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Hamilton - Waikato - Waipa Metropolitan Area - Southern Metro Wastewater Detailed Business case - Consenting Strategy

Metro Wastewater Project Partners
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Overview

The southern metro area Wastewater Detailed Business Case (DBC) has progressed to the point of identifying a preferred option for the future wastewater servicing in the southern metro area. The identified preferred option, 'Option 4A', includes in a new Wastewater Treatment Plant (WWTP) located south of Hamilton near the airport (the 'Southern WWTP') serving the Waikato Regional Airport (the Airport) industrial precinct and environs and southern Hamilton. Surrounding areas (Matangi, Tamahere and Ōhaupō) may also be included within the catchment of the Southern WWTP in the future. The Preferred Option also identifies servicing of Cambridge by a stand-alone separate WWTP.

Staging considerations for the Southern WWTP have been developed and involve:

- Stage 1: Sequencing Batch Reactor (SBR) treatment process with discharges to land; and
- Stage 2 and 3: Upgraded WWTP to a Membrane Bioreactor (MBR) treatment process and discharge to the Waikato River (triggered by level of population served – anticipated to be approximately post 2031).

Progression through the stages is proposed to be linked to 'triggers' such as flows (and projected flows) as a result of realised and projected growth, so timeframes are considered approximate. The discharges methods are still to be confirmed, however, the assumptions for the purposes of this strategy are that it will be a discharge to land for Stage 1 and then involve a discharge to water in subsequent stages.

This report outlines a Consenting Strategy for the southern metro area Preferred Option (Option 4A), particularly in relation to the Southern WWTP and Cambridge WWTP. This Consenting Strategy also needs to be cognisant of wastewater servicing options across the wider metro area to not miss potential opportunities for further improvements and betterment within the catchment. The northern-metro area DBC for wastewater servicing is yet to be undertaken. Over the next 10 years, Cambridge, Pukete and Ngaruawahia WWTP discharge consents all expire[1] (all these WWTP's discharge to the Waikato River catchment). There are opportunities and risks to be explored and managed in relation to the consenting of these WWTPs, as well as the new Southern WWTP.

Objectives

The objectives developed through the DBC process are as follows:

1. Before 2050 municipal wastewater discharges are no longer impacting on the ability of people to swim and collect Kai from the river and connected waterways thereby contributing to the restoration and protection of the health and wellbeing of the river.
2. The quality and extent of aquatic and terrestrial habitat and biodiversity in and around water bodies is enhanced through the reduction of wastewater treatment and discharge impacts before 2050.
3. Wastewater treatment solutions contribute to restoring and enhancing cultural connectivity with the river so that before 2050 Marae, Hapuu and Iwi access to the river and other sites of significance for cultural and customary practice within the metro spatial area are no longer impeded by waste water treatment solutions.
4. Maximise efficient use of resources and resource recovery to contribute to net zero greenhouse gas related emissions from wastewater treatment systems before 2050.
5. The wastewater solution provides sufficient capacity to ensure sustainable growth in the metro spatial area in accordance with growth projections assumptions for the next 100 years

[1] Matangi WWTP discharge consent expires in 2021. Ōhaupō and Tamahere are serviced via on-site systems. Te Awamutu WWTP discharge consents do not expire until 2043.

These overarching objectives have been taken into consideration in developing the following draft consenting objectives:

1. Timely delivery of the notice of requirement and consents to enable and provide for growth and allow for staging of service provision.
2. A consent preparation and approval process supported by iwi and other key stakeholders through giving effect to Te Ture Whaimana.
3. Consent duration of 35 years to provide for investment security, supported by a consent application based on the Best Practicable Option and robust evidence demonstrating the quality of discharge and thus contributing towards the protection and restoration the health and wellbeing of the Waikato River throughout the metro area.
4. A simplification/streamlining of consent conditions which can be easily monitored, and which have achievable reporting requirements.
5. Implement flexibility within the suite of resource consent conditions to accommodate operational requirements and enable future upgrades when required.
6. Enabling a catchment boundaryless approach where this results in best for river 'betterment' outcomes in achieving Te Ture Whaimana.

These DBC and consenting objectives are considered an appropriate starting point to demonstrate the need for the work, however, project objectives will need to be developed for each specific project within the southern metro area, in consultation with project partners and stakeholders. It is these specific project objectives against which any assessment under section 171(1)(c) of the RMA will be undertaken (for instance, if a notice of Requirement to designate a site is required).

Legislative and policy environment

The consenting of this project is also being undertaken in an environment under which there is significant potential legislative and policy change, including:

- Resource Management Act (RMA) Reform – with the repealing of the RMA and replacement with three new acts. This new legislation is programmed to be enacted by the end of 2022.
- Three waters reform which will have implications for the entity who may be lodging and ultimately owning and operating the assets.
- A review of Te Ture Whaimana, the Vision and Strategy for the Waikato River.
- Potential National Environmental Standard (NES) for Wastewater Discharges.
- Greenhouse gas legislation – with new requirements coming into force later this year under the RMA and Climate Change Response (Zero Carbon) Amendment Act.
- Updates to the NES for sources for human drinking water.

The Consenting Strategy therefore needs to be sufficiently adaptable to be able to respond to changes in legislative requirements, standards or policy intent that may result from the above.

Consenting approaches

Land protection processes and considerations of a regional plan change along with four broad consenting approaches for the consenting of WWTPs (including proposed WWTPs) within the wider metro area include (or iterations/mixtures of) the following:

- Individual WWTPs consented separately from one another
- Combining WWTP discharges south of Hamilton (Cambridge and 'Southern' WWTPs)
- Combining WWTP of Pukete and the Southern WWTP
- Whole of metro area global consent i.e. Cambridge, Southern WWTP, Pukete, Ngaruawahia, Te Kowhai, Matangi.

The overarching key consideration relates to consistency of the potential approach with Te Ture Whaimana, the Vision and Strategy for the Waikato River. A key component is therefore the protection and restoration of the

health and wellbeing of the Waikato River. To that end, the mass of nutrients discharged to the Waikato River should be less in the future than that being discharged currently i.e. an improvement or betterment, against the baseline nutrient discharge levels. Maximising the betterment delivered through investment in improvements to the municipal WWTP point source discharges is therefore important and lends itself to a boundaryless approach of having the proposed Southern WWTP linked with one or several WWTPs in the metro-area.

The programme and tasks outlined in this Consenting Strategy reflect a number of the key actions that need to be undertaken regardless of the consenting approach adopted. The programme and tasks developed therefore incorporate hold points where these approaches are reviewed as the project progresses and further information is available (such as identification of sites, discharge to land locations etc).

Having separate individual consents for each of the WWTP does not align with a 'boundaryless' type approach and would have challenges for consentability of a Southern WWTP.

At a macro-level, one Global consent covering all main WWTPs located within the metro area (excluding Te Awamutu) makes sense with regards to providing the ability to focus investments where maximum gain can be sought on the largest scale. However, consenting at this scale would include significant challenges (having not been done in New Zealand before for multiple WWTPs) and involve three territorial authorities, assessments of effects on the environment over several locations as well as timing issues to overcome.

A key consideration in the southern metro area is that the long-term solution for Cambridge is needing to be lodged by end of 2022 for a Cambridge-only solution, or by the end of 2023 if it is part of a sub-regional solution [2].

Given the scale of the metro area, timing constraints mentioned above (particularly around Cambridge WWTP) and the projected growth scenarios, the emerging preferred consenting approach involves, either:

1. Linking Cambridge WWTP and stages 2 and 3 of the Southern WWTP (i.e. both involving discharges to the Waikato River, or to land where it may enter the river).
    - Note: Stage 1 of the Southern WWTP (involving discharges to land) could be incorporated, however identification of land for the discharge of treated wastewater could be challenging as it is dependent on a land discharge site being confirmed which would also be linked to the location of the new Southern WWTP. Alternatively Stage 1 could be consented separately, with this discharge to land consent transitioning to a discharge to water upon the 'trigger' of Stage 2, and when Stage 2 is operational.
2. Alternatively, and as a back-up to the above - linking the Southern WWTP and Pukete WWTP discharges, with the Pukete WWTP discharge consent expiring in 2027. This option may therefore address some of the timing issues for linking with Cambridge WWTP.

How to link the Southern and Cambridge WWTPs is therefore the next consideration and is the focus of this Consenting Strategy. This linking could be via either one consent covering both discharges, or separate consents with linked discharge conditions (i.e. a combined load (kg/day) for nitrogen and phosphorus in particular). Either approach brings the scale to the application and a 'boundaryless' approach, however, linking of consent conditions is recommended.

Given that both the Cambridge and Southern WWTP will be new WWTPs being built along similar time horizons (Stage 1 for the Southern WWTP) there are key parallels. Both WWTPs are likely to have discharges in a similar portion of the Waikato River (albeit discharge locations would be located approximately 10 km apart from one another). Both discharge locations would likely be upstream of the Narrows Bridge, a key Waikato Regional Council state-of-the environment monitoring site. Given the timing constraints, the Southern WWTP Stage 2 (and 3) discharge location and method (in addition to the treatment quality and volume to be sought) would need to be determined so as to be incorporated into the consent application. It is possible that the location of the Southern WWTP and land disposal area of Stage 1 be determined later or in parallel to the regional consents being sought along with Notice of Requirement processes to designate a WWTP site to be undertaken.

[2] Conditions 33 and 34 of the Cambridge WWTP short-term consent.

Appropriate baseline work would need to be undertaken to both inform Assessments of Alternatives for the Southern WWTP and then more targeted on the identified BPO. If the Cambridge/Southern WWTP option is chosen, it is anticipated that a delay to the lodgement date of Cambridge WWTP discharge consent would need to be sought (via agreement with Waikato Regional Council with inputs form partners and stakeholders). Further site specific near-field environmental assessments would also be required for any proposed discharge structures to understand the nature of the receiving environment. A move to push out timeframes would need to be managed carefully with partners, key stakeholders and Waikato Regional Council.

Key tasks

The Consenting Strategy outlines a number of key tasks that need to be undertaken regardless of the consenting approach adopted, however, focusses on the recommended consenting approach to the Southern WWTP. Hold points are incorporated to re-assess the consenting approach in response to legislative change and as the project progresses and further information becomes available. Engagement with partners, key stakeholders and the wider public will be an important factor for successful delivery of the project.

Recommended tasks include:

- Establishment (continuation) of a Programme Partnership Group, Project Governance Group and Technical Advisory Group
- Preparation and implementation of a wider Consultation and Engagement Plan
- Baseline environmental and WWTP assessments to inform Assessment of Effects on the Environment (AEE) and to determine alignment with Te Ture Whaimana, noting that an AEE would be assessed against an environmental baseline of no discharge (if it is a new WWTP discharge) or as if any existing discharges were not present (if it is an existing discharge being re-consented).
- Ensuring that an appropriate Assessment of Alternatives is undertaken (to meet RMA requirements) and might include (but not limited to):
    - WWTP location
    - Discharge locations or methods
    - Treatment processes (quality of treated wastewater at the end of the process)
    - Re-use options (for all residuals – e.g. water, biosolids, energy etc)
    - Reducing water volumes (such as reducing infiltration, water metering etc)
    - Greenhouse gases.
- The above Assessments of Alternatives ultimately informs the identification of the BPO.

The technical assessments will be undertaken to support the Notice of Requirement (to designate) and resource consent applications. The Notice of Requirement and resource consent preparation and lodgement then incorporates the BPO and supporting technical assessments.

Consenting process

Three waters reform is likely to have an impact on the entity that will be the requiring authority, if not by the time of lodgement, certainly for delivery and management of the infrastructure. It has been established through the DBC process that there will be a “Lead Council” for each of the WWTP projects located within the southern metro area. The Lead Council will issue Notices of Requirements to designate and seek resource consents for associated WWTP discharges from the projects for which they are “Lead”. For the Southern WWTP, Hamilton City Council is proposed to be the Lead Council. With the likely location of the Southern WWTP being within Waipā District, HCC would issue a notice of requirement to designate the site (pursuant to section 168 of the RMA) to the territory authority (Waipā DC in this instance).

Options for lodgement include:

- Normal/traditional application to the regional authority for consents and issuing of a Notice of Requirement to the territorial authority to designate
- Direct referral to the environment court
- Minister call-in.

We consider a normal / traditional approach to be the most suitable avenue for issuing a notice of requirement and seeking regional resource consents. Direct referral to the Environment Court can have a perception of being somewhat combative for stakeholders and therefore may not align with project objectives, particularly if sufficient engagement with partners and key stakeholders has been undertaken. Minister Call-In remains an option, but is for the Minister to determine – however, there is likewise a potential perception issue similar to direct referral to the Environment Court.

Preferred Option

At this stage a consenting approach involving combining the discharges of the Southern WWTP and the Cambridge WWTP via linked conditions is emerging as the preferred option. As per the Tasks outlined in the programme, we recommend a series of hold-points where this approach is reviewed – recognising that there needs to be inherent adaptability incorporated into the approach to respond to upcoming legislative change and as the project progresses.

This report is subject to, and must be read in conjunction with, the limitations set out below and the assumptions and qualifications contained throughout the Report.

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1. Introduction

1.1 Overview

The southern metro area Wastewater Detailed Business Case (DBC) has progressed to the point of identifying a preferred option for the future wastewater servicing in the southern metro area. The identified preferred option, 'Option 4A', includes a new WWTP located south of Hamilton, near the airport (the 'Southern WWTP'). The Southern WWTP will serve the Waikato Regional Airport (the Airport) industrial precinct and environs, Mātangi/ Tamahere Hub and southern Hamilton. The preferred option also includes Cambridge being serviced by a stand-alone separate upgraded WWTP.

Staging considerations for the Southern WWTP have been developed and involve:

- Stage 1: Sequencing Batch Reactor (SBR) treatment process with discharges to land
- Stage 2 and 3: Upgraded WWTP to a Membrane Bioreactor (MBR) treatment process and discharge to River (triggered via population levels anticipated to be approximately post 2031)

Progression through the stages is linked to 'triggers' such as flows (and projected flows) as a result of realised and projected growth, so timeframes are considered approximate. The discharges methods are still to be confirmed, however, the assumptions for the purposes of this strategy are that it will be a discharge to land for Stage 1 and then involve a discharge to water in subsequent stages.

This report outlines a Consenting Strategy for the southern metro area, particularly in relation to the Southern WWTP and Cambridge WWTP. The Consenting Strategy also needs to be cognisant of the wider metro area, to not miss out on potential opportunities for realising catchment or boundaryless approaches and where consentability of overall metro wastewater schemes may be improved. It is noted that the northern-metro area DBC for wastewater servicing is yet to be undertaken. Over the next 10 years, Cambridge, Pukete and Ngaruawahia WWTP discharge consents all expire (all discharge to the Waikato River catchment). There are opportunities and risks to be explored and managed in relation to the consenting of these existing WWTPs, as well as the new Southern WWTP.

1.2 Purpose of this report

The report provides the project team with a high-level consenting strategy for the preferred option (Option 4A) under development for the southern metro area DBC. The consenting strategy outlines the key steps required for a Notice of Requirement (to designate) and to seek resource consents for the new Southern WWTP and resource consents for the Cambridge WWTP, it also includes a review of key legalisation and the implications the legalisation has on the project. This consenting strategy will serve as a guiding document to inform the DBC and project development of the planning components of the coming phases, required technical inputs, assessments and investigations necessary to support a robust consent application(s).

The consenting strategy provides the following:

- Background summary
- Review of current statutory context, including:
    - Resource consent requirements for a Southern WWTP and other exiting WWTPs within the metro area.
    - Upcoming and anticipated legislative changes
    - High-level summary of recent decisions for other WWTP discharges in the Waikato Region
- Alternative consenting approaches
- Consenting process summary – including who would hold the consents and designations, how would they be sought
- Key tasks

- Consenting risk register
- Next steps

It is considered that this Consenting Strategy is a live document and should be reviewed periodically and/or if significant changes to the proposal or legislative environment occur.

1.3 Objectives

Objectives for the consenting of the project need to be developed. The objectives developed through the DBC process to align with the Te Ture Whaimana and the Best for River definition were as follows:

1. Before 2050 municipal wastewater discharges are no longer impacting on the ability of people to swim and collect Kai from the river and connected waterways thereby contributing to the restoration and protection of the health and wellbeing of the river.
2. The quality and extent of aquatic and terrestrial habitat and biodiversity in and around water bodies is enhanced through the reduction of wastewater treatment and discharge impacts before 2050.
3. Wastewater treatment solutions contribute to restoring and enhancing cultural connectivity with the river so that before 2050 Marae, Hapuu and Iwi access to the river and other sites of significance for cultural and customary practice within the metro spatial area are no longer impeded by waste water treatment solutions.
4. Maximise efficient use of resources and resource recovery to contribute to net zero greenhouse gas related emissions from wastewater treatment systems before 2050.
5. The wastewater solution provides sufficient capacity to ensure sustainable growth in the metro spatial area in accordance with growth projections assumptions for the next 100 years.

These objectives were developed for the DBC process, and are considered an appropriate starting point to demonstrate the need for the work. The DBC objectives have been developed with partners and stakeholders. The draft consenting objectives (below) were developed with these DBC objectives in mind and bring in and reinforce aspects of timeliness, Te Ture Whaimana, consent duration, simplification and flexibility in consent conditions and the 'boundaryless approach':

1. Timely delivery of the notice of requirement and consents to enable (and provide for) growth and allow for staging of service provision.
2. A consent preparation and approval process supported by iwi and other key stakeholders through giving effect to Te Ture Whaimana.
3. Consent duration of 35 years to provide for investment security, supported by a consent application based on the Best Practicable Option and robust evidence demonstrating the quality of discharge and thus contributing towards the protection and restoration the health and wellbeing of the Waikato River throughout the metro area.
4. A simplification/streamlining of consent conditions which can be easily monitored, and which have achievable reporting requirements.
5. Implement flexibility within the suite of resource consent conditions to accommodate operational requirements and enable future upgrades when required.
6. Enabling a catchment boundaryless approach where this results in best for river 'betterment' outcomes in achieving Te Ture Whaimana.

These DBC and consenting objectives are considered an appropriate starting point to demonstrate the need for the work, however, project objectives will need to be developed for each specific project within the southern metro area, in consultation with project partners and stakeholders. It is these specific project objectives against which

any assessment under section 171(1)(c) will be undertaken. For instance, if land is required as part of a specific project, then the applicable project objectives would need to include reference to such a requirement for the project. This project objective development is identified as Task 3 in Section 5 (key tasks). A next step would be to refine these on a project by project basis to align with project requirements – for instance if a notice of requirement process and resource consents are required.

1.4 Existing consents

There are six consents held for municipal WWTP operations and discharges in the metro spatial area. These are outlined in Table 1 below.

Table 1 Relevant consents held for the municipal WWTPs in the metro area

WWTP	Relevant consents at the plant	Expiry date
Pukete	Discharge to air	2027
	Discharge to water	2027
Ngaruawahia	Discharge of biosolids to land	2022
	Discharge of wastewater to land and groundwater	2029
	Discharge of wastewater to land	2029
	Discharge to air	2029
	Discharge of wastewater to the Waikato River	2029
Te Kowhai	Discharge of treated wastewater to land	2033
Matangi	Discharge to land of treated wastewater	2021
Cambridge	Discharge of contaminants to groundwater (through seepage) to land	2026
	Discharge to air	2026
Te Awamutu	Discharge to water (treated wastewater to the Mangapiko Stream)	2043
	Discharge to land of treated wastewater via seepage to land and groundwater	2043
	Discharge to air resulting from WWTP activities	2043

1.5 Summary of the proposed activity

The Waikato Region is experiencing high levels of growth. Due to this growth, there will be increased pressure on the wastewater treatment systems. In addition to this, new water quality targets to meet the requirements of Te Ture Whaimana and those proposed in Waikato Regional Plan Change 1 mean drivers for higher treatment quality for treated wastewater discharges.

A key outcome of the southern metro area DBC is the identification of a preferred option for the future wastewater servicing in the southern metro area. The identified option, “Option 4A”, includes in a new WWTP located south of Hamilton, near the airport (the “Southern WWTP”), and Cambridge being serviced by a stand-alone separate WWTP. Long term servicing of the metro area is likely to follow the below diagram (Figure 1), with:

- Cambridge and Te Awamutu being serviced via individual standalone WWTPs.
- The new Southern WWTP which will service the airport industrial precinct and environs, the Southern portion of Hamilton, the Matangi, Tamahere areas and potentially Ōhaupō.

- Upgraded Pukete WWTP which will service Hamilton, Ngaruawahia, Horotiu and Te Kowhai (noting that this may change through the upcoming Northern wastewater DBC).

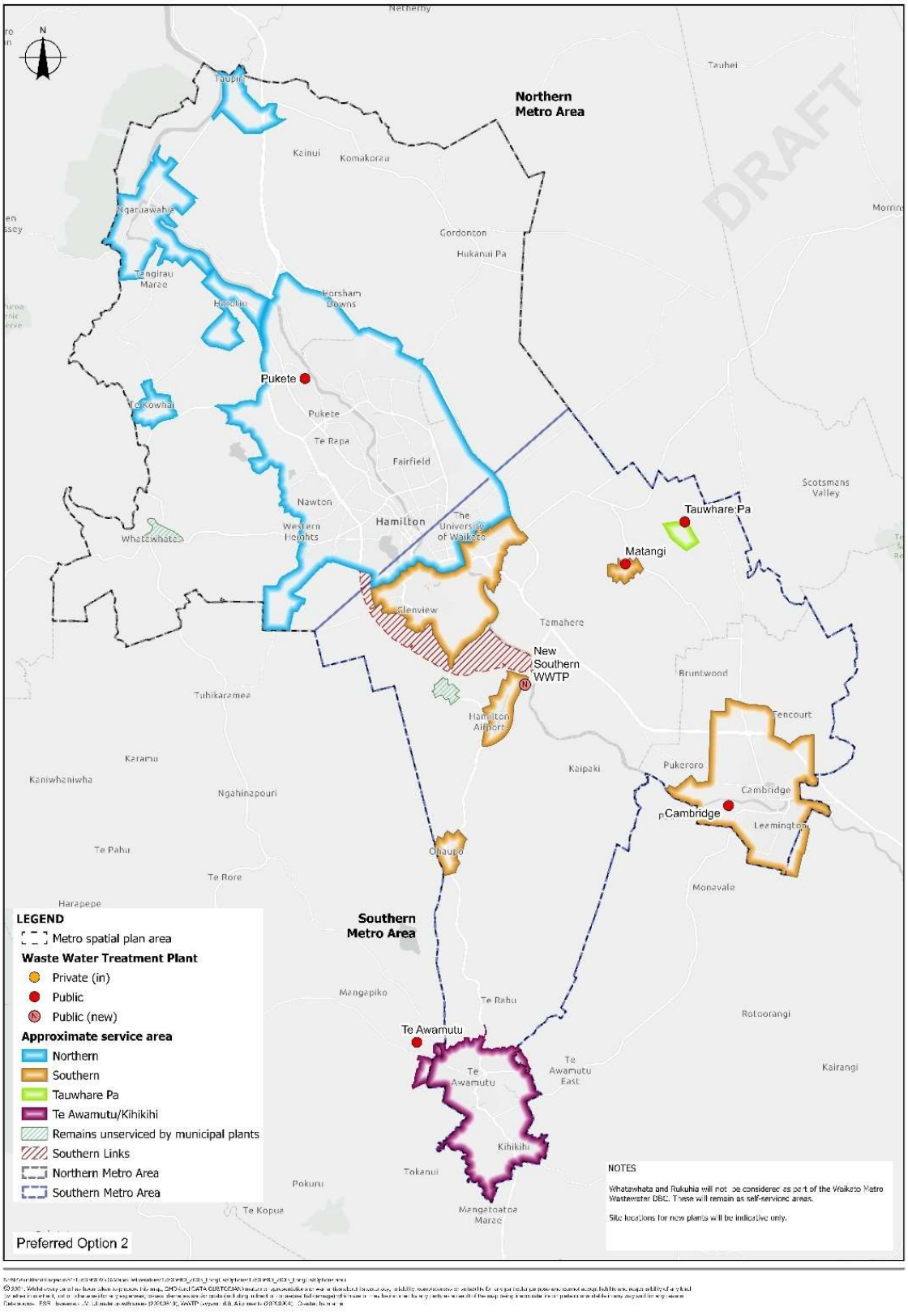

Figure 1: Wastewater servicing of the Hamilton Metro Spatial Area

1.6 Summary of Refined Option 4A – Southern Metro

The preferred option (Option 4A) for the southern metro area is summarised as follows:

- Provide a centralised system for the airport and surrounds and southern Hamilton that is staged to provide more flexibility and defer some capital investment.
    - Stage 1: SBR treatment process with discharges to land
    - Stage 2 and 3: Upgraded WWTP to MBR treatment process and discharge to River (trigger point based off population levels and is anticipated to be approximately post 2031)
    - Note: the discharges methods are still to be confirmed, however, the assumptions for the purposes of this strategy are that it will be a discharge to land for Stage 1 and then involve a discharge to water in subsequent stages.
- Cambridge WWTP – consent, design and construct a new MBR WWTP. A further upgrade will be required around 2050 to provide capacity for growth.
- Te Awamutu WWTP – existing consent in place, with an expiration of 2043. Triggers for further upgrades are included in the current consent which are anticipated to be around 2030.
- Tauwhare Pa WWTP to be duplicated when development occurs with continued discharge to land or alternatively be reticulated to Pukete WWTP or the Southern WWTP.
- Matangi WWTP to be re-consented for a medium term period with minor improvements. Eventual servicing of the Matangi area via the Southern WWTP which could also include the servicing of the Tamahere area.
- Ōhaupō continue to be serviced on-site with potential in the future that this may be piped to a Southern WWTP.
- Parts of the present airport area will continue to be serviced via on-site systems until the owners have an alternative (i.e. the Southern WWTP solution) and/or want to connect.

2. Statutory considerations

Section 15 of the RMA relates to discharges of contaminants into the environment, whereby no person can discharge contaminants to the environment unless it is expressly allowed by a national environmental standard or other regulations, a rule in a regional plan as well as a rule in a proposed regional plan for the same region (if there is one), or a resource consent. The consenting requirements in accordance with the relevant rules of such plans have been presented in Section 2.1.

The statutory thresholds and high-level assessment of objectives and policies of legislative aspects relevant for the RMA s104, 105 and 107 assessments are discussed in section 2.2.

An outline of all relevant and known anticipated legislative changes that could influence the project have been presented in Section 2.3.

Lastly recent and relevant projects and decisions are discussed in section 2.4.

2.1 Consenting requirements

The approvals required for the project are directed by the:

- RMA
- National Environmental Standard for Freshwater (2020).
- National Environmental Standard for Sources of Human Drinking Water (2008).
- Waikato Regional Plan (2007).
- Healthy Rivers / Wai Ora – Proposed Waikato Regional Plan Change 1: Waikato and Waipā River Catchments, Decisions Version (2020).
- Waipā District Plan (2016).

Each are discussed further below. Settlement Legislation and key national level documents such as the National Policy Statement for Freshwater Management 2020 have implications for decision making of consents and are discussed further in section 2.2.

2.1.1 National Environmental Standard for Freshwater (NESFW)

The NESFW came into effect on the 3rd of September 2020. The NESFW sets requirements for carrying out certain activities that pose risks to freshwater and freshwater ecosystems. Anyone carrying out these activities will need to comply with the standards. The standards are designed to cover many aspects, including standards for farming activities, freshwater activities (wetlands, drainage, natural hazards), fish passage, culverts, and weirs. In the context of the preferred option, Southern WWTP, this could include potential impacts on natural wetlands. However, as a WWTP is considered “specified infrastructure” this would not be a fatal flaw to the consenting – it does however remain a key consideration. Working around or avoiding potential impacts on wetlands where possible is recommended.

2.1.2 National Environmental Standards for Sources of Human Drinking Water (NESDW)

The NESDW came into effect on 20 June 2008 and sets the requirements for protecting sources of human drinking water from becoming contaminated. These standards are relevant given the location of several water takes both within the metro area, and downstream. The NESDW is currently being reviewed as part of the Three Waters Review, and public consultation is likely to take place in early 2022.

2.1.3 Waikato Regional Plan (WRP)

A high-level assessment against the relevant planning rules of the WRP has been set out below.

Table 2 Regional Consent Triggers

Section of the RMA	Relevant Rule	Comments
Consents required		
15	Discharge of treated wastewater to water or land Rule 3.5.4.5 - Discharges – General Rule - Any discharge of a contaminant into water, or onto or into land, in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water, that is not specifically provided for by any rule, or does not meet the conditions of a permitted or a controlled activity rule in this Plan, is **a discretionary activity**	To authorise a discharge of treated wastewater to water or land depending on the BPO chosen. There is no permitted activity rule for municipal type discharges unless it is an on-site (household) system.
15	Discharge of odour Rule 6.1.9.2 – Discretionary activity *Except as provided for in any other rule in this Plan, the discharge of contaminants into air from:* 1. *Any process or activity that is on an industrial or trade premises and is not permitted by or does not comply with Rules 6.1.9.1, 6.1.10.1 to 6.1.19.1; or* 2. *A mobile source or premises that are not industrial or trade premises, and does not comply with Rules 6.1.9.1, 6.1.10.1 to 6.1.19.1*	To authorise the discharge of odour to air associated with the WWTP process. Compliance with the permitted activity criteria should be undertaken once the BPO option has been developed.
Consents that may be required:		
	Structures in, on, under or over the beds of rivers and lakes Rule 4.2.4.4 – Discretionary activity *The use, erection, reconstruction, placement, extension, alteration or demolition or removal of any structure in, on, under or over the bed of any lake or river that is not specifically provided for by any rule, or does not comply with the conditions of a permitted or controlled activity rule in this Plan, is a discretionary activity (requiring resource consent).*	Placement of discharge structure(s) in, on or under the Waikato River.
	Vegetation removal and earthworks along riparian margins Rule 5.1.4.14 – Controlled activity 1. *Except as restricted by Rule 5.1.4.16, the following activities, occurring in any continuous 12 month period and located in a high risk erosion area:* 2. *Roading and tracking activities between 100 and 2,000 metres in length, or* 3. *Soil disturbance activities between 250 and 1,000 cubic metres in volume (solid measure), or* 4. *Soil disturbance activities between 0.2 and 2.0 hectares in area, or* 5. *Soil disturbance activities resulting in a cut slope batter exceeding three metres in vertical height over a cumulative distance between 30 and 120 metres in length, or*	Earthworks or vegetation clearance on the banks of the Waikato River are considered a “high-risk erosion area.” Therefore, the permitted activity standards cannot be met, and consent will be required as either a controlled or discretionary activity.

Section of the RMA	Relevant Rule	Comments
	6. *Vegetation Clearance of between one and five hectares with the exclusion of planted production forests, plant pests as specified in the Waikato Regional Council's Regional Pest Management Strategy and vegetation clearance adjacent to a Natural State water body as shown on the Water Management Class Maps* 7. *Vegetation clearance which is within five metres on either side, of the banks of a water body excluding an ephemeral stream, and which is between 50 to 100 metres in length per kilometre of that water body, with the exclusion of planted production forests and vegetation in riparian margins adjacent to planted production forest, riparian enhancement and replanting programmes and plant pests as specified in the Waikato Regional Council's Pest Management Strategy.* 8. *Vegetation clearance within five metres on either side of the banks of a water body excluding an ephemeral stream of greater than 50 metres in length per kilometre of that water body of:* a) *Planted production forest (except as provided for in Rule 5.1.4.11(3) and/or vegetation in riparian margins adjacent to planted production forest; or* b) *Vegetation associated with riparian enhancement programmes.* c) *Any roading and tracking activities associated with the installation of a bridge or culvert controlled by Rules 4.2.8.2 and 4.2.9.3, within 20 metres of that bridge or culvert;* and any associated deposition of slash into or onto the beds of rivers and any subsequent discharge of contaminants into water or air are controlled activities (requiring resource consent) subject to the standards and terms as specified in Section 5.1.5. Waikato Regional Council reserves control over the matters that are specified in Section 5.1.6. Rule 5.1.4.15 – Discretionary activity 1. *Except as restricted by Rule 5.1.4.16 the following activities, occurring in any continuous 12 month period and located in a high risk erosion area:* 2. *Roading and tracking activities exceeding 2,000 metres in length* 3. *Soil disturbance activities exceeding 1,000 cubic metres in volume (solid measure)* 4. *Soil disturbance activities exceeding two hectares in area* 5. *Soil disturbance activities resulting in a cut slope batter exceeding three metres in vertical height over a cumulative distance exceeding 120 metres in length* 6. *Vegetation clearance exceeding five hectares with the exclusion of planted production forests (except those restricted by Rule 5.1.4.16),*	

Section of the RMA	Relevant Rule	Comments
	and plant pests as specified in the Waikato Regional Council's Regional Pest Management Strategy *7. Riparian vegetation clearance which is within five metres on either side of the banks of a perennial water body which exceeds 100 metres in length per kilometre, with the exclusion of planted production forests, riparian enhancement programmes and plant pests as specified in the Waikato Regional Council's Regional Pest Management Strategy* *8. Any riparian vegetation clearance within five metres of a Natural State water body as shown on the Water Management Class Maps except:* *9. that which is required as part of the construction of a walking track no greater than two metres width, and* *10. the control of plant pests as specified in the Waikato Regional Council's Regional Pest Management Strategy* 11. *Any activity specified in Rules 5.1.4.14 and 5.1.4.16, that does not comply with the conditions and standards and terms in Section 5.1.5;*	
	Stormwater Discharges Rule 3.5.11.6 – ***Controlled*** *The discharge of stormwater (including geothermal water) onto or into land that does not comply with Rule 3.5.11.5 is a controlled activity (requiring resource consent) subject to the following standards and terms:* *a) The discharge shall be below a rate that would cause overland flow leading to a discharge to surface water, except in rain events equivalent to the 10% Annual Exceedance Probability design storm or greater. Any exceedance shall go into designated overland flow paths.* Rule 3.5.11.8 – *Discretionary* *The discharge of stormwater into water, and/or into or onto land which does not comply with Rules 3.5.11.4, 3.5.11.5, 3.5.11.6 and 3.5.11.7 is a discretionary activity (requiring resource consent).*	As a result of increased impervious surfaces (through the new Southern WWTP), it is likely that the stormwater discharges at the sites will require consent. On the basis of the site being contaminated with WWTP operations being a HAIL activity (and therefore it cannot meet the permitted activity standards of Rule 3.5.11.5) consent will be required as either a controlled or discretionary activity.

2.1.4 District Council Plans (district plans)

A new WWTP on a new site would require planning approvals under either the Hamilton City Council District Plan or the Waipā District Council District Plan (depending on the location of the plant) to establish the site and construct the plant. This can be achieved via a Notice of Requirement process which would designate the chosen site. It is typical for designations to be obtained for public infrastructure such as WWTPs. A designation would mean the site is recognised under the District Plan as being necessary for the purpose of a wastewater treatment facility. If designated, future activities at the site, which would usually trigger resource consent requirements under the District Plan, could be addressed via an Outline Plan of Works. An Outline Plan of Works is a more streamlined and simple process than obtaining a resource consent and does not allow for third party rights of submission. Further benefits of issuing a notice of requirement to designate is discussed in section 3.1 below.

The land area over which treated wastewater would be discharged/applied to should ideally be designated, if possible – however, it is not essential as the actual discharge of treated wastewater to land would still require the above consenting requirements under the Waikato Regional Plan regardless of a designation being in place. Discharge permits for discharges to land, air and/or water along with any other resource consents required under the Regional Plan would need to be prepared and lodged with the Waikato Regional Council.

In the future, there may be district planning approvals for those areas located within the Waikato District, including Matangi, Tamahere or Tauwhare Pa, pursuant to the Waikato District Plan. If required, these should be considered as a next step.

2.1.5 Potential other consenting and/or RMA approvals and processes

Depending on the site selected there may be other approvals required, such as consent under the NES for Assessing and Managing Contaminants in Soil to Protect Human Health. As the project progresses, consents required will need to be reviewed as further information is obtained.

Once further detail is known on the preferred option for the Southern WWTP, further considerations in relation to any effects on gullys or ephemeral streams, diversion of streams, ground water diversions etc. will be required

In the future, Matangi and Ōhaupō (should this area become reticulated) wastewater flows may also be piped to the Southern WWTP. There is likely to be consenting requirements for the pipeline, including earthworks, pipe-bridges. However, as this requirement is likely to be several years away (with Matangi WWTP discharge currently having new consents sought) there is no further discussion of this aspect in this Consenting Strategy, with the exception of next steps in section 7.

Other authorities and approvals under other legislation e.g. authorities under the Heritage New Zealand Pouhere Taonga Act will also need to be considered as the project progresses.

2.2 Statutory context

2.2.1 Settlement legislation and Joint Management Agreements

Consideration must also be given to legislation and joint management agreements (JMAs) when undertaking activities such as those relating to discharges to the Waikato River – and inform decision making around the long-term options to be taken forward. The following settlement legislation and JMAs are relevant:

- Waikato Tainui Raupatu Claims Settlement Act 1995
- Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010
- Ngāti Tuwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 (“the Upper Waikato River Act”)
- Nga Wai o Maniapoto (Waipā River) Act 2012
- Ngāti Koroki Kahukura Claims Settlement Act 2014
- Ngāti Hauā Claims Settlement Act 2014
- Raukawa Claims Settlement Act 2014
- Joint Management Agreements between iwi and local Councils.

The legislative context includes relationship principles and expectations of engagement regarding resource consent applications and that mana whenua are co-governors of the Waikato River as reflected in both the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 (the “Waikato-Tainui Act”) and the Ngāti Tūwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 (“the Upper Waikato River Act”).

The Waikato-Tainui Act and the Upper Waikato River Act enacted co-management frameworks which provided for joint management agreements (JMAs) to be entered into between Councils and mana whenua. JMAs between the Waikato Raupatu River Trust and HCC, Waipa DC and Waikato DC have been established. A JMA between Raukawa Settlement Tru and Waipā DC st has also been established.

The Ngāti Koroki Kahukura Claims Settlement Act 2014 states that joint management agreements between Waikato Raupatu River Trust and local authorities apply to their rohe to the extent that it is within the sub-catchment and to activities in the sub-catchment affecting the Waikato River.

The Waikato-Tainui Act and the Upper Waikato River Act recognise that Te Ture Whaimana o Te Awa o Waikato (2008) (Te Ture Whaimana or the Vision and Strategy) is the primary direction setting document for the Waikato River and its catchments – this Vision and Strategy is discussed further in section 2.2.3. The Waikato River Vision and Strategy (2008) is contained in the Waikato Regional Policy Statement and it states the following:

"Tooku awa koiora me oona pikonga he kura tangihia o te maataamuri

The river of life, each curve more beautiful than the last

Our 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"

Giving effect to Te Ture Whaimana is therefore the underpinning driver for the Consenting Strategy and for the project as a whole.

2.2.2 Section 104 – consideration of applications

Section 104(1) of the RMA requires a consent authority, when considering an application for a resource consent, to have regard to:

(a) Any actual and potential effects on the environment of allowing the activity (section 104(1)(a));

(ab) Any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity (section 104(1)(ab));

(b) Relevant national environmental standards, other regulations, and planning and policy documents (section 104(1)(b)); and

(c) Any other relevant matter (section 104(1)(c)).

Once the WWTP design performance and discharge methodology has been determined the actual and potential effects – section 104(1)(a) or offset or compensation measures 104(1)(ab) matters would be investigated.

Section 104(1) requires a decision-maker to "have regard to" a variety of matters, including (s104(1)(b)) the objectives and policies of the New Zealand Coastal Policy Statement (NZCPS), relevant regional policy statement and plan or proposed plan. "Have regard to" is a lessor test than the "not be contrary to" and as a result, does not necessarily require the decision-maker to forensically examine each and every objective and policy to determine whether in approving an application it would "give effect to" the relevant objective or policy.

2.2.3 Te Ture Whaimana o Te Awa o Waikato (the Vision and Strategy for the Waikato River)

The Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010, Ngati Tūwharetoa, Raukawa, and Te Arawa River Iwi Waikato River Act 2010 and Nga Wai o Maniapoto (Waipā River) Act 2012 established Te Ture Whaimana o Te Awa o Waikato, the Vision and Strategy for the Waikato River (Te Ture Whaimana / Vision and Strategy) as the primary direction setting document for the Waikato and Waipā Rivers. Te Ture Whaimana, and giving effect to this vision, therefore drives the direction of the full project.

Te Ture Whaimana responds to four fundamental issues and outlines objectives in relation to the Waikato River; seeking restoration and protection, health and wellbeing, integrated management, avoidance of cumulative effects, adoption of a precautionary approach and maintenance of mana whenua relationships with the awa. Te Ture Whaimana prevails over other statutory documents, including the NPS-FM 2020.

The objectives of Te Ture Whaimana are listed in Table 3 below. All are applicable to the consideration of wastewater discharges within the Waikato River catchment with particular relevance of objectives A, F, H I and K.

The *Puke Coal*[3] decision is the only Environment Court decision that has tested the implications of Te Ture Whaimana. The decision confirmed that it is no longer sufficient for resource users within the Waikato and Waipā river catchments to demonstrate that adverse effects are avoided, remedied or mitigated. Instead, a further step is required where it should be demonstrates that the proposed resource use will also result in some positive benefit – contributing toward the restoration of the catchment. The decision confirmed this level of 'betterment' must be proportionate to the impact of the proposal on the catchment.

Table 3 Relevant objectives of Te Ture Whaimana o Te Awa o Waikato

Relevant objective	
Objective A	The restoration and protection of the health and wellbeing of the Waikato River.
Objective B	The restoration and protection of the relationship of Waikato-Tainui with the Waikato River, including their economic, social, cultural, and spiritual relationships.
Objective C	The restoration and protection of the relationship of Waikato River iwi according to their tikanga and kawa, with the Waikato River, including their economic, social, cultural and spiritual relationships.
Objective D	The restoration and protection of the relationship of the Waikato region's communities with the Waikato River including their economic, social, cultural and spiritual relationships.
Objective E	The integrated, holistic and coordinated approach to management of the natural, physical, cultural and historic resources of the Waikato River.
Objective F	The adoption of a precautionary approach towards decisions that may result in significant adverse effects on the Waikato River, and in particular, those effects that threaten serious or irreversible damage to the Waikato River.
Objective G	The recognition and avoidance of adverse cumulative effects, and potential cumulative effects, of activities undertaken both on the Waikato River and within its catchments on the health and wellbeing of the Waikato River.
Objective H	The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities.
Objective I	The protection and enhancement of significant sites, fisheries, flora and fauna.
Objective J	The recognition that the strategic importance of the Waikato River to New Zealand's social, cultural, environmental and economic wellbeing requires the restoration and protection of the health and wellbeing of the Waikato River.
Objective K	The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length.

[3] Puke Coal Limited v Waikato Regional Council [2014] NZEnvC 223 (23 October 2014)

Relevant objective	
Objective I	The promotion of improved access to the Waikato River to better enable sporting, recreational, and cultural opportunities.
Objective M	The application to the above of both maatauranga Maaori and latest available scientific methods.

2.2.4 National Policy Statement for Freshwater Management 2020

The NPSFW is one of four pieces of national direction for managing New Zealand's freshwater. The NPSFW came into effect on the 3rd of September 2020 and replaced the NPSFW 2014 (Amended 2017). The purpose of the NPSFW is to set objectives and policies to protect and restore freshwater bodies, to give effect to the fundamental concept of Te Mana o te Wai.

Te Mana o te Wai is a "*concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community."* Te Mana o te Wai is relevant to all freshwater management. The NPSFW is informed by the 6 principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater.

The overarching objective of the NPSFW is *"to ensure that natural and physical resources are managed in a way that prioritises:*

(a) first, the health and well-being of water bodies and freshwater ecosystems

(b) second, the health needs of people (such as drinking water)

(c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future."

From this, 15 policies have been developed, those most relevant to the project are:

- Policy 2: Tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for.
- Policy 7: The loss of river extent and values is avoided to the extent practicable.
- Policy 12: The national target (Appendix 3 NPSFW 2020) for water quality improvement is achieved.
- Policy 15: Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement.

The relevant objectives and policies of the NPSFW will need to be taken into account during the option development phase of the project and during the consenting process. The NPS FW also includes compulsory values relating to:

- Ecosystem Health
- Human contact
- Threatened species
- Mahinga kai (kai is safe to harvest and eat).

In the absence of not having these compulsory values recognised in the regional plan – these will be addressed through technical assessments to support the consents and NoR process.

Section 3.24 of the NPS FW also details that for activities in rivers there needs to be a functional need for the activity being located there. A functional need means the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment. This is a high test, and places importance on the consideration of alternatives undertaken as part of the proposed activity

development and the implementation of effects management hierarchy. For instance, discharge to land would need to be considered as an alternative to discharge to water, but weighed in the context of year-round discharges and potential adverse effects of discharging to land during winter where higher nutrient losses can occur. In the Waikato River context, Te Ture Whaimana and the inherent betterment requirements is considered to have a greater stringency than those of the NPS FW. The southern metro area is all located within the mid-Waikato Freshwater Management Unit (FMU). This is important in that this will form the basis for changes to the regional policy statement and regional plan to give effect to the NPS FW.

2.2.5 Waikato Regional Plan

The Waikato Regional Plan (WRP) became operative in September 2007. The plan provides Waikato specific clear and practical guidelines for how to manage natural and physical resources and achieve the environmental outcomes that the region aspires to. The document also gives effect to the Waikato Regional Policy Statement. The plan is live, with subsequent plan changes occurring as required.

WRP contains objectives and policies for the management of natural and physical resources in the Waikato Region that seek the following:

- Net improvement in water quality across the Region
- Tangata whenua able to give effect to kaitiakitanga
- Avoid, remedy or mitigate the effects of the discharge of contaminants on surface water and groundwater
- Avoid, remedy or mitigate the effects of the discharge of contaminants on land and soil
- Avoid, remedy or mitigate the effects of the discharge of contaminants on air and human health.

2.2.6 Healthy Rivers / Wai Ora - Waikato Regional Council Plan Change 1

The Healthy Rivers / Wai Ora: Plan Change 1 (PC1) decision was notified in April 2020. All of the Plan Change 1 provisions are applicable to the Waikato and Waipā River catchments and wastewater servicing throughout the metro-area. It is noted that PC1, which was notified in 2014, is still in the Environment Court appeal stage. This plan change only addresses sediment, pathogens, nitrogen and phosphorus. Those key provisions of PC1 are summarised as follows.

Objective 1 outlines that the health and wellbeing of the catchment is both restored over time and protected so that it is safe for people to swim and take food from at the latest by 2096. Objective 3 outlines that Waikato and Waipā communities are assisted to provide for their social, economic, spiritual and cultural wellbeing through staging the reduction of the discharges of contaminants.

Policies 5, 11 ,12 and 13 of PC1 are relevant to wastewater servicing (Appendix C of Healthy Rivers WRC 2020 for the full objective / policy). Policy 5 provides for off-setting compensation to the degree in which it achieves the objectives of Te Ture Whaimana o Te Awa o Waikato (the Vision and Strategy for the Waikato River). This requires an overall reduction in nitrogen, phosphorus, sediment and microbial pathogens in diffuse discharges in all sub-catchments or that the sufficient reduction in diffuse discharges has positive impacts on the Waikato and Waipā River that outweigh the adverse effects from an increase.

Te Ture Whaimana has been enacted through iwi treaty settlement legislation and incorporated within the Regional Policy Statement. Of key importance is the shared responsibilities for restoring and protecting the health and wellbeing of the Waikato River. That being said, rather than maintaining the status quo, steps need to be taken to improve the quality of the Waikato River. This notion of “betterment” that underpins the Vision and Strategy has also been established under case law[4].

[4] *Puke Coal Ltd v Waikato Regional Council* [2014] NZEnvC 223.

Policy 11 outlines that when considering resource consent applications for point source discharges, subject to polices 12 and 13 and having regard to the need to achieve Objective 1, provide for the continued operation and development of regionally significant infrastructure.

Policy 12 requires a resource consent to be the Best Practical Option (for discharges) at the time of the consent application. If there are residual adverse effects, measures should be proposed at alternative locations to the point source discharges to offset the adverse effects of the discharge (to ensure positive effects).

Policy 13 is relevant to any proposed off-setting, as regional councils when taking into consideration a consent application for point source discharges, are to consider the contribution made to the catchment loads and the impact of this contribution on achievement of the short-term numeric water quality values in table 3.11-1. In doing so, they take into account reasonable mixing and the combined effects on water quality from amalgamation of discharge points compared to the effects of the existing discharges.

2.2.7 Iwi Management Plans

An iwi management plan is a document developed and approved by iwi to address matters of resource management activity of significance within their respective rohe. The plans can contain information relating to specific cultural values, historical accounts, descriptions of areas of interest (hapū/iwi boundaries) and consultation and engagement protocols for resource consents and plan changes.

The plans are developed by iwi/hapu and are intended to provide guidance on environmental objectives and policies with environmental focussed goals such as the ultimate goal of restoring the Waikato River. The plans outline iwi values, principles, knowledge and perspectives on, relationship with, and objectives for natural resources and the environment.

The plans seek to provide for current and future generations in a manner that goes beyond sustainability towards enhancement. This requires consideration of individual activities but also requires a more holistic approach where resource use and activities become a trigger for enhancement of the environment and an overall net-benefit.

The assessment of effects on the environment to be submitted as part of the resource consent application will have to take into consideration the management plans and will include a detailed Cultural Impact Assessment which will assess the proposal against these management plans in detail.

Iwi Environmental Management Plans relevant to the are concerned include[5]:

- Waikato Tainui Environmental Management Plan - Tai Tumu Tai Pari Tai Ao
- Raukawa Environmental Management Plan
- Ngāti Hauā Iwi Environmental Management Plan.
- Maniapoto - Ko Tā Maniapoto Mahere Taio: Environmental Management Plan

Further assessment against the specific elements of the iwi managements plans relevant to the proposed activity would be undertaken as a next step.

2.2.8 Section 105 – Matters relevant to certain applications

If an application is for a discharge permit or coastal permit to do something that would contravene section 15 or section 15B, the consent authority must, in addition to the matters in section 104(1), have regard to—

a) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and

b) the applicant's reasons for the proposed choice; and

c) any possible alternative methods of discharge, including discharge into any other receiving environment.

[5] Ngāti Koroki Kahukura do not have a Iwi Environmental Management Plan

The application documents will include an assessment against the requirements of s105, informed by the output of the alternatives assessments and technical assessments.

2.2.9 Section 107 – Restriction on grant of certain discharge permits

Section 107 of the RMA sets out the requirements of the consent authority if it chooses to grant an application for a discharge permit. It states:

> *3) Except as provided in subsection (2), a consent authority shall not grant a discharge permit or a coastal permit to do something that would otherwise contravene* section 15 *or* section 15A allowing—
>
> *(a) the discharge of a contaminant or water into water; or*
>
> *(b) a discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; or*
>
> *(bb) the dumping in the coastal marine area from any ship, aircraft, or offshore installation of any waste or other matter that is a contaminant,*
>
> *If, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:*
>
> *(a) the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:*
>
> *(b) any conspicuous change in the colour or visual clarity:*
>
> *(c) any emission of objectionable odour:*
>
> *(d) the rendering of fresh water unsuitable for consumption by farm animals:*
>
> *(e) any significant adverse effects on aquatic life.*

The application documents will include an assessment against the requirements of s107 informed by the output of the alternative's assessments and technical assessments.

2.3 Upcoming and anticipated legislative changes

2.3.1 RMA Reforms

The Government plans to repeal the RMA and replace it with three new pieces of legislation:

- **Natural and Built Environments Act**
  - The purpose of this Act is to enhance the quality of the environment to support the wellbeing of present and future generations.
  - Of note is that this will include environmental natural limits, outcomes and targets
- **Strategic Planning Act**
  - To provide a strategic and long-term approach to how we plan for using land and the coastal marine area.
- **Climate Change Adaptation Act**
  - To support New Zealand's response to the effects of climate change.

The Ministry for the Environment have signalled a reform process timeframe that would see the above acts introduced to parliament by late 2021, and it is intended that all three pieces of legislation are passed by the end of 2022.

The potential timeframe for lodgement of the consent for the Cambridge WWTP and the Southern WWTP may be between mid-late 2022 and the end of 2023[6], and therefore consent may need to be sought under new legislation. The above acts may involve transitional measures, whereby current Regional Plan provisions (under which consents to discharge treated wastewater would be sought) would remain in effect for a prescribed number of years to enable policy updates / re-writing of regional planning documents to enact the provisions of the Acts.

We recommend that a watching brief of the development of the acts is undertaken to determine any potential implications for the consenting process.

2.3.2 Changes to the Regional Policy Statement and Regional Plan to give effect to the NPS FW 2020

Waikato Regional Council are yet to announce changes to the Regional Policy Statement and Regional Plan to give effect to the NPS FW. These plan changes need to be notified by December 2024 and will be subject to the freshwater planning process as set out in the RMA. These changes could include more stringent standards and targets than those in existing regional planning documents.

The changes required by the NPS FW apply to more standards than the current PC1 under progress (currently subject to appeal) for the Waikato Regional Plan. It is therefore anticipated that Waikato RC will prepare a new plan change to implement the NPS FW rather than seek to try amend PC1.

2.3.3 Review of Te Ture Whaimana

Te Ture Whaimana is due for a review and this it anticipated to commence in 2022. We do not currently have details as to what changes this may involve, or whether it is to be a substantive review. Given Te Ture Whaimana is the primary direction -setting document for the Waikato River and its catchments, this will need to be monitored closely to determine any implications for the southern metro area and the projects involved.

2.3.4 Proposed National Environmental Standards for wastewater discharges and overflows (2020)

A National Environmental Standard for Wastewater Discharges and Overflows (Wastewater NES) was also proposed as part of the "Action for healthy waterways: a discussion document on national direction for our essential freshwater" package. This document will be developed by the Ministry for Environment, with support from the Department of Internal Affairs. There is currently no release date. The intent of the Wastewater NES is to prescribe the requirements for consent conditions on discharges from wastewater treatment plants and engineered overflow points. These requirements may include:

- Minimum treatment standards or 'limits' for nationally-applicable wastewater quality parameters.
- Targets or limits on the volume and frequency of wet weather overflows
- Methods for monitoring compliance with standards or limits and reporting breaches to regional councils and the public
- Approaches for incorporating culturally acceptable wastewater treatment processes.

As of the date of this consenting strategy the Ministry for the Environment has noted that the proposed standard is part of the three waters regulatory reforms being progressed through the three waters review. There is limited information available about the release of the draft NES document. We recommend monitoring MfE and/or DIA information releases as part of the consent preparation process, to understand timeframes and potential implications.

2.3.5 Three waters reform

In July 2020, the Government launched the Three Waters Reform Programme – a three-year programme to reform local government three waters service delivery arrangements.

[6] Depending on agreement with Waikato Regional Council, and with inputs from iwi as co-managers.,as discussed further throughout this Strategy.

This reform programme builds on the progress made through the Three Waters Review and establishment of Taumata Arowai. The reform responds to the current situation of 67 different councils who own and operate the majority of drinking water, wastewater and stormwater services across New Zealand. Local government is facing urgent challenges in the provision of these services including: funding infrastructure deficits, complying with safety standards and environmental expectations, building resilience to natural hazards and climate change into three waters networks, and supporting growth. Rather than piecemeal solutions, comprehensive, system-wide the reform aims to achieve lasting benefits for the local government sector, our communities, and the environment.

The Government's starting intention is to reform local government's three waters services into a small number of multi-regional entities with a bottom line of public ownership. The exact size, shape and design of these entities has been released for feedback by the Government

Depending on whether the local authorities (being HCC, Waipā DC and Waikato DC) decide to remain part of the water reform programme (there is upcoming opt-out opportunities) and the lodgement timeframes, this may influence who the entity is that is applying for consents. It is also possible that the multi-regional entity that is arrived at may change the approach taken.

We recommend that a watching brief of the progression of water reform is undertaken to determine any potential implications for the consenting process, as the reform could change the appropriateness of approaches recommended.

2.3.6 Greenhouse gases

The wastewater treatment process has the potential to generate a number of greenhouse gases. From December 2021 greenhouse gas emissions will be considered under section 104E of the RMA and will be required to be considered as part of resource consent applications.

This will have implications for alternatives under consideration and should feed into that process, whereby applicants will have to demonstrate how proposals align with climate change and greenhouse gas reduction goals. This also ties in with energy recovery considerations.

2.3.7 Proposed National Policy Statement for Highly Productive Land

The NPS for Highly Productive Land is currently proposed. This may influence the types of uses that highly-productive land can be used for. Prospective sites should be assessed as to whether they comprise "highly productive land", particularly where discharge to land options are being considered.

2.4 Recent relevant resource consent decisions

The Waikato Region and specifically the catchments of the Waikato and Waipā Rivers being subject to Te Ture Whaimana are ahead of much of the rest of New Zealand in terms of policy requirements. Therefore, focus in this section is on Waikato examples as these are most relevant.

2.4.1 Open Country Dairy Wastewater Discharge Consent

On the 15th of March 2019 Open Country Dairy (OCD) applied for two resource consents from WRC for upgrades at their Waharoa Site. The first consent was for a discharge to air, and the second for discharge to water. OCD was granted a consent to discharge contaminants to air however the commissioners declined the consent to discharge contaminants to water due to potential moderately adverse water quality and ecology effects during the summer months.

OCD sought resource consents to enable the continued operation and expansion of the Waharoa dairy factory. The proposal was for a year-round discharge of highly treated wastewater to the Waitoa River. The proposal represented a significant improvement in the quality of the wastewater discharged, but also a departure from the existing disposal practice of only discharging to the Waitoa river during winter months (June to October) when river flows are >1,500 litres per second, and to land during the summer-autumn months.

The decision outlines an 'existing environment' for a discharge to be "the environment includes the effects of past lawful discharges but excludes the effects of ongoing discharges authorised under the previous consents and intended to be replaced." In this instance, the cumulative effects of summer discharges was not appropriately considered by the applicant.

The decision also reinforces the need for a comprehensive consideration of alternatives which take into account cumulative effects.

2.4.2 Tirau and Putāruru Wastewater Discharge Consents

A decision was released in August 2020 for Tirau and Putaruru WWTP discharge consents.

The Tirau and Putāruru WWTPs are located within the Waihou Catchment. SWDC proposed to maintain and improve loads over time and also undertook a catchment approach whereby improvements at the Putāruru WWTP (by 2026) are used to offset a small net increase in nutrients anticipated as a result of forecast growth in Tirau. The proposal still seeks to maintain and improve contaminant loads being discharged to the environment, which is a key aspect – that being reducing the level of impact of the WWTP(s) discharges, even with growth occurring.

SWDC proposed to combine TN and TP loads for Tirau and Putāruru WWTPs up to 2026, and for TN between 2026 and 2045. This 'catchment approach' was endorsed by Waikato Regional Council. Interestingly, the small increases in TP discharge at Tirau between 2026 and 2045 is stated as being offset by the TN improvements at Putāruru – stating *"the adverse effects of this increase [at Tirau] in TP are more than offset by the significant TN reduction at Putāruru."*

The decision also notes that near-field effects, notably, on ecological matters where the decision states "there does not appear to be any significant adverse effects on aquatic species given the quality of the discharge and the streambed substrate and moderately swift flow velocities".

The Tirau WWTP decision indicates that a catchment approach is acceptable to Waikato Regional Council. The reduction of mass loads entering the catchment is directly applicable, and also aligns with expectations outlined in the objectives of Te Ture Whaimana.

2.4.3 Tokoroa Wastewater Treatment Plant discharge consent

South Waikato District Council (SWDC) as part of the replacement of their four WWTP consents, applied to replace the discharge consent (Consent no. 930693) for the Tokoroa WWTP in 2018. The application is still being processed due to a number of changes and requests from stakeholders and the Working Group. SWDC worked collaboratively with Raukawa Charitable Trust to evaluate options at the plant, catchment and district scales. This resulted in the combined effects for the four plants being evaluated and identified as the Best Practical Option (BPO). The BPO identifies a number of upgrades to be undertaken over the next 10-15 years.

In undertaking the BPO assessment other options for the discharge were investigated, these included:

- Full land disposal
- Partial land disposal
- Full plant upgrade
- Total nitrogen upgrade
- Total phosphorous upgrade.

Upon further investigation the land disposal options were not deemed viable due to the cost. However, it was added back onto the short list options along with discharging to constructed wetlands. For the Tokoroa plant the four options shortlisted were a full plant upgrade disposing to a wetland, parallel plant disposing to a wetland, a full plant upgrade partially disposing to land and wetland and no change with a full land disposal. The full plant upgrade with a discharge to wetland (an ultimately the Whakaura Stream) was ultimately chosen by the working group.

The Tokoroa WWTP discharges to the Waikato River Catchment, as do the Metro-area WWTPs (with Te Awamutu discharging to the Waipā River catchment). As part of the application, SWDC have completed a detailed assessment of alternatives which is appended to the application. We consider this level of assessment of alternatives will be required for the metro-WWTPs.

2.4.4 Pukekohe Wastewater Discharge Consent

Watercare Services Limited (Watercare) were successfully granted a 35-year discharge consent for the discharge of treated wastewater to the Parker Lane Stream, a tributary of the Lower Waikato River, in 2017. The Pukekohe WWTP services the communities of Pukekohe, Buckland, Patumahoe, Tuakau and Pokeno. Significant growth is planned for these communities through the Auckland Unitary Plan and Waikato District Plan. Watercare proposed a significant upgrade of the existing Sequencing Batch Reactor (SBR) treatment process (commissioned in 2010) to an enhanced Membrane Bioreactor (MBR), introducing a state of the art treatment process, by 2021. Whilst the MBR process introduces a very high level of treatment, total nitrogen concentrations were predicted to increase above existing mass load levels whilst total phosphorus mass loads would reduce below existing. This was accepted by Independent Commissioners as contributing towards an overall improvement in the water quality of the Lower Waikato River when compared to the existing situation.

Notably, the original application to construct a new discharge structure in the Waikato River was opposed by mana whenua, with Watercare subsequently developing the enhanced treatment solution which did not require any additional discharge structures. This solution was ultimately accepted by mana whenua, who although still opposed the discharge of treated wastewater to the Waikato River on principle, recognised the proposed solution was the Best Practicable Option.

2.4.5 Meremere Wastewater Discharge Consent

Watercare Waikato and Waikato District Council operate the Meremere WWTP, originally constructed in the late 1950s to service the township of Meremere and the workers village for the Meremere Power Station. The discharge had been non-compliant with its discharge consent for a number of years and a rahui had been placed on the Lower Waikato River in 2019 related to the ongoing non-compliant discharge. Following a comprehensive options assessment reviewing treatment, conveyance and process options resource consent was sought for the preferred option of upgrading to a side-stream MBR treatment process whilst also retaining the existing oxidation pond treatment system to manage high flows. A number of environmental investigations were undertaken which concluded that the improved discharge quality would contribute towards an improvement in downstream water quality of the main body of the Waikato River. Waikato Regional Council subsequently granted a 35-year consent on a non-notified basis in December 2020.

2.4.6 Te Awamutu Wastewater Discharge Consent

Waipā District Council successfully obtained a 25 year consent, without the need for a hearing, in 2018. This was obtained by working closely with tāngata whenua over several years with the ultimate solution not only providing for growth and contributing towards a downstream improvement in water quality, but also providing wastewater services for the Waikeria Prison, where raw wastewater will be conveyed from Waikeria to Te Awamutu. This will result in the cessation discharge of wastewater from the Waikeria Prison WWTP to the Puniu River.

3. Consenting approaches

The programme and tasks outlined in Section 5 of this Consenting Strategy reflect a number of the key actions that need to be undertaken regardless of the consenting approach adopted. However, the approach taken will impact on the instances in which they will be undertaken, and the applicability of some tasks. The tasks developed therefore incorporate hold points where these approaches are reviewed as the project progresses and further information is available (such as identification of sites, discharge to land locations etc).

This section outlines land protection processes and considerations of a regional plan change along with four broad consenting approaches, and include:

- Individual WWTPs consented separately from one another
- Combining WWTP discharges south of Hamilton (Cambridge and 'Southern' WWTPs)
- Combining WWTP of Pukete and the Southern WWTP
- Whole of metro area global consent i.e. Cambridge, Southern WWTP, Pukete, Ngaruawahia, Te Kowhai, Matangi.

The consenting approach needs to remain flexible in terms of industry involvement (for instance, requirements of users around the airport industrial area) and in the context of legislative and governance changes underway. It also needs to enable/support with confidence the ability to move from Stage 1 of the Southern WWTP (land discharge) to Stage 2 (discharge to the river). The recommended consenting approach is then outlined in Section 3.7.

The objectives outlined in section 1.3 are considered for the preferred consenting approach in (in Section 3.7) along with the following considerations for each consenting approach:

- Best for River and certainty of outcome
- Speed – i.e. early decisions
- Collaboration opportunity
- Challenges /scale
- Consentability
- Key risks
- Key benefits.

Key considerations which provide context for the options assessed include:

- Over the next 10 years, Cambridge, Pukete, Ngaruawahia and Matangi WWTP discharge consents all expire (all discharge to the Waikato River catchment). Matangi is late 2021.
- Cambridge WWTP current consent conditions require lodgement of the long-term resource consent either at the end of 2022 (if it is to be a Cambridge-only solution) or end of 2023 if it is a sub-regional solution.
- Te Awamutu WWTP consent doesn't expire until 2043 (discharges to the Waipā River catchment).
- Te Kowhai WWTP (current consent expiring in 2033) loads likely to go to Pukete, and Matangi WWTP (new consent being sought in the near future) loads likely to go to the Southern WWTP (both to be informed by the Southern DBC process and the upcoming Northern DBC process).
- Pukete WWTP may become a 'northern sub-regional' WWTP taking loads from other WWTPs (Te Kowhai and Ngaruawahia).
- Current timeframe has Stage 1 of the Southern WWTP being operational by the end of 2026/beginning of 2027, with consenting and construction from early 2024.

Further considerations are also given to a plan change around the Southern WWTP once site selection has been undertaken in section 3.1 below and to a potential regional plan change in section 3.2 below. Each of the above broad consenting approaches are then discussed before coming to a recommended consenting approach.

3.1 Land protection processes

We understand that there is potential for a private plan change to be lodged with Waipā District Council to re-zone land around the airport. This may frustrate future processes should this be identified as a preferred location for the Southern WWTP.

Once the preferred site has been identified for the Southern WWTP further work should be undertaken to assess whether a notice of requirement process could be brough forward to designate the land for wastewater treatment and disposal purposes (i.e. land disposal area) in order to protect the land from incompatible uses– particularly if there is a willing buyer/ willing seller arrangement in place (i.e. the land is purchased or leased).

Section 171 of the RMA outlines that when considering a requirement and any submissions received, a territorial authority must have (among other considerations) particular regard to:

- Whether adequate consideration has been given to alternative sites, routes, or methods of undertaking the work if:
    - The requiring authority does not have an interest in the land sufficient for undertaking the work; or
    - It is likely that the work will have a significant adverse effect on the environment.

If the requiring authority has an interest in the land, then this is a key consideration as to whether other sites need to be further investigated. If the requiring authority does not have an interest in the land, then further investigation and consideration of alternative site would likely need to be undertaken – i.e. in particular if the preferred site is not a willing buyer / willing seller arrangement. There are therefore significant benefits of owning or having an interest in the land. Best practice suggests that an assessment of alternative sites should be undertaken to meet RMA requirements and demonstrate due consideration to stakeholders and decision-makers.

Sufficient work would still need to be undertaken to determine that there are no significant adverse effects on the environment associated with designating the site for wastewater treatment (and disposal) purposes. This assessment would include factors such as odour, landscape/visual effects, trees of significance, wetlands, bats, airport proximity considerations (if applicable).

Once the above considerations have been made, and the Requiring Authority has given notice of a requirement for a designation, it has interim effect whereby no person may do anything that would prevent or hinder the public work, project of work to which the designation without approval of the Requiring Authority. Section 4.1 of this strategy outlines consideration as to ‘who would seek / hold the consents and designations’.

3.2 Regional plan change

Some of the below consenting approaches may benefit or be complemented by seeking a plan change to the Waikato Regional Plan which would seek to provide for subregional approaches whereby a global consent could be sought, but with approvals for the separate point source discharges being lodged at different times. This would in effect seek to provide for WWTPs and their associated discharges within the regional plan allowing for each individual WWTP to be lodged at the timeframe that works for that individual WWTP, whilst still being part of a wider ‘global consent’. The need for applying for discharges from all WWTPs at once if a global consenting approach was followed was considered a key hinderance to such an avenue being pursued, albeit an approach that would deliver the most ‘boundarylesss’ outcome. The current regional plan would require all WWTPs to be consented together, or at the same time (i.e. linked with consent conditions) for a global consenting approach to be followed.

We consider this is possible, however, it would be a potentially time-consuming process which would:

- Need to wait for Plan Change 1 to be resolved (with appeals being heard in late 2021)
- Given that Plan Change 1 covers similar material to what would be sought (i.e. discharges from point sources) Waikato Regional Council can choose to hold off on progressing a private plan change for 2 years.

We are aware that Waikato Regional Council have a number of upcoming plan changes and so may not have an appetite for taking on / progressing such a regional plan change.

At this stage, further discussion could be had with Waikato Regional Council, however, given the above we see limitations associated with seeking a regional plan change in relation to the timing of the project.

3.3 Individual WWTPs consented separately

The approach of individually consenting (either concurrently or consecutively) would involve having separate consents for each WWTP discharge within the metro-area. Having separate individual consents for each WWTP presents a risk of not aligning with a 'boundaryless' type approach (therefore not aligning with consenting objective 6) due to the consent processes running at different timeframes and through different statutory processes. This may result in challenges for consentability of a Southern WWTP and those in which there are high growth areas resulting in high increases to inflow volumes. Consenting the WWTPs separately from one another may also limit the potential for collaboration between parties.

Separate consents may mean that some WWTPs have an easier and more expeditious process, whereas others could attract greater attention from stakeholders. The consenting of each WWTP would be able to be progressed at the rate and timeframes that work for the specific WWTP, reducing the need and/or requirement for alignment between the consenting processes of two or more WWTPs within the metro area. Timeframe issues are therefore somewhat removed through this process. However, there would be challenges around baseline improvements for other WWTPs at an individual scale, limiting the potential for delivering 'best for river/betterment' when compared to other options – as required by Te Ture Whaimana. It is noted of course that the assessment of effects on the environment would be undertaken against the scenario of no current discharge being in place – however, even if those effects were determined as 'less than minor' Te Ture Whaimana drives further need for improvement. This has been the case for several WWTP discharge decisions:

- Te Awamutu
- Cambridge
- Pukekohe
- Meremere
- Fonterra Hautapu (in process)
- Oji Fibre Solutions

The baseline considerations for betterment would be most apparent for the Southern WWTP, as there is not currently a WWTP discharge at that location. This could result in consentability issues, and/or delays to the process for those WWTP. This is a major/key risk to this approach, and would have potential significant cost implications whereby the full discharge (e.g. nutrient load) of the Southern WWTP would need to be offset, and further risk around stakeholder and partner opposition. Therefore, the consentability of this route for the Southern WWTP discharge is a challenge.

Additional key risks to this approach relate to water reform and RMA reform.

Key considerations and comments are summarised in Table 4 below.

Table 4: Key considerations where WWTPs are consented separate from one-another.

Key Considerations	Comment
Best for River – certainty of outcome	There is potential for lower standards to be approved for individual WWTP with higher standards required later (staging) – although we understand it is likely that there will be consistent performance standards being implemented across all WWTPs. Each WWTP would

Key Considerations	Comment
	be assessed in isolation to other WWTPs in the metro area, so there is the potential for opportunities to be lost here in terms of achieving best for river outcomes.
Speed – early decisions	Speedy decisions may be able to be achieved for some WWTPs in the metro area such as Cambridge WWTP, however, there is likely to be uncertainly for others with time delays, and high costs.
Collaboration opportunity	Not a complete boundaryless approach, so less opportunity for collaboration.
Challenges / scale	Challenges around improvements against the baseline on an individual scale, in particular with new WWTPs, such as the Southern WWTP – high level of costs and risks around offsetting entire nutrient load.
Consentability	Challenges for consentability of a Southern WWTP and high growth areas (such as Pukete WWTP)
Key Risks	Southern WWTP consent is delayed or not approved. Water Reform RMA reform Key stakeholder and partners unlikely to support individual consenting approachLoss of collaboration across metro area
Key Benefit	Quicker and faster consenting route for Cambridge WWTP.

3.4 Combining WWTP discharges south of Hamilton - Cambridge and 'Southern' WWTPs

Timing appears to line up for both WWTP discharges located south of Hamilton, with Stage 1 of the Southern WWTP being operational by 2027, the same timeframe as Cambridge WWTP long-term solution (with the end of 2026 stipulated in the current resource consent conditions – or otherwise agreed with Waikato Regional Council). Combining these WWTP discharges enables leveraging betterment across both sites.

If combined with Cambridge WWTP, lodgement of the Cambridge and Southern WWTP resource consents would need to be made by the end of 2022 (or alternatively by the end of 2023 if part of a sub-regional solution). It is anticipated that this would likely be through having separate consents, but linked conditions in relation to discharges to water. We consider a 2022 lodgement timeframe to be extremely tight. The 2023 timeframe would be dependent on either this being confirmed as a 'sub-regional' approach as per Condition 33[7] of the Cambridge

[7] Condition 33 of the Cambridge WWTP short-term consent: *The consent holder shall prepare and submit to Waikato Regional Council, an application for resource consent regarding the long-term option for wastewater treatment currently undertaken at the Cambridge WWTP, by 31 December 2022. If a sub-regional option at a new location is pursued as the long-term option for Cambridge, an application for resource consent shall be prepared and submitted to Waikato Regional Council by 31 December 2023. If the applicable time-frame cannot be met, an appropriate timeframe can be agreed in writing with the consent authority and will consider any feedback from the Kaitiaki Group and CLG. Any such extension shall be as brief as reasonably practicable. The following interim milestone shall be adhered to, as far as practicable:*

i) Completion of the Detailed Business Case for the long-term options by March 2021; and

WWTP short-term consent or by seeking agreement from Waikato Regional Council to extend the timeframe for lodgement and considering any feedback from the Kaitiaki Group (Iwi partners) and the Community Liaison Group (CLG). Reference to a 'sub-regional option' in Condition 33 of the Cambridge WWTP short-term consent related to a subregional facility being developed south of Hamilton which would service Cambridge also. The Southern WWTP proposed and outlined in the DBC would not service Cambridge – therefore we recommend that any changes to the timeframe for lodgement of the Cambridge WWTP long-term consent be agreed in writing with Waikato Regional Council and engagement with the Kaitiaki Group (in particular iwi partners as co-managers) and the CLG is undertaken.

Work would also need to be undertaken to confirm the stretch of Waikato River between the two discharge locations can be considered as an 'existing environment' to enable this combined approach.

There is potential for seeking discharge consent (involving discharge quality, volume, location and method) before a WWTP site is determined / designated to address timing issues and alignment with other WWTP discharges. This stage 2 component of the Southern WWTP could then be applied for at the same time as the lodgement of the Cambridge WWTP long-term consent. We consider that the discharge location and method (i.e. any required structures) needs to be known to seek a discharge consent – therefore, knowing only the discharge quality and volumes (without a specific location or discharge method) would not be sufficient to seek a discharge consent.

This may address timing issues around the unknowns concerning Southern WWTP with the Notice of Requirement to designate the site able to be lodged at a later date. There would be risk around the WWTP changing and therefore the consented discharge being located in the wrong location or requiring additional conveyance. Therefore a level of assurance would be needed as to the approximate location of the Southern WWTP before seeking resource consent for the WWTP discharge.

Given that both the Cambridge and Southern WWTP will be new WWTPs being built along similar time horizons (Stage 1 for the Southern WWTP) there are key parallels. Both WWTPs are likely to have discharges in a similar portion of the Waikato River (albeit discharge locations would be located approximately 10 km apart from one another), upstream of the Narrows Bridge (a key Waikato Regional Council state-of-the environment monitoring site). Given the timing constraints, the Southern WWTP Stage 2 (and 3) discharge location and method (in addition to the treatment quality and volume to be sought) would need to be determined so as to be incorporated into the consent application and have a long lapse period. It is possible that the location of the Southern WWTP and land disposal area of Stage 1 be determined later or in parallel to the regional consents being sought for Stage 2.

Appropriate baseline work would need to be undertaken to both inform Assessments of Alternatives for the Southern WWTP and then more targeted on the identified BPO. It is anticipated that Waikato River monitoring data should be sufficient to provide environmental baseline levels of effects, however, further specific investigations should also be undertaken to inform the effects of the construction of the discharge structure itself, and upstream locations of the applicable point source discharges. A move to push out this timeframe would need to be managed carefully with partners, key stakeholders and Waikato Regional Council. Key considerations are summarised in Table 5 below.

Additional key risks to this approach relate to water reform and RMA reform.

Table 5: Key considerations for combined Southern and Cambridge WWTP discharge loads

Key Considerations	Comment
Best for River – certainty of outcome	Located in relatively close proximity – sub-catchment issues considered at the same time

ii) Endorsement by the consent holder by 30 June 2021;

Key Considerations	Comment
Speed – early decisions	Would potentially delay Cambridge consent.
Collaboration opportunity	Boundaryless in the southern metro area
Challenges / scale	Timing challenges – getting alignment between the two.
Consentability	Could look to work in long lapse period for the stage 2 Southern WWTP river discharge
Key Risks	Timing – particularly if discharge consents are sought without a WWTP location and stage 1 land discharge area confirmed. Risk of discharge being consented in the wrong location if the WWTP assumed approximate location was to change. Water Reform RMA reform
Key Benefit	Two new WWTPs in the southern metro area are linked for key discharge criteria. No offsetting required for the Southern WWTP discharge.

3.5 Combining WWTP discharges Pukete and Southern WWTPs

This combination will have many similarities to the above option with key considerations summarised in Table 6 below.

Improvements to TN concentrations in the future for the Pukete WWTP is considered to have capacity to include the loads from a Southern WWTP whilst still demonstrating betterment, so remains a viable option that would align with Te Ture Whaimana. Further work is required on this option that will be the subject of the Northern Metro DBC.

Linking the Southern WWTP discharge with Pukete WWTP may address some of the timeframe considerations of combining the Cambridge and Southern WWTPs as the current Pukete WWTP discharge consent does not expire until 2027. However, a loss of the 'baseline contribution' (specifically nutrient loading) of the current Cambridge WWTP is a loss for overall consentability and ability for leveraging off this for wider 'best for river/betterment' approach – i.e. the benefits of the improvements to be delivered at Cambridge would not be 'banked'.

There would be challenges around the assessment of effects over a wider, and more challenging location, being at the upstream and downstream extents of the Hamilton metro area, and the effects of the urban catchment between the two discharge locations. This option is also considered a boundaryless approach. Timings would potentially be pushed out somewhat with this approach so water reform and RMA reform would be inherent risks.

Table 6: Key considerations for combined Southern and Pukete WWTP discharge loads

Key considerations	Comment
Best for River – certainty of outcome	Catchment approach. However, loss of Cambridge WWTP from the catchment approach.

Key considerations	Comment
Speed – early decisions	Still to work through assessment of effects in multiple locations that are potentially quite different – being upstream and downstream of the Hamilton urban area.
Collaboration opportunity	Boundaryless.
Challenges / scale	Timing may align well, however, stage 1 of the Southern WWTP would still need to be progressed soon.
Consentability	Complex assessment of effects in multiple locations etc.
Key Risks	Timing Water Reform RMA reform Loss of Cambridge WWTP loads from the process
Key Benefit	Linking of WWTPs located around the Hamilton urban area (i.e. upstream and downstream).

3.6 Whole of metro area global consent I.e. Cambridge, Southern WWTP, Pukete, Ngaruawahia, Te Kowhai and Matangi

This option would seek to combine the discharges of all metro area WWTPs including; Cambridge, Pukete, Ngaruawahia, Matangi, Te Kowhai and the new Southern WWTP. This could be via one large global consent or potentially looking to have separate consents with combined contaminant load levels – linking conditions (e.g. for Total Phosphorus and Total Nitrogen in particular). Te Awamutu has not been included in this option consideration, as current Te Awamutu WWTP discharge consents do not expire until 2043 (with required upgrades throughout this duration already locked in through that process) and it discharges to the Waipā Catchment.

This approach has the highest potential for a very boundaryless approach and for maximising benefits across the full metro-area, aligning strongly with consenting objective 6. It is considered there would be challenges around the scale of the application and assessment of effects on the environment over several locations. We are not aware of a global wastewater consent being done to this extent. Given the timing of current consents expiring and new solutions needing to be in place there are also significant challenges around the timing to get such an application in place, and would likely be a lengthy process. This would be a key risk for both Cambridge WWTP and the Southern WWTP which are both 'new' WWTPs, for which consent is likely to be required prior to key design and construction phases are commenced. Therefore this may result in significant delays to establishing these new WWTPs, and realising the best-for-river outcomes. We therefore consider this option as unlikely to align with timely delivery of consenting as per consenting objective 1.

It is anticipated that this sort of approach would exclude Te Awamutu WWTP given duration remaining on consent (2043) and because it discharges to the Waipā catchment.

There may also be challenges around there being three separate holders of a global consent (e.g. Waikato District Council, Waipā District Council and Hamilton City Council). Additional key risks to this approach relate to water reform and RMA reform. The key considerations are summarised in Table 7 below.

Table 7: Key considerations for whole of metro area global consent

Key considerations	Comment
Best for River – certainty of outcome	Yes but only if it does get implemented (i.e. timing and other challenges overcome).
Speed – early decisions	Would likely be a very long process
Collaboration opportunity	Very boundaryless
Challenges / scale	Very large scale – has not been done to this extent. Challenges with Pukete being far larger than all other discharges. Consideration of alternative requirements. Challenges with three holders of a global consent.
Consentability	Very complex – assessment of effects in multiple locations etc.
Key Risks	Water reform RMA reform
Key Benefit	Ability to focus investment for maximum gain… ideal but would need to be able to get to the stage of implementation

3.7 Recommended consenting approach

The overarching key consideration relates to consistency of the proposal with Te Ture Whaimana, the Vision and Strategy for the Waikato River, a key part being the protection and restoration of the health and wellbeing of the Waikato River. To that end, the mass of nutrients discharged to the Waikato River should be less in the future than that being discharged currently i.e. an improvement or betterment, against the baseline nutrient discharge levels. Maximising the betterment delivered through investment in improvements to the municipal WWTP point source discharges is therefore important– leading to a preferred option of the Southern WWTP linked with one or several WWTPs in the metro-area. A combination of the above Tables 4-7 has been provided below in Table 8 to give a direct comparison of the summarised key considerations with the identified preferred consenting approach then developed further.

At a macro-level, one Global consent covering all main WWTPs located within the metro area (excluding Te Awamutu) makes sense with regards to providing the ability to focus investments where maximum gain can be sought on the largest scale. However, this scale would provide significant challenges (having not been done previously in New Zealand) and involving three territorial authorities, assessment of effects on the environment over several locations and timing issues. It would therefore likely be a very lengthy and time consuming process – with this being a key limitation given the timing constraints on the Cambridge and Southern WWTPs in particular. We therefore consider that a global consent / linking all metro WWTP discharge consents would not be practicable given the time constraints. Other approaches, such as individually consenting each WWTP discharge in isolation is consentable, however there would be significant challenges around not realising benefits of improvements at other WWTPs and high levels of offsetting ((i.e. offsetting the entire nutrient loads). We consider individually consenting WWTPs is also likely to be unsupported by key stakeholders and partners as much as combined approaches. Both national and regional (such as Plan Change 1) policy direction is also driving more catchment – based approaches where the best for catchment outcomes can be delivered.

Given the scale of the metro area, timing constraints mentioned above (particularly around Cambridge WWTP), the projected growth scenarios, the emerging preferred consenting approach involves

- Linking Cambridge WWTP and stages 2 and 3 of the Southern WWTP (i.e. both involving discharges to the river);
    - Note: Stage 1 of the Southern WWTP (involving discharges to land) could be incorporated however identification of land for discharging could be challenging as it is dependent on a land discharge site being confirmed which would also be linked to the location of the new Southern WWTP. Alternatively Stage 1 could be consented separately, with this discharge to land consent transitioning to a discharge to water upon the 'trigger' of Stage 2, and when Stage 2 is operational.
    - Thought needs to be given to the potential zoning changes around the airport through plan change processes should a site in that area be identified as preferred. This may necessitate bringing forward the Notice of Requirement process to secure the land necessary for the new WWTP prior to the use of that land being secured for another purpose.

The above option has been put forward as a potential solution to address timing challenges with combining Cambridge and the Southern WWTPs discharges. However, consenting a discharge without having the WWTP discharge location fully confirmed has not been attempted in New Zealand to our knowledge. There would be risks around the potential of the discharge being located in the wrong position because of a change in WWTP location. Therefore, a certain level of assurance would need to be known as to the approximate WWTP location to ensure that the discharge location is in the right area.

It is noted that seeking a consent for the discharge to the Waikato River (stage 2) before a WWTP site has been determined/confirmed has not been attempted. However, there are examples where the discharge location has been consented when the WWTP site is later being reviewed (e.g. Southwest Wastewater for Watercare).

Alternatively (and as a back-up to the above option) there is merit in considering linking the Southern WWTP stage 2 (discharge to river) and Pukete WWTP discharges, with the Pukete WWTP discharge consent expiring in 2027 and therefore addressing some of the timing issues for Cambridge WWTP. However, as detailed earlier, this removes any benefits from the improvements being garnered through the new Cambridge WWTP being recognised and applied at other locations within the Metro-area.

How to link Southern and Cambridge WWTPs is therefore the next consideration. This could be via either one consent covering both discharges, or separate consents with linked discharge conditions (i.e. a combined load (kg/day) for nitrogen and phosphorus in particular). Either approach brings the scale to the application and a 'boundaryless' approach. We recommend a linking of conditions approach is more practicable.

In the future it is anticipated that Matangi, Tamahere and Ōhaupō wastewater flows may be conveyed to the Southern WWTP at some stage. It is not anticipated that this would impact on the consentability of the Southern WWTP in conjunction with the above approach. Tauwhare is anticipated to continue to be serviced separately, however, we also anticipate that this would be re-evaluated in the future. Te Awamutu WWTP discharge consents do not expire until 2043 and upgrades required at that WWTP have been locked in through that process[8].

In relating back to the consenting objectives outlined in section 1.3, we consider linking the Cambridge and Southern WWTP discharges:

- Would provide for a timely delivery, albeit challenges around discharge location of the Southern WWTP and the Southern WWTP location itself – and land for the stage 1 discharge. Timely delivery of the Southern WWTP is important so as to realise and provide for anticipated development around the airport area. Therefore, this option aligns with Objective 1.

[8] Through the Te Awamutu WWTP discharge consent, the transfer of wastewater from Waikeria was considered and factored into that process, so any improvements to the Waipā River catchment (and therefore the Waikato River catchment) as a result of comparative improvements to the Waikeria wastewater treatment level has been recognized and incorporated through that process.

- Would provide for ‘betterment’ and be in accordance with and give effect to Te Ture Whaimana. However, we recommend further engagement with iwi partners as co-managers in this regard. It is therefore considered that this option would align with Objectives 2 and 3.
- Would allow for upgrades to be undertaken when required, and where best value for money can be achieved, aligning with Objective 5.
- Would enable a boundaryless approach, aligning with Objective 6.
- Objective 4 relates to the simplification and streamlining of consent conditions. This is dependent on the position of Waikato Regional Council.

We recommend that this recommendation is re-visited when the Northern metro wastewater DBC is complete.

Table 8: Combined comparison table of the several consenting options.

Key considerations - Consenting approach	Best for River	Speed/early decisions	Collaboration opportunity	Challenges / scale	Consentability	Key Risks	Key Benefits
WWTPs Individually consented	There is potential for lower standards approved earlier with higher standards required later. Each WWTP would be assessed in isolation of other WWTPs in the metro area, so there is the potential for opportunities to be lost here.	Speedy decisions may be able to be achieved for some WWTPs in the metro area such as Cambridge WWTP, however, there is likely to be uncertainly for others resulting in time delays	Not a boundaryless approach, so no opportunity for collaboration.	Challenges around improvements against the baseline on an individual scale, in particular with new WWTPs, such as the Southern WWTP.	Challenges for consentability of a Southern WWTP and high growth areas (such as Pukete)	Southern WWTP consent is delayed or not approved. Water Reform RMA reform	Quicker route for Cambridge WWTP
Combining WWTPs south of Hamilton (Cambridge and Southern WWTPs)	Located in relatively close proximity – sub-catchment issues considered at the same time	Would potentially delay Cambridge consent.	Boundaryless in the southern metro area	Timing challenges – getting alignment between the two.	Could look to work in long lapse period for the stage 2 Southern WWTP river discharge.	Timing – particularly if discharge consents are sought without a WWTP location and stage 1 land discharge area confirmed. Water Reform RMA reform	Two new WWTPs in the southern metro area are linked for key discharge criteria
Combining discharges of Pukete and Southern WWTPs	Catchment approach. However, loss of Cambridge WWTP from the catchment approach.	Still to work through assessment of effects in multiple locations that are potentially quite different – being upstream and	Boundaryless.	Timing may align well, however, stage 1 of the Southern WWTP would still need to be progressed soon.	Complex assessment of effects in multiple locations etc.	Timing, Water Reform RMA reform	Linking of WWTPs located around the Hamilton urban area (i.e. upstream and downstream).

Key considerations - Consenting approach	Best for River	Speed/early decisions	Collaboration opportunity	Challenges / scale	Consentability	Key Risks	Key Benefits
		downstream of the Hamilton urban area.					
Whole of metro-area global consent	Yes but only if it does get implemented (i.e. timing and other challenges overcome).	Would likely be a very long process	Very boundaryless	Very large scale – has not been done to this extent. Challenges with Pukete being far larger than all other discharges. Consideration of alternative requirements. Challenges with three holders of a global consent.	Very complex – assessment of effects in multiple locations etc.	Water reform RMA reform	Ability to focus investment for maximum gain… ideal but would need to be able to get to the stage of implementation

4. Consenting process

This section discusses the consenting process, including commentary on:

- Who would hold/seek the consents and designation?
- How the consents would be applied for?

4.1 Who would seek/hold the consents / designation

Who would seek/hold the consents and designation is likely to be significantly influenced by the coming potential changes around water reform as outlined in Section 2.3.3, as we understand that it is likely all existing consents will be transferred to the new water entity.

The current approach as developed through the DBC is for each project within the southern metro area to be led by a Lead Council. The Lead Council will issue Notices of Requirement and/or resource consents for the specific project as required, with funding agreed between the Councils determined by proportion of demand for users within the districts. The project and associated Lead Councils are summarised as follows:

Table 9: Southern metro area WWTP projects and applicable Lead Councils

Project	Lead Council
Southern WWTP	Hamilton City Council
Cambridge WWTP	Waipā District Council
Te Awamutu WWTP	Waipā District Council
Matangi WWTP	Waikato District Council
Tauwhare Pa WWTP	Waikato District Council

It is anticipated that the Lead Councils will seek any resource consents and issue notices of Requirement (if required) for their respective projects.

For the Southern WWTP HCC is proposed to be the Lead Council and will therefore issue a Notice of Requirement (pursuant to section 168 of the RMA) as the Requiring Authority to designate the site and will also seeks resource consents to authorise associated discharges from the WWTP. It is expected that the Southern WWTP will be located within Waipā District, so HCC will be issuing the Notice of Requirement to the territorial authority - being Waipā DC. We consider section 168 of the RMA as the appropriate means via which a Notice of Requirement can be issued to the territorial authority.

4.2 How the consents would be applied for

There are a number of approaches that might be able to be pursued in terms of seeking consents and designating a site for the Southern WWTP. These are summarised as follows:

- Traditional applications
  - Notice of requirement (i.e. for the Southern WWTP) to the appropriate local authority
  - Regional consents applied to the Waikato Regional Council
- Minister Call-In
  - If the Minister for the Environment considers that a matter is (or is part of) a proposal of national significance.
- Request for direct referral to the Environment Court

- Intended to streamline decision-making for notified consents, particularly more contentious applications where there is likely to be some opposition to the activity.
- Still lodged with the council(s)
- Can be for both Notices of Requirement and Resource Consent Applications.

- Fast track consenting processes – Covid fast track – sunset clause in 2022 so unlikely to be useable or align with project objectives.

We recommend that a traditional approach is followed here, with the Lead Council as identified in Table 9 seeking resource consents for the applicable project(s). Direct referral to the Environment Court can have a perception of being somewhat combative for stakeholders and therefore may not align with project objectives, particularly if sufficient engagement with partners and key stakeholders has been undertaken. Minister Call-In remains an option, but is for the minister to determine – however, there is likewise a potential perception issue similar to direct referral to the Environment Court. The Covid fast track consenting process is unlikely to be available given the subset clause.

5. Tasks

The general tasks outlined in this Consenting Strategy reflect a number of the actions that need to be undertaken regardless of the consenting approach adopted. Several tasks are intended to be undertaken in parallel to one another. Given that this document is considered a high-level consenting strategy, it is anticipated that the below tasks may be developed and refined further as the project progresses and roles are further refined between the parties. For ease the tasks have been developed in tabulated form in the following sections. The tasks developed incorporate hold points where these approaches are reviewed as the project progresses and further information is available (such as identification of sites, discharge to land locations etc). The tasks are focussed on a Southern WWTP but it is noted that these apply to varying degrees for consenting existing discharges.

5.1 Task 1: Establish a Programme Partnership Group

Task overview	Establishing the ongoing governance for the project, comprising the Programme Partnership Group oversight group as detailed in a memorandum of understanding under preparation between the parties. The group will be responsible for key decisions such as: finalising scopes, finding agreement between the parties (costs sharing, service agreements, funding), confirming the consenting strategy, consideration of reform implications, planning and timing of the projects, risk allocation. Membership and involvement include genuine and equal partnership with iwi partners. Members include HCC, Waipā DC, Waikato DC, Waikato Tainui and mana whenua.
Output	To be determined, but likely to be an oversight and monitoring function.
Timing	ASAP - end 2021
Duration	Until project completion.
Owner	Programme Partnership Group.
Links to other tasks	Links to all other tasks.

5.2 Task 2: Establish Project Governance Group

Task overview	Establishing the ongoing governance for the Southern Metro Wastewater Project. project, comprising a Project Governance Group. This would be a governance group

	distinct for each Project within the southern metro area, and would sit within the Lead Council project delivery structure, with key linkages to partner Councils and mana whenua representatives. For instance, the Southern WWTP Project Governance Group would sit within the HCC project delivery structure and the Cambridge WWTP Project Governance Group would sit within the Waipa DC project delivery structure. The Project Governance Group is responsible for delivery of the Project, reporting through to, and implementation of the decisions made by, the Programme Partnership Group.
Output	Overall governance decision making relating to the Project(s) and reporting through to the Programme Partnership Group.
Timing	ASAP - end 2021
Duration	Until project completion.
Owner	Lead Council for each southern metro area wastewater project.
Links to other tasks	Links to all other tasks.

5.3 Task 3: Establish Technical Advisory Group

Task overview	A technical advisory group (TAG) is recommended to be established and would comprise of key representatives from the Councils involved (Council project managers as a minimum) and representatives from each of the lead consultants involved in the project. It is anticipated that there would be a Lead Council role within the task who will be responsible for programme implementation and reporting back to the Project Governance Group. It is also anticipated that iwi partners will be members of this group, giving effect to status as partners and co-managers. The members of this group may change throughout the various stages of the project. It is recommended the TAG meet weekly/fortnightly (either in person or via MSTeams) to discuss project progress or any identified and emerging risks. Separate to the TAG weekly meetings, there will likely be a need for regular monthly meetings, where a wider audience may be necessary to address technical aspects of the project as they arise
Output	Updated risk register, weekly/fortnightly TAG meetings
Timing	ASAP - end 2021
Duration	Until project completion.
Owner	Current project team – driven by Council PMs and current consultant leads.
Links to other tasks	Links to all other tasks.

5.4 Task 4: Confirmation of consenting objectives and development of project objectives

Task overview	The project objectives need to be developed and consenting objectives confirmed with all parties, particularly in relation to the Southern WWTP, as this will be servicing areas

	beyond Council boarders. These need to be confirmed in relation to both project requirements and alignment with RMA purposes, such as s171 on a project basis. The draft consenting objectives have been outlined in Section 1.3 and are: 1. Timely delivery of the notice of requirement and consents to enable and provide for growth and allow for staging of service provision. 2. A consent preparation and approval process supported by iwi and other key stakeholders through giving effect to Te Ture Whaimana. 3. Consent duration of 35 years to provide for investment security, supported by a consent application based on the Best Practicable Option and robust evidence demonstrating the quality of discharge and thus contributing towards the protection and restoration the health and wellbeing of the Waikato River throughout the metro area. 4. A simplification/streamlining of consent conditions which can be easily monitored, and which have achievable reporting requirements. 5. Implement flexibility within the suite of resource consent conditions to accommodate operational requirements and enable future upgrades when required. 6. Enabling a catchment boundaryless approach where this results in best for river 'betterment' outcomes in achieving Te Ture Whaimana. It is anticipated that the specific project objectives to be developed for each project within the southern metro area will service as the basis for any s171 assessment.
Output	Confirmed consenting objectives
Timing	ASAP - end 2021
Duration	reviewed for appropriateness as the project progresses.
Owner	Current project team – driven by Council PMs and current consultant leads with input from partners and key stakeholders.
Links to other tasks	Links to all other tasks.

5.5 Task 5: Consultation and Engagement Plan

Task overview	The consultation plan will build on the relationships developed through the DBC process. Iwi partners are a partners and co-managers as confirmed through settlement legislation and the enactment of Joint Management Agreements several local iwi have in place with a number of the Councils involved. Iwi are therefore an integral part of the Programme Partnership Group (Task 1) but are also key stakeholders. The consultation plan will map out key points of interaction, aligning with decision making points throughout the duration of the project. We anticipate that this will also outline key points for wider public consultation in alignment with the philosophies outlined in section 8 and will: • Identify and confirm the key stakeholders (develop a stakeholder matrix) and representatives. • Confirm engagement objectives. • Prescribe the consultation and engagement methodology and programme for the project.

	• Identify key roles and responsibilities. Key stakeholders are likely to include: • Waikato Regional Council • Iwi partners and representatives confirmed through Task 1. • Recreational organisations • Fish and Game Waikato Branch • Department of Conservation • Downstream water users • Wider community
Output	Consultation and engagement plan.
Timing	end 2021
Duration	ongoing – throughout the duration of the project.
Owner	appointed consultation and engagement specialist, other specialist as required.
Links to other tasks	Tasks 1- 4, and Task 16 “stakeholder engagement activities”.

5.6 Task 6: Baseline environmental investigations

Task overview	Initial baseline environmental investigations to be undertaken to inform Assessments of Alternatives. This would include aspects such as water quality, and ecological (for instance investigations into presence of bats or natural wetlands) and mātauranga Māori assessments. The baseline environmental investigations, although being undertaken early need to be sufficiently broad enough so as to allow for flexibility in discharge location (for instance along the Waikato River) and to also provide the baseline for existing discharges that may be sought to be re-consented in the future – such as upstream of existing point source discharges. Any future environmental effects assessment is proposed to assess the effects of the proposed discharge against the upstream environment (i.e. the background). This approach is consistent with case law. This environmental baseline, i.e. discharge without the applicable point source discharges will be the basis at which the assessment of effects on the environment is undertaken. Once the BPO has been identified, then more targeted (and intensive) environmental investigations can be undertaken around where the proposed discharge structure would be located. It is anticipated that these investigations would rely greatly on existing Waikato River monitoring – i.e. at the Narrows monitoring site. Baseline assessments would also look to collect relevant information on the potential site for the Southern WWTP, and discharge to land area required for Stage 1. We also consider that as part of this task, confirmation of whether the existing environment can be applied over a stretch of river between the Cambridge WWTP and potential Southern WWTP discharge locations – to enable the recommended consenting approach to be implemented.
Output	Baseline investigations to inform alternatives assessment.

Timing	Dependent on consenting approach adopted (see section 3)
Duration	As required.
Owner	Appointed water quality, hydrogeology and ecological experts. Potential for mātauranga Māori monitoring to be included.
Links to other tasks	Informs Assessment of Alternatives (Task 9), and forms initial baseline (Task 6) and the Technical Assessments (Task 13)

5.7 Task 7: Existing wastewater treatment plants performance review, and projected flows and loads

Task overview	Task 7 relates to a review of the existing WWTP performance, and an assessment of projected flows and loads. This tasks provides a basis of "what is currently there", and "what will be there in the future". As part of the assessment of effects, a comparison of effects of the existing discharge and that of the modelled 'new' discharge is required – particularly in the context of Te Ture Whaimana and the demonstration of betterment. In the context of the Te Ture Whaimana and previous discharge consenting projects within the Waikato River catchment, it is appropriate to recognise that improvements should be measured, particularly in terms of nutrient mass loads, against the effects of the existing activity. This is in terms of what is currently discharged, not what is legally authorised. The review of the existing WWTP performance will likely involve: • Review of the compliance history, treated wastewater discharge, existing discharges to land (e.g. seepage) stormwater discharge from the site, biosolids and discharges to air. • Consideration of any overflows within the wastewater reticulation network. • Consideration of trade waste considerations for the network. It is anticipated that the review of existing WWTP performance would include the following parameters: • Treated wastewater discharge volume; • Carbonaceous biochemical oxygen demand (cBOD5); • Total suspended solids (TSS); • Total nitrogen (TN); • Nitrate-N; • Ammoniacal nitrogen (Ammoniacal-N); • Dissolved Reactive Phosphorus (DRP): • Total phosphorus (TP); • E.coli; and • pH. Emerging contaminants also need to be taken into consideration, in particular those such as hormones and pharmaceuticals within the wastewater. The second portion of this tasks looks to identify the projected flows and loads. This will be based off projected changes to the existing network, such as reducing infiltration, but also what further land use changes such as industry (wet or dry) may have for inflow

	characteristics and volumes (including trade waste). Future population projections will also be a key consideration.
Output	report outlining existing WWTP performance, and projected flows and loads
Timing	Dependent on consenting approach adopted (see section 3)
Duration	approx. 3-6 months
Owner	appointed environmental/ wastewater engineer
Links to other tasks	Informs Assessment of effects of existing discharges (Task 8) and Assessment of Alternatives (Task 9).

5.8 Task 8: RMA Assessment of alternatives

Task overview	A robust consideration of alternatives is very important for determining a new site to designate (i.e. for the Southern WWTP) and discharging of wastewater, but also for the consenting of existing discharges. Specific activities relating to the alternatives outlined below will need to commence shortly following finalisation of the DBC, for example to confirm preferred treatment plant location, discharge methods and locations. While a high level assessment of the alternative receiving environments, including land, was included in the DBC, the DBC did not, and was not intended to, undertake an assessment of alternatives to meet the requirements of the RMA. However, an assessment of alternatives will be addressed during the consenting phase. The Assessment of Alternatives will build on much of the work undertaken as part of the DBC process, and an initial step will be to summarise the assessments undertaken and consents matters undertaken that informed the selection of Option 4A. This will run concurrently to many of the tasks outlined above and below, refer to the indicative timeline in section 5.18. The assessment of alternatives might include (but not limited to): • WWTP location • Discharge locations or methods (including the potential for discharge to land or aquifers) • Treatment processes (quality of treated wastewater at the end of the process) • Re-use options (for all residuals – e.g. water, biosolids, energy etc) • Reducing water volumes (such as reducing infiltration, water metering etc) • Greenhouse gases. This process would determine the BPO which would draw on many different elements including financial implications. Discharge location and method would need to be refined – particularly for stages 2 and 3 where discharge to river has been indicated as likely required. This would for instance, evaluate if partial discharge to land could remain feasible. The above alternative considerations may be incorporated into one alternatives report, or separate reports focussed on each bullet point. Buy in from key stakeholders and iwi partners is important to ensure support for the identification of the Best Practicable Option (BPO) of which the alternatives assessment(s) will inform.

Output	Assessment of Alternatives Report(s).
Timing	Dependent on consenting approach adopted (see section 3)
Duration	approx. 9 months
Owner	Planner, environmental scientist, environmental/wastewater/process engineers, ecologist, air quality scientist, sustainability advisor, cultural advisor.
Links to other tasks	all previous tasks.

5.9 Task 9: Identification of the Best Practicable Option

Task overview	The Assessments of Alternatives (Task 9) ultimately collectively points toward the identification of the Best Practicable Option (BPO). Effectively the identification involves pulling together all the information from previous tasks to come to this conclusion. Buy in from key stakeholders and iwi partners is important, to garner support moving forward. The BPO as defined in the RMA should have regard to: • The nature of the discharge and the sensitivity of the receiving environment to adverse effects; • The financial implications; and • The technology available. As part of the BPO alignment with Te Ture Whaimana and WRP PC1 provisions such as Policy 12 should be demonstrated/confirmed. The BPO may be a combination of alternatives and be based off clear, robust and agreed evaluation criteria and could involve such aspects as: • Alignment with Te Ture Whaimana and other legislation and statutory planning requirements including iwi environmental plans; • Achieving / aligning with project objectives • Feedback from iwi partners and key stakeholders • Environmental considerations • Costs, risks and opportunities Building on the Assessments of Alternatives, the BPO should involve a high level of consultation.
Output	Best Practicable Option Report
Timing	Dependent on consenting approach adopted (see section 3)
Duration	approx 3 months, in the following on from tasks 8 and 9.
Owner	Planner, wastewater engineer, water quality scientist, ecologist, iwi facilitators and/or engagement specialist
Links to other tasks	Links to all previous tasks

5.10 Task 10: Planning review and gap analysis

Task overview	Task 11 involves a planning review and gap analysis. At this stage the BPO has been identified. The planning review provides an opportunity to re-assess the proposal in the context of the changing legislative environment that is likely to occur over as outlined in section 2.3, and confirm the likely consents required The gap analysis is also a chance to confirm all required technical assessments to ultimately consent the BPO are known, in the context of any emerging requirements identified through the planning review. Identification and confirmation of technical assessments at this point will also allow for early implementation of any baseline reporting that may be required.
Output	Planning review and Gap Analysis report
Timing	Dependent on consenting approach adopted (see section 3)
Duration	approx 3 months
Owner	Planner, with inputs from other specialists as required.
Links to other tasks	follows on from Task 9 – best practicable option identification and then informs both the following hold point and the technical assessments to be undertaken as part of Task 13.

5.11 Hold point

Hold point overview	This hold point provides the opportunity for re-assessing the consenting approach, following the BPO and a review of the then-current planning environment. It is considered that this should be checked at a metro-level.
Output	Updated advice on consenting approach
Timing	following on from the gap analysis undertaken on the BPO.
Owner	Planner, with inputs from other specialists as required.
Links to other tasks	all tasks up to this point.

5.12 Task 11: Concept design of BPO

Task overview	As the BPO has been identified, concept/preliminary design can progress. This design will be the basis of what consent is sought under.
Output	Preliminary Design of the BPO
Timing	Dependent on consenting approach adopted (see section 4)
Duration	approx. 9 months
Owner	wastewater engineer, environmental engineer/scientist, planner, sustainability advisor, stakeholder consultation and engagement specialist.

Links to other tasks	all other previous tasks.

5.13 Task 12: Technical Assessments

Task overview	A number of technical assessments are anticipated to be required to inform and be part of the resource consent application and Notice of Requirement to designate a site. These specialists will also be involved in the earlier assessment of alternatives workshops that informed the identification of the BPO. The detailed assessments for each of these specialties to be undertaken will the focus on the BPO (being the option for which consent would be sought). Those assessments required for the consents are likely to include: • Surface water and/or groundwater assessment of effects; • Ecological assessment of effects; • Public health risk assessment; • Air quality (odour) assessment of effects; • Contaminated land effects, as the existing WWTP sites will be considered to be on the Hazardous Activities and Industries List (HAIL); • Cultural Impact Assessment; • Greenhouse gas assessment; • Offsetting opportunities, dependent on the BPO chosen. • Visual / landscape assessment, in relation to any discharge structure. • Archaeological Assessment in relation to the discharge structure location Those assessments required for the Notice of requirement are likely to include aspects of some of the above and additional: • Noise and vibration effects (i.e. associated with construction) • Air quality (odour) – in terms of confirming buffer requirements and the extent of the designation, and through construction (such as dust). • Economic and social impact assessment • Visual / landscape assessment/plans • Archaeological assessment. • Other potential assessments could include those such as traffic accessibility (in particular for construction traffic). The applicability / necessity of the above assessments will be somewhat dependent on the consents confirmed as being required.
Output	Updated advice on consenting approach
Timing	Dependent on consenting approach adopted (see section 3)
Duration	approx. 9 months
Owner	Technical specialists for each assessment, including, Water Quality Scientists, Ecologists, Air Quality Scientists, Public Health Experts, Acoustic specialists, contaminated land professionals, Cultural advisors, sustainability specialists

Links to other tasks	all previous tasks, in particular Task 6 (as applicable), Task 7, Task 8, Task 9 and Task 10.

5.14 Task 13: Assessment of Effects on the Environment and Notice of Requirements / Resource Consent Application preparation

Task overview	A draft assessment of effects on the environment (AEE) and relevant forms would be prepared setting out the following in accordance with Schedule 4 of the RMA. The notice of requirement process is only relevant for the designation of the Southern WWTP site, and covers district matters in place of seeking district level land-use consents. The resource consents are focussed on regional matters relating to discharging to the environment. • the background to the scheme, • current scheme and receiving environment characteristics, • description of the proposed WWTP, • description of the consents required • Consideration of alternatives • an assessment of the actual and potential effects of the proposal on the environment • statutory framework and evaluation, • outcome and summary of consultation undertaken • proposed conditions of consent. Progress as soon as possible is also recommended in relation to the consenting of Stage 1, discharge to land, but requires identification of the WWTP land and discharge area first - we understand that this may take some time to occur and therefore it may be appropriate to split this discharge consent from stages 2 and 3. Progression of stage 2 is recommended to be able to align with Cambridge WWTP timeframes (should that recommended option be chosen).
Output	Assessment of effects on the environment, notice of requirement and resource consent applications.
Timing	late 2023
Duration	approx. 9 months
Owner	Planner, with support from technical specialists/ assessments.
Links to other tasks	All previous tasks.

5.15 Task 14: Lodgement

Task overview	Lodgement of the consent applications and notice of requirement to designate a site is the final step in the 'up to lodgement timeframe'. Subsequent phases include post lodgement activities, including potential further information requests, notification processes, hearings, appeals and decisions.

5.16 Task 15: Stakeholder engagement activities

Task overview	Implementation of the Consultation and Engagement Plan and iwi engagement plan throughout the duration of the project. Successful implementation of stakeholder engagement activities is considered important to enable buy-in and successful project delivery. This can be a time-consuming process, through which issues and problems can be identified. Key and high-quality engagement in the option development and pre-lodgement phase of the project is important lower the potential or extent of delays post lodgement, i.e. scope of potential submissions and appeals.
Output	Completion of the stakeholder engagement activities identified in the Consultation and Engagement Plan.
Timing	throughout the duration of the project.
Owner	Communications and engagement specialist and iwi engagement facilitator
Links to other tasks	Implementation of the plan developed from Task 5 “consultation and engagement plan”.

5.17 Indicative programme for the above tasks and adoption of recommended consenting approach

The following table shows an indicate timeframe for combining the WWTPs discharge south of Hamilton (Cambridge WWTP and the stage 2 and 3 Southern WWTP discharge). For reference a lodgement date of the end of 2023 has been used, however, this timeframe (i.e. extended from the end of 2022) would need to be agreed with agreement with Waikato Regional Council (with inputs from the Kaitiaki Group and CLG) as outlined in section 3.4. other key considerations are the expiration of existing consents as outlined in section 1.4.

	Year	2021		2022				2023				2024				2025				2026				2027				2028			
	Quarter	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	Establish Programme Partnership Group																														
2	Establish Project Governance Group																														
3	Establish a Technical Advisory Group																														
4	Confirm consenting objectives																														
5	Consultation and engagement plan																														
6	Baseline environmental investigations																														
7	Existing WWTP performance review, and projected flows and loads																														
8	Assessments of Alternatives																														
9	Identification of Best Practicable Option																														
10	Planning review and Gap Analysis																														
Hold Point																															
11	Preliminary design of the BPO																														
12	Technical Assessments																														
13	AEE - Notice of Requirements / Resource Consent																														
14	Lodgement																														
15	Stakeholder engagement activities																														

6. Consenting risk register

The Risk Register will be a key role of the technical advisory group (Task 1) in section 8 and continue throughout the duration of the project reporting through to, and working in collaboration with, the Programme Partnership Group. This could also include opportunities. For a starter, the following consenting risks have been identified in Table 10 below. The risks have been categorised in the following way:

- Programme
- Reputation
- Implementation
- Financial
- Environmental.

Table 10: Initial Risk Register (relating to consenting risks)

	Risk/Opportunity	Category	Impact	Potential Mitigation
1	Changes to the legislative environment, such as RMA reform, three waters reform, or updated National Policy Statements or National Environmental Standard and, the outcomes of the Plan Change 1 appeals process.	Programme Implementation Financial	Results in potential for rework to assess additional requirements and/or change the design, which may delay consent lodgement and increase application preparation costs.	Monitor and assess impacts legislative and statutory framework changes. Review consent strategy if required, incorporate planning review once BPO identified.
2	Cambridge WWTP long-term consent lodgement timeframes – impact on potential for collaborative catchment based approach.	Programme Implementation Environmental	Results in limited ability for collaboration, and ability for 'best for river' outcomes	Work to progress decisions on that project as soon as practicable so that if chosen, integration can be undertaken.
3	Application preparation is delayed because of issues or concerns with an aspect(s) of the application package and is not lodged in time. Lack of management and delay in obtaining supporting documents necessary for re-consenting.	Programme Implementation Reputation	Potential for implementation delays and missing the condition deadline for lodgement.	Active programme management to meet re-consenting deadlines.
4	Iwi and/or other key partners and stakeholders	Reputational	Results in implementation	Manage and mitigate risk through the Iwi Engagement

	Risk/Opportunity	Category	Impact	Potential Mitigation
	do not support the project or are actively objecting.	Programme Implementation	delays and potentially a loss in support for the project.	Plan and Consultation and Engagement Plan (including wider public consultation).
5	Applications that do not include enough detail to enable decision-making, which may be put on hold whilst further information is requested.	Programme Financial	Putting an application on-hold results in consenting delays, as does a refusal of an application. Implications for next stages of project (detailed design and construction). Impacts for some WWTP current conditions (Cambridge) and on-site servicing (eg Airport).	Developing sufficient design detail to address environmental and stakeholder concerns. Investing in technical studies to support the application. A robust application preparation process, including the consideration of alternatives. Frequent dialogue and pre-application meetings with Waikato Regional Council.
6	The application might be rejected under s88 of the RMA if deemed incomplete by Waikato Regional Council.	Programme Financial	Delays in the consenting phase for the project.	Provide draft application to Waikato Regional Council for initial comment at least one month prior to intended lodgement.
7	Disagreement on plan interpretation, which influences what consents are required or how effects are to be assessed. Particularly, the argument around extending the zone of reasonable mixing and how the maintenance of water quality standards are to be monitored in future.	Programme Implementation	Depending on the interpretation on the zone of reasonable mixing, upgrades and associated consents may be required for nutrient removal works.	Early and continuous engagement with Waikato Regional Council, iwi partners and key stakeholders on plan interpretation and assessment methodology with documented agreement on interpretation arising from this and assessment approaches being taken.
8	De-coupling of the Stage 1 Southern WWTP consent and NoR from Stages 2 and 3 so as to combine with Cambridge WWTP.	Programme Implementation	Complexity of consenting a wastewater discharge without having a WWTP in place. Risk of	Early dialogue with Waikato Regional Council and key stakeholders and partners.

	Risk/Opportunity	Category	Impact	Potential Mitigation
			gaining consent for stages 2 and 3 but not stage 1, or that discharge location ends up in the wrong place if the WWTP location moves – cost and conveyancing	

7. Next steps

We have identified a number of next steps to be undertaken, and include:

- Endorsement of the recommended consenting approach and implementing any required actions such as:
    - Seeking extensions to the timeframe for lodgement of Cambridge WWTP resource consents to align with the recommendations of this strategy if required.
    - Communicating and discussing any delays to timeframes / milestones for the Cambridge WWTP process – in particular with Waikato Regional Council, the Kaitiaki Group and Community Liaison Group.
- Ensuring the consenting strategy aligns with the principles to be used for the proposed Memorandum of Understanding between the Councils (HCC, Waipā DC and Waikato DC) and partners
- Development of project objectives (building on the DBC objectives) and confirmation of consenting objectives to ensure alignment are aligned with RMA processes, including any required s171 assessments for Notices of Requirement to designate a site.
- Undertake an RMA Assessment of Alternatives to build on much of the work undertaken as part of the DBC process. This will involve further detailed work as part of the proposed tasks for the future consenting work.
- Confirmation of new Southern WWTP location, including stage 1 discharge to land area, and potential discharge location for stages 2 and 3.
    - Once the preferred location of the Southern WWTP - further considerations in relation to any effects and consenting requirements for gullys or ephemeral streams, diversion of streams, effects on wetlands, ground water diversions if applicable and for notice of requirement aspects such as odour, landscape/visual effects, trees of significance, bats, proximity of airport etc.
- Further assessment of the specific elements of the iwi management plans relevant for the proposed wastewater activity.
- Tracking of legislative changes, in particular RMA Reform and the Three Waters Reforms and the potential implications for the project(s).

Further throughout the project duration the potential connection of additional flow areas, such as Matangi, Tamahere or Ōhaupō to the Southern WWTP will likely have consenting requirements for consideration which should be explored at that time. Further consideration for the servicing of Tauwhare (likely via on-site solution) would also need to be considered.

8. Conclusion

The consenting strategy has outlined draft consenting objectives of the project, which need to be confirmed and agreed with key partners.

The consenting of this project is also being undertaking in an environment under which there is significant potential for change, including:

- RMA reform
- Three waters reform
- Potential NES wastewater
- Greenhouse gas legislation and provisions of the RMA coming into effect.

These need to be monitored throughout the duration of the project to ensure alignment and that the recommended consenting approach remains fit-for-purpose.

It is considered that all tasks outlined in Section 5 are important steps in achieving lodgement goals, and include broadly steps for:

- Establishing programme partnership, project governance and technical advisory groups
- Development of consultation and engagement plans (and associated phases of consultation)
- Baseline environmental investigations and technical investigations to inform alternatives assessments
- Assessments of alternatives
    - WWTP location
    - Discharge location and method
    - WWTP type or process (and resulting discharge quality)
    - Alternatives for managing inflows and alternatives for residuals.
- Preliminary design of BPO
- Technical assessments on the BPO
- Consent preparation and lodgement.

The consenting approach chosen will dictate the timeframe and programme over which the above tasks will be implemented. Land protection processes and considerations of a regional plan change along with four broad consenting approaches, and include:

- Individual WWTPs consented separately from one another
- Combining WWTP discharges south of Hamilton (Cambridge and 'Southern' WWTPs)
- Combining WWTP of Pukete and the Southern WWTP
- Whole of metro area global consent i.e. Cambridge, Southern WWTP, Pukete, Ngaruawahia, Te Kowhai, Matangi.

Given the scale of the metro area, timing constraints (particularly around Cambridge WWTP and potential growth and demand around the Airport), the projected growth scenarios, the emerging preferred consenting approach involves:

1. Linking Cambridge WWTP and stages 2 and 3 of the Southern WWTP (i.e. both involving discharges to the river).
    - Stage 1 of the Southern WWTP (involving discharges to land) could be incorporated, however identification of land for discharging could be challenging as it is dependent up on a

land discharge site being confirmed which would also be linked to the location of the new Southern WWTP. Alternatively Stage 1 could be consented (and designated) separately, with this discharge to land consent transitioning to a discharge to water upon the 'trigger' of Stage 2, and when Stage 2 is operational.

2. Alternatively, and as a back-up to the above - linking the Southern WWTP and Pukete WWTP discharges, with the Pukete WWTP discharge consent expiring in 2027. This option may therefore address some of the timing issues for linking with Cambridge WWTP, however, would remove Cambridge WWTP from the wider metro area – consenting in isolation.

Linking the two discharges via conditions of consent, for instance combined load (kg/day) is likely the easiest and more practicable way in which this can be achieved. If stages 2 and 3 of the Southern WWTP are sought to be consented at the same time as Cambridge WWTP, the Southern WWTP Stage 2 (and 3) discharge location and method (in addition to the treatment quality and volume to be sought) would need to be determined so as to be incorporated into the consent application.

GHD Centre Level 3 27 Napier Street Freemans Bay Auckland 1011 New ZealandPO Box 6543 Wellesley Street Auckland 1141 New Zealand

64 9 370 8000
aklmail@ghd.com

https://becagroup.sharepoint.com/sites/project-46787/Shared Documents/External Sharing/GHD - XXXX-XX-XX/Metro Wastewater Consenting Strategy - Final .docx

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