

Discussion Document: Te Ture Whaimana Water and Wastewater

1. Purpose and Statutory Context

The purpose of this document is to outline Waikato District Council's (WDC) response to Te Ture Whaimana for the Proposed District Plan Variation 3 process as it relates to water and wastewater. The circulation of draft provisions to address Te Ture Whaimana was directed by the Independent Hearings Panel (IHP) on the 4th of May 2023. This response forms a part of a further investigation into infrastructure matters pursuant to s32AA of the Resource Management Act 1991.

The purpose of this document is to support discussions with interested and affected parties in relation to the infrastructure outcomes and giving effect to Te Ture Whaimana. A separate document will be distributed for stormwater matters, including stormwater quality and flooding.

We will seek further input into the management of infrastructure in areas that implement the Medium Density Residential standards as part of the expert conferencing and hearing process for Variation 3. We have identified a preferred option which entails a review of internal processes for infrastructure capacity checks to strengthen them. This would utilise methods outside of RMA processes to manage infrastructure capacity issues associated with intensification. We consider continuing with present practices (the 'do nothing' option) will not address the directions in Te Ture Whaimana, however internal processes exist that can be changed to manage infrastructure and subsequent water quality risks due to the anticipated scale of additional development.

There is a relevant Environment Court appeal against the WDC's decision on the PDP in relation to infrastructure rules. The outcome of some of the appeals may affect the ultimate rule drafting. The appeals process will continue in parallel with the Variation 3 process with the best endeavours made by WDC to align outcomes.

2. Summary of Issues

- Infrastructure in Pookeno, Tuakau, Ngaaruawaahia and Huntly has been designed for lower density development than the built form that the MDRS enables. The network has not been designed for the intensities enabled by the Medium Density Residential Standards in a maximum probable development scenario, rather, it has been designed for the wastewater flows generated by one house per site.
- Pookeno, Tuakau, Ngaaruawaahia and Huntly are all within the Waikato River catchment. Tributaries in these areas all ultimately drain to the Waikato River.
- There are existing water quality issues in the Waikato River, and some of those are associated with wastewater overflows.
- Water and wastewater treatment capacity and network is planned to cater for expected growth. Infrastructure planning is complex with long lead-in times.

- Local network is designed for one house per site, with site sizes assumed of around 450m² to 875m² which were historically provided for. Additional houses may exceed the capacity of the network. Local network is renewed at the end of its life and may be upsized at the time of renewal. It may be upgraded in tandem with expected development.
- The Medium Density Residential Standards enable infill development and redevelopment in existing urban areas over a large area. Development could occur in disparate locations. It will be difficult to know which assets to upgrade or what level of development it should be sized for.
- If development occurs where infrastructure capacity is not appropriate for the level of development (number of houses), there is a risk that wastewater overflows will occur if the peak flows in the pipe exceed capacity. Peak flows are dependent on the land use, with residential uses typically generating diurnal (twice daily) peak flows in the morning and evening, and commercial flows being greater during the day.
- Additional water may also be needed to operate the network where infrastructure is not sized appropriately. Fresh water may be needed to flush oversized water pipes so it remains safe for use. Flushing water may also be needed for wastewater pipes that are oversized due to septic wastewater which generates odour and compromises wastewater treatment processes.
- Currently, the planning controls:
 - do not enable an assessment of network capacity.
 - Do not allow for development to be declined due to network constraints. The only mechanism available for WDC to decline connection because of infrastructure issues is via the Waikato District Council Trade Waste and Wastewater Bylaw 2016 and the Waikato District Council Water Supply Bylaw 2014 .
- The current internal process only allow for larger scale development to be assessed for capacity. As such, the current internal processes require amendment.

3. Background

In response to the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021, WDC notified Variation 3 to the Proposed District Plan (PDP) to incorporate the Medium Density Residential Standards (MDRS) and give effect to Policy 3 or Policy 5 of the National Policy Statement – Urban Development 2020 (NPS-UD).

Variation 3 was notified on 19 September 2022 and included an urban fringe qualifying matter which limited the geographic application of the MDRS to within the walkable catchments of Pookeno, Tuakau, Huntly and Ngaaruawaahia. Submissions were received both in support of, and against, the urban fringe qualifying matter. In addition, some submitters also questioned its legality as a qualifying matter under the Resource Management Act 1991 (RMA).

On 3 March 2023, the IHP directed any submitters with an interest in the urban fringe qualifying matter to provide evidence and legal submissions to support their position for the IHP's consideration. On 14 March 2023 the IHP issued interim guidance and concluded that the urban fringe is not a qualifying matter under section 77L(j) as it does not appear to satisfy the requirements of section 77L of the RMA.

The removal of the urban fringe qualifying matter will extend the application of the MDRS to all land zoned General Residential or Medium Density Residential within Pookeno, Tuakau, Huntly and Ngaaruawaahia .

When the urban fringe was applied, Council was of the view that the network could be managed using existing processes under Local Government Act. As a consequence of the removal of the urban fringe, infrastructure capacity will become a more widespread issue as intensification is likely to occur in suburban areas as well as the centres. A greater degree of oversight is needed to ensure incremental use of network capacity does not compromise the operation of the water and wastewater networks. Ineffective and inefficient water infrastructure can cause wastewater overflows and lead to water wastage.

The territorial authority may under ss 77G(6) make the requirements in the IPI less enabling of development than provided for in Schedule 3A or by Policy 3 of the NPS-UD if authorised to do so by Section 77I of the RMA. Section 77I provides for the introduction of qualifying matters when applying MDRS and Policy 3, but only to the extent necessary, to give effect to a number of matters.

The qualifying matters set out in Section 77I most relevant to this assessment are those that are required to give effect to Te Ture Whaimana o Te Awa o Waikato – the Vision and Strategy of the Waikato River (ss77I (b)) which includes the communities of Pookeno, Tuakau, Huntly and Ngaaruawahia.

This document has been prepared to support a review of existing infrastructure assessment processes to determine if additional matters are required to give effect to Te Ture Whaimana o Te Awa o Waikato. The matters that may give rise to a qualifying matter relate to water and wastewater infrastructure capacity constraints.

4. The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010

The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 (the Act) has an overarching purpose of restoring and protecting the health and wellbeing of the Waikato River for future generations. The purpose of the Act (Section 4) includes recognising the Vision and Strategy for the Waikato River, *Te Ture Whaimana o Te Awa o Waikato*. Three waters infrastructure has a direct effect on water quality outcomes.

The scope of the vision and strategy (Section 9), is to recognise the Waikato River and its contribution to New Zealand's cultural, social, environmental, and economic wellbeing as being of national importance, and notes that it applies to the Waikato River and activities within its catchment affecting the Waikato River. A large part of Waikato District is located in the catchment affecting the Waikato River.

Schedule 2 of the Act sets out the vision and strategy for the Waikato River. The vision *is for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces, for generations to come.*

Te Ture Whaimana o Te Awa o Waikato, the Vision and Strategy has considerable weight. As set out in section 11 of the Act it forms a part of the Regional Policy Statement (RPS) and the RPS must not be inconsistent with it. Under Section 12 of the Act the vision and strategy prevails over inconsistent provisions in a national policy statement such as the National Policy Statement for Urban Development and other national planning standards.

Te Ture Whaimana is a listed qualifying matter in the RMA.

The area that the Vision and Strategy applies to is the Waikato River from Huka Falls to Te Puuaha o Waikato and the Waipaa River from its source to its connection with the Waikato River. The Vision and Strategy also applies to the activities in the catchments affecting the Waikato River. Pookeno, Tuakau, Huntly and Ngaaruawaahia are within this catchment as shown in Figure 1 below.

Figure 1 The Area that the Waikato River Vision and Strategy applies to¹



5. Water Quality in the Waikato River

Water Quality in the Waikato River is degraded as noted in the Waikato Sub-Regional Three Waters Strategic Business Case²:

¹ Sourced from the Waikato River Authority website [Catchment - Waikato River Authority](#)

² Waikato Sub-Regional Three Waters Strategic Business Case, A compelling case for change, Future Proof Partners, December 2019.

There is extensive and clear evidence in western science and mātauranga Māori that the river is degraded along much of its length. This is well documented in material prepared to support Treaty of Waitangi claims and settlements (including the Waikato River Independent Scoping Study 2010), technical publications (including the significant body of work completed to support the Healthy Rivers/Wai Ora: Proposed Waikato Regional Plan Change 1 process) and numerous books written on the subject.

Central and local government regulations around improving the quality of fresh water have been introduced in response to changing community environmental expectations and Te Ture Whaimana. Some of these, such as the NPS-FM and proposed plan change 1, specify short and long term targets for the water quality of the Waikato River. Current river water quality conditions generally fall short of these targets.

The Business Case identifies various causes for the water quality issues and these include wastewater discharges. It notes that the Waikato River is almost fully allocated as a water source during summer low flow conditions (page 9) and that management of three waters services and the land development activities that the services provide for are inextricably linked to the health and wellbeing of the river (Page 12). All urban settlements with municipal water services rely on the Waikato River for those services. In many instances water supply is drawn from surface or groundwater sources that feed the Waikato River. Wastewater discharges are either directly into the Waikato or Waipā rivers or tributaries draining to the river. While significant infrastructure upgrades are being planned to improve water quality in the Waikato River including treatment plant upgrades and network capacity improvements, urban development is recognised as a key contributor to poor water quality outcomes. The Waikato Regional Council (WRC) monitors the water quality in the Waikato and reports on the results regularly. The latest report, Trends in river water quality in the Waikato Region, 1991 – 2020 is summarised on the regional council's website³. The data shows that 19% of water quality measures have improved and 13% have deteriorated. WRC notes that "careful management is needed to maintain and improve the quality of the Waikato River."

WRC has advised that the water quality in Lakes Hakanoa and Waikare is degraded. These lakes are hydraulically connected to the river, as are a number of freshwater springs and groundwater. Land uses that impact these freshwater bodies will also impact the Waikato River.

While many of the water quality issues in the river are associated with pastoral farming and urban stormwater, the efficient use of water and the prevention of untreated wastewater entering the river via network overflows will result in an improved water quality outcomes by improving summer low flows which support ecological flows and by preventing contaminants such as E coli and chemicals present in wastewater entering the river.

6. Infrastructure Planning for Variation 3

Variation 3 as notified provided for greater opportunity for residential development near the town centres of Pookeno, Tuakau, Huntly and Ngaaruawāhia. This was done to enable the efficient use of land

³ [Trends in Waikato River water quality | Waikato Regional Council](#)

and infrastructure. Now that the MDRS is to be applied far more broadly, the issues associated with infrastructure capacity are greater which has the potential to create adverse water quality effects on the Waikato River.

Due to the currency of the infrastructure planning assessments such as The Waikato District Council Growth & Economic Development Strategy (Waikato 2070), infrastructure assessments used for the development of the PDP were relied upon when preparing Variation 3. The infrastructure review instigated following notification of Variation 3 offers the opportunity to revisit that approach to determine if amended planning controls to manage effects from intensification on the Waikato River are required. The Residential Capacity Modelling⁴ which supported the s32 report for Variation 3 notes that the MDRS would enable a range of medium to higher density dwelling typologies, and that the typology would, in part, be dictated by the market for new dwellings. The modelling to support the report shows that Variation 3, as notified, provided an estimated plan enabled capacity for an additional 122,300 dwellings with just over half of those (53%; 64,400 dwellings) being within the existing urban area. It also notes that demand would not change, and additional development overall would remain within expected growth scenarios. The plan enabled capacity is far from the real world demand for new development.

The updated growth modelling was not available at the time this memo was drafted, however the expansion of the MDRS to the Urban Fringe will mean that much more development capacity will be enabled. This development could occur anywhere within residential areas because the location of the development will be driven by the aspirations of home owners as well as market forces.

6.1. Submissions

Submissions from residents and Tuurangawaewae Marae have raised concerns about the proposed intensification enabled by Variation 3, observing that, in places, the infrastructure is not in place to cope with current demand, let alone if medium to high density housing is constructed. WDC has also raised network capacity concerns in its own submission (076).

The submission from the Waikato Regional Council (042) has raised concern regarding the impact that increased density and infrastructure capacity will have on the health and the wellbeing of the Waikato River, and the extent to which the proposed provisions give effect to Te Ture Whaimana. Additional provisions are requested by the WRC to manage infrastructure capacity constraints.

Submission 053 from Fire and Emergency New Zealand seeks to ensure that new development, including infill development (redevelopment of existing urban sites), is adequately serviced by water supply for firefighting. They note that it is critical for Fire and Emergency that water supply infrastructure is in place prior to any development commencing; and that this water supply has adequate capacity and pressures available to service the future growth. They say:

Emergency consider it essential that urban development does not occur out of sequence with the delivery of key strategic infrastructure (network extensions or upgrades), or development is not enabled where there is potential or known infrastructure capacity constraints in relation to the water supply network (unless the urban development itself includes necessary upgrades). To

⁴ Residential Capacity Modelling, Medium Density Residential Standards: Waikato District prepared for Waikato District Council July 2022 by m.e Consulting.

manage the cumulative effects on the water supply network, Fire and Emergency considers that all subsequent subdivision and development should be subject to development standards within the district plan requiring all applicants to demonstrate by way of providing evidence (i.e. hydrant flow testing) that their development can be adequately serviced for firefighting water supply in accordance with the SNZ PAS 4509:2008 across all zones. If this does not become part of the consenting regime, there will likely be development with inadequate firefighting water supply with potentially serious consequences for life and property.

Ngāti Naho Trust (083) seeks that Variation 3 mitigate the negative impact on three waters infrastructure and freshwater including wetlands, springs and streams. The submitter is concerned that proposed Variation 3 may prejudice or jeopardise the Vision and Strategy for the Waikato. Note that they wish to apply a 1.2km buffer zone along the Waikato River, Lake Waikare, and the Whangamarino and Mangatawhiri wetlands that excludes any medium or high-density housing. The relief sought in this submission point is outside the scope of this infrastructure assessment and is dealt with in the s42a report to be prepared by Waikato District Council to support the hearing. Ngāti Naho note that the lower Waikato River floods regularly and also that the increase in population growth will generate a greater demand on and place stress on three waters infrastructure.

Waikato Tainui (114) notes that that WDC has a duty to uphold Te Ture Whaimana and is required to not only reduce pressure on the river but to restore and protect the health and wellbeing of the awa and achieve betterment in relation to all activities in all areas of the district regardless of the MDRS provisions and qualifying matters.

7. Three waters infrastructure in the Waikato District

Water infrastructure planning is complex with long lead in times because infrastructure is generally installed underground, traverses private property and must comply with legislative and resource consent requirements for drinking water and discharge standards. It is funded via processes subject to public and political input, debt restrictions and careful budget oversight. Infrastructure planning processes, issues and outcomes are set out in the WDC Three Waters Asset Management Plan (AMP). This is a 10-year Strategic Plan that contains Council's vision and proposed implementation.

Watercare Services Ltd (Watercare) Waikato began operating Waikato District's water, wastewater and stormwater services in October 2019 on behalf of the WDC. WDC and WSL work collaboratively to manage the assets. Watercare is responsible for the efficient management of Council's three waters infrastructure. This work includes network development and maintenance of network components such as pipes, valves, hydrants, pumps⁵.

Watercare is responsible for:

- Collecting, treating and distributing water for use by households, commerce, industry and firefighting, ensuring that drinking water is delivered to a safe, reliable and cost-effective standard.

⁵ Waikato District Council Three Waters 2021- 2031 Asset Management Plan

- Collecting, treating and disposing of wastewater. Reticulated wastewater should eventually be disposed in a way that does not cause harm to the public health and the environment.
- Management of stormwater systems to provide protection from flooding and for collection and drainage of stormwater.

The three waters networks are of varying quality and age across the district. Much of the infrastructure that WDC now operates and maintains was inherited from the businesses and groups within the local community that they served. Only five of the water supply schemes were created by the local government body of the time. Large portions of the reticulated network were established in the 1950s and 1960s. In summary, the quality and capacity of the network across the district is mixed.

7.1. Asset planning and growth planning

The AMP is linked to other planning processes such as the Long Term Plan (LTP), Structure Planning and growth planning and the growth enabled by the District Plan. WDC's three waters portfolio seeks to provide reliable and efficient three waters infrastructure.

Water infrastructure is critical to the health and economic wellbeing of a community. The costs associated with providing the required infrastructure can be significant and therefore utilising economies of scale is desired. Concentrating maintenance activities in fewer locations and standardising them can reduce maintenance costs substantially. This approach also helps to reduce operational risk.

A safe and reliable network is paramount. Localised solutions can introduce additional cost and risk. Risks associated with water supply and wastewater treatment are significant, and the community expects that council will provide infrastructure that is reliable, safe and affordable.

Due to historic development patterns, the water and wastewater networks were designed for one house per site. Previously, minimum site sizes ranged from 450m² to 875m² and patterns of demand meant that the development market has generally favoured single level, detached dwellings⁶. Consequently, much of the wastewater network is small diameter pipe at 150mm Outside Diameter (OD).

Wastewater and water supply assets will need to be upgraded to cater for intensification. The timing of upgrades for infill housing and redevelopment within existing urban areas can be difficult to get right because the timing of maximum development capacity being reached is unknown or may not occur. Poorly timed infrastructure upgrades may lead to duplication of lines, upgrading prior to the asset reaching the end of its life, or incorrectly sized infrastructure.

7.2. Unanticipated Growth:

Asset planning is a mix of reactive planning, implementation of known renewal principles, and prioritisation of organisational allocation of funding for upgrade projects. Development requiring asset upgrades can be supported by engineering assessments or network modelling for larger scale development. Council funding allocation to provide for necessary network upgrades is the critical determinant of whether any potential housing intensification under legislation can connect to three water services that are consented and have sufficient capacity. At present, these assessments are carried out by working with developers to understand their development aspirations, as well as drawing on growth scenarios in planning documents.

⁶ Residential Capacity Modelling, Medium Density Residential Standards, Waikato District prepared for Waikato District Council by m.e Consulting 2022.

The MDRS introduces the likelihood that development will occur in diverse locations that were not previously identified as growth areas. The location of infill development by private developers can be difficult to predict because the developer may be a home owner who is providing for their individual circumstances rather than market pressures.

Watercare can only provide broad commentary on existing capacity and network challenges that may accommodate infill growth. The models are in various states of completion and/or the model outputs require interpretation in order to understand actual network performance. They are best suited to assessing specific development proposals which are larger scale developments. Modelling at a scale as broad as the extent of the MDRS is too complex to carry out. However, the information that is available indicates that network capacity will be a problem in all of the relevant residential zones in the four towns under the full plan enabled development or commercially feasible scenario⁷. Network capacity will be used up over time in locations where intensification occurs. Network capacity needs to be assessed at a very local level by assessing the pipe capacity in the street where the proposed development is, and any network downstream of that or within the water supply pressure zone. Concentrated development in one catchment or pressure zone could cause significant effects on the network including wastewater overflows and loss of pressure for fire-fighting capacity. The land-use types using the network will determine the expected peak daily demand, which needs to be taken into account when assessing network capacity.

7.2.1. Water and Wastewater networks

A balance between water and wastewater demand and supply infrastructure is important. Assets that are oversized or undersized are problematic because:

- Undersized water supply network (undercompensated network) could result in insufficient water supply, frequent water shortages, or low water pressure.
- Oversized water supply network (overcompensated network) refers to where the existing infrastructure exceeds the demand for water supply in a particular area. This could result in wastage of drinking water because water network requires adequate draw down from water users to avoid water quality and water pressure issues. Aged water in the network may require additional flushing and chlorine dosing.
- Oversized wastewater network can lack adequate flow to convey the wastewater to the pump station or treatment plant. This leads to wastewater becoming septic which causes odour issues and compromises the wastewater treatment process. Septic wastewater is often managed by flushing the pipes with freshwater, and therefore drinking water can also be wasted due to oversized infrastructure.
- Undersized wastewater network will overflow at designed overflow⁸ points to prevent

⁷ Ibid.

⁸ Waikato District Council has a Wastewater Overflow Continual Improvement programme to minimise and manage these. Overflows can occur in dry and wet weather. Dry weather overflows are generally caused by network failures such as blockages, and wet weather overflows are generally caused by stormwater entering the wastewater network and network capacity. Overflows are reported on and show that there were 45 wastewater overflows in Huntly in 2020 – 2021, 21 in Ngaaruawaahia, 6 in Pokeno and 19 in Tuakau⁸.

overflow into dwellings via cess-pits and plumbing connections within homes. Network overflows often enter water where they will ultimately reach the Waikato.

Wasteful use of the Waikato River water and the discharge of wastewater to the Waikato River is not in keeping with the Vision and Strategy for the Waikato River which seeks to restore and protect the health and wellbeing of the River. While water E coli contamination in the river is not solely due to human sources, reduction in wastewater overflows to the river will contribute to water quality outcomes. The Waikato-Waipā Restoration Timelines draft discussion document⁹ identifies the reduction of point source discharges, limits on water takes that are based on the needs of the river and fair and effective allocation of water as pathways to success for restoration of the river.

Upgrading infrastructure in advance of it being required may divert funds away from other infrastructure that may deliver water quality improvements, may reduce funding for other infrastructure because income associated with the asset (such rates or water charges) may not be realised within the life of an asset with too few connections and asset renewal may be required before the network capacity is used.

Business cases for projects that seek to install assets to cater for uncertain future growth are not viable. Rather, Watercare works with WDC and developers to develop infrastructure for realistic growth scenarios. This may mean that some development cannot proceed without a network upgrade first being carried out. The cost of the upgrade may fall to the developer that will cause the capacity to be exceeded.

8. Provision for infrastructure requirements in the PDP and Variation 3

Provisions in the PDP and Variation 3 address infrastructure requirements, in the following way.

- Service connections within sites or the provision of infrastructure associated with a subdivision require assessment (AINF-R16, SUB-R30, SUB-R31, SUB-R152 (V3), SUB-R153 (V3), SUB-R154 (V3)).
- New development is permitted where water and wastewater servicing connections are available (WWS-R2 and WWS-R10) and stormwater management requirements are met (WWS-R1). However, only the stormwater rules address pipe capacity considerations.

There is generally no requirement within the PDP to consider infrastructure capacity where a developer is building three houses per lot and the developer does not intend to subdivide around those lots as enabled by the MDRS (as this does not require a resource consent).

9. Scope for Amendments

Variation 3 has been subject to submissions which raise concern regarding the ability of infrastructure to manage the increased development intensities required by the MDRS. The qualifying matters identified in Variation 3 that address actual and potential effects on the Waikato River are the building setback

⁹ Published by the Waikato River Authority ([Vision & Strategy - Waikato River Authority](#)), authored by Mike Scarsbrook, Bob Penter and Julian Williams March 2021: 4,8

rules MRZ2S13 and GRZS22. Infrastructure matters are generally addressed through water, wastewater and stormwater rules within the Proposed District Plan (PDP).

Amendments proposed to address these submissions using this planning process are limited to managing increased intensification enabled by Variation 3 and intensification that will be enabled over and above the PDP planning framework.

This excludes the Medium Density Residential Zone 1 (MRZ1) as proposed by the PDP. It also excludes a reduction in development potential enabled by the General Residential zone which provided for two dwellings per site as a permitted activity (subject to standards) being one dwelling per lot and one minor dwelling per lot in addition to the primary dwelling. Recent caselaw¹⁰ has clarified that using the IPI to change the status of an activity to one that is more restrictive than already enabled under the existing plan provisions combined with the absence of any right of appeal on the Council's factual determination was not consistent with the purpose of the IPI or Section 80 E of the RMA.

Water and wastewater demand is difficult to predict based on the size of a dwelling and there is no real distinction between a minor dwelling and a primary dwelling from an infrastructure planning perspective despite the distinction in the PDP. Therefore, two dwellings per 600m² lot is accepted as being currently enabled under the PDP.

Therefore, the any amended provisions would apply only to the areas previously known as the "Urban Fringe" (sites that were zoned General Residential under the PDP that did not enable three dwellings as a permitted activity that will now become the Medium Density Residential Zone 2 (MRZ2)) and to development proposals that entail more than two dwellings per lot. Please refer to the maps for Variation 3 to the PDP.

10. Current Connections Management Approach

At present, there is an internal WDC process in place which manages pipe capacity assessments for new development. This process relies on assessments associated with developments of over ten lots being referred to Watercare, and other developments being compatible with the current network design capacity, unless there are known problems with the network regarding its ability to serve the development proposal. There are approximately 500 connection requests in a calendar year.

Network extensions and upgrades are negotiated by WDC and Watercare as required. The developer may need to fund extensions and upgrades via a commercial agreement.

Previously, network constraints were much less likely to arise due to developments of less than 10 lots because the level of growth in the existing urban area was not sufficient to create issues as it was consistent with the anticipated growth when the pipe was designed. Remaining growth occurred in greenfield land where new networks would be installed. In general, new dwellings are connected via the subdivision process which has an ability to assess the provision of infrastructure.

¹⁰ Waikanae Land Company Limited and Heritaage New Zealand Puohere Taonga v Kapiti Coast District Council and Atiawa Ki Wakarongotai Charitable Trust (2023 NZ ENVC 056)

Should council staff assess a development proposal and determine that water supply and/or wastewater pipe capacity is problematic, they have the ability to refuse a connection under the relevant bylaws for water and wastewater. These are the Waikato District Council Trade Waste and Wastewater Bylaw 2016 and the Waikato District Council Water Supply Bylaw 2014.

If this approach is continued, the current process will need to be revisited to ensure the assessment of smaller scale development proposals as well as the large developments to manage the risk of pipe capacity being exceeded by three lot developments that do not go through a subdivision process. The MDRS will make smaller scale developments permitted, but WDC is limited in its assessment abilities because developers may build without subdividing. This process will require assessment of pipe capacity for building consents as well as for subdivisions to cover the eventuality that developers build three houses but do not subdivide around them because the current pipe capacity checks are carried out at the time of subdivision.

There is some risk that a developer who is granted a building consent but not a network connection will make an illegal connection to the network. Illegal connections are a common occurrence in reticulated networks; therefore network operators undertake inspection processes to have them corrected. Watercare has advised that illegal connections do occur in the Waikato but are not a significant issue.

It may be difficult for home owners who decide to develop their site to know what the requirements are if those requirements are not published outside of the Bylaw itself.

11. Enforcement and Compliance

Should an illegal connection be discovered, Watercare can issue a letter of direction to the homeowner under the Trade Waste and Wastewater Bylaw 2016. In general, homeowners comply, and the illegal connection is rectified. However, breaches do occur and enforcement action by WDC has been required at times.

The only enforcement option for compliance with the Bylaw is criminal prosecution. That process is lengthy and expensive the resulting fines are typically low and do not act as an effective deterrent. In comparison, the RMA has an enforcement regime that enables alternative enforcement options such as infringement and abatement notices which are more efficient and enable higher penalties. This regime is more effective than bylaw compliance methods.

In the case of water connections, illegal connections can readily be removed by the network operator because the connection point is always in the road reserve. Illegal wastewater connections may require additional enforcement tools. To date, letters of direction issued under the Bylaw to rectify illegal connections have been complied with.

12. Conclusion

Enabling development in locations where intensification was not previously expected could result in unacceptable water quality and water use effects on the Waikato River if pipe capacity is not managed.

The exact location of privately led infill housing is difficult to predict, and this style of development will be enabled and incentivised by the MDRS. There is a risk that development will occur in locations that do not have sufficient infrastructure capacity to service that development. Development in areas with constrained infrastructure can result in wastewater overflows as a consequence of illegal connections and wastewater flows exceeding the design flows of the pipe. Incorrectly designed pipes can also result in water wastage due to the need to use flushing water to manage operational issues, or inefficient water infrastructure, or insufficient water supply.

Planning for infrastructure upgrades under disparate growth scenarios is very challenging, which is why councils rely on a combination of strategic planning for infrastructure provision, upgrades in their Asset Management Plans and long-term funding plans as well as consenting processes to trigger discussions with developers about the ability to accommodate development using existing and planned infrastructure. If the design size is estimated inaccurately there is a cost burden to the network operator, the rate payer and increased risk that infrastructure will fail with consequential effects on the environment and the health and safety of the community. There may be a cost to developers for network upgrades if their development exceeds the design life of the pipe.

Reliance on the bylaw to manage these risks is currently effective, and large numbers of additional connections are not expected as a consequence of the MDRS, rather, those connection requests may come from outside of planned growth areas. Imposing a resource consent requirement would come at a cost to the developer. Relying on processes connected to the Building Consent process and refusing connection where capacity is not available can manage the risk of intensification.

On balance, while planning controls within the PDP can be used to manage some of the risks of wastewater overflows and wastage of potable water using the Variation 3 planning process, inserting further amendments into Variation 3 and the PDP is a less effective and efficient solution to give effect to Te Ture Whaimana than tightening the current process for managing new connections associated with building consents. A revised process could entail educational material for applicants and the building community linked to the building consent process, revised service level agreements with Watercare and may require additional resourcing within Waikato District Council or Watercare.

13. Policy Options

As set out above, WDC has identified potential infrastructure issues associated with the IPI. WDC has identified potential solutions to address those issues which entails the use of alternative methods. Should the review of alternative methods identify significant obstacles which make Option one unviable, Option two will become the preferred option. Option two enables WDC to manage the General Residential zoned areas that will be subject to MDRS intensification upon the removal of the urban fringe qualifying matter. It is anticipated that at the time of conferencing, WDC will be in a position to advise which option will be advanced.

13.1. Option One – Preferred Option

Consider alternative methods to ensure that network capacity is assessed for development proposals that entail intensification but not subdivision (which are already checked for network capacity). It is anticipated that, as part of those assessment improvements, WDC will also engage with the wider

community so that they are aware that possible infrastructure constraints may hinder development potential or incur additional costs.

In terms of Variation 3, this would mean that WDC would include the MDRS without any additional qualifying matters being applied to give effect to Te Ture Whaimana. The current mechanism for pipe capacity checks is the Waikato District Council Trade Waste and Wastewater Bylaw 2016 and the Waikato District Council Water Supply Bylaw 2014. Connections can be refused where no network capacity is available.

The current reliance on bylaws as WDCs only mechanism for declining connection may result in developers not getting a complete picture of what the development requirements are. The MDRS encourages infill development which may be carried out by inexperienced developers. WDC will need to educate developers and the building community that pipe capacity may restrict their development potential, the network upgrades may attract additional cost, and that illegal connections will be removed.

If compliance action does have to be undertaken to resolve illegal connections, prosecution is the only enforcement option under the bylaw. While this is a lengthy and expensive process for WDC, the current level of compliance relying on letters of direction to rectify illegal connections does not appear to warrant an alternative compliance process using the planning framework. Should problems arise, WDC could promote a plan change to include rules in the PDP that would require network capacity assessments for both the MRZ1 and MRZ2 zones.

The need for the development of a plan change is dependent on the outcome of the proposed Three Waters Reform. As it is currently proposed, the reform process will enable the proposed Water Service Entities to manage connections and infrastructure capacity under different legislation such as legislation arising from the Water Services Legislation Bill. Therefore, enforcement of capacity considerations under the Bylaw may be a short-term situation, with the Water Services Entities Bill providing more efficient compliance tools.

This approach means that the approach to dealing with capacity issues will be consistent across the MRZ1 and MRZ2 zones. Both of these zones give effect to the MDRS and will present similar issues.

13.2. Option Two – Not Preferred

The qualifying matter relied on to enable three waters capacity constraints to be accommodated in the Variation 3 is section s771(c) (Te Ture Whaimana) of the RMA.

This option is to implement a Te Ture Whaimana Overlay linked to rules in the water, wastewater and stormwater chapter of the PDP (Part 2_12) and the Subdivision chapter (Part 2_25) which will implement a Restricted Discretionary activity status for all development within the overlay that is over two dwellings per lot. A Restricted Discretionary activity status is required to ensure that council can decline the consent if a suitable infrastructure solution cannot be arrived at.

This option mitigates the risk that increased intensification will result in:

- wastewater overflows due to either illegal connections or due to insufficient pipe capacity, or
- that potable drinking water sourced from the Waikato River will be wasted due to inefficient infrastructure.

The Te Ture Whaimana Overlay qualifying matter would apply to the areas previously known as the urban fringe. Note that these are not the only areas that are subject to infrastructure constraints because there are no areas in Pookeno, Ngaaruawaahia, Tuakau and Huntly that have been identified as having capacity for the plan enabled nor the commercially feasible development scenario. Rather, the overlay reflects the areas that are within the scope of the Variation 3 planning process. That is, the areas that provided for a lower density prior to the notification of Variation 3.

Plan changes following the RMA's Schedule 1 process would be required to address other identified issues in areas where development is already enabled.

An overlay can be an effective method for the infrastructure constraint because it will identify the specific sites that are within the scope of Variation 3 infrastructure amendments. This is because some sites already enable three houses per site in the MDRS zone, and these have been rezoned to MDRS2 via Variation 3. The resulting planning maps will not enable the plan user to distinguish between the sites that were previously MDRS and are now MDRS2. However, it would not address all of the areas that are subject to infrastructure constraints. The overlay would potentially need to be uplifted with a future plan change and replaced with zone rules or infrastructure rules for a more consistent approach across the Waikato District. The plan change process takes time and may require people to apply for resource consent unnecessarily until the process is complete. Given the dynamic nature of infrastructure planning, capacity constraints will change over time and the planning approach may need to be revisited to reflect current issues.

The PDP¹¹ explains overlays as follows:

As well as zones, there are various overlays (such as Outstanding Natural Landscapes and Significant Natural Areas) and sites/features (such as Historic Heritage buildings). An overlay spatially identifies distinctive values, risks or other factors which require management in a different manner from underlying zone provisions.

The PDP is subject to appeals. Rules WWS-R1, WWS-R2 and WWS-R10 are subject to an appeal by Anna Noakes and Fruhling Trust (000078), WWS-R10 is also subject to an appeal by NZTE Operations Ltd (00085). The latter appeal is site specific, however 000078 seeks to ensure that subdivision, use and development is provided with stormwater infrastructure that is appropriate to its location and existing land use; and in new urban areas, are efficiently and effectively integrated and they should support infrastructure and stormwater management networks. The decisions on these appeals are connected to the decisions related to potential Te Ture Whaimana overlay rules. Appeal 0078 also relates to the subdivision rules and, among other things, seeks to ensure that the physical limitations that may impede achieving minimum requirements for density are addressed.

This rule would apply to any development that seeks to establish more dwellings than were provided for in the PDP prior to the notification of Variation 3. The General residential zone provides for a dwelling and a minor dwelling. Since water and wastewater demand from a minor dwelling may be the same or similar to an ordinary dwelling depending on the occupants no distinction is proposed to be made with regard to minor dwellings in terms of the Overlay, and two dwellings per site is permitted.

¹¹ Part 1, Introduction and General Provisions, How the plan works, Relationships between spatial layers.

Consequential amendments would be required to the subdivision rules in Part 2 District Wide Matters, Subdivision which currently provide for subdivision as a controlled activity for three dwellings per site, subject to compliance with the relevant standards. This is to avoid the situation where a resource consent is declined for infrastructure purposes, but the subdivision must be approved.

13.2.1. Water and wastewater servicing

Proposed amendments for discussion to the policies and rules within Part 2 12 WWS Water, wastewater and stormwater are proposed to provide an additional level of assessment for intensification that is greater than anticipated by the PDP.

1. Amend WWS-R2 to remove the permitted activity status from within the Te Ture Whaimana Overlay.
2. Introduce a new rule (WWS-R2a) for wastewater servicing for new development where there will be more than two houses per site within the Te Ture Whaimana Overlay.
3. Amend Rule WWS-R10 Water supply servicing for new development or subdivision in the same way as in 1.
4. Introduce a new policy to reflect infrastructure capacity issues and the risk that a lack of capacity poses to water quality in the Waikato River, water use, and health and safety risk associated with fire-fighting water supply.

13.2.2. Subdivision

Proposed amendments for discussion to the subdivision rules within Variation 3 are to align the activity status with the amendments to the water and wastewater servicing rule amendments proposed above. The activity status is currently Controlled, defaulting to Discretionary where compliance is not achieved with the standards. If the rule retains a Controlled activity status, there is a possibility that the infrastructure consent is declined, but council is compelled to approve the subdivision consent, which would not achieve the outcomes sought or manage the risk of illegal connections.

1. Include two additional rules (SUB-R152a and SUB-R154a) to complement SUB-R154 within Variation 3 to provide a Restricted Discretionary activity status within the Te Ture Whaimana layer to provide for those circumstances where a resource consent is declined under proposed rules WWS-R2a and WWS-R10a.
2. Amend SUB-R152 Subdivision General to remove the controlled activity status for sites within the Te Ture Whaimana Overlay.

13.2.3. Draft provisions for Option 2

WWS-R2 Wastewater servicing for new development or subdivision

All zones and sites not within the Te Ture Whaimana Overlay

Permitted Activity standards:

(a) New development or subdivision must have a wastewater system that complies with the following standards:

(i) Is connected to public, reticulated wastewater network; or

(ii) Is connected to a community-scale wastewater system; or

(iii) Is provided with a site-contained, alternative method of wastewater disposal that complies with AS/NZS 1547:2012.

WWS-R2a Wastewater servicing for new development or subdivision

Sites within the Te Ture Whaimana Overlay

(1) Permitted Activity standards:

(a) A maximum of two dwellings per site

(b) New development or subdivision must have a wastewater system that complies with the following standards:

(i) Is connected to public, reticulated wastewater network; or

(ii) Is connected to a community-scale wastewater system; or

(iii) Is provided with a site-contained, alternative method of wastewater disposal that complies with AS/NZS 1547:2012.

(2) Activity status where compliance is not achieved with the Permitted Activity controls: Restricted Discretionary.

(3) discretion is restricted to the following matters:

a. wastewater infrastructure capacity

WWS-R10 Water supply servicing for new development or subdivision

All zones and sites outside of the Te Ture Whaimana Overlay

(a) New development or subdivision must have a water supply system that complies with the following standards

(i) For the GRUZ – General rural zone, RLZ – Rural lifestyle zone, LLRZ – Large lot residential zone and SETZ – Settlement zone, potable water supply must be provided;

(b) For all other zones:

(i) Be connected to any available public, reticulated water supply system nearby; and

(ii) In addition to connection to reticulated supply for potable water, may also use rainwater harvesting (installation of rain storage tanks for water conservation) to supplement water supply, but not for potable uses.

WWSR10a (1) Sites within the Te Ture Whaimana Overlay

(a) New development or subdivision must have a water supply system that complies with the following standards

(i) A maximum of two dwellings per site

(ii) Be connected to any available public, reticulated water supply system nearby; and

(iii) In addition to connection to reticulated supply for potable water, may also use rainwater harvesting (installation of rain storage tanks for water conservation) to supplement water supply, but not for potable uses.

(2) Activity status where compliance is not achieved with the Permitted Activity controls: Restricted Discretionary.

(3) discretion is restricted to the following matters:

water supply infrastructure capacity

MR22-PX Infrastructure Capacity.

Ensure that intensification is supported by infrastructure that has capacity to service the development or efficient and effective mitigation is proposed.

SUB-R152 Subdivision General

(1) Activity status: Controlled Activity. Specific standards:

(a) Except where the site is within the Te Ture Whaimana Overlay, any subdivision in accordance with an approved land use resource consent must comply with that resource consent.

Council's control is reserved over the following matters:

(b) Subdivision layout;

(c) Compliance with the approved land use consent; and

(d) Provision of infrastructure.

SUB-R154 Subdivision – residential Medium Density Residential Zone 2:

(1) Activity status: Controlled

Activity specific standards:

(a) Any subdivision around either existing (constructed or approved) residential units or proposed residential units where the subdivision application is accompanied by a land use application that will be determined concurrently.

(b) Any allotments created under SUB-R152

(c) Any allotments outside of the Te Ture Whaimana Overlay

(1a) must have a minimum net site area (excluding access legs) of 200m² except where:

(i) The subdivision does not increase the degree of non-compliance of the residential units with the standards in MR22-S2 to S9, or land use consent has been granted, or a concurrent land use application shows that it is practicable to construct on every allotment within the proposed subdivision a residential unit which complies with the standards in MR22-S2 to S9; and

(ii) No vacant allotments are created.

(b) For the purpose of SUB-R152(1b)(i), if a subdivision is proposed between residential units that share a common wall, the standard in MRZ2-S3 does not apply along the length of the common wall.

Notification

Any application for a subdivision consent for a controlled activity under this rule will be considered without public or limited notification in the following circumstances:

(a) A subdivision associated with the construction of no more than three residential units that do not comply with the standards in MRZ2-S2 to S9; or

(b) A subdivision associated with the construction of four or more residential units that comply with the standards in MRZ2-S2 to S9; and

(c) provided that other standards in the district plan are met

SUB-R154a Subdivision residential MRZ2 – Medium density residential zone 2 within the Te Ture Whaimana Overlay

(1) Activity status: Restricted Discretionary

Activity specific standards:

(a) Any subdivision around either existing (constructed or approved) residential units or proposed residential units where the subdivision application is accompanied by a land use application that will be determined concurrently.

(b) must have a minimum net site area (excluding access legs) of 200m² except where:

(i) The subdivision does not increase the degree of non-compliance of the residential units with the standards in MRZ2-S2 to S9, or land use consent has been granted, or a concurrent land use application shows that it is practicable to construct on every allotment within the proposed subdivision a residential unit which complies with the standards in MRZ2-S2 to S9; and

(c) Vacant allotments are not created.

(d) For the purpose of SUB-R152(1b)(i), if a subdivision is proposed between residential units that share a common wall, the standard in MRZ2-S3 does not apply along the length of the common wall.

(2) Activity status where compliance is not achieved with the Restricted Discretionary standards: Discretionary.

Notification

Any application for a subdivision consent for a controlled activity under this rule will be considered without public or limited notification in the following circumstances:

(a) A subdivision associated with the construction of no more than three residential units that do not comply with the standards in MRZ2-S2 to S9; or

(b) A subdivision associated with the construction of four or more residential units that comply with the standards in MRZ2-S2 to S9; and

(c) provided that other standards in the district plan are met.

Council's discretion is restricted to the following matters:

(d) Subdivision layout; and

(e) The ability to connect to water supply, wastewater and stormwater infrastructure with capacity to service the development.

13.3. Option Three – Not Preferred

Retain the existing General residential zoning. The existing zoning would not meet the requirements of the RMA which seeks to enable people to develop up to three dwellings on each site, each being up to three storeys, without needing to apply for a resource consent.

13.4. Option Four – Not Preferred

Include rules within the MRZ 2 zone rather than creating additional rules in the infrastructure chapters.

This option is not preferred because it would create planning rules that are out of scope of the current Variation 3 process. The rules cannot claw back development rights and this approach would mean that the rules would become more restrictive than those proposed within the PDP and Variation 3.

- Variation 3 applied the MRZ 2 zone to areas that were zoned MDRS in the PDP
- The General Residential zone enabled one dwelling and one minor dwelling per site.

Prepared by Stantec New Zealand May 2023	Katja Huls, Senior Principal Planner
Approved by Waikato District Council	Keri Davis-Miller 