

15A Te Kauwhata Structure Plan

15A.1 Introduction

Te Kauwhata is expected to grow significantly over the next 50 years in response to employment opportunities in the Northern Waikato and South Auckland, its proximity to the Waikato Expressway and the town's attractive setting. The sub-regional growth strategy (Future Proof) anticipates a population of 7,800 by 2061. There is a need to ensure the orderly development of the area as it grows and this structure plan seeks to achieve a number of integrated objectives. This chapter presents plan provisions that are specific to the Te Kauwhata Structure Plan area, as shown on the planning map, which are designed to ensure growth is appropriately managed. It is to be read in conjunction with the district-wide provisions contained elsewhere in this plan.

A particular Lakeside Precinct Plan applies to the area south of the current town centre and adjoining Lake Waikare. This area is within the Te Kauwhata Structure Plan Area as shown in Schedule 21E.3, but it has its own provisions particular to the Lakeside location. The Lakeside Precinct Plan Area complements the range of housing typologies within Te Kauwhata by providing medium and relatively higher densities. The higher density areas are complemented with the extensive use of communal open space. These areas are also in close proximity to the significant public open space proposed as part of the Lakeside Precinct Plan Area. The objectives, policies and provisions for Lakeside complement the general Te Kauwhata Structure Plan provisions. In particular, they limit business development so as to reinforce the Te Kauwhata town centre. The Lakeside Precinct Plan provides for the opening up of Lake Waikare to public access. Development controls ensure high quality neighbourhoods. Provisions are put in place to promote comprehensive integrated development. The objectives and policies for the Lakeside Precinct Plan Area are set out in section 15D.

Te Kauwhata is located on elevated land between the Whangamarino Wetland and Lake Waikare. Visual connectivity between the built up area of the village and the surrounding countryside is strong and reinforces the rural feel and ambience of the village. The Structure Plan will ensure that this distinct character is maintained and enhanced during growth and expansion of the village by establishing strong physical and visual connections to the Whangamarino Wetland and Lake Waikare and defining boundaries that relate to distinctive landscape features and physical constraints such as flooding. The village character will be retained with development being primarily residential, with opportunities for local service industries to develop. Some of the employment opportunities needed to support residential growth are to be provided outside the Structure Plan area, such as north of Te Kauwhata at Hampton Downs. Stream and wetland margins are recognised and provided for through the Structure Plan to ensure that their ecological, landscape and recreational values are optimised.

15A.2 Issue –Te Kauwhata effects of growth

Poorly managed urban growth within the Te Kauwhata Structure Plan area can result in adverse environmental effects including: a loss of village character; a lack of community or neighbourhood identity; a loss of landscape values; low residential amenity; conflicts with heavy and through traffic; poor connectivity and a lack of transport options; inefficient development of infrastructure; conflicts between land uses; degraded water quality and loss of natural habitat and ecosystems; and a lack of quality open space and amenity, including streetscapes.

15A.2.1 Te Kauwhata village characteristics are maintained and enhanced

OBJECTIVE	POLICIES
15A.2.1 Te Kauwhata village characteristics are maintained and enhanced.	<p>15A.2.2</p> <p>Development should contribute to the Te Kauwhata village character, including:</p> <ul style="list-style-type: none"> (a) a predominance of residential lots that contain significant open space (b) retaining amenity trees (c) public open space which is conveniently accessed and highly visible (d) retaining views to natural landscapes and features (e) a strong association with rural amenity values (f) a compact form that does not sprawl into the countryside (g) integrated development that reinforces the town centre as a community focal point (h) convenient access to light industries (i) locating light industry predominantly along heavy traffic routes (j) recognising cultural and historic values and land uses including horticulture, viticulture and traditional Maaori values (k) the integration of buildings, private open space and public open space (l) a general consistency of building scale and form that integrate into the natural landscape (m) compliance with the Te Kauwhata Structure Plan and Urban Design Guide (n) a strong association with ecological values of the wetland environments in the vicinity of the township, in particular Whangamarino Wetland and Lake Waikare.

15A.2.3 A compact town centre that meets the needs of a growing population...

OBJECTIVE	POLICIES
15A2.3 A compact town centre that meets the needs of a growing population for a retail, business and entertainment centre, social meeting place, and living space, with access to public transport.	<p>15A.2.4 Development of the town centre and its expansion into its immediate surrounds should involve the integration of:</p> <ul style="list-style-type: none"> (a) pedestrian-oriented retail development that provides active frontages (b) community facilities (c) conveniently located parking, including park-and-ride, facilities that do not dominate pedestrian-oriented streets (d) high amenity access to public transport nodes including any future railway station (e) medium-density residential development (f) open space including a connection to the Whangamarino Wetland and Lake Waikare. (g) the provision of service lanes for businesses. <p>15A.2.5 Residential activities and development in the town centre should maintain amenity values, with special attention given to avoiding, remedying and mitigating the adverse effects of medium density housing including reverse sensitivity issues.</p> <p>15A.2.6 Retail development should be concentrated within the town centre and its immediate surrounds.</p>

15A.2.7 Landscape, open space and amenity values of Te Kauwhata are maintained and enhanced

OBJECTIVE	POLICIES
15A.2.7 Landscape, open space and amenity values of Te Kauwhata are maintained and enhanced.	<p>15A.2.8 Subdivision, use and development should be located and designed so that it is sympathetic to natural features and landscapes, including retaining natural land contours and minimising earthworks.</p> <p>15A.2.9 Subdivision, use and development should be designed and located so that public open space, and landscape and amenity values are integrated into urbanised areas including:</p> <ul style="list-style-type: none"> (a) retaining visually prominent areas as open space where they contribute significantly to the character of the area (b) retaining amenity trees (c) retaining riparian areas as open space and enhancing their landscape and ecological values (d) ensuring urban lot sizes, shapes and orientations address site-specific issues including: <ul style="list-style-type: none"> • stormwater management • solar access • maintaining views from public open space • natural land contours. (e) designing subdivisions so that streets and houses have views of natural features and landscapes where possible (f) ensuring public open space has substantial road frontage.

15A.2.10 Diverse living and working environments in Te Kauwhata create a positive sense of place and neighbourhood identity

OBJECTIVE	POLICIES
15A.2.10 Diverse living and working environments in Te Kauwhata create a positive sense of place and neighbourhood identity.	<p>15A.2.11 Subdivision, use and development should be located and designed to provide a variety of living and working environments with recreational opportunities in close proximity.</p> <p>15A.2.12 Living, working and recreational environments should contribute to the Te Kauwhata village character and have high amenity values through the use of design principles.</p> <p>15A.2.13 Medium-density housing development should:</p> <ul style="list-style-type: none"> (a) be associated with areas being retained as open space, and (b) be in close proximity to public transport nodes and the town centre and open spaces, and (c) provide an attractive streetscape, and (d) provide high quality private outdoor living areas for each dwelling. <p>15A.2.14 Infill residential subdivision and development should ensure the Te Kauwhata village character is retained through having:</p> <ul style="list-style-type: none"> (a) the streetscape being maintained or enhanced, and (b) the additional dwelling being discreetly located, and (c) high quality private outdoor living areas for each dwelling.

15A.2.15 Urban expansion in Te Kauwhata occurs in accordance with the progressive, integrated and orderly development of infrastructure

OBJECTIVE	POLICIES
15A.2.15 Urban expansion in Te Kauwhata occurs in accordance with the progressive, integrated and orderly development of infrastructure.	15A.2.16 Subdivision and development should occur in an orderly sequence dictated by the provision of infrastructure in progressive stages generally in accordance with the network layouts shown in the Te Kauwhata Structure Plan. 15A.2.17 Provision of infrastructure works should be staged and integrated to optimise efficient provision of infrastructure.

15A.2.18 Hydrological characteristics of the Whangamarino Wetland, Lake Waikare and their tributaries are retained

OBJECTIVE	POLICIES
15A.2.18 Hydrological characteristics of the Whangamarino Wetland, Lake Waikare and their tributaries are retained.	<p>15A.2.19 Subdivision, use and development must be undertaken in a manner that maintains the overall hydrological characteristics of the area including maintaining surface and groundwater flow regimes, ponding and drainage patterns.</p> <p>15A.2.20 Modifications to flow paths, ponding areas and drainage patterns should be limited to minor adjustments that enable an overall enhancement of the environment or restore previously modified systems or form part of an integrated development approved as a Comprehensive Land Development Consent or Comprehensive Subdivision Consent.</p> <p>15A.2.21 Stormwater should be managed as close to its source as is practicable.</p>

15A.2.22 Ecological values and water quality of the Whangamarino Wetland, Lake Waikare and their tributaries are maintained and enhanced

OBJECTIVE	POLICIES
15A.2.22 Ecological values and water quality of the Whangamarino Wetland, Lake Waikare and their tributaries are maintained and enhanced.	<p>15A.2.23 Stormwater runoff must be managed to ensure natural water bodies are not degraded and ecological values are protected.</p> <p>15A.2.24 Development must be designed and setback from the Whangamarino Wetland, Lake Waikare and their tributaries to maintain and enhance their ecological values.</p> <p>15A.2.25 Stormwater management practices and devices should be in accordance with low impact design principles.</p> <p>15A.2.25A Riparian buffer plantings should be compatible with vegetation associated with the Whangamarino Wetland and consistent with identified plant species.</p>

15A.2.26 Public access to, and visibility of, the Whangamarino Wetland, Lake Waikare and their tributaries are enhanced.

OBJECTIVE	POLICIES
15A.2.26 Public access to, and visibility of, the Whangamarino Wetland, Lake Waikare and their tributaries are enhanced.	15A.2.27 The riparian margins of the Whangamarino Wetland, Lake Waikare, and their tributaries should be managed to enhance landscape and amenity values and increase public access, in a manner that integrates with stormwater management and eco-corridor development.

15A.2.28 Risks from flooding and poor drainage are avoided

OBJECTIVE	POLICIES
15A.2.28 Risks from flooding and poor drainage are avoided.	15A.2.29 Subdivision, use and development must not increase flood hazards. 15A.2.30 Subdivision, use and development should not be located in areas subject to flooding or in natural seepage areas.

15A.2.31 A land transport network that provides for all transport modes, and contributes towards creation of the Te Kauwhata village character, is developed

OBJECTIVE	POLICIES
15A.2.31 A land transport network that provides for all transport modes, and contributes towards creation of the Te Kauwhata village character, is developed.	<p>15A.2.32 Subdivision, use and development should be located and designed to contribute towards an integrated transport network within the Te Kauwhata Structure Plan area including:</p> <ul style="list-style-type: none"> (a) a high degree of road connectivity, including between local roads (b) convenient access to public transport nodes (c) convenient and high amenity walking and cycling routes to community focal points including schools, public open space and the town centre (d) consistency with the Structure Plan roading network (e) facilitating the development of public transport (f) walkway and footpath connections to existing networks. <p>15A.2.33 The transport network should be located and designed to contribute towards the creation of the Te Kauwhata village character including through</p> <ul style="list-style-type: none"> (a) creating attractive streetscapes (b) minimising the number of rear lots (c) using traffic calming measures (d) minimising the number of access points on to roads by pairing entranceways where possible (e) ensuring road alignments are sympathetic to natural contours so that the need for earthworks is minimised. <p>15A.2.34 Heavy and through traffic should be separated from the village road network.</p>

15A.3 Reasons and Explanations

The reasons and explanations for the Lakeside Precinct Plan Area are set out in section 15D.

15A.3.1 Te Kauwhata village character

Te Kauwhata is a distinctive rural village connected to the surrounding rural landscape, lakes, wetlands and with clear views to the surrounding hills. An important element of the Structure Plan is to ensure that this Te Kauwhata village character is not lost as the village expands.

The objectives and policies aim to ensure that:

- residential lots are of a size, shape and orientation to provide high quality private open space,

- streetscapes are attractive,
- trees associated with previous development are retained,
- public open space is conveniently located,
- views to, and connections with, the surrounding natural features are retained,
- buildings integrate into natural landforms, and
- the town centre is developed as an integral part of the community.

Development in Te Kauwhata will be encouraged to achieve a well-defined live, work and play environment for the residents. Rules will ensure that the Te Kauwhata village character is taken into account when developments are considered.

Developments should be designed to achieve the Te Kauwhata village character presented here. Development proposals should be based on a site analysis that considers such things as topography and landforms, natural features, wetlands and streams, views and orientation, solar access, possible road connections and opportunities for existing or proposed connections for cycleway and walkway linkages.

15A.3.2 Te Kauwhata town centre

The type of development in the town centre, and its layout, are important factors in the overall development of the town. Development should ensure creation of a retail area that is attractive for pedestrians, but which also provides adequate parking, and creates strong connections to any future railway station and the Whangamarino Wetland. Active frontages typically include shops built up to the road edge with 75% window frontage and with service vehicle access from the rear, continuous building facades, numerous building entries, retail and commercial uses predominating on the ground floor, and commercial and residential uses on the upper floors overlook the street. Developments that involve blank walls along the street, on-street service doors, multiple driveways across the footpath, or high fences along the street do not create active street frontages.

A range of residential densities is necessary to help meet the demand from the community for a range of housing choices. A combination of factors mean medium-density housing development is feasible within the Mixed Use Policy Area. These factors include proximity to public open space and the town centre with its associated employment opportunities and amenities. Such development will provide for people to walk to work or to a public transport node, and have quick access to public open space for outdoor recreational needs.

Increased use of public transport is an important component of sustainable management. This is recognised in Future Proof and in national and regional transport strategies. The existing railway line is ideally located to facilitate the establishment of a passenger train service and the movement of goods. It is envisaged that a railway station will be developed as part of the town centre when the need arises.

Development associated with the town centre should be designed to avoid or mitigate reverse sensitivity issues such as noise from businesses and recreational activities affecting nearby dwellings. Acoustic insulation is one method of achieving this.

Main Road can be enhanced by providing for three-storey buildings on the southern side and creating a central planted median to improve pedestrian safety and narrow the perceived width of the road. As

the population increases, there will be a demand for more community facilities. Such buildings should be associated with the town centre, and integrated into the Mixed Use Policy Area.

It is important to ensure that the town centre remains the focus of retail development. Development elsewhere, such as large-scale retail development close to the expressway, would result in incremental creep of retail out of the existing town centre and this will detract from the town's character. Therefore the land adjacent to the expressway remains in the Rural Zone and is not considered appropriate for retail development.

15A.3.3 Landscape, open space and amenity values

Landscape in the Te Kauwhata Structure Plan area is characterised by low-lying landforms, with flat to rolling terrain with gentle gullies and overland flow paths. These landforms create a distinctive open space that contributes to the high amenity values of the area by providing a backdrop with views towards the Whangamarino Wetland, Lake Waikare and beyond to the Hapuakohe range. Uncontrolled intense urbanisation could compromise these local landscapes and destroy the open space amenity values associated with the village. Substantial modification of the landform has the potential to create adverse outcomes in terms of landscape values as well as adversely impact on the environment in general. It is important that future development responds sensitively to these natural features and landscapes.

Features such as vegetation, landforms and waterways can add character and interest to the subdivision and provide benefits in terms of maintaining established natural ecosystems. Subdivision has often historically involved the indiscriminate clearance of these features. It is envisaged that subdivisions will be designed to take advantage of features within a site to create identity and to reflect increasing community interest in environmental issues. The objectives and policies promote retention of main landforms and landscape characteristics. Design solutions that limit the extent of earthworks, reducing opportunities for erosion and sedimentation and retaining the site's natural features should be pursued.

Urbanisation should result in public space being integrated into developments and creating high local amenity. Open space can be achieved where areas are visually prominent, in areas where established amenity trees already contribute to the local environment and around the lake and wetland edges and their tributaries. Significant road frontage for reserves is an essential element of urban design as it ensures easy access to, and high visibility of, such areas.

Retaining natural land contours, views and designing subdivisions to reflect specific issues for such things as stormwater and solar access ensures that the development will integrate with, and take advantage of, the natural environment. The orientation of roads and blocks should be sympathetic to land contours and ensure that lots and building platforms integrate into the landscape in a manner that allows dwellings and other uses to provide a public 'front' to and 'eyes on' the road, and a private and sunny 'rear' for private amenity.

15A.3.4 Diverse living and working environments

Well-designed and integrated development creates a high quality living environment that fosters a sense of place including community identity, with strong socially cohesive local neighbourhoods and towns, while also protecting the natural environment. Achieving these things is pivotal to ensuring the village character is not lost.

A range of residential densities is necessary to help meet the demand from the community for a range of housing choices. Intensification in appropriate areas is envisaged but will be subject to assessment criteria that seek to ensure high quality urban design and amenity outcomes. Medium-density housing should be associated with open space and be in close proximity to the town centre and facilities.

Provision for some small-scale workplaces and neighbourhood activities in the area will help to promote the ability for the community to maintain a work, live and play lifestyle in the area. Light industry is to be concentrated along the proposed alternative heavy traffic route to the south of the town. This is in response to several factors including encouraging freight transport to remain on the proposed new road, recognising industry's need for flat land, keeping housing away from the railway line, and separating industry from housing as much as possible while still having it conveniently located. Where industry is to be located near residential areas, landscaping is to be used to protect residential amenity.

Future community facilities will establish in the Structure Plan area as and when the community requires such facilities. Providing for high quality, well-located recreation areas contributes to social wellbeing and is a fundamental component of development in the Structure Plan area. Such areas also assist in the establishment of an ecological corridor and the maintenance and enhancement of the Whangamarino Wetlands and Lake Waikare.

15A.3.5 Infrastructure development

Provision of infrastructure systems is a key component in managing growth and development in the Structure Plan area such as roads, water supply, stormwater treatment and detention facilities and wastewater. It is Council's policy that the development should pay for its share of the infrastructure required. Even with contributions from development, the Council will face substantial financial commitments to facilitate the growth of the area. It is likely that there will be a need to finance the construction of some of the principal infrastructure as this infrastructure will need to be built ahead of development. This infrastructure should be funded by a combination of forward funding by both developers and Council. Council's contribution will be recovered through Development Contributions over time. It is therefore necessary to plan for this expenditure and manage development to ensure that the rollout of infrastructure is orderly and efficient. Within the structure plan area an alternative source of non-potable water may be available from the Te Kauwhata Water Association. The association is a private organisation which has its own reticulated network of infrastructure for delivery of bulk non-potable water.

15A.3.6 Hydrological characteristics

An essential element of the Structure Plan is to maintain and enhance the natural functioning of water bodies in the Structure Plan area. Changes to hydrology (including low and high flows, and groundwater levels), increased release of sediments, and the discharge of contaminants need to be avoided. Riparian areas need to be retained and enhanced. The incorporation of an ecological corridor and reserves will result in them being enhanced as amenity features of high ecological value. Large-scale earthworks need to be avoided to ensure that the natural features of the area are retained and hydrological characteristics are not substantially modified. Low impact stormwater management is to commence on site to ensure that natural water bodies are protected. Minor changes to watercourses, such as realigning a channel, are acceptable where these are necessary to enable efficient development of an area, provided that hydrological, ecological and amenity values are

enhanced in a manner consistent with the overall Te Kauwhata village character. Development must not alter the flow regimes entering the Whangamarino Wetland and Lake Waikare.

15A.3.7 Ecological values and water quality

The Whangamarino Wetland is an internationally significant natural resource being one of only six of New Zealand wetland sites that are listed in the Ramsar List of Wetlands of International Importance. Ramsar is an inter-governmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. New Zealand is a signatory to the Ramsar Convention. It is essential that measures be adopted to ensure that the ecological values of this significant site are protected. Both the Whangamarino Wetland and Lake Waikare are within the Landscape Policy Area, which provides additional policy protection under the District Plan.

Stormwater run-off within the catchment must be carefully managed in order to avoid adverse effects of increased flooding, erosion and contamination of receiving waters. Stormwater systems should attenuate stormwater flow and optimise interception, detention and removal of waterborne pollutants prior to their discharge to receiving waters. If stormwater disposal is managed in a sustainable manner, the impact on the environment is less and longer-term maintenance costs are reduced. Stormwater management can provide attractive amenity features within and adjoining subdivision developments.

The quality of the water and associated ecological resources of the Whangamarino Wetland must be protected. This will require careful management of development in the area. Complying with more general guidelines regarding stormwater management is not sufficient to protect and enhance this very sensitive receiving environment. For this reason a “treatment train” for stormwater management that commences on site and integrates low impact design principles (rain tanks, rain gardens, swales) will manage most stormwater effects with artificial wetlands and ponds used as part of an integrated approach to stormwater management. These stormwater management facilities need to be designed to a very high standard to avoid cumulative effects on Whangamarino Wetland.

In addition to integrated storm water management, development must be setback from the functional edge of the water bodies. The Structure Plan ensures that setbacks are achieved in the Blunt Road area by securing a corridor around the edge to incorporate a road and a 20m wide open space area that accommodates ecological enhancement works, stormwater management and a walkway / cycleway. In the Travers Road area, significant riparian enhancement is envisaged, and most of the flood plain is to remain as open space. Planting within the Environmental Protection Policy Area should be established with a transition from grass filter strips to native restorative plantings (as identified in [15A.4.4 – Plant species for Environmental Protection Policy Area](#)). This transition from grass to plants is required to reduce the ability of weeds to spread from residential gardens to the wetland.

Works within the Lake Waikare catchment should ensure that they do not result in further degradation of the lake. Industrial sites, which are predominantly within the lake catchment, are also managed under hazardous substances plan provisions to ensure the environment is protected. The existing wastewater system has sufficient capacity for some growth and will be extended to cater for the extended population in 2061.

15A.3.8 Public access

The riparian margins of the Whangamarino Wetland, Lake Waikare, and their tributaries should be managed to enhance landscape and amenity values including public access, in a manner that integrates with stormwater management and eco-corridor development. Water bodies not only hold ecological values but also provide an important recreational service to the community. Eco-corridors is the linking of the natural and constructed waterways and landscaped areas and are often referred to as blue and green corridors. The linking of these two corridors helps to create interconnected areas of high amenity value and recreation for the community, as well as ecological pathways. A riparian buffer is the area of land closest to the waterway and the eco-corridor works in conjunction and provides the wider open space that is inherent in the amenity values of the structure plan. Eco-corridors often incorporate public access ways and passive recreation areas. Public access is essential to enable the community and visitors to avail themselves of the opportunities offered around these water bodies.

15A.3.9 Flooding and drainage

Flooding is a significant issue in parts of the Structure Plan area, as defined in the Catchment Management Plan. In the Travers Road catchment area the hazard is to be managed in accordance with zoning and Structure Plan provisions. Upstream of Travers Road in the Living Zone, roads are to be constructed around the margin of the floodplain, which is to be managed predominantly as open space. Stormwater management incorporating low impact design principles are also an important means of managing floods by ensuring peak flows are not increased.

Downstream of Travers Road, the southern part of the floodplain is to remain Country Living Zone in recognition of the degree of subdivision that has already occurred. In this zone, filling to raise floor levels is acceptable provided that the flood hazard on other properties is not increased. The northern part of the floodplain downstream of Travers Road has open space zoning and is to remain free of dwellings, with the flood-free parts of those properties now being in the Living Zone. A road is to be located on the margin of the floodplain.

Flood hazards in the Business and Industrial Zones are to be managed through setting minimum floor levels. Filling is acceptable in these zones. The alternative heavy traffic route will act as the southern boundary of the urban area to avoid incremental development on to the flood plain and the loss of flood storage capacity. The assessed flood hazard for Lake Waikare and Whangamarino Wetland may be subject to change due to future hazard assessments taking into account the potential impacts of climate and land-use change.

Building development should not be located in groundwater seepage areas because of the low amenity associated with such areas and because of the potential for unintended consequences if such areas are built on. Such consequences include the possibility of long-term stability issues either for the building or at a nearby site where water pressure is diverted.

15A.3.10 Land transport

Development in the Te Kauwhata Structure Plan area should be in accordance with the proposed transport network as shown on the Structure Plan maps, in [Appendix A](#) and in the [Urban Design Guide](#). Roading is an integral component of successful urban development and needs to be designed to meet a range of transport, amenity and stormwater objectives. The proposed road network seeks to create an interconnected network of roads that provides good accessibility

throughout the settlement and in particular to key destinations such as schools, reserves, public transport nodes and the town centre by foot and cycle, as well as by vehicle. Road layouts should seek to achieve a generally low speed environment while remaining suitable for public transport. These requirements reflect the New Zealand Transport Strategy and the Regional Land Transport Strategy, which are seeking to achieve a sustainable, integrated and multi-modal transport system by promoting a range of transport options.

Although subdivision applications are submitted on a site-by-site basis, there needs to be consideration of future connections, to ensure the neighbourhood and future developments are integrated and accessible. For example, where there are two parallel indicative roads on a property it is expected that there will be a direct road link between them. New roads associated with subdivision should connect to neighbouring properties if they have subdivision potential and should also connect to any road that abuts the property being subdivided. The number and length of culs-de-sac should be minimised to ensure overall network connectivity. Any proposal to develop multiple culs-de-sac must be based on sound reasoning, such as topographic constraints or retention of natural features. A reduction in lot yield will not be an adequate reason.

Minimising earthworks and retaining natural contours is an important component of the Te Kauwhata village character. Ensuring road alignments reflect natural contours is fundamental to achieving this outcome because they determine not only the amount of earthworks needed to build the road but also dictate what is required to create building platforms.

Creating appropriate block size, depth and orientation at the subdivision stage is a critical factor for ensuring that a high standard of urban design is achieved within an area. Refer to [Appendix Og: Urban Design Guide](#). A reasonable degree of flexibility is provided in the location of local roads. However, it is important that the roading network creates lots that are conducive to good urban design outcomes and hence creates the Te Kauwhata village character. These include houses fronting onto rather than backing onto or being side onto the street to ensure a positive relationship between houses and the street, and having sunny and private open space. It is expected that each lot will have its own separate road access, as the number of rear lots is to be minimised. Rear lots are not favoured because they do not have direct visual connection to the road and hence do not benefit from the open space amenity associated with the road and do not contribute towards ‘eyes on the street’. Furthermore, accesses to rear lots decrease the amenity of the adjacent front lots. Shared rights-of-way are not favoured because they detract from the overall streetscape, and should not be required except where infill occurs because of the limit on rear lots. At the road margin, entrances should be paired where possible because this enables the streetscape to be enhanced through the positioning of street trees and the provision of on-road parking bays that also provide space for on-road manoeuvring for vehicles reversing on to the road.

Roads are an important public space and the network should create high quality public spaces and incorporate quality amenity features such as tree planting. Appropriate stormwater management features like rain gardens, swales and pervious paving should be incorporated into the road design so that the stormwater generated from the road surfaces is managed within the road reserve, avoids adverse effects on the environment, and the overall road appearance contributes towards the Te Kauwhata village character.

Heavy and through traffic have negative impacts on the environment, including noise, vibration and reduced safety associated with high traffic volumes. This traffic should be separated from the village road network by the alternative route. The alternative will safeguard amenity within the village and provide a safe and efficient transport network. This will be achieved by the designation of an alternative route to the south of the existing village that will link Waerenga Road and Te Kauwhata Road.

Once the Lakeside development exceeds 400 residential allotments, a second access road will be constructed in the north-east linking the Lakeside Precinct to the Te Kauwhata urban area in the vicinity of Rata Street. Where the 400 residential allotments include a retirement village, each independent living unit within the retirement village shall count as one allotment.

15A.4 Methods of Implementation

The methods of implementation for the Lakeside Precinct Plan Area are set out in section 15D.

15A.4.1 Regulatory Methods

- (a) Rules to manage location, density and intensity of subdivision and development.
- (b) Designation for a road bypass to separate heavy and through traffic from the village.
- (c) Rules that provide for low impact solutions to stormwater management.
- (d) Indicate on planning map:
 - Proposed ecological corridors
 - Council stormwater, wastewater and water infrastructure
 - Proposed walking and cycling links
 - Indicative roads
 - Zones - Living, Business and Industrial.
 - Mixed Use Policy Area concept plan
- (e) Appendix Of: Urban Design Guide for subdivision development.

15A.4.2 Council Works and Services

- (a) New reserves acquired and develop facilities as and when required.
- (b) Low impact design and devices adopted to protect sensitive environment.
- (c) Compliance with stormwater Catchment Management Plan.
- (d) Community facilities conveniently located and provided, as and when required.
- (e) Works to improve townscape and services.
- (f) Development of footpaths and cycleways into integrated transport network including wetland and lake access.
- (g) Bypass construction
- (h) Development of brochures with additional details relating to 15A.4.4

15A.4.3 Information, Education and Advocacy

- (a) Promote within the community the need for development to be sensitive to the area.

- (b) Promote low impact design and use of devices.
- (c) Promote and encourage ecological enhancement of the water bodies.
- (d) Work with external agencies to provide enhancement of the natural features.
- (e) Promote good design features in development.
- (f) Promote heritage awareness.
- (g) Recognise heritage through road names in accordance with the Council's road naming policy
- (h) Promote with the use of brochures the types of plants best suited for the riparian margins in accordance with those listed in 15A.4.4 - Plant species for Environmental Protection Policy Area.

15A.4.4 Plant Species for Ecological Restoration and Water Treatment

As a basic premise, the species to be used for ecological restoration within the SP area should be species that are known to occur within the Meremere Ecological District. Furthermore, the planting stock should be 'eco-sourced' from the Meremere Ecological District in order to avoid introducing new genetic provenances into the Whangamarino Wetland and surrounding areas.

The majority of the species listed here are suitable for restoration of open sites, but some key species that require shelter prior to planting are also listed. Further enrichment species should be added as restoration areas mature. These species will include herbs, ferns, shrubs and slow growing trees.

Some species suitable for rain gardens have also been indicated, but this list is not exhaustive. Good candidates for rain gardens are typically those species that can tolerate both wet and dry conditions. However, many other species than those selected here may be used within rain gardens to ensure good landscaping outcomes.

15A.4.4.1 Suggested restoration and stormwater treatment species for the SP area

Scientific name	Common name	Primary restoration species	Ephemeral stream gullies	Perennial waterway margins - well drained	Perennial waterway margins - poorly drained	Stormwater treatment wetlands	Rain gardens
<i>Alectryon excels</i>	Titoki		✓				✓
<i>Aristotelia serrata</i>	Kaikomako, wineberry	✓	✓	✓			
<i>Astelia fragrans</i>							✓
<i>Astelia grandis</i>				✓			✓
<i>Baumea arthrophylla</i>		✓		✓			✓
<i>Baumea articulates</i>	Jointed twig rush	✓		✓	✓	✓	
<i>Baumea teretifolia</i>	Pakihi sedge			✓			✓
<i>Bolboschoenus medianus</i>		✓		✓	✓		
<i>Baumea rubiginosa</i>		✓		✓			✓
<i>Carex comans</i>	Glen Murray grass						✓
<i>Carex flagellifera</i>							✓
<i>Carex maorica</i>					✓		
<i>Carex secta</i>	Purei	✓	✓	✓	✓	✓	✓
<i>Carex virgata</i>	Pukio	✓	✓	✓	✓	✓	✓
<i>Carpodetus serratus</i>	Putaputaweta, marbleleaf		✓		✓		
<i>Coprosma propinqua</i>	Mikimiki	✓	✓	✓	✓		✓
<i>Coprosma rigida</i>		✓	✓		✓		✓
<i>Coprosma robusta</i>	Karamu	✓	✓	✓	✓		
<i>Coprosma tenuicaulis</i>	Swamp coprosma				✓	✓	✓
<i>Cordyline australis</i>	Cabbage tree	✓	✓	✓	✓		✓
<i>Cortaderia fulvida</i>		✓	✓	✓			✓
<i>Cortaderia toetoe</i>	Toetoe	✓	✓	✓	✓	✓	✓
<i>Cyperus ustulatus</i>	Giant umbrella sedge	✓	✓		✓	✓	✓
<i>Dacrycarpus dacrydioides</i>	Kahikatea	✓	✓		✓		
<i>Dianella nigra</i>	Turutu, blueberry						✓
<i>Eleocharis acuta</i>	Spiked sedge	✓		✓	✓		

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<i>Eleocharis sphacelata</i>	Kuta, bamboo spiked sedge	✓		✓	✓	
<i>Ficinia nodosa</i>	Knobby clubrush					✓
<i>Isolepis prolifer</i>		✓		✓	✓	
<i>Juncus edgariae</i>	Wiwi	✓		✓	✓	✓
<i>Juncus pallidus</i>	Giant wiwi	✓		✓	✓	✓
<i>Juncus sarophorus</i>	Wiwi	✓		✓	✓	✓
<i>Kunzea ericoides</i>	Kanuka	✓	✓			
<i>Laurelia novaezelandiae</i>	Pukatea		✓	✓		
<i>Lepidosperma australe</i>	Four square sedge					✓
<i>Leptospermum scoparium</i>	Manuka	✓	✓	✓	✓	✓
<i>Libertia ixioides</i>						✓
<i>Machaerina sinclairii</i>						✓
<i>Melicytus ramiflorus</i>	Mahoe	✓	✓			
<i>Muehlenbeckia complexa</i>	Scrambling pohuehue					✓
<i>Phormium cookianum</i>	Mountain flax					✓
<i>Phormium tenax</i>	Harakeke, lowland flax	✓	✓	✓	✓	✓
<i>Pittosporum eugenoides</i>	Tarata, lemonwood	✓	✓	✓		
<i>Pittosporum tenuifolium</i>	Black mapou	✓	✓	✓		
<i>Poa cita</i>	Silver tussock					✓
<i>Podocarpus totara</i>	Totara		✓	✓		
<i>Pomaderris phyllicifolia</i>						✓
<i>Prumnopitys taxifolia</i>	Matai		✓	✓		
<i>Schoenoplectus tabernaemontani</i>	Lake clubrush					✓
<i>Sophora microphylla</i>	Kowhai	✓	✓	✓		✓
<i>Syzygium maire</i>	Maire tawake, swamp maire		✓		✓	
<i>Typha orientalis</i>	Raupo	✓		✓	✓	

15A.5 Reasons for Methods

The reasons for methods of the Lakeside Precinct Plan Area are set out in section 15D.

15A.5.1 Regulatory Methods

The community of Te Kauwhata places high value on the retention of the Te Kauwhata village character and the creation of an alternative route for heavy and through traffic. The Structure Plan provides an overall framework within which development may occur by way of zones, policy areas and rules. Subdivision is a regulated activity under the Act and therefore Council must specify subdivision standards through rules. The district-wide rule is amended to address issues specific to Te Kauwhata, while at the same time meeting the requirements of the Future Proof. The combination of both rules and a design guide provides both certainty and flexibility.

The Council has introduced rules for development that will ensure that the Te Kauwhata village character is maintained. Rules that minimise earthworks, retain land contours, provide a variety in the size of lots and the implementation of a design guide for subdivision work to achieve this goal. A designation will be put in place to ensure the protection of a corridor for the future alternative traffic route.

Reserves and open space have a role in maintaining the Te Kauwhata village character and subdivision and development is regulated to ensure that these facilities are provided in the appropriate location for the benefit of all the community.

Lake Waikare is important as part of the Lower Waikato Waipa Control Scheme and Whangamarino Wetland is a Ramsar Wetland and is significant to New Zealand. To ensure that both the lake and wetland are not adversely affected by development, rules controlling riparian development, building setbacks, size of lots and the use of low impact design devices are necessary. Some of the area is prone to flooding and for this reason controls will be placed on the location of building platforms.

15A.5.2 Council Works and Services

Council must comply with requirements from Waikato Regional Council for stormwater discharge and a Catchment Management Plan provides details of how to achieve this compliance. Methods of compliance include the use of low impact devices to control stormwater and Council will take a lead role in promoting this type of control by ensuring that its own infrastructure designs incorporate these features. Works to enhance the streetscape will be undertaken in some locations.

Community facilities and reserves are integral to a community. Council has identified the location of proposed reserves and will work with developers to ensure that where possible these can be acquired. Built facilities will be constructed in accordance with community aspirations and funding availability.

15A.5.3 Information, Education and Advocacy

Achieving the long-term aim of the community of Te Kauwhata depends on establishing a positive relationship with landowners and the community. Council will continue to work towards promoting Te Kauwhata as a desirable place to live, work and play. This may include promoting the natural and significant features, recognising and celebrating the area's heritage, encouraging the community to enhance and protect the ecology and encouraging good design within developments.

15A.6 Anticipated Environmental Results

ISSUE	ANTICIPATED ENVIRONMENTAL RESULTS
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ISSUE	ANTICIPATED ENVIRONMENTAL RESULTS
15A.6.1 Te Kauwhata village form and amenity values	<ul style="list-style-type: none"> (a) Protection of Whangamarino Wetland and Lake Waikare. (b) Maintenance, enhancement or creation of linkages creating ecological corridors. (c) Avoidance of irreversible changes to local landforms. (d) Retention of prominent areas as open space. (e) Subdivision and development design that enhances Te Kauwhata village character. (f) Integrated and well-connected transport network including walkway and cycleway linkages, and access to natural features. (g) Subdivision and development that incorporates low impact design principles (h) Developed and expanded town centre that integrates businesses, public open space, public transport nodes and community facilities.