economic connectivity between these centres. The centres function independently, while benefiting from a mutually-beneficial, inter-connected relationship, that has driven significant growth, through increased development, employment, tourism, infrastructure and social, environmental and cultural investment.

Improved spatial connectivity, through large-scale infrastructure projects, like the Waikatō Expressway, has changed the face of how the larger centres operate, and how the surrounding smaller towns and rural areas fit into the wider-picture - serving as distinct destinations in their own right, providing unique offerings, outside of the large, urban centres.

Real and projected population, visitor and GDP increases in the Waikatō Region means a continued and concerted approach to supporting people and place is required, to ensure positive and enduring environmental, social, economic and cultural outcomes are achieved, complementary and enduring.



SITE CONTEXT

Boffa Miskell

The Site is located in Huntly, contained by McVie Road to the north, the Waikato Expressway (SH1) to the east, and Kimihia Road to the south. The northern extent of Huntly, and residential suburb of Kimihia straddle the western edge of The Site.

There is diversity in land use surrounding The Site, with residential development and public open space areas to the west, the commercial centre of Huntly to the southwest, wastewater treatment facility to the northwest, speedway and Lake Kimihia to the northeast, and rural farmland to the west and south. There is also the proposed new large scale multi-zone Sleepyhead Development at Ohinewai, directly north.

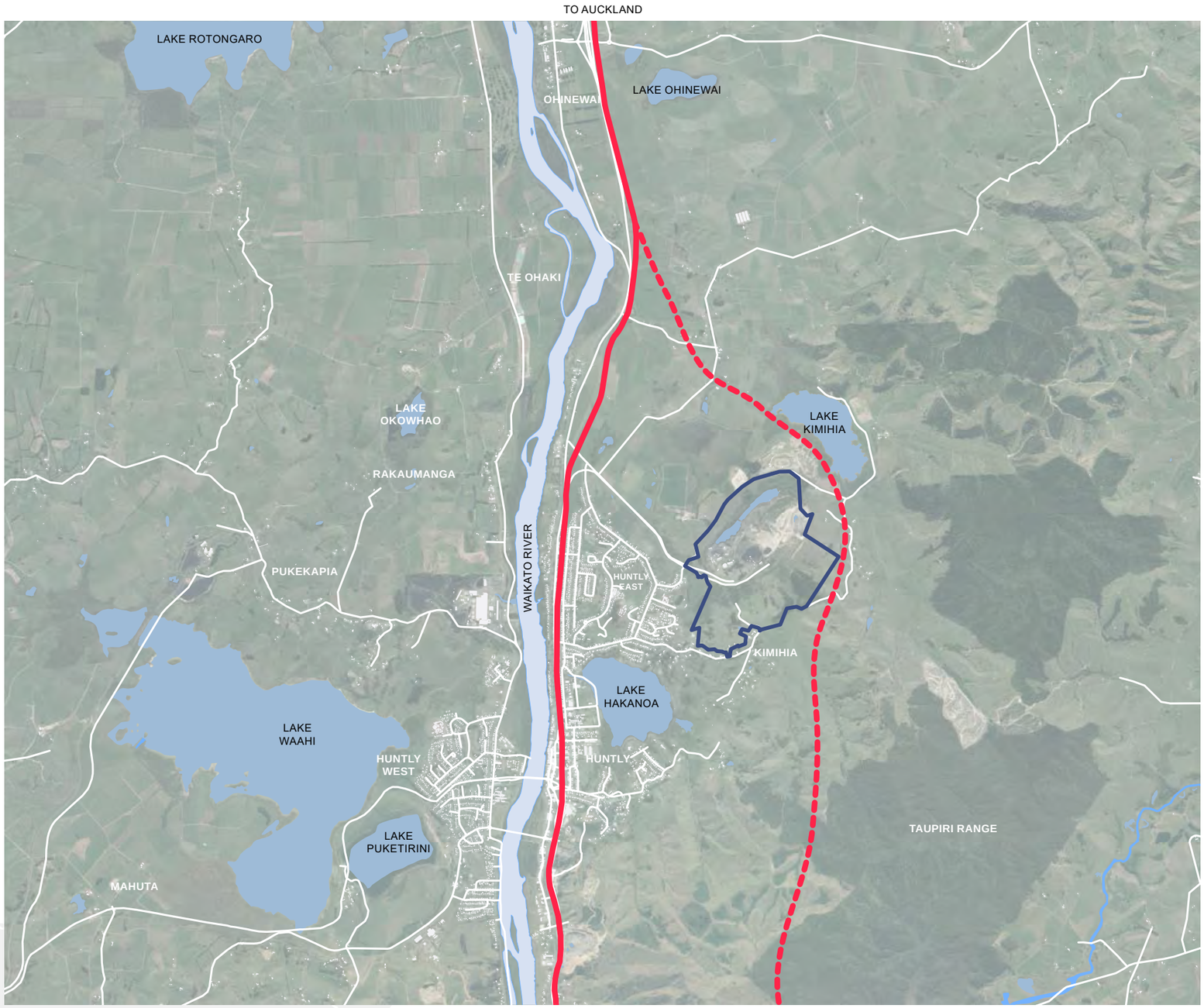
The Waikato River flows to the west of The Site, with the main street of Huntly positioned on the eastern edge, and the Huntly power station on the western edge. The Site contributes to the broader Waikato lakes landscape, with a number of lakes, both natural and man-made (through open-cast mining) scattered throughout the flat agricultural planes.

Access to The Site is via McVie Road, East Mine Road and Tawa Road, connecting to Huntly and the wider Waikato District.

The Site is approximately 200 hectares in size, with variable topography, comprising farmland, native and exotic vegetation, and the former Huntly East open-cast and drift mine, that is no longer in operation. The former mine site occupies the northern half of The Site, contained within what was once an area of Kimihia Lake bed.

Most of the Waikato lakes are of poor water quality, poor ecological condition and home to a variety of native and non-native fish, including a large populations of koi carp, an exotic pest species. They are also mostly shallow (1-3m depth) and not suited to a number of recreation activities. The one local lake that differs is Lake Puketirini, a 54ha lake with a depth of 64m and the site of the old Weavers opencast mine pit. Puketirini is accepted as having good quality water suitable for water activities.

The New Kimihia Lake is expected to have similar water quality and depth Puketirini, but will be well over 1km in length, therefore making it more suitable to specific water sports and events.



LEGEND

- SITE
- STATE HIGHWAY 1 (CURRENT ALIGNMENT THROUGH HUNTLY)
- NEW WAIKATO EXPRESSWAY (HUNTLY BYPASS)
- WATER BODY (LAKE / RIVER)

SITE CONTEXT PLAN | KIMIHIA LAKES DEVELOPMENT

RĀHUI PŌKEKA

Rāhui Pōkeka is the original name for the Huntly area. European migrants arrived in the area some time in the 1850s. The name Huntly was adopted in the 1870s when the postmaster named it after Huntly, Aberdeenshire in Scotland.

The railway from Auckland reached Huntly in 1877, when the Huntly railway station was opened.

Huntly and its surrounding area is steeped in Māori history and falls within the rohe (tribal area) of Waikato-Tainui of the Tainui waka confederation. Ngati Mahuta and Ngati Whawhakia are the subtribes in the Huntly area.

There are a number of marae in and around Huntly, affiliated with the Ngāti Kuiaarangi, Ngāti Mahuta, Ngāti Tai and Ngāti Whāwhākia hapū: Kaitumutumu Marae and Ruateatea meeting house, Te Kauri Marae and Karaka meeting house, Te Ōhākī Marae and Te Ōhākī a Te Puea meeting house, and Waahi Pa and Tāne i te Pupuke meeting house.

Waahi Pa was the home of the late Māori Queen Dame Te Atairangikaahu and is still the home of her son, the Māori King Tuheitia Paki.

Horahora Marae and Maurea Marae are located north of Huntly at Rangiriri.

Huntly is home to Rakaumanga Kura which became one of the first bilingual schools (Māori/English) in New Zealand in 1984. Rakaumanga became a kura kaupapa (total immersion, Māori as its first language) in 1994 and is now known by the name Te Whare Kura o Rakaumangamanga. The school was first established as a native school in 1896.

ENGAGEMENT & PARTNERSHIPS

Earlier engagement with local iwi representatives,Waahi Whaanui and Waikato-Tainui has been undertaken in an informal and formal manner by the Project development team. This is in line with the belief of including all potential community groups, genuine stakeholders and traditional guardians of the land from the onset of the development on the pretext of better outcomes will be achieved with strong collaboration with iwi.

There is a strong desire by the Project development team to ensure there is a continued and meaningful engagement process with local iwi and that the cultural narrative informs and is illustrated throughout the development.

WAIKATO-TAINUI ENVIRONMENTAL PLAN (2013)

INTRODUCTORY BACKGROUND

Prior to the land wars and resulting confiscation of Waikato-Tainui lands in 1863, Waikato-Tainui marae, hapuu, and iwi exercised mana whakahaere without challenge. Mana whakahaere refers to the authority that Waikato-Tainui has established in respect of the Waikato-Tainui rohe over many generations. Mana whakahaere entails the exercise of rights and responsibilities to ensure that the balance and mauri (life force) of the rohe is maintained. It is based in recognition that if we care for the environment, the environment will continue to sustain the people.

In customary terms mana whakahaere is the exercise of control, access to, and management of resources within the Waikato-Tainui rohe in accordance with tikanga. For Waikato-Tainui, mana whakahaere has long been exercised under the mana of the Kiingitanga. Waikato-Tainui managed its resources, including the fisheries and lands, in a sustainable manner, guided by maatauranga, tikanga and kawa. Traditional management was successful in that it ensured the following:

1. **Manaakitanga:** Waikato-Tainui was able to provide sustenance for all manuwhiri that arrived in the rohe.
2. **Kiingitanga:** The appointment of Pootatau Te Wherowhero as the first Maaori King was not only based on his whakapapa, exceptional skills as a warrior, and intricate knowledge of te Ao Maaori (the Maaori World), but also in recognition of the rich resources he commanded from the surrounding environment.
3. **Tikanga:** Management of resources ensured that Waikato-Tainui could continually provide for Waikato-Tainui and all manuwhiri. The tools required to sustain resources was encapsulated in tikanga. Tikanga ensured that, during customary gatherings, acknowledgement was provided to the domain of the various Atua to respect the mutual relationship and guarantee a successful bounty for the following years. Tikanga embodies all aspects of mana whakahaere.
4. **Kaitiakitanga:** Waikato-Tainui has a responsibility to protect and nurture the mauri of all living things. The exercise of kaitiakitanga recognises the intricate balance and integral relationship between all natural resources.

Photo: Huntly from the Hakarimata Walkway lookout

Map of Waikato-Tainui Marae (Waikato-Tainui College of Research & Development)

Photo: Waahi Marae (Source: www.maorimaps.com)

MINING HISTORY

There were several historic mines located on the site (including the original tunnel mines by the Holland family, circa 1890). prior to being the Kimihia Opencast Mine, the area was part of the natural Kimihia Lake. In 1944 the New Zealand State Coal Mines decided to develop an open pit. A stop bank was constructed across the lake, with water pumped out of the southern portion, then overburden removed from the coal seams underneath. The lake was reduced from 318 hectares to 58 hectares. After the coal was recovered from the pit, Coal Corp (later Solid Energy ownership) changed the mine to an underground operation with the name Eastmine which operated from 1978 until 2015.

History of Mining at Kimihia Lake

The sub-bituminous coal deposits below Lake Kimihia were first mined with Bord and Pillar hand methods.Ralphs Taupiri Coal Company commenced production at the Kimihia Reserve Mine in 1887.The mine site was located near the present East mine railway siding.Spontaneous combustion of coal within the old workings had forced the mine to close in 1910 with a total output of 372258 tons.

The Holland family worked the mine between 1923 and 1926 with an output of 2072 tons.

The mine remained closed until the outbreak of World War 2 when New Zealand needed energy to boost wartime production.Initially a stopbank containing 72000 cubic yards of spoil was constructed along Lake Kimihia edge during 1945, enclosing an area estimated to be 22 acres and containing 400000 tons of extractible coal.This area of the lake was subsequently dewatered.The coal was hauled 5 kilometres to Huntly by motor truck to a specially constructed railway siding.

State Coalmines acquired the rights to the mine in 1950 from the Taupiri Co. Mines.To obtain more access to the coal seam it was necessary to excavate 30.5 metres below the lakebed.A giant stopbank was constructed across the lake. It was 2 kilometres in length and approximately 9.4 metres across its top requiring two years for construction.The wide top allowed access for vehicles engaged in stripping operations.

Lake sediments and water from the southern end were drained into the remaining lake beyond the stopbanks after completion of the dam in March 1955.Thus contractors Downer and Company were able to strip the southern portion of the lake sediments.THe free water surface of the lake was reduced from 316 to 58 hectares.To speed up filling of the lake a suction dredge with cutter heads was successful in removal of soft clays overlying the fireclay above the coal seam.At this stage because of the rapid rise of the lake it became necessary to construct drains with protective stopbanks around the edge of the lake.The drains allowed the water from that portion of the lake not filled and from the watersheds of the lake a free flow to the Waikato River.Soft clays were prevented by the stopbanks from flowing into the drains.

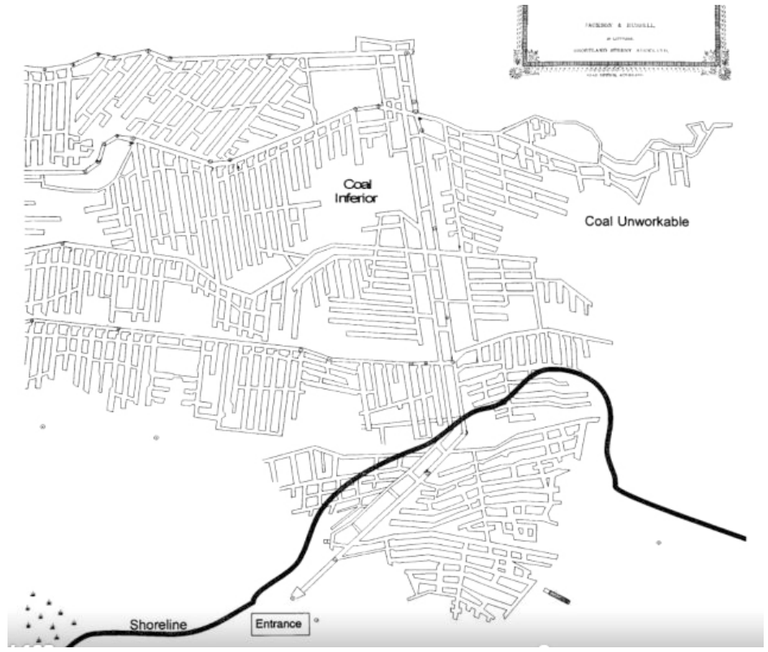
Coal was transported from the face to the pithead by flying fox and later on by conveyor arfter construction of suitable access.Coal mining proceeded in a generally northeasterly direction with stripping being placed beyond the stopbank and later in the mined areas.The opencast ceased operations in 1976 with a total production of 2322644 tons.Northwest dipping coal beds had become to deep and overburden stripping costs exceeded coal revenue.

In 1972 approval was given to develop Huntly East Mine by establishing headworks inside the old Kimihia Opencast and driving towards the coalseam from the bottom of the opencast.The Kupakupa seam was reached in November, 1978 with 3 inclined drifts.Construction of mine buildings,coal handling and storage facilities,road and rail access,and other headworks had commenced in 1977.

Photo: Kimihia Mine in the early days

Photo: Kimihia Mine Pit (1955)

Photo: Kimihia Mine Drift at the bottom of the original pit (in recent years)



Map: Kimihia Underground Mine early workings (1910)

Aerial Photo: Kimihia Opencast Mine (1963)

LAKE HISTORY

(Source: Text and aerials referenced from 2019 Catchment Assessment by Tonkin + Taylor for Allen Fabrics Ltd.)

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The Site is the former Huntly East Mine, also referred to as Kimihia Opencast mine, situated approximately three kilometres northeast of Huntly Township. Located between McVie Road and the new Waikato Expressway, is approximately 100 ha comprising part of the area that was historically the bed of Lake Kimihia.

Lake Kimihia was approximately 280 ha in size before mining as shown in the historic aerial photography adjacent.

Records show works starting at the lake edge (c. 1948) with a causeway being pushed out to isolate the water body of the new lake site. This causeway appears to be the modern day McVie Road. During the 1950s, the lake was partly drained and reduced in size to allow mining of the lakebed. Tailings were dumped in the lake area to the north and north-west of the current new lake site, filling the lakebed and creating a shallow wetland area to the north of the site (East Mine wetland).

Historic imagery shows that by 1963, Lake Kimihia was reduced to the size it is currently, and open cast mining was well established in the lakebed of the new lake site. Underground mining was also carried out at Huntly East Mine and mining shafts extend to the west, under the Waikato River with roadways 150 to 350 m below the river.

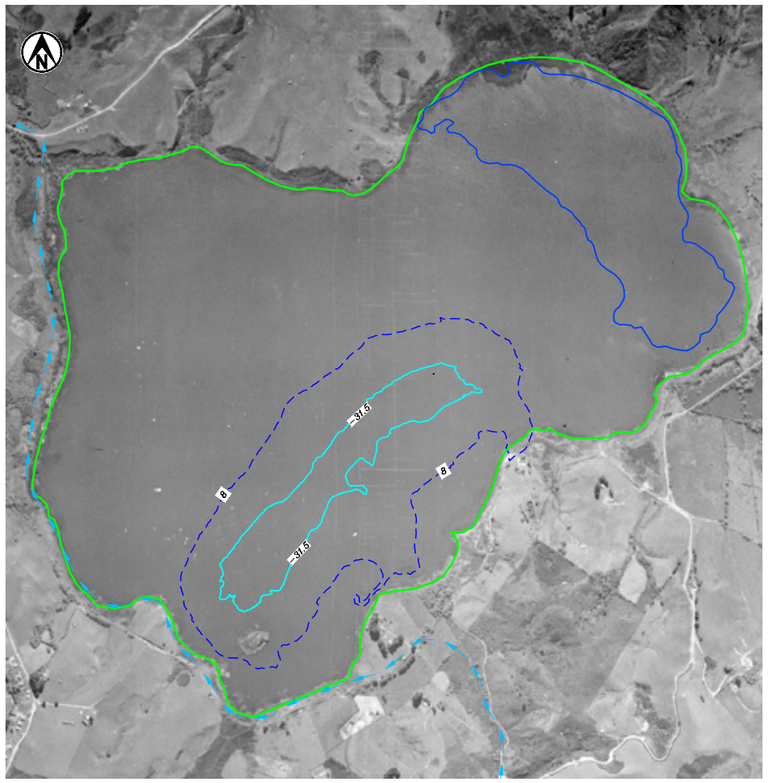
Huntly East Mine produced coal from the underground workings from 1979 until 2015. Water was stored and pumped from the base of the open cast mine (now re-filling new lake site). Pumping from the mine pit was ceased in August 2017 and the mine pit has since been filling from rainwater within its immediate catchment and groundwater inflows.

The Huntly Section of the Waikato Expressway has recently opened east and north east of the Site and includes culvert works that will effect the new lake site. The new lake is expected to fill to the level of a culvert under the Waikato Expressway, which flows into the remnant existing Lake Kimihia. Design drawings show that the invert level of the culvert, and therefore future lake level, will be RL 8.2m.

The existing Lake Kimihia is what remains of the original lake. It is shallow, of poor quality, and is home to koi carp, an invasive pest fish. Lake Kimihia discharges west to East Mine Wetland, which discharges north to the Waikato River.

During the mine establishment, a tributary stream to the southeast of the Site, originally flowing in to Lake Kimihia, was diverted to the south of the Site where it currently flows.

Following on from the Catchment Assessment, a comprehensive Ecological Assessment and Rehabilitation Management Plan is being commissioned to ensure meaningful wetland, stream and lakeside habitat restoration can occur. This is in order to meet the site rehabilitation requirements under the original mining license and to align with the environmental protection and improvement values of the Project.



Historic Aerial: Kimihia Lake in the 1940's (pre mining operations) with the following overlays: current remnant Lake Kimihia, current mine pit water level, calculated final lake extent within the mine site and original tributary stream in its current diverted alignment

Existing Site Aerial: Mine site (post mining operations) with the following overlays: Historic Lake Kimihia extent, current remnant Lake Kimihia, current mine pit water level, calculated final lake extent within the mine site and original tributary stream in its current diverted alignment

Photo: Kimihia Lake in the 1940's (pre mining operations)

Photo: Kimihia Lake in the 1959 (During the initial draining of the lake to allow for mining of the lake bed)

GEOLOGICAL HAZARDS

(Source: text and figures referenced from Report on hazards following mine closure, Huntly East by IRBA in 2018 for Waikato District Council Project 1003.)

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Ian R Brown Associates Ltd (IRBA) were engaged by Waikato District Council to provide advice regarding potential hazards in an area of Huntly that is located over underground mine workings. The extent of the area we have investigated is shown on all the figures adjacent.

MINING CLOSURE

In late 2015, Solid Energy New Zealand Ltd as operator of the Huntly East mine, announced that the mine would close with the asset being offered for sale as part of the liquidation of the company. Although some Solid Energy assets were purchased by mining companies, the Huntly East mine was not. As they could not sell the mine as a going concern, Solid Energy proceeded to abandon the mine. The last coal was produced in October 2015. Now that pumping has stopped, groundwater is able to progressively fill the voids left by mining. Solid Energy estimated it would take 5 years to complete filling of mine workings.

SUBSIDENCE

The entrance to Huntly East underground coal mine was established in the highwall of the Kimihia open cast mine by State Coal Mines in 1977. The three main access drives for men and materials, ventilation and conveyor were driven in a westerly direction. Initial extraction of coal was to the south, then to the north of these tunnels. Later, mine development continued to the west and north of the Waikato River (Figure 1).

The area with greatest measured subsidence is to the south and east of the South Headings This is where coal was closer to the ground surface, and small pillars were left supporting the workings. Maximum subsidence is about 1m (Figure 2).

GAS TRAPPING AND MIGRATION

As coal is mined and dewatered, gas is expelled from the coal seam. At Huntly East, methane was released during mining, along with other gases such as carbon dioxide.

A map is produced to illustrate the overall areas of the mine workings where gas can be trapped (Figure 3). This is based on the methodology used to predict where natural gas (and oil) can be found due to the configuration of confining strata. In the area of the Southern Headings, once water has built up past the intersection with the main mine entries, the gas in those workings is effectively trapped. This is like a stratigraphic trap in conventional oil and gas. Once gas is trapped, pressure build up will occur until the seal is breached and gas is able to migrate.

CONCLUSION

By taking both subsidence and gas hazard into account, IRBA report identified a proposed hazard area (Figure 4). This covers the areas of mine working that have not filled with water, and the areas where we have shown the presence of a gas trap.

Through the report they conclude it would be appropriate to not allow development in this area until all the mine workings have flooded, or mitigation measures have been put in place. However, without appropriate monitoring, it will not be possible to know when that has been achieved.

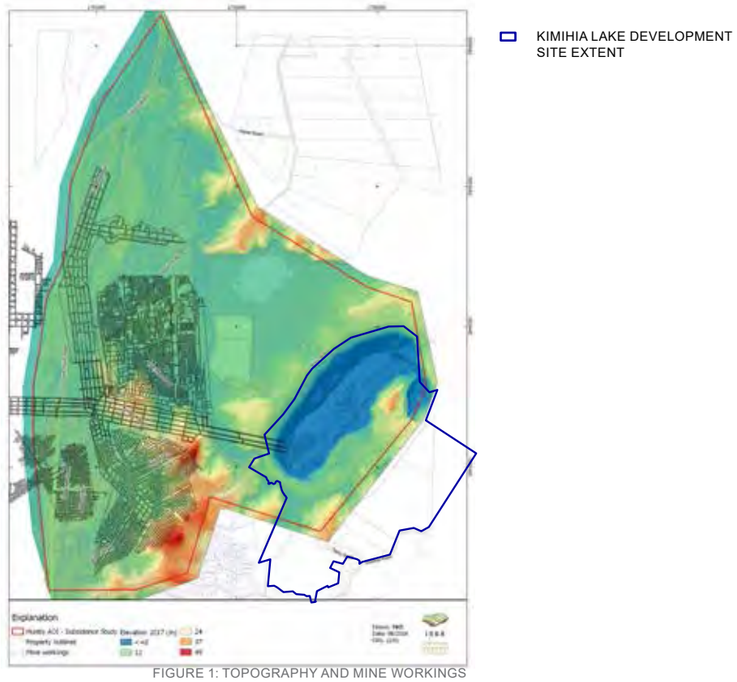

FIGURE 1: TOPOGRAPHY AND MINE WORKINGS

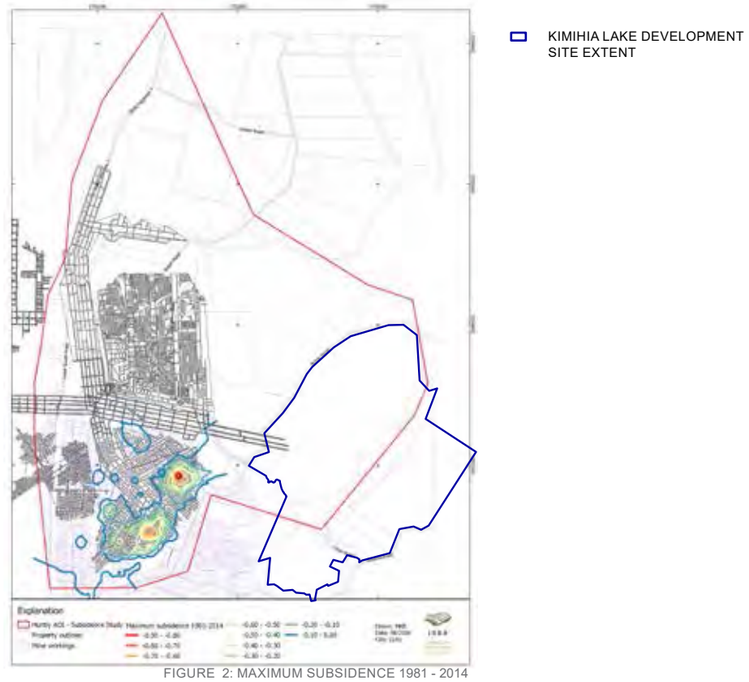

FIGURE 2: MAXIMUM SUBSIDENCE 1981 - 2014

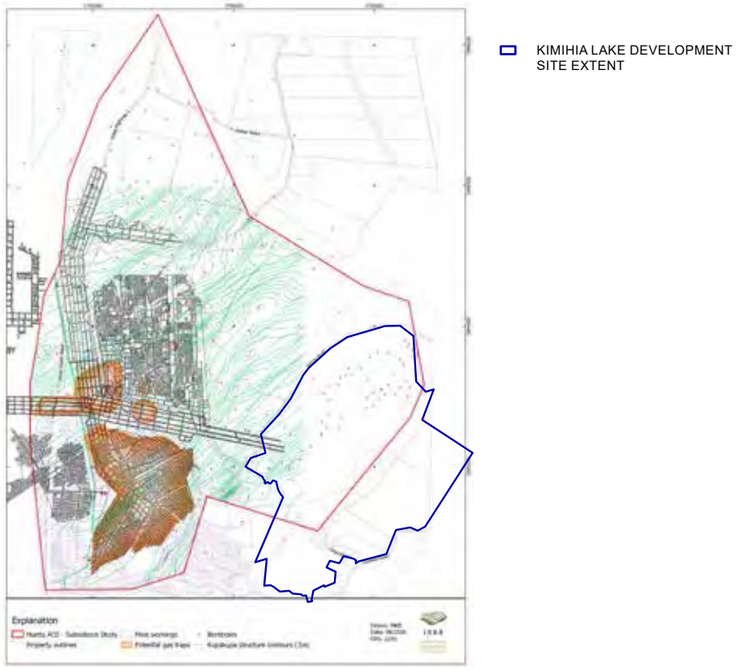

FIGURE 3: AREAS OF POTENTIAL GAS TRAP

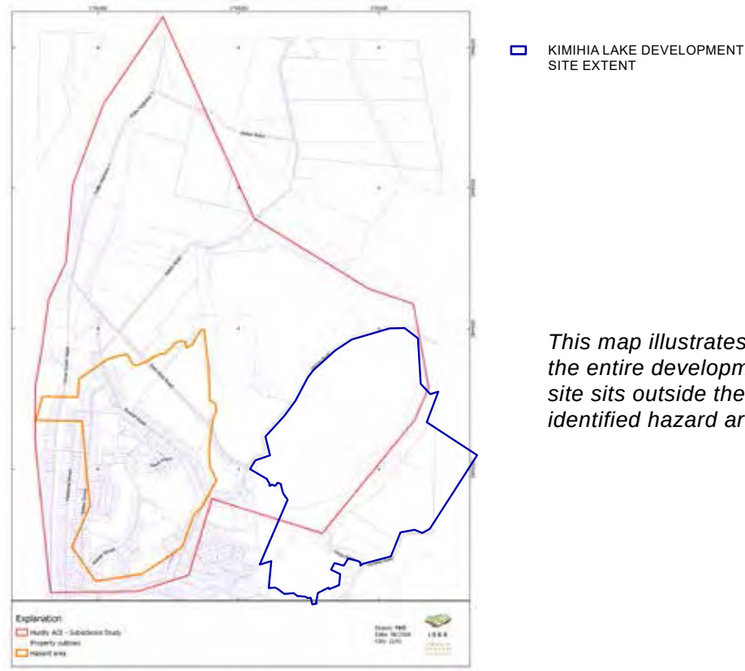

FIGURE 4: PROPOSED HAZARD AREA

This map illustrates that the entire development site sits outside the identified hazard area

FLOOD HAZARDS

(Source: data from Waikato District Council & Waikato Regional Council Data Services)

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WAIKATO DISTRICT COUNCIL DATA

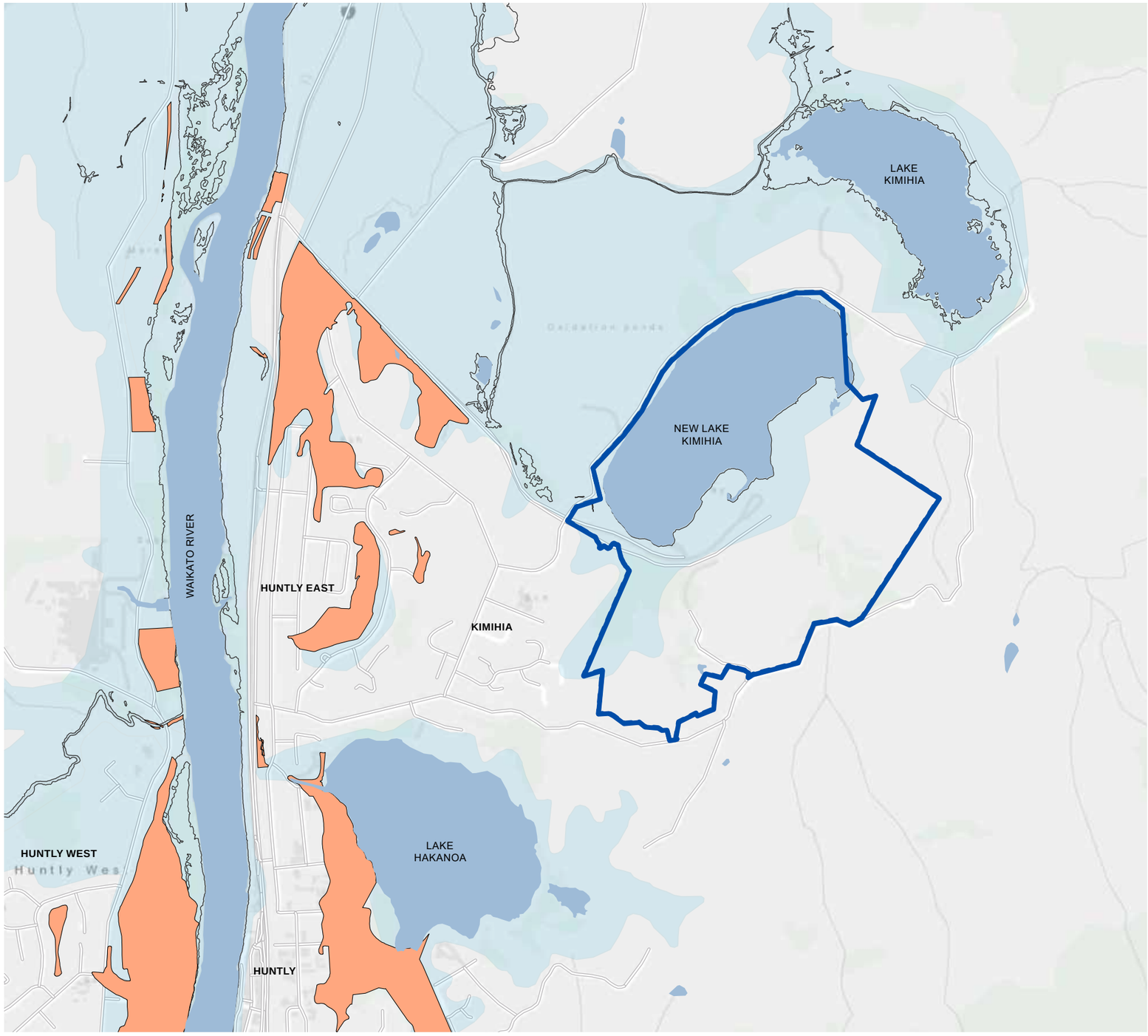
The adjacent map illustrates that the entire development site is located outside the identified flood risk area outlined in the Waikato District Plan. This information was last updated by Council on 05 July 2017.

WAIKATO REGIONAL COUNCIL DATA

The site is impacted by the Regional Scale Flood Hazard areas as identified by Waikato Regional Council. This hazard overlay does not account for changes to landform from recent earthworks on site (2018/2019). The overlay is also based on the surface level of the original Lake Kimihia which had a R.L 10.3 (Moturiki Datum), not the revised lake surface level for the New Kimihia Lake from the Tonkin & Taylor Catchment Assessment which is RL.8.2 (Moturiki Datum).

Regional Council's dataset on how they identified the zones for the Regional Scale Flood Hazard overlay was captured from a compilation of flood hazard information, which is sourced from a combination of previous event information (photos, anecdotes, surveys), flood modelling, flood protection and drainage scheme information, and elevation data. More specifically from:

- Ponding: Original Lake Kimihia ponds at RL 10.3m (Moturiki Datum).
- Lake level setting report, Waikato Catchment Board 1988
- July 1998 Flood Photographs, Lower Waikato-Waipa control scheme land classification and direct benefit analysis for differential rating purposes / Campbell, D.R. ; Adams, M.G. / Environment Waikato,



LEGEND

- SITE BOUNDARY
- WATER BODY (LAKES, WAIKATO RIVER)
- DISTRICT COUNCIL: FLOOD RISK ZONE
- REGIONAL COUNCIL: REGIONAL SCALE FLOOD HAZARD ZONE
- 8M CONTOUR (IDENTIFIED FLOOD LEVEL)

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SITE ANALYSIS

KIMIHIA LAKES DEVELOPMENT SITE (2019)

BUSINESS CASE

(Source: Kimihia Lakes Development Initial Project Business Case; Prepared in 2019 by Strateg.Ease Ltd)

Currently, domestic visitors (both overnight and day trippers) account for the majority of visitor expenditure in the Waikato District, at $106million, and an additional $32million comes from international visitors. The Project aims to increase both. Its economic benefits will primarily arise from:

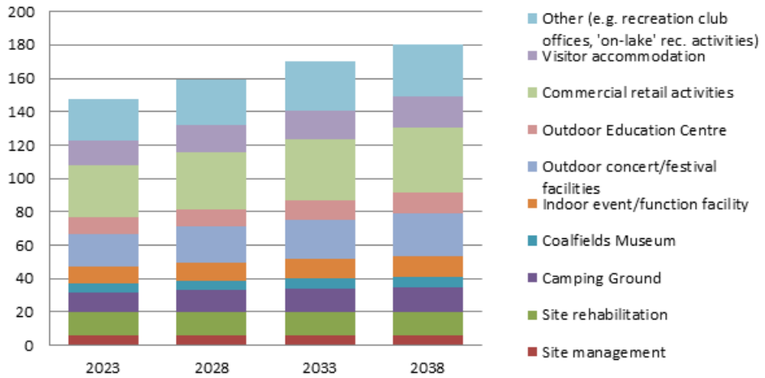
- Providing a critical mass of outdoor recreation and tourism facilities for visitors who have relatively convenient access or were already planning to travel through or to Huntly (i.e. people coming from the wider Waikato District, Auckland, or Hamilton, many of whom currently bypass the town);
- Direct economic value added from construction and restoration work, and visitor spending at the park itself, as well as in Huntly town centre, and the wider district (requiring goods and services to be procured from this area);

In addition, there will be indirect economic value added due to the additional flow-on economic activity from workers income at the park generating higher levels of expenditure in Huntly and the wider district.

An initial Project Business Case has been completed based on official tourism data from Stats NZ and MBIE and original research, which reaches the following conclusions on likely visitor numbers, demand for accommodation and retail facilities, and employment levels at the park:

1. Based on a defined catchment of Auckland, Hamilton and Waikato District residents and school students, and taking account of the current pattern of international visitors to Waikato District, the park could realistically attract visitors in a range of 61,000-101,000 by 2023
2. Sustained growth in the potential market population will support an increased scale of activities to be developed at the site, with prospects of 72,500-121,000 visitors by 2038
3. Overnight visitors demand for accommodation (e.g. in a mix of hotel, lodge, backpackers formats) will be in the order of 63-105 units/rooms by 2023, rising to 76-126 units/rooms by 2038.
4. Total expenditure by overnight visitors is projected to be in a range of $2.7-4.6million in 2023 and $3.5-5.8million in 2038 (which would be spent at the lake park or in Huntly town centre). Additional expenditure will occur by day trippers.
5. Retail floorspace requirements are estimated at 800-1,300 m2 gfa in 2023, rising to 1,000-1,600m2 gfa in 2038. In practical terms that would allow around 10-12 individual retail operations at the park in a mix of units in a 70-120m2 range for cafes, restaurants, clothing, sports equipment/hireage, cycling, camping and fishing supplies etc.
6. Additional building space in the order of 500-800 m2 gfa will be required for management/administration and sporting clubs offices, medical services, repair workshops etc.
7. Provision of a new Huntly interchange on the Waikato Expressway would facilitate a higher volume of visitors to Lake Kimihia and a higher share of those visitors going into the town centre after being at the lake, compared to the current scenario of Huntly being bypassed by the Expressway.
8. Capital investment is estimated to be in the order of $2 million per annum in years 1 and 2 for rehabilitation work/planting; $3million in year 2 for infrastructure/campground/administration buildings/outdoor events zones, and $20 million over years 3-5 for a multipurpose Outdoor Education Centre/visitor accommodation/events zone/ commercial development.
9. Employment levels for a fully operating park are estimated to be in the order of 150 jobs in 2023, rising to 180 jobs in 2038 (being a mixture of full-time and part-time jobs). Refer Figure 1 for employment projections. With allowance for construction jobs, the Project could well match the 200 jobs at the mine's peak in 2014.

FIGURE 1: PROJECTED JOBS AT KIMIHIA LAKES DEVELOPMENT



Source: Kimihia Lakes Development Project Business Case 2019

STRATEG.EASE
STRATEGY | BUSINESS & ECONOMIC ANALYSIS

Photo: Kimihia Mine coal extraction conveyor belt (date unknown)

ECONOMIC CONTEXT

79,900
DISTRICT WIDE

10,170
LIVE IN WIDER HUNTLY AREA

$123m
REGIONALLY

10.9%
SPENDING GROWTH

POPULATION
Number of residents as of 2018 Census

TOURISM SPEND
Total expenditure as of 2019

2.7%
DISTRICT WIDE

1.6%
NATIONALLY

REGIONAL GROWTH
Population growth rate

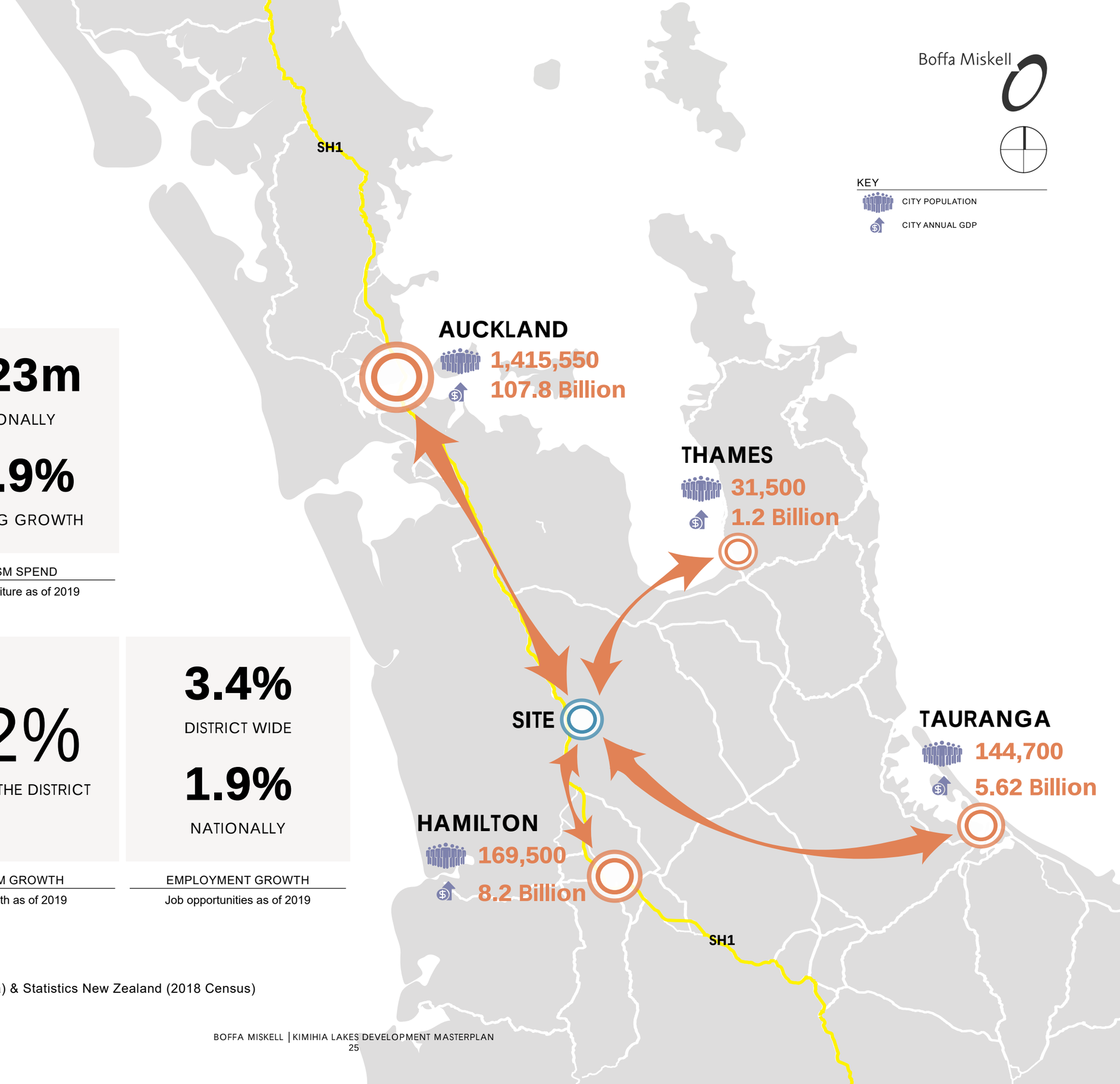
12%
ACROSS THE DISTRICT

TOURISM GROWTH
GDP growth as of 2019

3.4%
DISTRICT WIDE

1.9%
NATIONALLY

EMPLOYMENT GROWTH
Job opportunities as of 2019



Statistics and data sourced from: Infometrics (2019 data) & Statistics New Zealand (2018 Census)

ENVIRONMENTAL FACTORS

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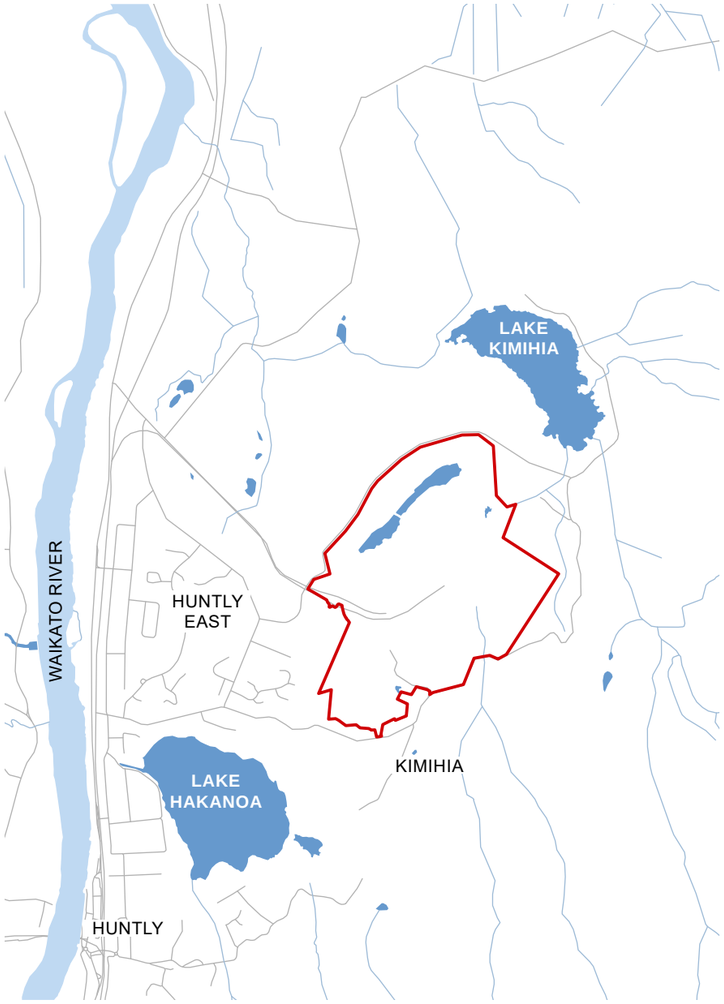
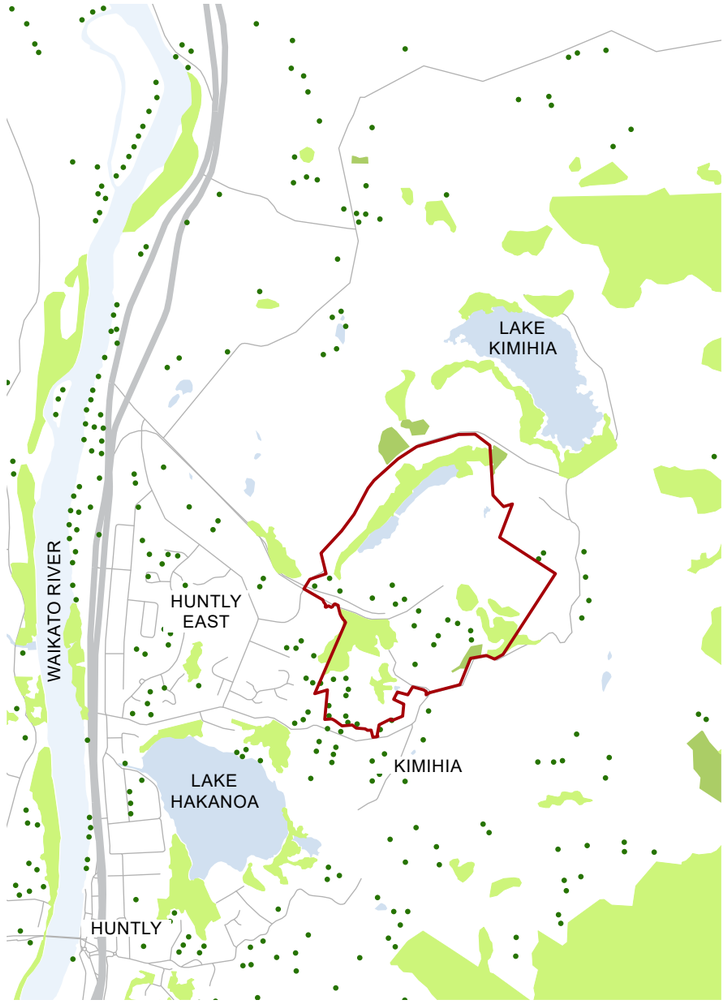


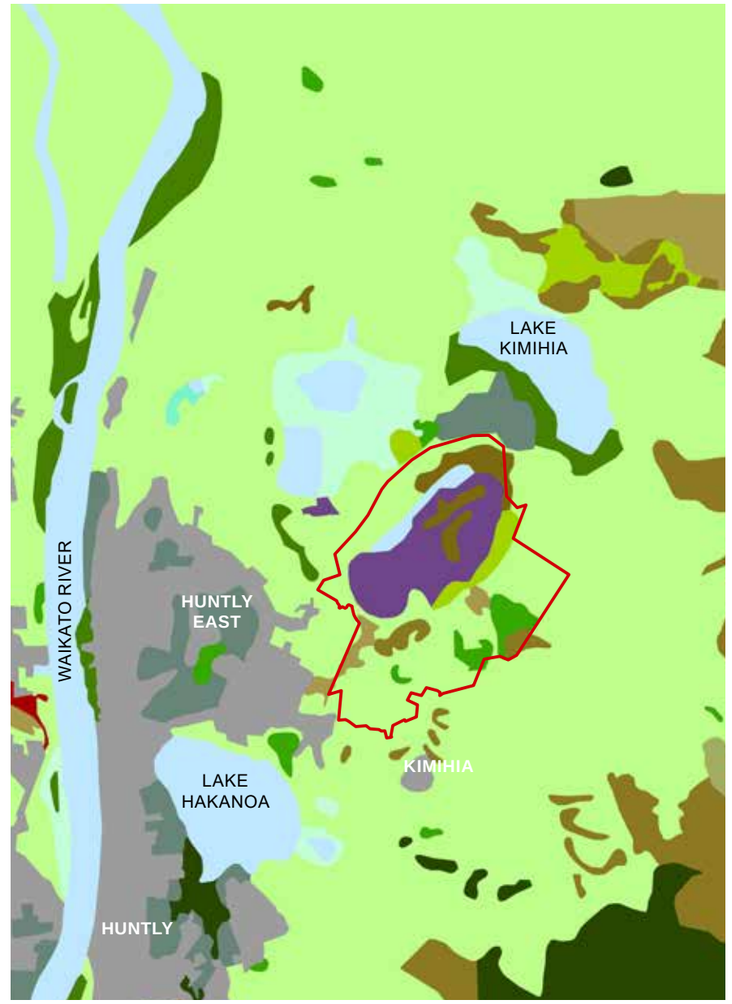
HYDROLOGY

- Site extent
- Roads
- Waikato river
- Streams
- Lakes



VEGETATION PATTERNS

- Site extent
- SH1
- NZ Native vegetation
- NZ Exotic vegetation
- NZ large tree point



LAND COVERAGE

- Site extent
- Water body
- Build-up area (settlement)
- Surface mines and dumps
- Transport infrastructure
- Urban parkland / open space
- High producing exotic grassland
- Low producing grassland
- Fresgwater wetland vegetation
- Flaxland
- Gorse and/or broom
- Manuka and/or Kanuka
- Broadleaved indigenous hardwoods
- Forest - Harvested
- Deciduous hardwoods
- Indigenous forest
- Exotic forest

Data sourced from:
www.data.linz.govt.nz ; www.waikatodistrict.govt.nz ; www.gns.cri.nz

ENVIRONMENTAL FACTORS

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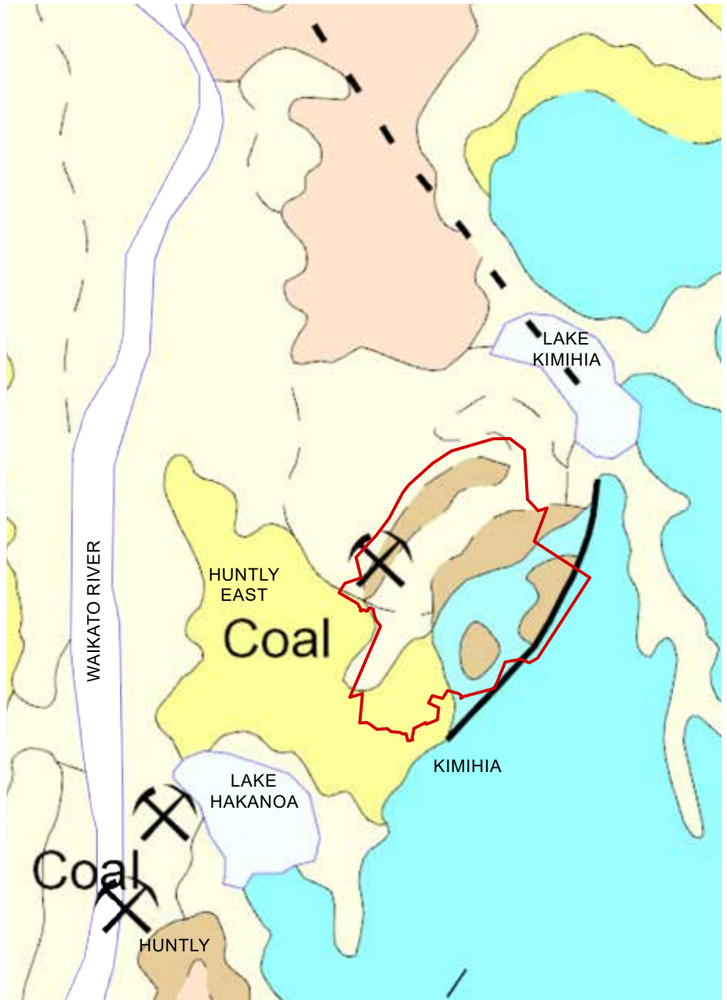
TOPOGRAPHY & SLOPE

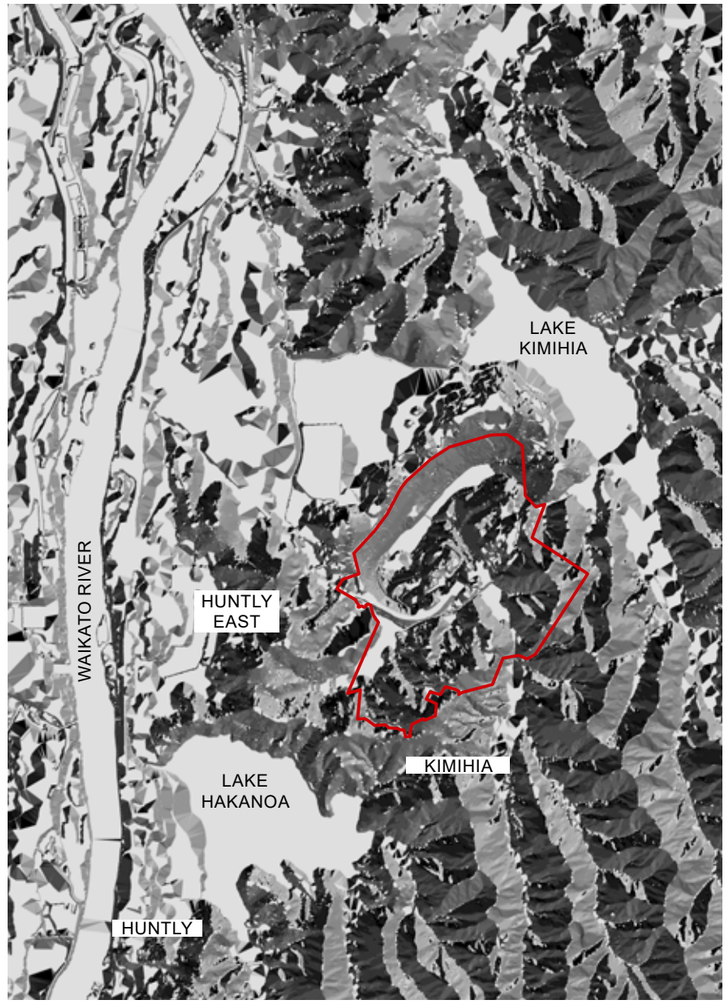
Site extent

Elevation
- 173.11 - 203.56
- 142.67 - 173.11
- 112.22 - 142.67
- 81.78 - 112.22
- 51.33 - 81.78
- 20.89 - 51.33
- -9.56 - 20.89
- -40 - -9.56



SOILS | LAND-USE CAPABILITY

- Site extent
- SH1
- Paleogene sedimentary rocks (mudstone)
- Basement (Eastern Province) sedimentary rocks (siltstone)
- Neogene sedimentary rocks (sand)
- Holocene river deposits (sand)
- Neogene sedimentary rocks (sand)
- Water



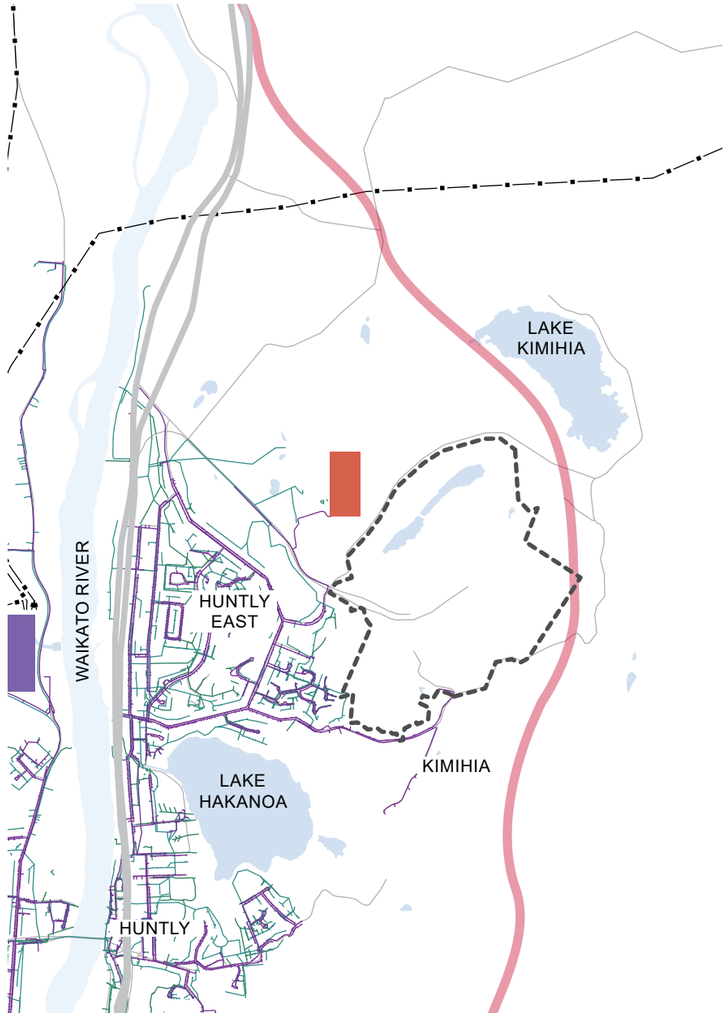
ASPECT | HILLSHADE

Site extent

Aspect
- Flat
- North
- NorthEast
- East
- Southeast
- South
- Southwest
- West
- Northwest
- North

ECONOMIC FACTORS

Boffa Miskell

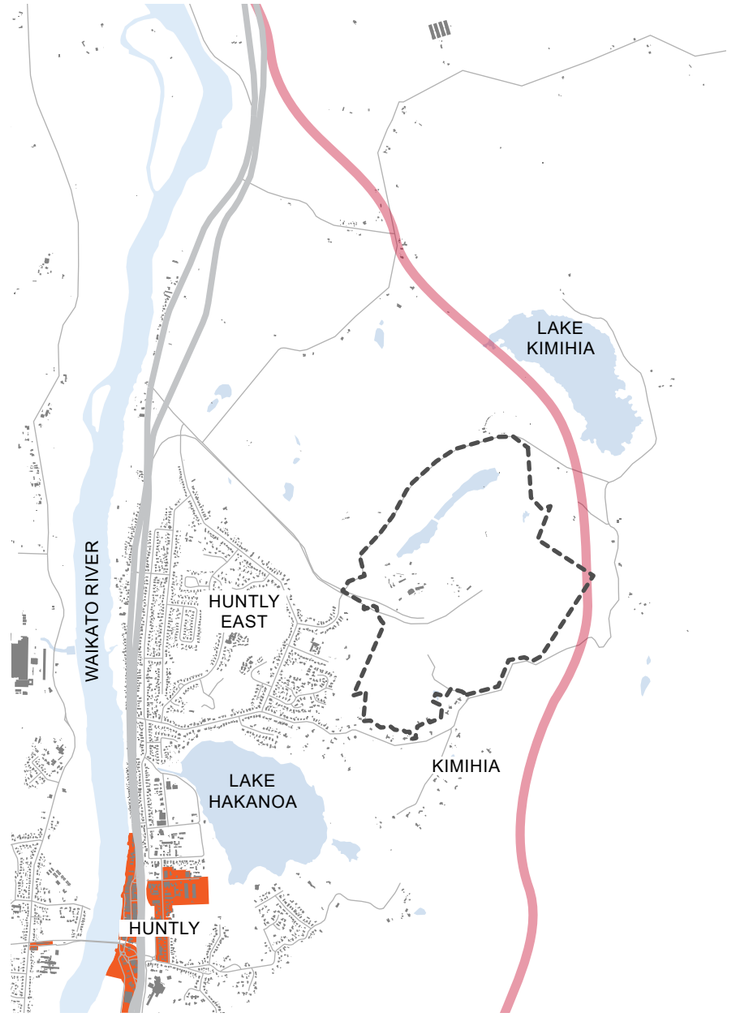


INFRASTRUCTURE

- Site extent
- SH1
- Waikato expressway (Huntly bypass)
- Transmission line
- Huntly Power Station
- Water supply
- Storm water line
- Huntly Wastewater Treatment Plant

TRANSPORTATION NETWORK

- Site extent
- SH1
- Waikato expressway (Huntly bypass)
- Rail
- Primary collector road
- Secondary road
- Minor road



BUILDING FRAMEWORK

- Site extent
- SH1
- Waikato expressway (Huntly bypass)
- Building Footprints
- Central Business Commercial Precinct

Data sourced from: www.data.linz.govt.nz

SOCIAL & CULTURAL FACTORS

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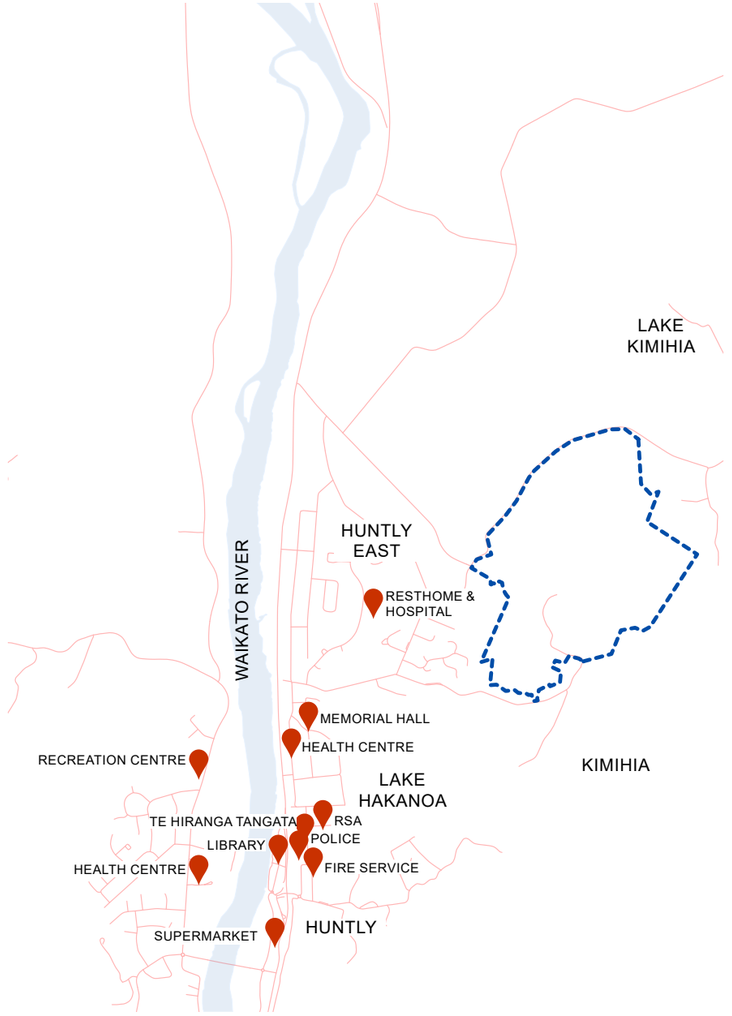
EDUCATION

Kindergartens, Primary Schools, College

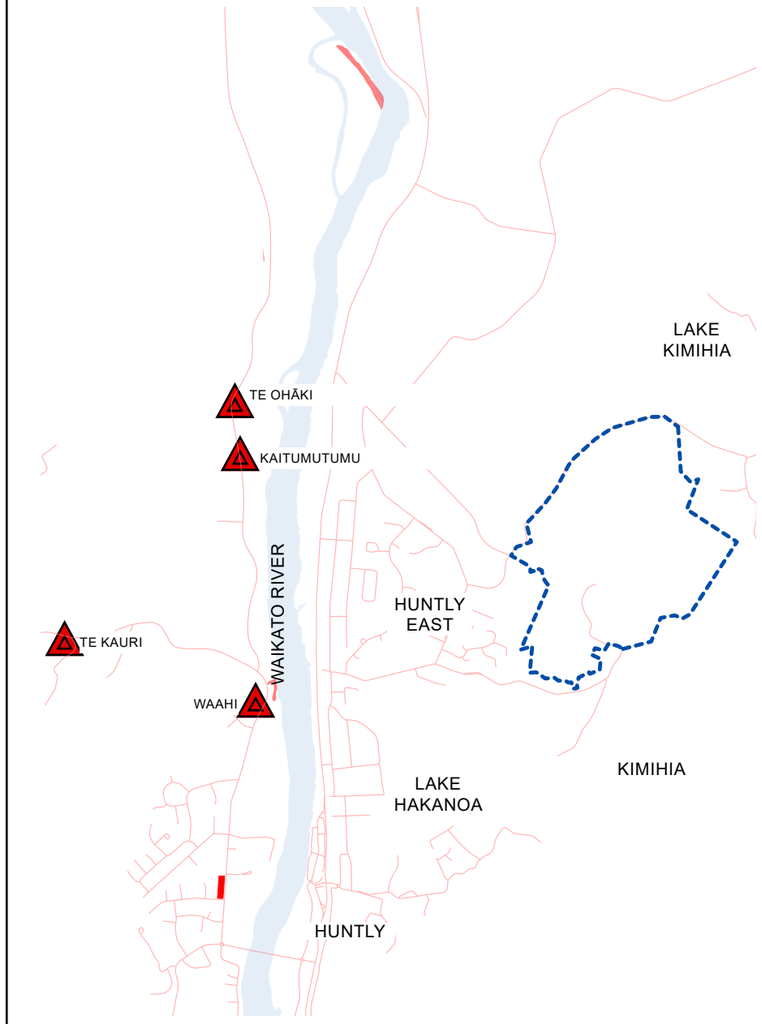
Site extent
Kindergartens
Schools



COMMUNITY FACILITIES

Libraries, community services, etc.

Site extent
Community facility



MARAE & ROHE

Site extent
Marae location
Identified Maori area of significance

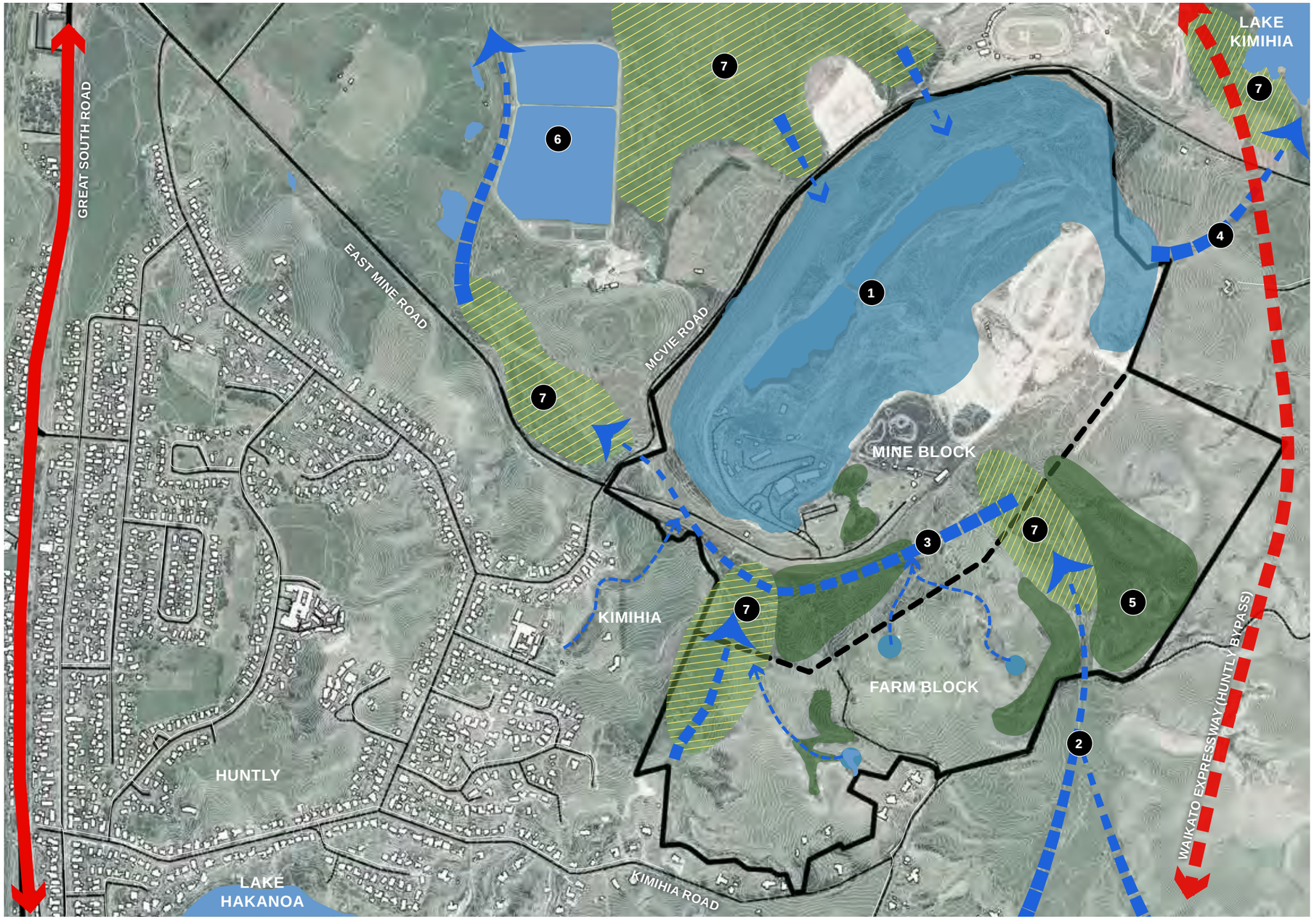
Data sourced from:
www.data.linz.govt.nz ; www.waikatodistrict.govt.nz

ANALYSIS - EXISTING NATURAL ELEMENTS

Boffa Miskell

KEY

1. NEW KIMIHIA LAKE BODY (WHEN FULL)
2. MAIN WATER CATCHMENT INTO SITE
3. DIVERTED CATCHMENT STREAM
4. LAKE OUTLET (TO REMNANT KIMIHIA LAKE)
5. FORESTRY BLOCK
6. COUNCIL WASTEWATER TREATMENT PLANT
7. REMNANT WETLAND



LEGEND

- SITE BOUNDARY
- LAKE BODY (ESTIMATED FINAL EXTENT)
- SCRUB / FORESTRY COVER
- WETLAND (REMNANT OF VARYING HABITAT)
- STREAM FLOW DIRECTION
- WATER BODY (POND)

ANALYSIS - EXISTING CIRCULATION & FEATURES

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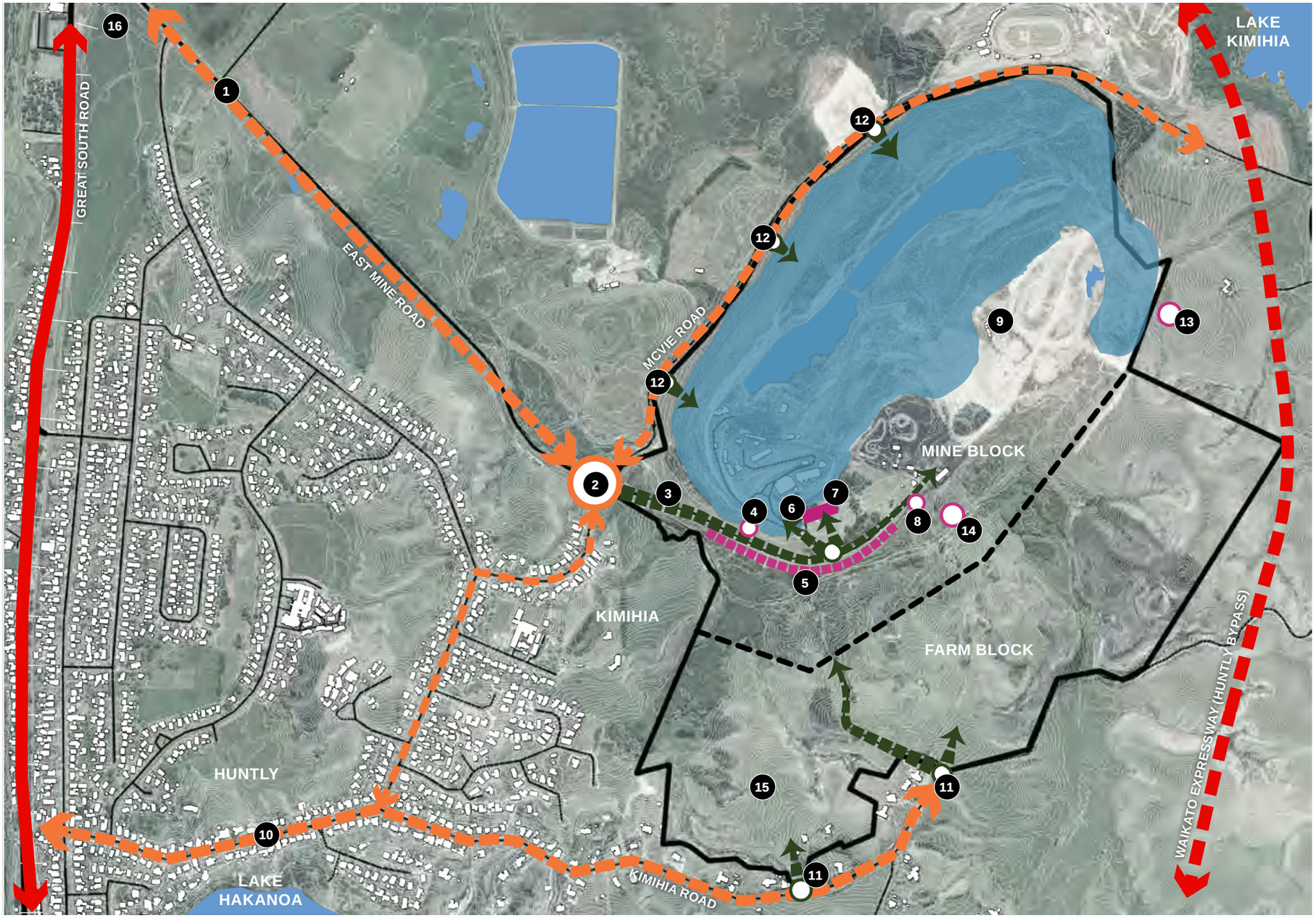
KEY

1. MAIN ROAD TO SITE (OFF SH1)
2. PRIMARY SITE ENTRANCE
3. MINE SITE INTERNAL ROAD
4. POWER SUBSTATION
5. OLD RAIL SHUNTING YARDS
6. ROAD TO MINE PIT BASE
7. CARPARK
8. WEIGHBRIDGE BUILDING
9. MINE EXCAVATION SPOIL MOUND
10. LOCAL ROAD TO SITE (FROM TOWN)
11. SECONDARY SITE ENTRANCE(S) TO FARM AND RE-ZONED RESIDENTIAL LAND
12. INFORMAL SITE ENTRANCE(S)
13. HISTORIC HOLLAND MINE SHAFT ENTRANCES (UNEARTHERD)
14. MINING VILLAGE REMNANTS
15. BLOCK REZONED TO RESIDENTIAL UNDER PROPOSED DISTRICT PLAN
16. POTENTIAL FOR FUTURE PEDESTRIAN / CYCLEWAY CONNECTION WITH PROPOSED SLEEPYHEAD DEVELOPMENT ALONG OLD STATE HIGHWAY 1



LEGEND

- SITE BOUNDARY
- LAKE BODY (ESTIMATED FINAL EXTENT)
- PRIMARY ROADING TO & AROUND SITE
- INTERNAL ROADING
- SITE ENTRANCE POINTS
- OLD RAIL SHUNTING YARD
- PARKING LOT
- SITE FEATURE

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DESIGN PROPOSAL

HUNTLY EAST MINE SITE (FROM RECENT TIMES)

PROJECT DESIGN PRINCIPLES

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Design principles are the aspirational goals that were developed to reflect the values and objectives of the project team. These are outcome-based principles that in aggregate are the building blocks that help transform the site to reach the desired final outcome. Each principle identifies actions that are required to attain this transformation, and are outlined below.

ENVIRONMENTAL

SUSTAINABILITY AND GUARDIANSHIP

Identify, conserve, protect and enhance what is special about the site, including the natural environment, connection with mana whenua, and its mining heritage.

SOCIAL

ENGAGEMENT AND COLLABORATION

Council, stakeholders, mana whenua and the public are engaged throughout in a fully collaborative approach to the evolution of the masterplan.

RECREATION AND EDUCATION

Provide a range of spaces, activities, uses and experiences for all people of all ages and abilities to enjoy, learn and cultivate their connection with the site and the environment.

ECONOMIC

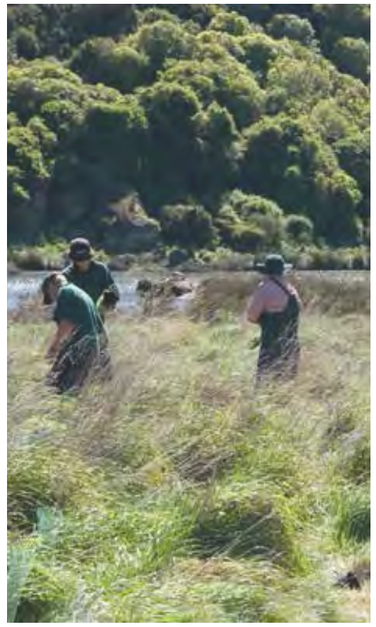
ACCESSIBILITY AND CONNECTIVITY

Create safe, easy and interesting connections and access for a wide range of users into and throughout the site.

VIABILITY AND ACTIVATION

Provide places and spaces for a range of business ventures, community and cultural activities and other complementary opportunities.

CULTURAL



STEWARDSHIP AND KAITIAKITANGA

Local residents, mana whenua, schools and community groups are encouraged and supported to lead park wide initiatives.

TE ARANGA MAORI DESIGN PRINCIPLES

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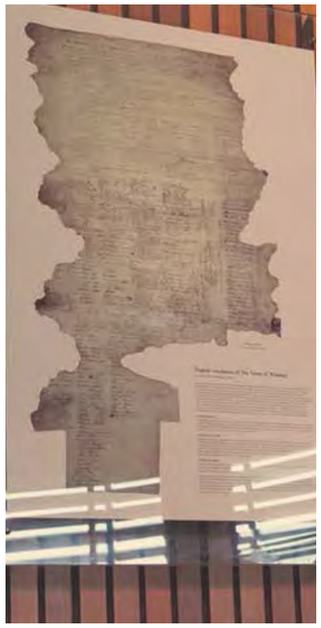
“Maori culture and identity highlights Aotearoa New Zealand’s point of difference in the world and offers up significant design opportunities that can benefit us all. The Te Aranga Maori Design Principles are a set of outcome-based principles founded on intrinsic Maori cultural values and designed to provide practical guidance for enhancing outcomes for the design environment. The principles have arisen from a widely held desire to enhance mana whenua presence, visibility and participation in the design of the physical realm.”

[Auckland Design Manual via Te Aranga Cultural Landscape Strategy by Nga Aho]



MANA TANGATIRATANGA - AUTHORITY

The status of iwi and hapū as Mana Whenua is recognised and respected.

WHAKAPAPA - NAMES & NAMING

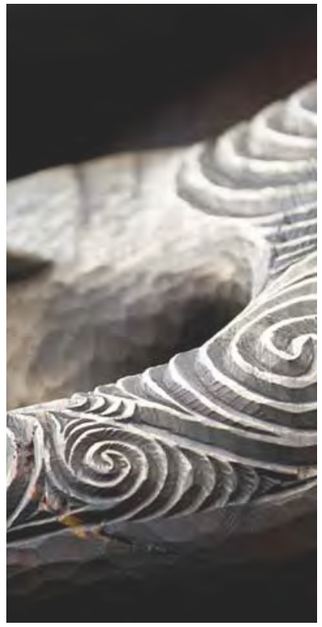
Maori names are celebrated.

TAIAO - THE NATURAL ENVIRONMENT

The natural environment is protected, restored and / or enhanced.

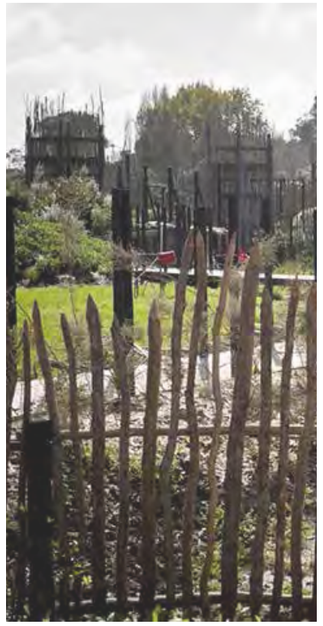
MAURI TU - ENVIRONMENTAL HEALTH

Environmental health is protected, maintained and / or enhanced.



MAHI TOI - CREATIVE EXPRESSION

Iwi / hapū narratives are captured and expressed creatively and appropriately.



TOHU - THE WIDER CULTURAL LANDSCAPE

Mana Whenua significant sites and cultural landmarks are acknowledged.

AHI KĀ - THE LIVING PRESENCE

Iwi / hapū have a living and enduring presence and are secure and valued within their rohe.

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FARM BLOCK DEVELOPMENT

KIMIHIA LAKE SITE DEVELOPMENT

RESIDENTIAL DEVELOPMENT

Low Impact, Sustainable Development, Sensitive to the Landscape with Interconnecting Walkways & Cycleways

Portion of site already re-zoned to residential under Proposed District Plan

Proposed Housing Typology:

- Residential Zone (Standard Density) (600m2 to 2,500m2 Sized Lots)

NATIVE & EXOTIC FORESTRY

Carbon Credit Forestry & Wildlife Refuge Habitat

Utilising land that is marginal / unfit for development (i.e. steep slopes, gullies, questionable ground, etc.)

MOUNTAIN BIKING TRAILS

Promoting the Outdoors & Active Lifestyle

Opportunity to create internal track networks within the forestry block(s)

Trails should vary in their user experience and difficulty to accommodate all user skill levels

NATIVE PLANT NURSERY

A partnership with Te Whangai Trust to establish an on-site commercial native plant nursery has been confirmed. This will assist with on site habitat restoration and local employment

Ability to eco-source native plant seed from site & surrounds for plant propagation

RECREATION LAKE

Non-Powerboat Related Lake Activities, Fishing, Sailing, Waka, Canoe, Swimming, Diving, Rowing

Proposing one formal ramped access and multiple beaches and informal water access locations around lake shore

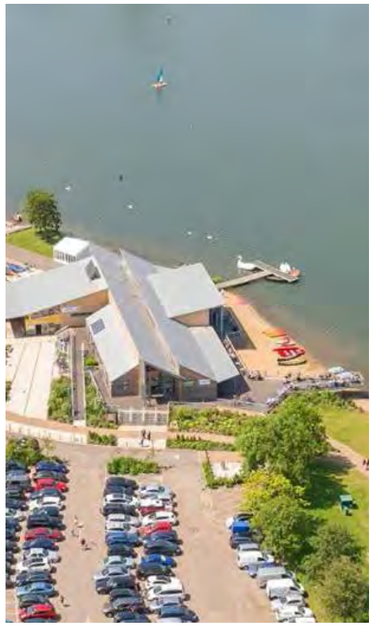
HABITAT RESTORATION

Wetland, Lake & Stream Habitat Rehabilitation for Native Fauna, Flora & Aquatic Life

Additional Potential Benefits:

1. Improving quality of lake water
2. Opportunities for integrating Low Impact Stormwater design solutions
3. Ability to ‘eco-source’ local native plant seed for on-site nursery and subsequent habitat restoration

KIMIHIA LAKE SITE DEVELOPMENT



COMMUNITY CENTRE ACTIVITY HUB

Multi-purpose Venue for Youth Education & Development, Hosting Lake Sporting Events, Weddings, Small Conferences, Cafe & Other Commercial Opportunities

Centre to be located on the lake shore to take advantage of panoramic views and interaction with water

- Estimated GFA: 1,000-1,200m2
- Estimated student participation numbers of 9,250 students per year
- Estimated Cafe capacity of 60-80 seats

AQUATIC ACTIVITY HUB

Aquatic Training & Equipment Rental Facilities

Located near the main vessel launching ramp and parking area to maximise use of facilities and infrastructure

COAL MINING MUSEUM

Ideal Location to Showcase the Rich History with Mining on the Site & Wider Huntly Area

The original Huntly Railway Station to be re-purposed into museum

- Railway Station estimated GFA: 500m2

Museum to be complemented with the creation of an outdoor park to showcase the old (large) mining machinery and equipment, to further educate visitors of the site's and region's mining heritage

ACCOMMODATION

Accommodation & Camping Facilities for Schools, Groups, and Independent visitors

Located close to multi-purpose Kimihia Lakes Community Centre Activity Hub.

Estimated GFA: 1,000m2 split into dormitory wings, separate small self contained units and campsites

<u>Estimated capacity:</u>

1. 6x Motel Units
2. 4x Dormitory Units (25 beds each)
3. 60x Campsites

OUTDOOR RECREATION

Walking & Cycling Trails, Nature Trails, Beaches, Open Space, Playgrounds

Opportunities to create an internal track network within the site, including trails that vary in their user experience and difficulty.

Beaches spread around the lake shore to accommodate various user groups and activities

Large open grassed areas for informal and formal activities and general uses

Playgrounds, nature play elements, confidence courses for varying age groups

CULTURAL DISCOVERY

Reaffirming the Cultural Connection with the Land

To be developed in close partnership with local Tangata whenua to ensure genuine outcomes are achieved

<u>Discovery experience could include:</u>

1. Cultural heritage trails
2. Cultural interpretation
3. Cultural recognition elements
4. Education programme

SPATIAL CONFIGURATION - PRECINCT STRUCTURE

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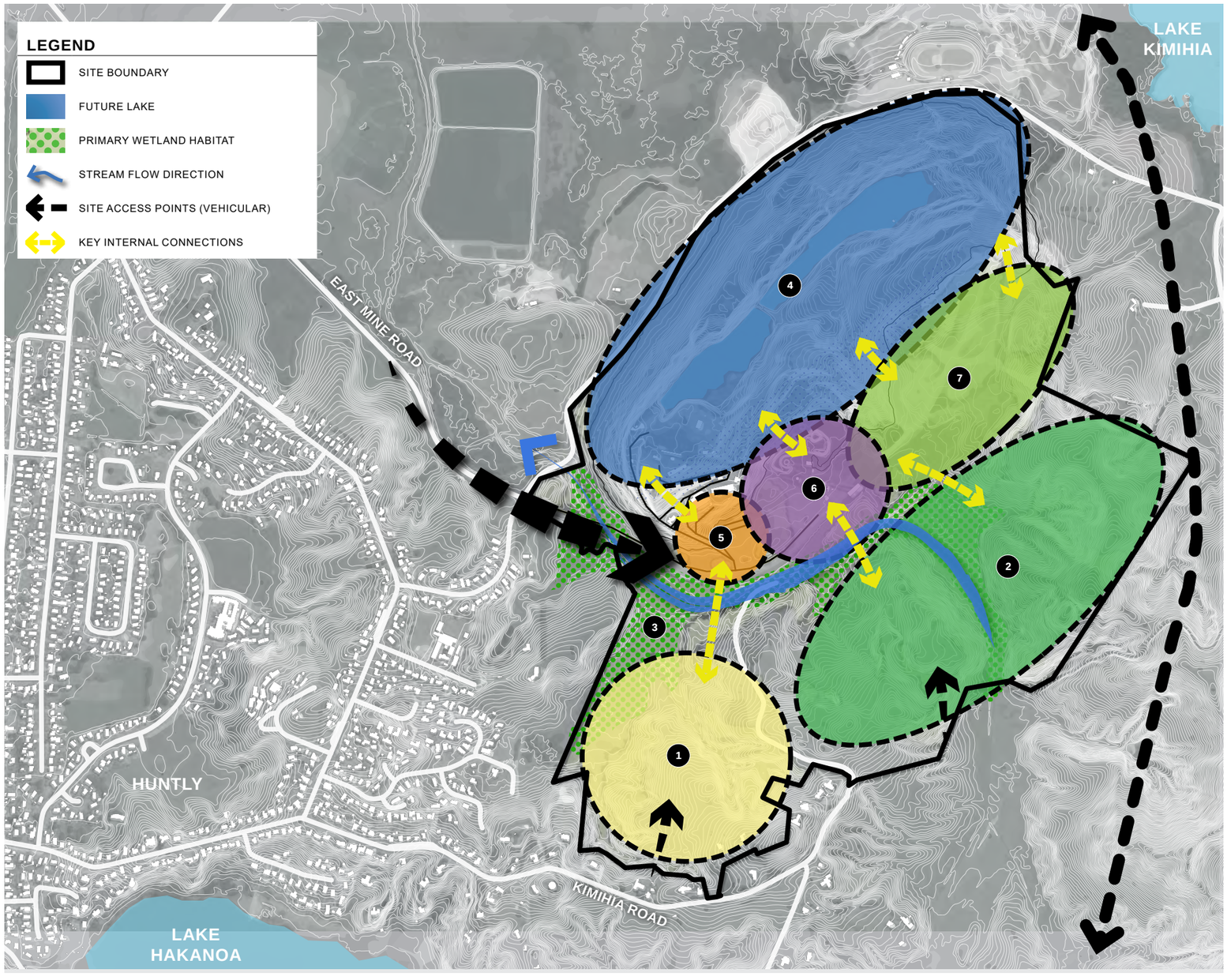
KEY

FARM BLOCK

1. RESIDENTIAL DEVELOPMENT PRECINCT
   Standard Density Housing
2. CONTINUED FARMING ACTIVITIES
   Including Grazing, Forestry, Site Nursery, Etc.
3. NATIVE WETLAND RESTORATION
   Wildlife Habitat Restoration, Improve Water Quality

MINE SITE

4. RECREATION LAKE
   Non-Powerboat Related Activities
5. AQUATICS PRECINCT
   Ramped Lake Access, Equipment Hireage, Jetty, Etc.
6. EDUCATION & COMMERCIAL PRECINCT
   Multi-Purpose Hub, Museum, Cafe, Accommodation, Main Beach, Etc.
7. OPEN SPACE RESERVE PRECINCT



ACTIVITY STRUCTURE PLAN | KIMIHIA LAKES DEVELOPMENT | 2020

SPATIAL CONFIGURATION - ACTIVITY REFINEMENT

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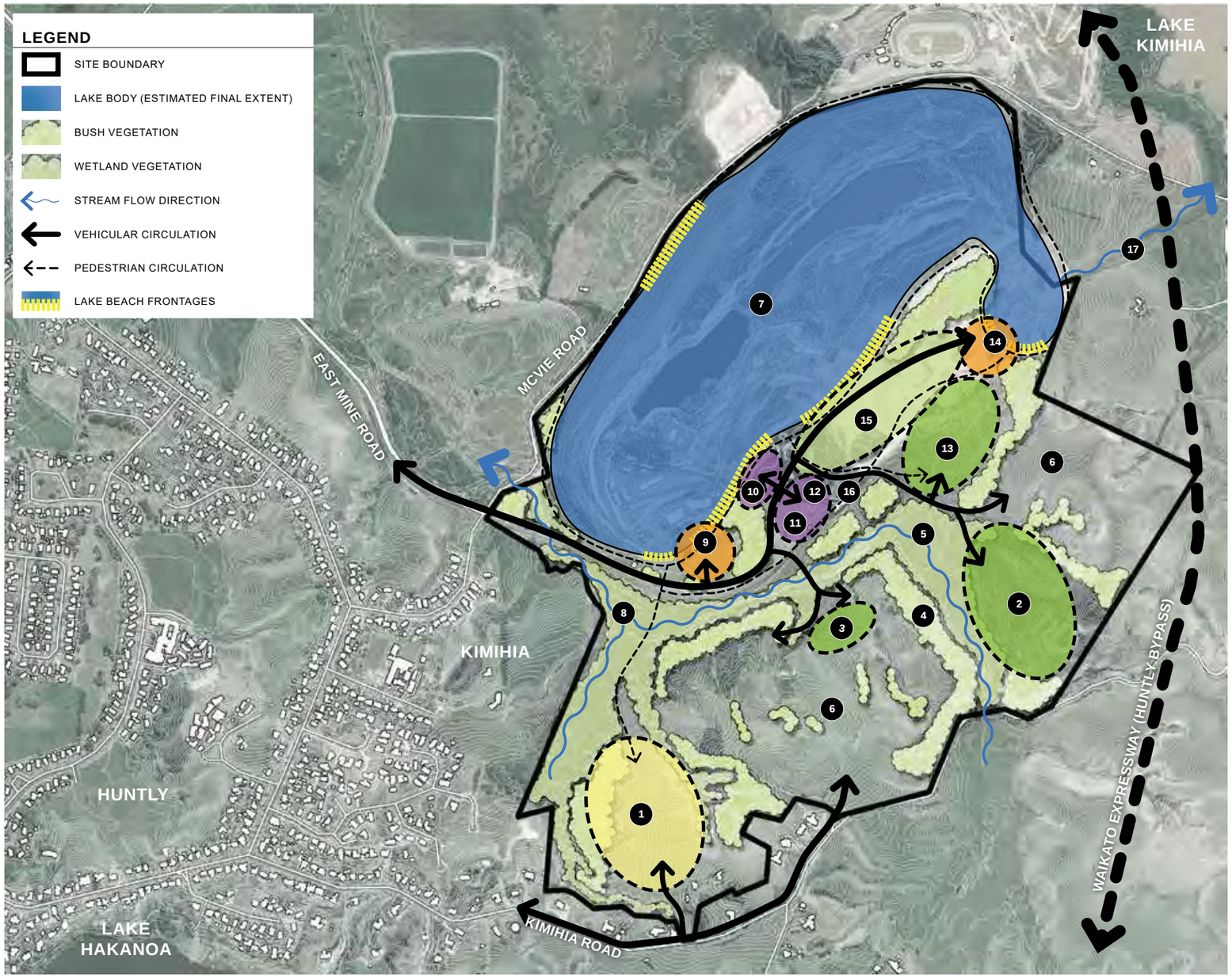
KEY

FARM BLOCK

1. RESIDENTIAL DEVELOPMENT PRECINCT 1 - STANDARD DENSITY
   Already re-zoned Residential in Proposed DP (600 - 2,500m2 Lots)
2. MOUNTAIN BIKE ZONE
   Varied Skill Level Tracks Within Forestry Block
3. PLANT NURSERY
   On-site Eco Sourced Plant Propagation & Commercial Supply
4. NATIVE & EXOTIC VEGETATION
   Carbon Credit Forestry, Wildlife Habitat, Slope Stabilisation
5. NATIVE WETLAND RESTORATION
   Wildlife Habitat Restoration, Improve Water Quality
6. CONTINUED FARMING
   Drystock Grazing & Forestry Practices Continue Around New Activities

MINE SITE

7. RECREATION LAKE
   Non-Powerboat Related Activities
8. HABITAT RESTORATION
   Wetlands, Lakes and Stream
9. BOAT RAMP & AQUATIC CENTRE:
   Incl. Trailer Parking, Jetty, Aquatic Equipment Hire Centre
10. COMMUNITY CENTRE ACTIVITY HUB
    Multi-Purpose Building With Cafe, Conference Rooms & Teaching Spaces
11. COAL MINING MUSEUM
    Re-purposed Historic Huntly Railway Station, Incl. Outdoor Sculpture Park
12. ACCOMMODATION
    Motel Units, Dormitories & Camping Facilities
13. OUTDOOR EDUCATION
    Ecological, Experiential & Educational Spaces and Walkways
14. OUTDOOR RECREATION
    Beaches & Lakefront Tracks
15. PASSIVE RECREATION
    Public Open Space
16. CULTURAL DISCOVERY
    Heritage Trails, Interpretation & Education
17. LAKE OUTLET CHANNEL
    Discharging Clean Overflow to Remnant Lake Kimihia



REFINED ACTIVITY SPATIAL LAYOUT PLAN | KIMIHIA LAKES DEVELOPMENT | 2020

CONCEPT MASTERPLAN

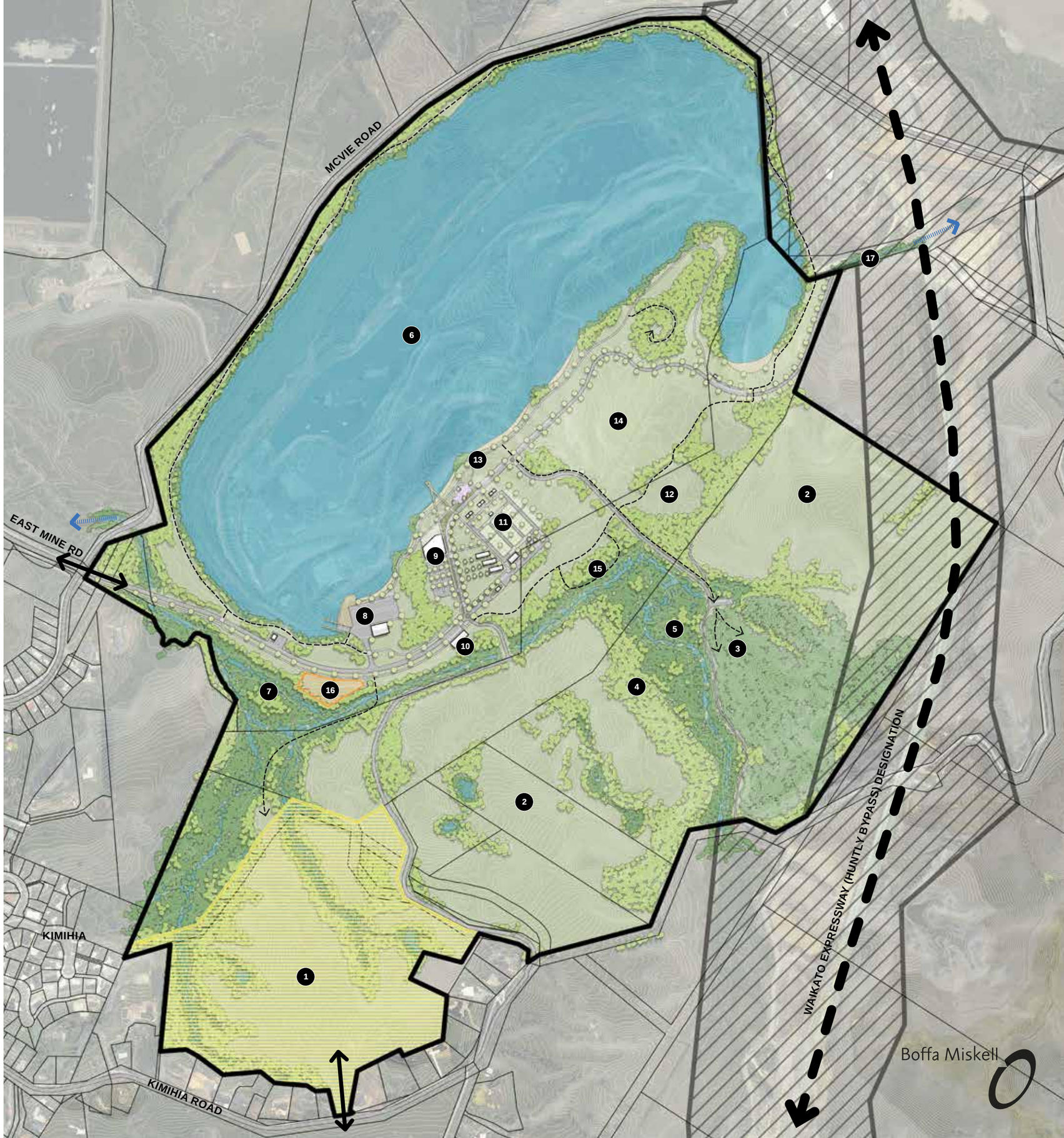
KEY

FARM BLOCK

1. RESIDENTIAL DEVELOPMENT PRECINCT - STANDARD DENSITY
   Already re-zoned Residential in Proposed DP (600 - 2,500m2 Lots)
2. CONTINUED FARMING
   Drystock Grazing & Forestry Practices Continue on Bulk of Land
3. MOUNTAIN BIKE ZONE
   Varied Skill Level Tracks Within Forestry Block
4. NATIVE & EXOTIC VEGETATION
   Carbon Credit Forestry, Wildlife Habitat, Slope Stabilisation
5. NATIVE WETLAND RESTORATION
   Wildlife Habitat Restoration, Improve Water Quality

MINE SITE

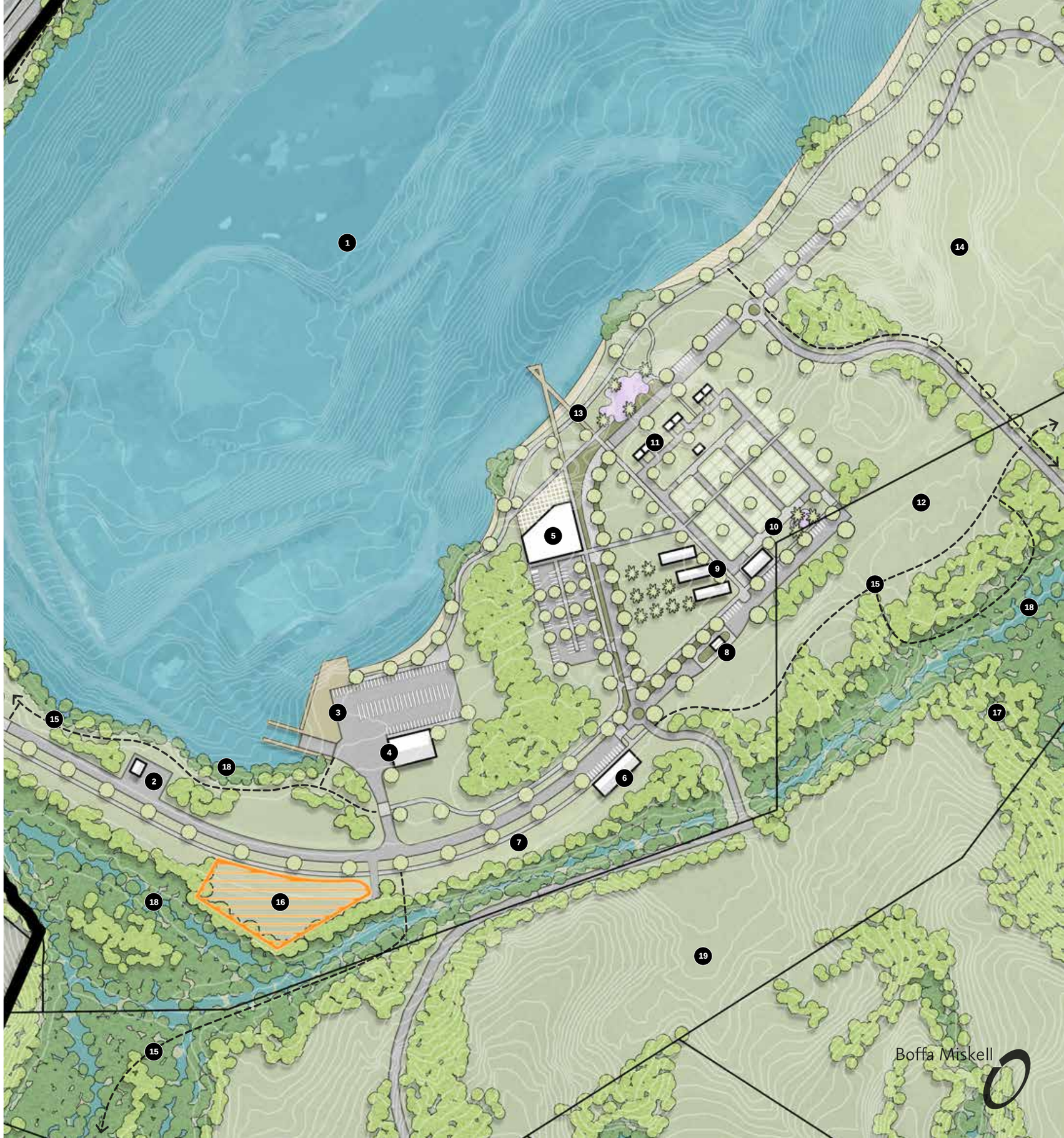
6. RECREATION LAKE
   Non-Powerboat Related Activities
7. HABITAT RESTORATION
   Wetlands, Lakes and Stream
8. BOAT RAMP & AQUATIC HUB
   Incl. Trailer Parking, Jetty, Aquatic Equipment Hire Centre
9. COMMUNITY CENTRE ACTIVITY HUB
   Multi-Purpose Building With Cafe, Conference Rooms & Teaching Spaces
10. COAL MINING MUSEUM
    Re-purposed Historic Huntly Railway Station, Incl. Outdoor Sculpture Trail
11. ACCOMMODATION
    Motel Units, Dormitories & Camping Facilities
12. FLEXIBLE OUTDOOR EDUCATION ZONES
    Ecological, Experiential & Educational Spaces and Walkways
13. OUTDOOR RECREATION
    Beaches & Lakefront Tracks
14. PASSIVE RECREATION
    Multi-Purpose Open Space
15. CULTURAL DISCOVERY
    Nature & Heritage Trails with Interpretation & Education Opportunities
16. PLANT NURSERY
    On-site Eco Sourced Plant Propagation & Commercial Supply
17. LAKE OUTLET CHANNEL
    Discharging Clean Overflow to Remnant Lake Kimihia



CONCEPT MASTERPLAN (HUB)

KEY

1. NEW KIMIHIA LAKE (RECREATION LAKE)
   Non-Powerboat Related Activities
2. POWER SUBSTATION
   Existing On-site Infrastructure
3. BOAT RAMP & JETTY FACILITIES
   Incl. Vessel Trailer Parking & Stepped Jetty
4. AQUATIC EQUIPMENT HIRE CENTRE
   Incl. Space for Equipment & Training
5. COMMUNITY CENTRE ACTIVITY HUB
   Multi-Purpose Building with Cafe, Conference Rooms & Teaching Spaces
6. COAL MINING MUSEUM
   Re-purposed Historic Huntly Railway Station, Incl. Outdoor Sculpture Park
7. COAL MINING OUTDOOR SCULPTURE PARK
   Re-purposed Large Historic Mining & Rail Equipment & Machinery
8. ACCOMMODATION
   Entrance & Office Reception (Re-purposed Weighbridge Station)
9. ACCOMMODATION
   Dormitories (x3 Wings of 25 Beds Each)
10. ACCOMMODATION
    Camping Facilities (60+ sites, Ablutions & Kitchen Annex, Shared Space)
11. ACCOMMODATION
    Motel Units (x3 Duplex Units - 6 Units Total)
12. FLEXIBLE OUTDOOR EDUCATION ZONES
    Ecological, Experiential & Educational Spaces and Walkways
13. PREMIER LAKE FRONT AMENITIES
    Beaches, Manicured Lawn, Tracks, Iconic Jetty, Destination Playground
14. PASSIVE RECREATION
    Multi-Purpose Open Space
15. CULTURAL & NATURE DISCOVERY
    Nature & Heritage Trails with Interpretation & Education Opportunities
16. PLANT NURSERY
    On-site Eco Sourced Plant Propagation & Commercial Supply
17. HABITAT RESTORATION
    Gully & Slope Stabilisation with Native Shrubland Plantings
18. HABITAT RESTORATION
    Wetlands, Streams & Lake Margins with Native Riparian Plantings
19. CONTINUED FARMING
    Drystock Grazing & Forestry Practices Continue Around New Activities



CONCEPT ARTIST IMPRESSION (HUB)

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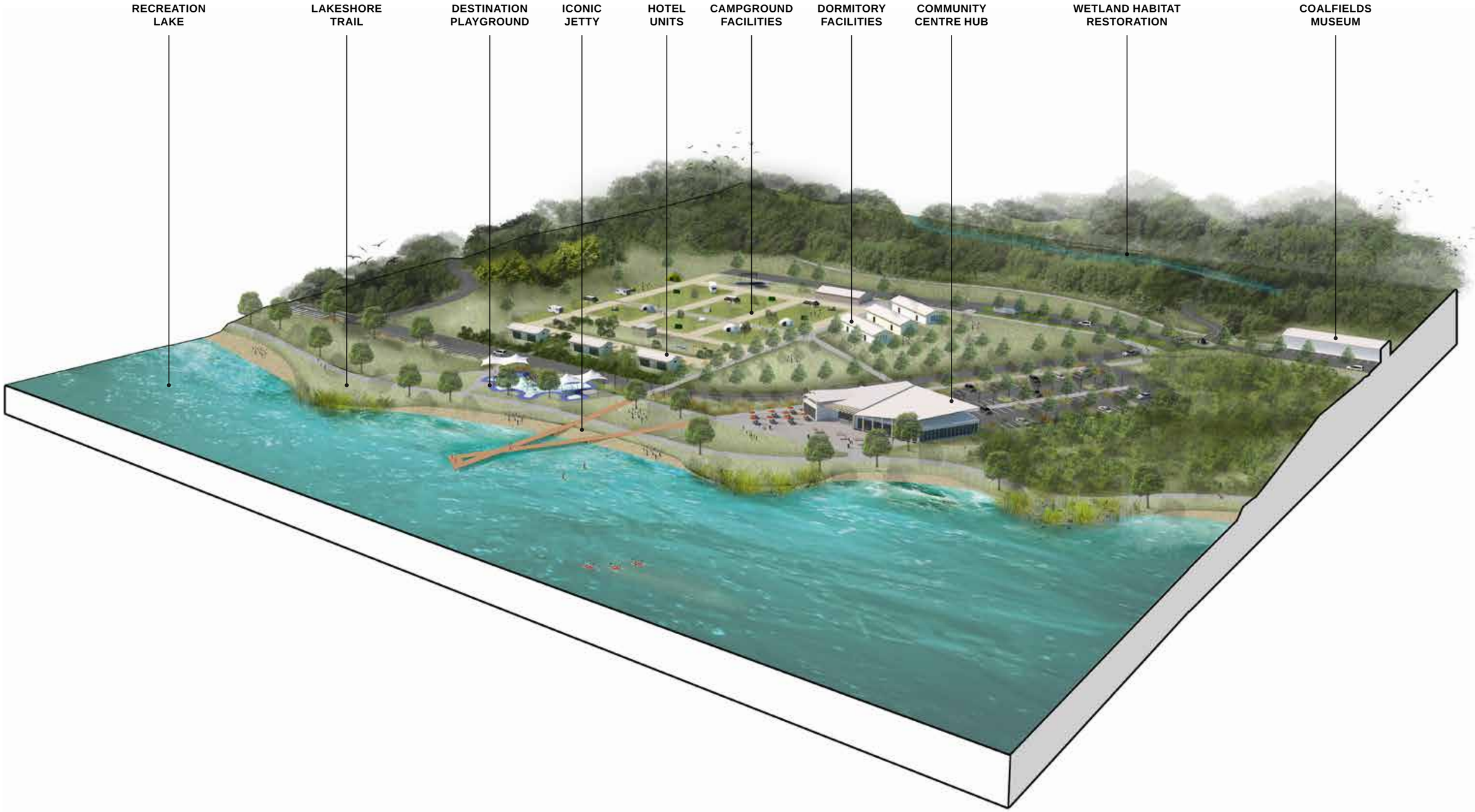

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About Boffa Miskell

Boffa Miskell is a leading New Zealand professional services consultancy with offices in Auckland, Hamilton, Tauranga, Wellington, Christchurch, Dunedin and Queenstown. We work with a wide range of local and international private and public sector clients in the areas of planning, urban design, landscape architecture, landscape planning, ecology, biosecurity, cultural heritage, graphics and mapping. Over the past four decades we have built a reputation for professionalism, innovation and excellence. During this time we have been associated with a significant number of projects that have shaped New Zealand's environment.

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