

Consent Evaluation Report

Applicant: Sanderson Group Limited & Kotare Properties Limited **File No.:** 61 76 45A
Address of Site: 52 Frontier Road, Te Awamutu **Project Code:** RC25391
Application Number: APP142118

1 Introduction

Wainui Environmental Ltd has made application for resource consent on behalf of Sanderson Group Ltd & Kotare Properties Ltd (the joint applicants) to authorise earthworks activities and stormwater diversion and discharge associated with the development of a joint residential subdivision and retirement village at 52 Frontier Road, Te Awamutu. The specific resource consents sought from the Waikato Regional Council for the proposed activities are described as follows:

Reference Id	Activity Subtype	Activity Description
AUTH142118.01.01	Land - disturbance	To undertake Earthworks in association with a joint retirement village/residential subdivision development
AUTH142118.02.01	Water - stormwater	To divert and discharge stormwater in association with a residential subdivision and retirement village development

This report assesses the application for the consents outlined above and the associated effects and recommends whether consents should be granted for the proposed activities. The applications are for new consents.

The application doc ref# is **16989874**.

2 Background and Description of Proposal

2.1 General

For the most part, the following background information and description of the proposed activities discussed below are taken directly from the application with the agreement of the applicant.

Initially the entire site area was intended to be developed by Sanderson Group as a large scale retirement village complex, the plans for the retirement village have subsequently been down-scaled to cover the northern half of the site only with the planned retirement village development herein referred to as the Te Awamutu Country Club. Sanderson Group have subsequently entered into a joint development project with Kotare Properties Ltd with the southern half of the site now planned to be developed by this party for standard residential landuses.

The site subject to the proposed retirement village development is located within Growth Cell T2 as identified within the Waipa District Plan (WDP). This growth cell has been earmarked for future residential development with the site having a Deferred Residential zoning under the WDP, meaning that residential development is appropriate in this location, although not currently anticipated to occur within the immediate future. However, the applicant is also currently in the process of developing

applications under the Waipa District Plan to enable the planned development of the site within a more imminent timeframe.

It is the overall site development earthworks and permanent stormwater discharge activities associated with the establishment and operation of both the planned Te Awamutu Country Club retirement village complex and adjacent Kotare Properties residential subdivision development which are the subjects of these consent applications

2.2 Site Description

The site is located on the western outskirts of the existing Te Awamutu urban area accessed via Frontier Road and comprises an existing rural property currently utilised predominantly for dairy grazing purposes. There is one separate property located eastward between the subject site and the existing Te Awamutu residential development area comprising the property owned by Frontier Properties and forming the T1 growth cell as identified in the WDP. This site is currently subject to construction earthworks in anticipation of planned residential development. In this respect, the subject site will, in the near future be located on the immediate western boundary of the Te Awamutu urban area. Properties to the north, west and south of the site generally comprise rural land used for grazing purposes although an isolated row of around 20 existing residential properties is identified extending along the southern side of Frontier Road opposite the site.

As noted, the site is made up of two separate land parcels. The southern parcel (Lots 1 DPS 487281 – 15.68ha) comprises the larger parcel and comprises an entirely open pasture area utilised for dairy grazing purposes. The smaller northern parcel (Lots 2 DPS 487281 – 2.53ha) comprises a rural residential property containing the existing property owners dwelling and associated exotic specimen trees/landscaping. A large Waipa District Council (WDC) water reservoir is located within a parcel of Council owned land at the south eastern boundary of the site directly adjacent to Frontier Road.

Site topography comprises gentle to moderate slopes which generally fall westward from the ridgeline areas extending along the eastern and southern site boundaries towards the site drainage outlet on the western boundary. Site cover is almost entirely pasture other than a few exotic/farm trees scattered through the site with a localised stand surrounding the drainage outlet point at the western boundary and mature exotic specimen trees surrounding the existing dwelling.

The site location and key site features are outlined in Figures 1 and 2.



Figure 1



Figure 2

2.2.1 Drainage Hydrology

As noted, the site extends westward from the existing ridgeline features along the eastern and southern boundaries and in this respect generally comprises a wide basin which forms the very upper reaches of a tributary drainage catchment.

The site area can generally be split into three separate sub-catchment areas with runoff within each of these areas being limited to surface flows down the existing pasture slopes during/following any rain events only.

Drainage from the central site sub-catchment area drains across the pasture slopes to enter an existing artificial farm pond located at the western site boundary. During site visits undertaken in May and June, 2020 this pond feature was found to be entirely dry with a thick layer of cracked mud covering the pond surface with establishing weed growth – refer Figure 3. Nonetheless, the pond is understood to hold some water through the winter months which is likely fed by both surface runoff and groundwater seepage flows.



Figure 3 – Existing farm pond

The pond discharges to the downstream channel via an informal overflow channel/spillway which is set at a low level which only allows for shallow surface ponding to depths of less than 0.5m within the pond feature prior to overflow.

Drainage from the northern and southern sub-catchment areas occurs as surface runoff across the sites pasture slopes to enter the downstream channel directly below the central catchment farm pond outlet.

The drainage outlet channel at this point comprises the very upper reaches of a first order tributary which commences at the western site boundary extending through the rural farmland in a north westerly direction from the site. At the site boundary this channel comprises a small channel of around 0.5m wide to 0.5m deep with grassed banks/base being characteristic of an excavated/artificial drainage channel. During the site inspection the channel was observed to be entirely dry with no evidence of any recent flows – refer Figure 4.



Figure 4 – Site outlet watercourse

Immediately below the site boundary, the drainage channel passes through a farm culvert crossing to enter another on-line pond feature. At the time of inspection, this pond was again observed to be entirely dry with a thick layer of cracked mud covering the pond surface – refer Figure 5.



Figure 5 – On-line pond within downstream property.

Directly below this pond, the watercourse enters a wide, low gradient valley floor comprising a dairy grazing pasture environment. The watercourse extends north westward through this area as an incised, straightened drain feature of around 1m deep by 1m wide. Observations of this drainage channel observed shallow depths of ponded water with no noticeable flow and with an established weed coverage – refer Figure 6.



Figure 6 – Drainage channel below on-line pond.

The watercourse/drain extends north-westward through this farm-scape for around 2.5km to where it passes under Pirongia Road via a 1200mm culvert. Below the culvert the stream shortly enters another piped section where it is conveyed below an area of farm yards/sheds. The stream then discharges into the Mangapiko Stream approximately 3km below the subject development site. The Mangapiko Stream drains a large rural and urban (Te Awamutu urban area) catchment and flows westward flowing along a meandering course within an incised gully system eventuating in the Waipa River at Pirongia.

The tributary watercourse draining the site is not identified on the WRC water classification maps and hence defaults to a Waikato Surface Water classification under the Waikato Regional Plan (WRP). The Mangapiko Stream has an indigenous fish and trout fishery classification under the WRP.

Groundwater was encountered near the ground surface level within the gully floor with increasing depth extending up the site slopes. Stiff to hard clay/silt dominated site geology hence ground soakage was not considered suitable.

2.2.2 Ecology

As noted, the site comprises an almost entire pasture cover located on the western outskirts of Te Awamutu and with a broader rural landscape of open pasture land to the north west and south and hence presents minimal potential for any terrestrial ecological habitat values.

Aquatic habitat potential within the site is limited to the artificial pond feature located at the base of the central sub-catchment area. Based upon observations of this pond as comprising an artificial, shallow feature with only intermittent ponding along with the observed dry, artificial outlet channel below the site this feature is considered to provide very limited aquatic ecological values. The pond may provide for some limited functional values for capture/attenuation of rural runoff contaminants (sediment/nutrients) from the central sub-catchment area.

2.2.3 Archaeology

The Applicant has engaged W Gumbley to undertake an archaeological assessment of the site – refer Appendix E of the application. This assessment outlines that archaeological sites within the area have generally been found to be focussed around navigable waterways. The nearest recorded site of any significance is noted as comprising the Otawhao Pa located around 1.3km eastward of the site within the existing Te Awamutu urban area.

Neither review of historic documentation/aerial photos or the site inspection undertaken for this archaeological assessment has identified any site features or past activities of historic or archaeological significance.

2.2.4 Soil Contamination

A combined Preliminary/Detailed Site Investigation has been undertaken for the development site which is provided within the HAIL Environmental report attached as Appendix G of the application. Preparation of this report has included review of historic site information, field observations, soil sampling and analysis and makes the following conclusions.

‘Mean concentrations of heavy elements in surface soils are at concentrations below applicable standards across both properties. Asbestos fibres are not present, in surface soils within the northern portion of the site. Accordingly, during and following development, no complete source-pathway-receptor contaminant linkages will be present.

Based on the revised conceptual site model, soil contaminants at the proposed Te Awamutu Retirement village development does not require any specific management or remediation to mitigate risks to human health.’

Despite these findings, the report identifies a potential that offal or waste pits may have been present within the site and hence recommends that contingency measures are developed for the earthworks to manage any potential soil contamination risks encountered. The report outlines that a controlled activity consent is required from Waipa District Council under the NES – Soil Contamination.

2.3 Proposal

The proposed development layout and associated works are outlined on the design plans included within Appendix B of the application and are summarised as follows.

2.3.1 General

As noted, the overall site development catchment will be split into two separate development types comprising the proposed Te Awamutu Country Club retirement village development within the northern half of the site and the Kotare Properties residential development within the southern half of the site.

Development of the retirement village activities will occur across an approximate 9.45ha area and will involve establishment of around 98 retirement units/dwellings, aged care facility/dementia unit and communal club house facilities along with associated roading and service infrastructure.

Development of the residential development will occur across an approximate 8.76ha and will involve establishment of 105 residential lots ranging from 500m³ to 700m³ along with associated roading and service infrastructure including a central reserve area containing a proposed stormwater management wetland device.

2.3.2 Earthworks

The proposal is to undertake bulk cut to fill earthworks followed by civil construction activities to establish the proposed development surfaces, roading network and service infrastructure within the development site. It is proposed that the Kotare Properties Ltd subdivision earthworks will occur this summer season with the Te Awamutu Country Club retirement village site likely to occur the following season. Hence, the works will essentially be staged in two separate seasons.

The overall extent of earthworks is outlined on the updated cut/fill earthworks plan (WRC Doc# 17248698). The earthworks will extend across the entire site area comprising a total area of 18.2ha and will generally comprising cutting from the elevated ridgeline/hilltop areas located around the southern, eastern and northern parts of the site with the placement of fill generally focussed within the localised gully within the central/western part of the site. Filling within this area is also noted as extending into the adjacent Thompsons property to the west to tie into the existing land contours within this area.

In addition to the fill area described in the original AEE extending across the western boundary into the Thompsons land, two additional areas of cut are also now proposed extending into the Thompsons land including a narrow sliver on the northwest boundary (1,500m³) and a larger area on the northern boundary (5,000m³) (refer to WRC Doc# 17248698). The applicant has received the written approval from this land owner to undertake these works on their property.

The cut/fill volumes within the Sanderson Retirement Village block has increased marginally from the volumes outlined in the WRC AEE from 221,000m³/157,000m³ up to 230,000m³/165,000m³;

Overall earthworks volumes are noted as comprising approximately 300,000m³ of cut and 215,000m³ of fill. Allowing for a suitable compaction factor for placed fill material along with placement of landscape fill the intention is that a cut/fill balance will be achieved across the site. However, in the instance that surplus fill volumes are encountered, these will be disposed of to a suitable, authorised off-site disposal site. Maximum cut depths are specified as around 11.4m and fill depths of 8.9m.

The plan includes some works extending across into the DMC/Frontier properties land to the east to tie into the contours on their development comprising approx. 8,000m³. Mr Steven Green is aware of these works and in discussions with the applicant over these works to confirm design details. The applicant has discussed this with him and he raised no issues and this area is already covered by the earthworks consent for their site.

Following site clearance (fences, existing dwellings etc), earthworks activities will commence comprising installation of erosion and sediment control measures followed by stripping of topsoil. Topsoil will either be stripped to perimeter bunding or to temporary stockpile locations. Bulk earthmoving can then

commence with the activities being undertaken by a combination of excavators, motor scrapers, tractor scoops, bulldozers, trucks and compactors.

Upon achieving the design earthworks contours, the finished surfaces will either be re-topsoiled (housing/reserve areas) and subject to re-grassing or covered with a layer of aggregate (road surfaces). Service trenching and installations will continue generally extending along the road alignments and will again be stabilised upon completion.

The site development earthworks are planned to commence in the summer 2020/21 season for the Kotare Properties Ltd and should be able to be completed within a single earthworks season.

Best practice erosion and sediment control measures are proposed to be implemented throughout the duration of the earthworks activities in accordance with the WRC Erosion and Sediment Control Guideline document with the proposed measures outlined on the preliminary Erosion and Sediment Control Plan (ESCP) contained within Appendix C of the application.

2.3.4 Stormwater

The proposed site development activities will result in the conversion of the existing site pasture slopes into areas of new impervious surfaces associated with the proposed retirement village/residential development including the development of dwellings/buildings and associated hard stand surfaces along with creation of the roading network and footpaths within the development site. Stormwater runoff from these surfaces will need to be captured and conveyed via a stormwater management system incorporating appropriate measures to manage the potential effects from these discharges within the site receiving environments.

The details of the proposed impervious surfaces anticipated within the development area which have formed the basis of the proposed stormwater system design are outlined within the Stormwater Management Plan (SMP) document included within Appendix D **of the application** and are summarised within Table 2 as follows.

Development Area	Impervious Surface (%)	Total Area (ha)	Impervious Area (ha)
Kotare Residential	Development Areas – 70% Reserve Area – 40%	8.8	5.6
Te Awamutu Country Club	70%	9.4	6.6
Total Impervious		18.2	12.2

Table 2 – Development Impervious Surfaces

The stormwater management system for managing runoff from these surfaces has been developed based upon the considerations and methods outlined within the WRCs Waikato Stormwater Guideline 2020 (TR2020/07) and the Waikato Regional Infrastructure Technical Standards 2018 (RITS) and including consideration of the downstream receiving environment characteristics and values. In this respect, the key philosophies guiding the proposed sites stormwater system design are as follows:

The stormwater management system has been designed to:

- Provide water quality treatment,
- Attenuate post-development peak flows to pre-development peak flow rates, and
- Provide extended detention.

Retention of initial abstraction has not been provided as the applicant has assessed the downstream watercourse and has determined that the potential for erosion and scour effects is low in the main receiving environment downstream of the second existing ponding area (refer to Section 3.2 of the SMP) which is considered acceptable under the WRC Stormwater Management Guidelines.

Based upon these key philosophies the proposed stormwater management system comprises the following measures:

- Catchment flows from the residential development, a portion of the existing Frontier Road carriageway at the southern site boundary and 4.9ha of the retirement village is to be piped to a wetland located in the central reserve area. The wetland has been designed to provide WQ, ED and to peak flow control for the 2- and 10-year ARI events. The wetland discharges to the existing downstream channel. The wetland will be bested in Waipa DC.
- Catchment flows from the remainder of the retirement village (4.4ha) is to be directed to a planted treatment swale extending along the western site boundary of the retirement village. The swale is designed to provide WQ and ED. At the southern end of the swale the WQ and ED flows will discharge via an outlet into the site outlet channel below the proposed wetland device outlet. Larger flows will be diverted to the wetland for attenuation of the 2- and 10-year ARI event peak flows. The swale will be a private device owned and maintained by the retirement village.
- Energy dissipation / outfall erosion control structures are proposed at the outlet of the proposed wetland and swale.
- Secondary overland flow paths will be provided via the roading network, these flows are proposed to be conveyed to the downstream watercourse.

The specific design basis, methods and plans for the proposed stormwater management networks are outlined within the SMP document included within Appendix D **of the application**.

The subject stormwater discharge consent seeks to obtain authorisation from the overall development catchment which incorporates both the residential subdivision and retirement village development areas, to the downstream receiving environment. This configuration presents some complexities in terms of the long-term ownership/operation of the stormwater management system and associated consent as follows:

- The entire residential development stormwater network and proposed stormwater management wetland device will initially be constructed and established by Kotare Developments Ltd however in the long term will be vested with the Waipa District Council water assets team for operation and maintenance;
- The entire retirement village development stormwater network will be constructed and operated by Sanderson Group. Part of this network will discharge directly into the Kotare Developments/Waipā DC wetland device for treatment/attenuation. Part of the network will discharge into the western swale for treatment/detention which will be constructed and operated by Sanderson Group, however with peak flow discharges occurring to the Kotare/Waipā DC wetland for attenuation.

Based upon this combined catchment stormwater management approach, the applicant considers that it is appropriate that a single stormwater discharge consent is obtained as proposed to authorise stormwater discharges from the overall development catchment to the downstream receiving environment. It is suggested that upon completion and establishment of the stormwater management system and following a suitable defects liability/maintenance period, the stormwater wetland device located within the central public reserve area will be subject to partial transfer to the Waipa District Council to authorise those discharge activities. The remainder of the development catchment comprising the portion of the retirement village discharging via the proposed treatment/detention

swale will retain authorisation under the balance of the consent authorisation and will be held by Sanderson Group for long term operation, maintenance and compliance responsibilities.

3 Status of Activities under the Plans

The consent activities applied for are regulated through the Waikato Regional Plan (WRP). The WRP became operative on 28 September 2007 therefore no other plans apply. The status of the activities under the WRP are described below:

3.1 Earthworks

The proposed subdivision earthworks activities at the site do not extend into any specific areas which would comprise High Risk Erosion Areas as defined in the WRP. However, considering the scale of the earthworks, a potential remains that any discharges which may occur from the site will be unable to adhere to the WRP permitted activity standards in terms of specified maximum suspended solids allowances. Hence, the earthworks are to be considered as a Discretionary Activity in accordance with Rule 5.1.4.13 of the WRP.

3.2 Stormwater Diversion and Discharge

The discharge of stormwater from the completed development surfaces to the tributary watercourse will occur from an urban catchment area catchment in excess of 1ha and thus cannot comply with WRP permitted activity requirements. The activity thus requires resource consent authorisation as a discretionary activity pursuant to rule 3.5.11.8 of the WRP.

3.3 Stormwater Diversion and Discharge

Waipa District Plan

As noted, the subject site is located within Growth Cell T2 as identified within the Waipa District Plan (WDP). This growth cell has been earmarked for future residential development with the site having a Deferred Residential zoning under the WDP, meaning that residential development is appropriate in this location, although not currently anticipated to occur within the immediate future.

The Applicant has lodged a joint plan change and land use consent application under the Waipa District Plan concurrently to these applications to initiate the planned urban development activities within the site in accordance with the longer term land-use provisions currently anticipated by the Waipa District Plan.

4 Consultation/Affected Party Approvals

4.1 Iwi

The subject site currently comprises a highly modified open pasture environment with no distinguishing features, aquatic habitat values or known archaeological values. Similarly, downstream receiving watercourses are considered to comprise highly modified watercourses with limited ecological values. Considering these characteristics of the site along with proposed site management methods, the subject activities are considered to present a low risk that the proposed activities will result in any cultural, spiritual or archaeological effects that would be of interest or concern to local tangata whenua.

Consultation has been ongoing with representatives of tangata whenua for this area Nga Iwi Toopu O Waipa (NITOW) who are generally supportive of the proposed activities but at this time have not provided a written approval for the proposal. It is not clear when a written response will be provided as the plan change process is also some time off in the following year. However, the current proposal is

not indicating any potential adverse effects with respect to cultural/spiritual values at the site and there are no specific concerns that have been raised during the consultation to date. In addition, the consultation with tangata whenua will be ongoing and there will be further opportunity through the WDC plan change process for them to raise any issues - though not anticipated.

4.2 Neighbours

Frontier Developments Ltd

These neighbours comprise the party currently undertaking the large scale residential activities on the adjacent site to the east which is currently subject to large scale development earthworks (the T1 growth cell development site). The applicant has been in consultation with this party regarding subdivision layout/development interfaces along the eastern site boundary to ensure appropriate outcomes in accordance with the growth cell plans. However, this property currently comprises an open pasture/earthworks site with drainage occurring via a separate catchment which flows northward through their land towards Pirongia Road. In this respect, any potential adverse effects upon this party or their land arising from the subject earthworks/stormwater discharge activities which are the subject of these applications will be less than minor.

PH/SB/TL/YM Thompson

These parties comprise the owners of the largescale farming block located directly westward and downstream of the subject site. As discussed in Section 2.3.2 of this report, the application is proposing an area of earthworks which extends across the western site boundary into this property which is required to tie the proposed site development earthworks into the adjacent land contour. This property also encompasses the existing catchment drainage channel which will receive all earthworks and post development stormwater runoff from the site.

It is also noted that this party comprises the landowner of the property to the north of the site which is limited to open pastureland.

This party has provided their written approval to the proposed development activities.

29 – 67 Frontier Road

These properties comprise the 19 residential properties located opposite the site's southern boundary across Frontier Road. The dwellings within these properties are located at least 30m away from the site boundary, separated by the Frontier Road reserve. The earthworks design along the southern boundary generally comprises minimal depths of cut to fill and hence are not expected to occur for any extended duration which may present a risk for any persistent dust effects. Furthermore, the application proposes the implementation of best practice dust control measures (refer section 6.1.2) which if implemented effectively are considered appropriate to ensure that no nuisance dust effects occur beyond the site boundary. On this basis, the potential for any adverse effects upon these properties from the subject activities is considered to be less than minor.

4.3 Waipa District Council

As noted above, plan change and resource consent application documents have recently been lodged with the Waipa District Council to authorise the planned development activities within the site. Nonetheless, direct consultation has also been undertaken with Waipa's Development Engineer for this project in regards to the proposed stormwater management design on the basis that the development proposes some stormwater assets which will eventually be vested with this party for long term ownership/maintenance responsibility. This party has confirmed that they are aware of the proposed

stormwater management design for the development including the proposed central wetland device which is proposed to eventually be vested with this party and that this proposed management regime is typical and anticipated for the development. A copy of the correspondence received from this party is attached within Appendix H of the application.

Overall, there are no parties that are considered to be adversely affected by the proposed earthworks/stormwater activities which have not provided their written approval.

5 Process Matters

Resource consent application 142118 was received as complete on 7 August 2020. The application was placed on hold under s92(1) RMA for further information and taken off of hold on 3 September 2020 upon receipt of final information. There were no further processing matters of note.

Date	Process Detail
07/08/2020	Lodged
20/08/2020	S92(1) RMA Hold
03/09/2020	Active
23/09/2020	S37A(4) RMA timeframe extension

6 Statutory Considerations

The application was lodged on 7 August 2020 and therefore all amendments to the RMA apply. For the purposes of decision making the application is further assessed as a discretionary activity. It is also considered in accordance with section 104B of the Act which has regard to the determination of applications for discretionary and non-complying activities.

Section 104 Consideration of Applications

In summary, subject to Part 2 the following matters in Section 104(1) of the RMA are relevant to the consideration of the proposal.

“(1) When considering an application for a resource consent and any submissions received, the consent authority must, subject to Part 2, have regard to –

- a) any actual and potential effects on the environment of allowing the activity; and*
- b) any relevant provisions of—*
 - i. a national environmental standard;*
 - ii. other regulations;*
 - iii. a national policy statement;*
 - iv. a New Zealand coastal policy statement;*
 - v. a regional policy statement or proposed regional policy statement;*
 - vi. a plan or proposed plan; and*
- c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.”*

The following statutory instruments and policy documents have been considered in the evaluation of this application:

- Resource Management Act (1991) (RMA);
- Waikato-Tainui Raupatu (Waikato River) Settlement Claims Act 2010;
- Waikato Regional Policy Statement (2016) (RPS);

- National Policy Statement for Freshwater Management 2020;
- Waikato Regional Plan (2007) (WRP);
- Healthy Rivers/Wai Ora: Proposed Waikato Regional Plan Change 1;
- National Environmental Standards for Freshwater 2020.

Due consideration has been given to Section 104 of the RMA. The actual and potential effects have been discussed in the sections below along with measures being taken to avoid, remedy or mitigate these effects.

Section 105

Furthermore, in relation to any discharge permits, Section 105(1) requires that the consent authority must have regard to a number of additional matters as follows:

- “(1) 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.*

Section 107

Furthermore, Section 107 states that a consent authority shall not grant a discharge consent where the discharge may cause any of the following after reasonable mixing:

- (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.*

6.1 Assessment of Environmental Effect (s104(1)(a))

Existing environment

Section 104(1)(a) provides that when considering a consent application, the consent authority must, subject to Part 2, have regard to the actual and potential effects on the environment of allowing the activity.

The ‘environment’ as applicable to this particular proposal is recognised as modified agricultural land with gentle to moderate slopes which generally fall westward from the ridgeline areas extending along the eastern and southern site boundaries towards the site drainage outlet on the western boundary. Site cover is almost entirely pasture other than a few exotic/farm trees scattered through the site with a localised stand surrounding the drainage outlet point at the western boundary and mature exotic specimen trees surrounding the existing dwelling.

Permitted baseline

Section 104(2) provides that when forming an opinion about the actual or potential effects of the activity, the consent authority may disregard an adverse effect of the activity on the environment if the regional plan permits an activity with that effect.

There are no permitted activity baseline effects relevant to the applications and as such none have been discounted.

Actual and potential effects:

The key environmental effects which should be considered are:

The key environmental effects which should be considered are:

- Water quality effects from sediment discharges during earthworks;
- Effects of dust discharges;
- Ecological effects;
- Exotic weed invasion;
- Cultural and archaeological effects; and
- Catchment hydrology and water quality/quantity effects from stormwater discharges post development.

6.1.1 Water Quality Effects from Sediment Discharges during the Earthworks

Soil disturbance activities increase the potential for erosion and destabilisation effects and have the potential to discharge sediment into waterways both during and after the works until the ground surface is stabilised. Sediment discharges to water can cause a range of adverse effects on fresh water and marine ecosystems, including smothering aquatic life, damaging fish and invertebrates' gills, destruction of spawning grounds, and the deposition of nutrients to waterways. Increased turbidity can interfere with aquatic animal's abilities to feed due to poor visibility and reduced light penetration can reduce photosynthetic activity.

The applicant has provided a '*Preliminary Erosion and Sediment Control Plan*' as prepared by Wainui Environmental Ltd in Appendix C of the application, which outlines the high level concepts that will be undertaken to control and mitigate any potential adverse effects from earthworks activities. The ESCP has been assessed by Waikato Regional Council (WRC) staff, who consider that the plan has been prepared in general accordance with WRC's publication, '*Erosion and Sediment Control – Guidelines for Soil Disturbing Activities, January 2009*' (TR2009/02) which sets out the general methods that the WRC advocates to address the above mentioned erosion and sedimentation effects.

The methods proposed to manage these effects and the residual environmental risks/effects associated with the earthworks activities are discussed as follows.

Erosion and Sediment Control Methods

The methods proposed to manage the potential erosion and sediment effects of the earthworks activities are outlined within the preliminary Erosion and Sediment Control Plan (ESCP) document included within Appendix C of the application. This plan has been developed in general accordance with the best practice methods outlined in the Waikato Regional Councils '*Erosion and Sediment Control Guidelines for Soil Disturbing Activities*' (TR2009/02).

Based upon the nature of the site topography as comprising a large scale open basin feature with open gradient, moderate terrain, the planned approach to erosion and sediment control is relatively simple comprising establishment of perimeter bunding/diversion channel around the site/catchment boundaries with all runoff from exposed earthworks surfaces diverted to the design sediment control devices for treatment prior to discharge to the single site outlet point comprising the highly modified farm watercourse discharging at the western site boundary.

The proposed approach to erosion and sediment control outlined in the preliminary ESCP document is summarised as follows:

- Provision of perimeter diversions in the form of compacted topsoil bunds to capture and divert earthworks runoff to the design sediment control devices;
- Provision of SRP1 which comprises a large scale SRP device to be formed within the footprint of the permanent stormwater wetland device at the western site boundary. This SRP is identified as providing sediment treatment for a design catchment area of 15ha which is noted as exceeding the maximum SRP catchment area specified in the TR2009/02 Guideline. However, in this instance this increased catchment area allowance is considered acceptable for a number of reasons as follows:
 - The permanent stormwater wetland is expected to be able to be formed to its full capacity as the first earthworks activity within the site area with a specified methodology within the preliminary ESCP for implementation of this large device. Once established, the wetland has a design capacity of 6480m³. This volume represents a volume of around 4.5% of the contributing catchment area significantly exceeding the typical 3% design capacity required through TR2009/02 through provision of an approximate additional 2,000m³ of storage;
 - The design for this SRP proposes the implementation of silt fence baffles to be installed across the invert of the device to further increase flow lengths and to reduce the potential for any potential wind effects associated with the increased SRP surface area to contribute to reduced settlement within the main pond basin or wave action effects on the pond batters;
 - This increased catchment area (again up to 15ha) approach has been implemented on the directly adjacent Frontier Developments site and has proven to be highly effective in managing potential sediment discharge effects from the enlarged development catchment earthworks activities;
- Provision of DEBs/silt fences for any smaller catchment earthworks areas within the site which are unable to drain to the main SRP devices;
- Provision of chemical flocculation of all SRP and DEB devices if proven effective in treating site soils;
- Implementation of erosion control measures including contour drains and progressive stabilisation to minimise the potential for erosion/sediment generation effects during catchment storm events.

A key aspect of the proposed activities will be to programme these works to be undertaken during the summer construction between October to April to avoid the wetter winter months where saturated site conditions leads to increased levels of runoff of potential for erosion and sediment discharges to occur.

In the event that site runoff/discharges do occur, the methods outlined in the preliminary ESCP document are considered to be representative of best practice methods for control of these types of activities. These types of controls (flocculated best practice SRPs/DEBs) are generally considered capable of achieving treatment efficiencies in the order of 85 – 95% and hence are considered to comprise effective methods for ensuring that any potential sediment discharges are minimised to the greatest extent possible over the duration of the earthworks activities.

The effective management of sediment discharges from the site is reliant on robust monitoring and maintenance of the specified erosion and sediment control devices throughout the duration of these activities. In this respect, the preliminary ESCP outlines robust methods for monitoring of weather forecasts throughout the works and regular inspections and maintenance of devices including

immediately prior to and following any rain events that occur to ensure their effective function at all times.

On completion of the earthworks in each part of the site, the finished surfaces will be progressively stabilised with roading aggregates being placed across the completed road subgrade surfaces and with the road batters and lot surfaces being stabilised through topsoiling and either grassing or landscape plantings. Where more rapid stabilisation is required, this will be achieved with application of hay mulch. Progressive stabilisation of the site surfaces will ensure that the duration of soil exposure is minimised and hence the risk of any sediment runoff effects is reduced.

To summarise, the proposed erosion and sediment control measures and methodologies outlined within the preliminary ESCP document are considered appropriate to confirm that best practice techniques can and will be implemented at the subject site and if implemented effectively, will ensure that any potential sediment discharge effects from the earthworks will be minimised to levels to ensure that any residual effects are no more than minor within downstream receiving environments. A consent condition has been included in the attached consent certificate requiring the submission and approval of a finalised ESCP which can be developed in consultation with the site contractor to confirm the finalised detailed design and layout of all erosion and sediment control measures prior to works.

Receiving Environment Effects

Treated runoff from the site will discharge from the proposed treatment devices into the ephemeral tributary watercourse/drain at the western site boundary.

While the proposed erosion and sediment control measures will ensure that the majority of mobilised sediment particles are retained on site, it is possible that some fine particulate and suspended colloidal material arising from the site earthworks will make their way into the receiving environment should any significant storm events be encountered. Within the receiving environment these discharges have the potential to result in adverse effects on water quality and aquatic ecology including the abrasive and smothering effects of fine sediments on aquatic organisms and habitats and the discolouration of water affecting visual feeder species as well as aesthetic and recreational values.

The immediate channel below the site comprises an intermittently flowing surface flow path with no aquatic habitat values, Furthermore, this channel also quickly enters an on-line, ephemeral farm pond feature which is likely to provide some further level of catchment buffering/settlement in the event that any sediment discharges do occur.

Below this feature, flows enter the heavily modified farm drainage watercourse which is again considered to present limited habitat and reduced water quality values based upon the surrounding agricultural landuses and past modifications. In this respect, while it is considered likely that elevated levels of sediment will discharge from the site during any significant storm events, it is considered that aquatic ecology within this watercourse will be tolerant to these intermittent, short term sediment discharges and based on the implementation of proposed erosion and sediment control measures these discharges within aquatic receiving environments will be no more than minor. Within the eventual Mangapiko Stream receiving environment approximately 3km below the site, any treated earthworks discharges are expected to be easily assimilated within the broader, large catchment flows and will not result in any noticeable increase in suspended solids levels. Some temporary/intermittent contribution to cumulative catchment sediment effects should however be anticipated.

Provided the proposed soil disturbance activities are undertaken in accordance with the Waikato Regional Council publication '*Erosion and Sediment Control Guidelines for Soil Disturbing Activities, January 2009*', and as per the final approved '*Erosion and Sediment Control Plan*', I consider that the actual and potential adverse soil disturbance effects will be temporary and no more than minor. I have also recommended a series of conditions to minimise and/or avoid adverse effects on water quality

including the implementation of additional erosion and sediment control measures. It should be noted that ultimately the success of any erosion and sediment controls will require comprehensive planning and regular inspections and maintenance of sediment/erosion control devices.

To avoid fuel discharges entering any downstream water body during the proposed works, conditions have been included requiring that all machinery is operated in a manner which ensures spillages of fuel, oil and similar contaminants do not eventually enter downstream farm drain to the Mangapiko Stream.

6.1.2 Dust Effects

Sites where ground cover is removed and soil disturbed have the potential to discharge dust. The severity of dust discharges are determined by factors such as wind strength, soil type, size of area exposed and moisture content of soil.

Some of the adverse effects, which can result from dust discharges include:

- Potential health effects from breathing dust particles.
- Nuisance effects, which can result from dust settling on surfaces such as cars, houses and household washing.
- Visibility effects, which can result from dust clouds moving offsite.
- Effects on plants, which can result from dust deposits. These effects can include reduced palatability of pasture and reduced photosynthesis due to reduced light penetration.

The land holdings to the west and north of the site comprise open rural pasture land with no dwellings present which could be prone to adverse dust effects. The land to the east comprises the large Frontier Developments site which is currently subject to large scale construction earthworks activities and with no dwellings to be established within the part of this development adjacent to the subject site for a number of years. In this respect, no potential is considered to exist for potential adverse dust effects upon these properties.

As noted, southward of the site across Frontier Road is a row of existing residential dwellings with the nearest dwellings located at a distance of around 30m from the development site boundary, thus presenting a potential that nuisance dust effects may arise from the site earthworks activities should dry, windy conditions be encountered. In response to these potential effects, the applicant proposes that best practice dust effects will be implemented over the duration of the earthworks activities on site with the specific details of the dust management regime for the site to be confirmed within a detailed Dust Management Plan to be developed in conjunction with the site contractor for approval prior to the commencement of the earthworks activities. The key dust management methods to be addressed within this detailed Dust Management Plan will include:

- Implementation of a pro-active approach to monitoring of potential dust risks through monitoring of weather forecasts and soil conditions and ensuring that any works in proximity to sensitive dust receivers are appropriately programmed to minimise dust effect risks;
- Monitoring of all works activities to ensure that in the event that potential dust generating conditions are identified, appropriate control measures are implemented to manage these risks;
- The primary dust control method will comprise water suppression through spreading of water with a water cart to maintain dampened site surfaces. Water supply is available at the site via the directly adjacent Waipa District Council supply network including the existing 375mm water supply main running up Frontier Road at the site frontage with dual connections into the site along with the directly adjacent large scale reservoir at the south east corner of the site with a potential to

establish a metered connection for water cart filling. Alternatively, establishment of an on-site bore is also being considered as an alternative supply option for construction activities longer term landscape irrigation purposes within the retirement village site for which a groundwater water take consent will be pursued with WRC if determined necessary;

- Secondary dust control methods to include the use of soil stabiliser products such as polymer or hydroseed to provide instant/semi-permanent cover of exposed earth surfaces and immediately prevent dust generation;
- Detailed processes will be established for any potential dust complaints received including direct engagement with complainant parties to identify likely sources and effects, undertaking immediate steps to address the issues on site, consideration of any required remediation on complainant properties and reporting/notification to the Councils.

The above methods are considered to represent best practice methods for management of potential dust effects and if implemented effectively will ensure that no nuisance effects occur beyond the site boundary.

Furthermore, considering the location of the residential properties opposite the site on Frontier Road, the proposed earthworks occurring along this boundary are identified as comprising only shallow depths of cut/fill and hence are considered able to be implemented rapidly further reducing the timeframes with which adverse effects could arise. In addition, these properties are located to the south of the subject site and with predominant/prevaling winds typically coming from the south-west, the potential for adverse dust effects is further reduced with these winds blowing north eastward across the site, away from these properties.

Notwithstanding the proposed mitigation measures above, I have included a condition in the attached consent certificate requiring the applicant to prepare and submit for approval a Dust Management Plan to control potential dust emissions from the site prior to works commencing.

6.1.3 Exotic Weed Invasion

The proposed earthworks and vegetation clearance will provide conditions for invasive weeds to become established on exposed surfaces during and after construction. Machinery brought onto the site to undertake earthworks and vegetation clearance could potentially carry plant matter and/or seeds, which could result in the introduction of new weed species in the area. This is a potential detrimental impact as weeds may threaten the ecological integrity of the surrounding indigenous vegetation. I recommend that all machinery brought onsite is first cleaned to remove any plant matter and/or seeds. I have proposed a condition of consent in the attached certificate regarding washing of machinery. On this basis, I consider that the risk of exotic weed invasion will be adequately avoided.

6.1.4 Ecological Effects

As noted, the site area comprises a heavily modified agricultural environment with more or less continuous pasture cover and no notable terrestrial ecological habitat values. The exception is the isolated small stand of exotic trees (poplars) located around the existing farm pond at the western site boundary which while being located within a broad pasture environment, could present potential foraging habitat for long tailed bats. The area is subject to an ecological assessment to characterise any potential bat habitat values which will be subject to assessment as part of the Waipa District Council plan change/landuse consent process and is not considered to warrant further consideration/management through this consent process.

Aquatic habitat within the site is limited to the intermittently wet farm pond located at the western site boundary. This pond comprises an artificial, man-made feature which is understood to only provide for intermittent, shallow ponding of catchment runoff over the winter months with observed pond conditions during May and June, 2020 comprising a dry, mud surface with establishing weed growths and no aquatic habitat values. In this respect, any aquatic habitat impacts associated with the removal of this existing feature are considered to be no more than minor and will be adequately mitigated for through the establishment of the much larger, permanently wet, planted stormwater management wetland in this location.

Overall, based upon the low existing ecological habitat values of the site, any potential adverse ecological habitat values associated with the proposed site earthworks activities will be no more than minor.

6.1.5 Cultural and Archaeological Effects

The applicant has undertaken an Archaeological Assessment of the site contained in Appendix E of the application that determined no actual or potential archaeological values within the subject site. Subsequent to this application, the applicant has submitted a Cultural Impact Assessment (CIA).

Consultation has been ongoing with representatives of tangata whenua for this area Nga Iwi Toopu O Waipa (NITOW) who are generally supportive of the proposed activities but at this time have not provided a written approval for the proposal. It is not clear when a written response will be provided as the plan change process is also some time off in the following year. However, the current proposal is not indicating any potential adverse effects with respect to cultural/spiritual values at the site and there are no specific concerns that have been raised during the consultation to date. In addition, the consultation with tangata whenua will be ongoing and there will be further opportunity through the WDC plan change process for them to raise any issues - though not anticipated.

Waikato Regional Council has standard consent conditions relating to circumstances where unidentified archaeological sites are discovered. I consider that these conditions will ensure that appropriate procedures/protocols are followed. In the event that previously unidentified archaeological sites are discovered and not covered under the HNZ General Authorisations, there may be requirements for further General Authorisations imposed by the HNZ. The inclusion of these conditions does not preclude the use of other protocols if agreed between the applicant and iwi, however, they do provide a minimum standard to be followed.

6.1.6 Catchment Hydrology and Water Quality Effects Post Development

Urbanisation, development of greenfield site areas and the way in which stormwater management is incorporated into the design of developing catchments, will significantly influence catchment hydrology in the post development situation. Essentially it is the loss of pervious surface area and the piping of stormwater to surface waters that result in reduced rates of groundwater infiltration and recharge, and greater volumes of runoff being discharged from developed catchments. These changes often result in the lowering of groundwater tables, extreme dry and wet weather flow fluctuations in surface waters, and an overall limiting effect in the ability of surface waters to support aquatic life.

In addition to these effects, increased stormwater volumes and peak rates of discharge can result in adverse flooding hazards, stream channel scouring and erosion and diminished receiving water health through reduced ecosystem viability, habitat availability and downstream sedimentation effects. These effects are particularly common in urban catchments that have inappropriately designed stormwater management systems, or no particular management system (the widespread historical situation in existing urban catchments).

Stormwater runoff from roads and impervious areas are known to contain contaminants such as metals, hydrocarbons and sediment. A number of these contaminants, if allowed to enter the environment, will accumulate in the sediments of the receiving environment and may reach levels that are toxic to biota. The highest potential source of contaminants from roading surfaces are heavy metals and hydrocarbons from tyre/brake wear, exhaust fumes and fuel/lubricant leaks onto road surfaces. Other catchment contaminants can include gross pollutants (i.e rubbish) and sediments from associated development and sports fields as well as nutrient input from gardening/landscaping activities and possible sewer overflows/illegal connections. As contaminants often become attached to sediment particles, removal of suspended sediment provides partial treatment of stormwater.

As discussed in Section 2 of this report, the applicant is proposing to manage stormwater in accordance with the Stormwater Management Plan (SMP) included in Appendix D of the application.

Senior Environmental Engineer Ms Megan Wood (Wainui Consulting Ltd) has undertaken an assessment of the stormwater management design on behalf of Waikato Regional Council and provided a comprehensive analysis of the proposal below (technical report dated 14 September 2020 doc ref# 17248516).

6.1.6.1 Water Quality Treatment

Wetland

The contributing catchment area to the wetland is 19.58ha of residential lots (assumed imperviousness of 70%, maximum allowable levels from the Waipa District Plan), proposed retirement village and associated roads (assumed imperviousness of 75%, based on typical road cross sections). The following presents the adopted contributing catchment area used to inform the wetland design:

Description	Area (ha)
Kotare Wetlands Residential Area	8.65
Te Awamutu Country Club Retirement Village (2 and 10-year attenuation only)	9.56
Frontier Road	0.47
WDC Water Reservoir Site	0.90
Total Wetland Catchment	19.58

The SMP states that in the existing situation overland flows from the site reach the channel at different locations. The proposed development will see all flows entering the channel at the same location, hence there is the potential or associated erosion and scour effects to occur from the increase in concentrated flow. The applicant states this is contained to a short reach of channel (Reach 1) and effects are diminished once flows reach the main drain.

The report states that soil types and CN numbers have been adopted based on soil testing across several sites within the catchment and with supporting information from S-Maps Online. The applicant is advised that in future, actual site soil testing will need to be undertaken to determine the saturated hydraulic conductivity across the site (soil borings and double ring infiltrometer (or similar)) to inform the selection of the hydrological soil group and hence the stormwater design. Refer to Section 5.3 in the Waikato Stormwater Runoff Modelling Guideline for further details.

It has been assumed that no soil remediation will be undertaken at the site, so an increase in soil type and subsequent curve number has been adopted for the post-development condition.

The wetland design comprises:

- Normal water level area = 4,000m² (approximately 2.7% of the catchment)
- Permanent storage zone = 1,550m³ (increased by 25% to account for planting)
- Batters above and below NWL = minimum 1V:3H.
- Top of batter area = 6,340m²
- Total 10-year ARI volume = 6,480m³
- Total stormwater reserve area = 10,350m²
- Forebay = 350m³ (30% of adjusted WQV)
- WQV = 1,550m³ (50% of the calculated WQV as ED is being provided, increased by 25% to allow for planting)
- EDV = 1,088m³, ED depth is RL62.0m (250mm above the PWL), peak discharge at ED level is 0.035m³/s
- Outlet structure: to be designed at detailed design stage (this is considered acceptable)
- Spillway: Proposed on the NW side of the wetland. Preliminary design: 14m wide spillway with a depth of 350mm. Spillway to include 300mm freeboard to the top of the Wetland bund.
- Banded bathymetry is proposed and a minimum 80% vegetated area. Shaded trees are proposed around the wetland to reduce thermal effects.

The summary of peak discharge rates and required detention volumes is provided below:

Return Period (ARI)	Greenfields discharge rate (m ³ /s)	Wetland Peak outflow (m ³ /s)	Peak Stage RL (m)	Peak Storage (m ³)
Extended Detention*	-	0.034	62.00	1,088
2- Year	1.12	1.069	62.69	4,356
10- Year	2.23	2.035	63.10	6,482

** ED catchment excludes the Country Club Swale catchment

Section 4.1.1 of the SMP states that where possible high flow bypass will be incorporated directing flows from larger events around the wetland forebay directly into the main body of the wetland. The applicant was required to clarify if this referred to 10-year or 100-year ARI flows. The applicant advised that the wetland has been designed to attenuate the 10-year ARI flows. The intention of the wetland high flow bypass is to (where possible) divert flows in excess of the ED/2 year ARI event around the forebay and into the main wetland body (or outlet pool) to prevent the resuspension of sediments in the forebay. It is anticipated that the SW reticulation will enter the wetland reserve from several locations and so whilst it is intended that this high-flow bypass arrangement is implemented, there may be challenges to implementing it, to be determined at detailed design stage. For events greater than the 10-year ARI event, where overland flow is triggered, overland flowpaths will be designed to convey flows around the wetland reserve, i.e. overland flows will not be discharged to the wetland. Overland flowpaths are to be designed at detailed design stage. Ms Wood considers this response acceptable.

The proposed wetland design is considered acceptable to provide water quality treatment and flow attenuation for the contributing catchment area. The contributing catchment area for water quality treatment in the wetland is less than the contributing catchment area for flow attenuation, as runoff from the northern end of the retirement village area is treated via a swale, with the larger flows being diverted to the wetland for flow attenuation.

Swale

Runoff from the northern end of the proposed retirement village (4.4ha including dwellings and the road network) is proposed to be treated via a planted swale to be located along the western boundary of the site. The swale has been designed to provide water quality treatment and extended detention. Preliminary design details are provided below:

- Swale base width = 2m
- Side batters = 1V;3H
- Max longitudinal slope = 1.5%
- Manning's n = 0.25
- WQ flow depth = 0.275m
- Total swale depth = 0.6m

The swale has been designed to have capacity for the 10-year ARI event flows. The swale is proposed to have a meandering pathway to mimic a natural stream where possible.

Treated WQ/ED flows will be discharged via a low flow diversion pipe directly to the existing drain within the downstream property. Flows greater than the WQ/ED event will be directed to the constructed wetland. The applicant states the expected residence time is approximately 25 minutes, this is well more than the minimum 9-minute residence time required in the Waikato Stormwater Management Guideline to achieve water quality treatment. Check dams are proposed to provide extended detention within the swale, with low flow pipes through the dams to ensure peak flow discharge over 24 hours. The application states that the detailed design for the swale check dams and ED outlets will be undertaken as part of the detailed design, this is considered acceptable.

The swale is proposed to be integrated into the surrounding area. It is to be formed as a semi-naturalised overland flowpath in a reserve area with a track. A planting plan will be prepared as part of the detailed design. Planting will likely comprise the swale invert being planted with a thick swathe of typical wetland rush species such as Oioi and Carex with other terrestrial species extending up the swale banks / batters to maximise stability and shading. The swale is to be owned and maintained by the Te Awamutu Country Club.

Overland Flow

The SMP states that where possible overland flows will discharge to the road corridors where they will be conveyed to or around the proposed wetland. Where this cannot be achieved overland flowpaths will be provided. These will be designed at the detailed design stage. Ms Wood considers that the overland flowpaths are considered adequate.

Low Impact Design

The proposed stormwater management system for this site relies on a traditional end of pipe solution approach with the bulk earth-working across the entire site and no at-source treatment. The applicant has assessed the site using the scoring matrix and the site scores a total of 8, with 1 point achieved for source control, 5 for LID devices and 2 for urban design. This score is low and does not meet the target scores for the site as per the Waikato Stormwater Management Guideline.

The applicant was advised that they needed to consider opportunities for the inclusion of more source control elements within the design proposal. The applicant replied advising that they have not incorporated any at-source management due to the following reasons:

- Cost implications associated with the construction / operation of multiple other at-source treatment devices in addition to the wetland and the swale.
- O&M requirements associate with other at-source devices in addition to the wetland and swale. Waipa DC apparently prefers centralised devices.
- The nature of the site receiving environment comprising a managed agricultural drainage system which is not considered to justify multi-level treatment and at-source retention for the site.

-Consistency with stormwater treatment provisions for other development sites of this nature and within these types of catchments.

It is disappointing to see this approach still being taken for greenfield developments where there are no site constraints.

In summary, Ms Wood has reviewed the overall stormwater management design and assessed the calculations and engineering drawings for the proposed development and considers them to be acceptable and to be in general accordance with the Waikato Stormwater Runoff Modelling Guideline and Waikato Stormwater Management Guideline.

6.2 Assessment against Policy Statements, Plans and Regulations (s104(1)(b))

6.2.1 Vision and Strategy

Under s11 of the Waikato-Tainui Raupatu Claims (Waikato River) Settlement Act 2010 and other river “settlement” legislation, the Vision and Strategy is deemed to be part of the Waikato Regional Policy Statement. Under s104(1)(b), the Council must “have regard to” the RPS when considering any application for resource consent. However, additionally, the river settlement legislation also requires that the Council must have “particular regard” to the Vision and Strategy for the Waikato River when carrying out any of its functions under RMA 1991. Through case law, the Vision and Strategy is acknowledged as the primary, direction-setting policy for the River. Case law indicates that activities which are subject to the V&S are required to provide for the protection and restoration of the River, and that this will require “betterment” to an extent proportionate with the scale of the activity and its effects.

- a) the restoration and protection of the health and wellbeing of the Waikato River;
- b) the restoration and protection of the relationship of Waikato – Tainui with the Waikato River, including their economic, social, cultural and spiritual relationships;
- c) the restoration and protection of the relationships of Waikato Iwi according to their tikanga and kawa with the Waikato River, including their economic, social, cultural and spiritual relationships;
- d) the restoration and protection of the Waikato Region’s communities, with the Waikato River, including their economic, social, cultural and spiritual relationships;
- e) the integrated, holistic and coordinated approach to management of the natural, physical, cultural and historic resources of the Waikato River;
- f) the adoption of a precautionary approach towards decision that may result in significant adverse effects on the Waikato River, and in particular those effects that threaten serious or irreversible damage to the River;
- g) The recognition and avoidance of adverse cumulative effects, of activities undertaken both within the Waikato River and within its catchments on the health and wellbeing of the Waikato River;
- h) The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities;
- i) The protection and enhancement of significant sites, fisheries, flora and fauna;
- 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;
- 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;
- l) The promotion of improved access to the Waikato River to better enable sporting, recreational, and cultural opportunities;

- m) The application of the above of both matauranga Maaori and the latest available scientific methods.

The subject site is located upstream of the Mangapiko Stream with direct discharges to a modified farm channel/drain. In this respect, the proposed activities incorporate design features which are considered appropriate to maintain the quality of water and to avoid remedy or mitigate any potential adverse effects on the stream with consent conditions recommended to address these items.

Additionally, the project works will retire the existing site area from traditional agricultural landuse practices with the new landuse resulting in runoff from the new developments which will be treated within a best practice stormwater management (planted swale, wetland). Therefore, it is considered that the long-term stormwater discharge will result in a positive outcome/betterment for this receiving environment.

6.2.2 National environmental standards

As of 4 September 2018, there are six NESs that have come into effect - the National Environmental Standards for Air Quality (where various standards have been in effect since October 2004); Sources of Human Drinking Water; Electricity Transmission Activities; Telecommunication Facilities; Assessing and managing contaminants in soil to protect human health; and Plantation Forestry.

National Environmental Standard for Sources of Human Drinking Water

In terms of the stormwater discharge activity associated with this consent process, I have reviewed WRC's Smart Maps database and can confirm there are no registered drinking water supplies immediately downstream of the location of the proposed discharge activity.

6.2.3 Other regulations

There are no other regulations considered relevant to this consent process

6.2.4 National policy statements (including NZ Coastal Policy Statement)

National Policy Statement for Freshwater Management 2020

The Freshwater Management NPS has policies and objectives that direct local government to manage water in an integrated and sustainable way while providing for economic growth within specified water quality and quantity limits. The NPS requires regional councils to develop standards to safeguard the life supporting capacity of water bodies, with the objective that water quality will be maintained or improved. This will involve protection of high quality water bodies and implementation of methods to improve degraded water bodies. In the interim, when considering consent applications regional councils must have regard for any effects (actual or cumulative) that contaminants contained in the discharge may have on freshwater and fresh water ecology. The principle of adopting best practicable options in order to minimise effects is included in the decision making process under this policy.

Given the proposed mitigation measure to be put in place to manage water quality through the constructed wetland treatment pond and planted swale, it is my opinion that should the application be granted, it will not be contrary to the Freshwater NPS.

The NZ Coastal Policy Statement is not relevant to this application.

6.2.5 Regional Policy Statement

The RPS identifies the significant resource management issues of the region and sets out the objectives, policies and methods to address these issues and to achieve integrated management of the natural and

physical resources of the Region. The RPS aims to ensure the way we use our resources does not tip the balance and compromise the ability of future generations to provide for their own needs.

The Waikato Regional Council’s RPS was made operative on 20 May 2016.

The RPS identifies the significant resource management issues of the region and sets out the objectives, policies and methods to address these issues and to achieve integrated management of the natural and physical resources of the Region. The RPS aims to ensure the way we use our resources does not tip the balance and compromise the ability of future generations to provide for their own needs.

The Waikato Regional Council’s RPS was made operative on 20 May 2016.

Key issues in the RPS relating to this proposal are the state of resources (Issue 1.1), effects of climate change (Issue 1.2), managing the built environment (Issue 1.4), and the relationship of tangata whenua with the environment (Issue 1.5). There are a number of overlapping objectives under each of these relevant to this proposal. These are listed as follows:

- Integrated management of natural and physical resources (Objective 3.1);
- Resource use and development (objective 3.2);
- Decision making (Objective 3.3);
- Health and well being of the Waikato River (Objective 3.4)
- Adapting to climate change (Objective 3.6)
- Ecosystem services (Objective 3.8);
- Relationship of tangata whenua with the environment (Objective 3.9);
- Sustainable and efficient use of resources (Objective 3.10)
- Air quality (Objective 3.11);
- Built environment (Objective 3.12)
- Mauri and values of fresh water bodies (Objective 3.14);
- Riparian areas and wetlands (Objective 3.16)
- Ecological integrity and indigenous biodiversity (Objective 3.19)
- Amenity (Objective 3.21)
- Natural character (Objective 3.22)
- Values of soil (Objective 3.25)

6.2.6 Regional Plan

The Waikato Regional Plan (“WRP”) is operative. The purpose of regional plans is to help the Council carry out its functions under s30 of the RMA.

Plan	Rule/Objective
Waikato Regional Plan	5.1.4.13 - Discretionary Activity Rule - Soil Disturbance, Roading and Tracking and Vegetation Clearance
Waikato Regional Plan	3.5.11.8 - Discretionary Activity Rule - Discharge of Stormwater

The objectives and policies contained in the WRP that are relevant to this proposal are those relating to water resources, land and soil and air. The following provides a discussion of these objectives and policies.

3.1 Water Resources

3.1.2 Objective

The management of water bodies in a way which ensures:

- a. that people are able to take and use water for their social, economic and cultural wellbeing*
- b. net improvement¹ of water quality across the Region*
- c. the avoidance of significant adverse effects on aquatic ecosystems*
- d. the characteristics of flow regimes are enhanced where practicable and justified by the ecological benefits*
- e. the range of uses of water reliant on the characteristics of flow regimes are maintained or enhanced*
- f. the range of reasonably foreseeable uses of ground water and surface water are protected*
- g. that significant adverse effects on the relationship tangata whenua as Kaitiaki have with water and their identified taonga such as waahi tapu, and native flora and fauna that have customary and traditional uses in or on the margins of water bodies, are remedied or mitigated*
- h. the cumulative adverse effects on the relationship tangata whenua as Kaitiaki have with water their identified taonga such as waahi tapu, and native flora and fauna that have customary and traditional uses that are in or on the margins of water bodies are remedied or mitigated*
- i. the management of non-point source discharges of nutrients, faecal coliforms and sediment to levels that are consistent with the identified purpose and values for which the water body is being managed*
- j. the natural character of the coastal environment, wetlands and lakes and rivers and their margins (including caves), is preserved and protected from inappropriate use and development*
- k. concentrations of contaminants leaching from land use activities and non-point source discharges to shallow ground water and surface waters do not reach levels that present significant risks to human health or aquatic ecosystems*
- l. that the positive effects of water resource use activities and associated existing lawfully established infrastructure are recognised, whilst avoiding, remedying or mitigating adverse effects on the environment.*

3.2.3 Policies

Policy 1: Management of Water Bodies

Manage all water bodies to enable a range of water use activities, whilst ensuring that a net improvement in water quality across the Region is achieved over time through:

- a. Classifying and mapping water bodies based on the characteristics for which they are valued and implementing the classification through a mixture of regulatory and non-regulatory methods.*
- b. Maintaining overall water quality in areas where it is high, and in other water bodies, avoiding, remedying or mitigating cumulative degradation of water quality from the effects of resource use activities.*
- c. Enhancing the quality of degraded waterbodies.*
- d. Providing for the mitigation and remediation of adverse effects in accordance with Section 1.3.3 of the Waikato Regional Policy Statement.*
- e. Recognising the positive benefits to people and communities arising from use or development of water resources and by taking account of existing uses of water and the associated lawfully established infrastructure.*

Policy 3: Tangata Whenua Uses and Values

Ensure that the relationship of tangata whenua as Kaitiaki with water is recognised and provided for, to avoid significant adverse effects and remedy or mitigate cumulative adverse effects on:

- a. The mauri of water,*

- b. Waahi tapu sites,
- c. Other identified taonga.

Policy 4: Waikato Region Surface Water Class

Section 3.5.3 Discharges

Policy 1: Enabling Discharges to Water that will have only Minor Adverse Effects

Policy 2: Managing Discharges to Water with More than Minor Adverse Effects

Policy 3: Alternatives to Direct Discharge to Water

Policy 4: Discharges to Land

Policy 5: Ground Water

Policy 7: Stormwater Discharges

Section 5.1.2 – Accelerated Erosion Objective

“A net reduction of accelerated erosion across the Region so that:

- soil productivity, versatility and capability is maintained
- there are no adverse effects on water quality, aquatic ecosystems and wetlands that are inconsistent with Water Management Objective 3.1.2
- there is no increase in the adverse effects of flooding or land instability hazards
- accelerated infilling of lakes, estuaries, rivers, wetlands and cave systems is avoided and the rate of infilling of artificial watercourses, excluding structures designed to trap sediment, is minimised
- significant adverse effects on the relationship tangata whenua as Kaitiaki have with their identified ancestral taonga such as ancestral lands, water and waahi tapu are avoided
- cumulative adverse effects on the relationship tangata whenua as Kaitiaki have with their identified taonga such as ancestral lands, water, waahi tapu are remedied or mitigated
- significant adverse effects on natural character and ecological values associated with land and the coastal environment including dune systems is avoided
- there are no adverse effects on air quality that are inconsistent with Air Quality Objective 6.1.2, Objectives 2 and 3
- damage to property and infrastructure is avoided

in particular in High Risk Erosion Areas...”

Section 5.1.3 Accelerated Erosion

Policy 1: Managing Activities that Cause or Have the Potential to Cause Accelerated Erosion and Encouraging Appropriate Land Management Practices

Policy 2: Use of Regulatory and Non-Regulatory Approaches of Management for Soil Disturbance/Vegetation Clearance Activities in High Risk Erosion Areas.

Policy 3: Promote Good Practise.

6.1 Regional and Local Air Management

Objective2:

No significant adverse effects from individual site sources on the characteristics of air quality beyond property boundary.

The objectives and policies of the relevant sections of the WRP outlined above have been considered and assessed within the assessment of environmental effects carried out within section 6.1 of this report. This assessment has determined that based on the implementation of best practice erosion and sediment controls and dust management, the proposed activities will not result in any adverse environmental effects which are more than minor. In this respect it is considered that the proposed activities will not compromise values associated with water resources and air quality or result in accelerated erosion as outlined within the above objectives and policies and thus the proposed activities are considered to be consistent with the provisions of the Waikato Regional Plan.

6.2.7 Healthy Rivers/Wai Ora: Proposed Waikato Regional Plan Change 1

Waikato Regional Plan Proposed Plan Change 1 (PPC1) is applicable to the Waikato and Waipa River catchments and gives effect to the National Policy Statement on Freshwater Management (NPS-FM) and the Vision and Strategy. The purpose of the proposed plan change is to reduce point source and non-point sources of contaminants – nitrogen, phosphorus, sediment and bacteria - entering waterbodies (including groundwater) within the Waikato and Waipa River catchments.

The “Decisions version” of PC1 was formally notified on 22/4/2020 and must be given regard to. The objectives and policies of PC1 are unlikely to be in conflict with relevant policies and objectives of the existing WRP. As such, the policies and objectives should be given “considerable” (but not “full”) weight.

The activities are within the Waikato River catchment and have been considered against the relevant objectives and policies of Healthy Rivers. Based upon the implementation of the proposed best practice avoidance and mitigation methodologies, the earthworks and stormwater activities are considered to be consistent with these preliminary provisions.

6.3 Other Matters

Waikato-Tainui Environmental Plan

The Waikato-Tainui Environmental Plan provides a background to, and identifies key, resource based issues for Waikato-Tainui. The plan sets out Waikato-Tainui’s vision statement for environmental and heritage issues and key strategic objectives such as tribal identity and integrity, including “to grow our tribal estate and manage our natural resources.” The plan is designed to enhance Waikato-Tainui participation in resource and environmental management.

I have assessed this proposal against the objectives and outcomes within this plan and overall I consider that the proposal is consistent with this Iwi Environmental Plan.

Maniapoto Environmental Management Plan

The Maniapoto Environmental Management Plan (Ko tā Maniapoto Mahere Taiao) provides a background to, and identifies key, resource based issues for the Maniapoto Whanui. The plan sets out Maniapoto Whanui’s vision statement for environmental and heritage issues within their rohe (area). Detailed within the plan are central principles to achieve Maniapoto Whanui vision and goals.

I have assessed this proposal against the objectives and outcomes within this plan and overall, I consider that the proposal is consistent with this Iwi Environmental Plan. This conclusion is based on the level of engagement of the Applicant with the Nehenehenui Regional Management Committee (NRMC) of the Maniapoto Māori Trust Board, the construction methodology, and ultimately the overall environmental outcomes of the proposal.

6.4 Customary activities

There are no customary activities relevant to this consent process.

7 Relevant Part 2 Considerations

All considerations are subject to Part 2 of the RMA, which sets out the purpose and principles that guide this legislation. This means the matters in Part 2 prevail over other provisions of the RMA or provisions in planning instruments (e.g. regional plans) in the event of a conflict. Section 5 states the purpose of the RMA and sections 6, 7 and 8 are principles intended to provide additional guidance as to the way in which the purpose is to be achieved.

The application of Section 5 involves an overall broad judgement of whether a proposal will promote the sustainable management of natural and physical resources. The RMA's use of the terms "*use, development and protection*" are a general indication that all resources are to be managed in a sustainable way, or at a rate which enables people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety. The enabling and management functions found in section 5(2) should be considered of equal importance and taken as a whole.

Sections 6, 7 and 8 of the RMA provide further context and guidance meaning to the constraints found in section 5(2)(a),(b) and (c). The commencing words to these sections differ, thereby laying down the relative weight to be given to each section.

Section 6 of the RMA sets out the matters of national importance which need to be recognised and provided for and includes among other things and in no order of priority, the protection of outstanding natural features and landscapes, the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna, and the protection of historic heritage.

Section 7 of the RMA requires the consent authority to give particular regard to those matters listed in the section. Section 7 matters are not expressly ranked in order of priority. Therefore, all aspects of this section are to be considered equally.

Section 8 of the RMA requires the consent authority to take into account the principles of the Treaty of Waitangi. This section of the RMA recognises the relationship of Tangata Whenua with natural and physical resources and encourages active participation and consultation with Tangata Whenua.

These purposes and principles outlined within part 2 of the RMA have been considered within the assessment section of this report and it is considered that based on proposed environmental management procedures proposed by the Applicant and required through consent conditions, the proposed activities are consistent with Part 2 of the RMA.

8 Discussion/Conclusions

Wainui Environmental Ltd has made application for resource consent on behalf of Sanderson Group Ltd & Kotare Properties Ltd (the joint applicants) to authorise earthworks activities and stormwater diversion and discharge associated with the development of a joint residential subdivision and retirement village at 52 Frontier Road, Te Awamutu.

The main potential adverse environmental effects associated with the proposed works are considered to be:

- Water quality effects from sediment discharges during earthworks;

- Effects of dust discharges;
- Ecological effects;
- Exotic weed invasion;
- Cultural and archaeological effects; and
- Catchment hydrology and water quality/quantity effects from stormwater discharges post development.

However, for the reasons outlined in section 6.1 of this report, I am satisfied that these adverse effects can be avoided, remedied or mitigated such that the adverse environmental effects associated with the works are likely to be minor.

The overall proposal has been assessed in respect to its consistency with the objectives and policies of the Regional Council's policies and plans, and the statutory provisions of the RMA. It has further been considered in accordance with section 104B of the RMA which has regard to the determination of applications for discretionary or non-complying activities. Provided the activities are undertaken in accordance with the application for consent and subsequent supporting documentation, and the recommended consent conditions in the attached Resource Consent Certificate, I consider that they will not be inconsistent with Council's policy and plans, or the statutory provisions of the RMA.

For these reasons I recommend that consent be granted subject to the consent conditions in the attached Resource Consent Certificates.

- Resource Consent AUTH142118.01.01 – 5 years (Earthworks); and
- Resource Consent AUTH142118.02.01 – 35 years (Stormwater Discharge)

The following considerations have been taken into account in recommending these terms:

- The temporary nature of the soil and bed disturbance activities;
- The stormwater diversion and discharge is designed to be permanent;
- The design of the stormwater management system (wetland pond, treatment swale);
- The various proposed mitigation measures and ongoing monitoring requirements;
- The actual and potential adverse effects of the proposed activities on the environment;
- Consistency with Regional Council policies, objectives and plans;
- Consistency with the purpose and principals of the RMA; and
- Waikato Regional Council's internal guidelines for consent duration.

9 Monitoring

Waikato Regional Council has a statutory obligation under section 35 of the RMA to monitor the effects of resource consents being exercised in its region. The actual and reasonable costs incurred by Waikato Regional Council when undertaking this monitoring will be recovered from the consent holder. It should be noted that if a condition(s) of consent is not complied with, the activity may receive an elevated level of monitoring until Waikato Regional Council is satisfied that the consent is being exercised in accordance with consent conditions.

- With regard to the soil and bed disturbance activities, it is recommended that the applicant ensures that all erosion and sediment controls at the site are regularly inspected and in good working order prior to, and immediately after rain events, and that these controls are maintained to achieve optimal sediment capture efficiency at all times.
- It is recommended that the consent holder undertakes regular monitoring and maintenance of the stormwater system (inclusive of all stormwater management devices, and in particular the

treatment swale, wetland and for any downstream channel erosion) to ensure optimum stormwater treatment is achieved at all times.

- With respect to the wetland and swale, it is recommended that ongoing maintenance of planted areas is undertaken to ensure plants become well established and replaced when needed.
- With regard to the stormwater outfall structure, it is recommended that the consent holder undertakes regular monitoring and maintenance of this structure to ensure that it is kept clear of debris blockages, erosion and scour effects are mitigated, and the riparian planting is established and replaced if needed.

The actual and reasonable costs incurred by Waikato Regional Council when undertaking this monitoring will be recovered from the consent holder.

10 Recommended Decision

I recommend that in accordance with s104B resource consents AUTH142118.01.01 and AUTH142118.2.01 be granted in accordance with the duration and conditions prescribed in the attached Resource Consent Certificates for the following reasons:

- The activities will have no more than minor actual or potential adverse effects on the environment
- The activities are not contrary to any relevant plans or policies
- The activities are consistent with the purpose and principles of the Resource Management Act 1991



Brian Richmond
Resource Officer - Infrastructure
Resource Use Directorate

Date: 23 September 2020

11 Decision

That the resource consent applications are granted in accordance with the above recommendations.



Hugh Keane
Team Leader - Infrastructure
Resource Use Directorate

Date: 24 September 2020

RESOURCE CONSENT CERTIFICATE

Resource Consent: AUTH142118.01.01

File Number: 61 76 45A

*Pursuant to the Resource Management Act 1991, the
Regional Council hereby grants consent to:*

Sanderson Group Limited & Kotare Properties Limited
75 Elizabeth Street
Tauranga 3110

(hereinafter referred to as the Consent Holder)

Consent Type: Land Use Consent

Consent Subtype: Land - disturbance

Activity authorised: To undertake Earthworks in association with a joint retirement village/residential subdivision development

Location: 52 Frontier Road, Te Awamutu

Map reference: NZTM 1801366.0000 E 5790395.0000 N

Consent duration: This consent will commence on the date of decision notification and will expire on 30 April 2025.

Subject to the conditions overleaf:

CONDITIONS

General

1. The soil disturbance activities authorised by this resource consent shall be undertaken in general accordance with the application for this resource consent (WRC doc ref# **16989874**), titled **'Sanderson Group Ltd & Kotare Properties Ltd – Resource Consent Application to Waikato Regional Council to Undertake Earthworks and Discharge Stormwater – Frontier Road, Te Awamutu**, dated 1 August 2020, prepared by Wainui Environmental Ltd and in particular the **'Preliminary Erosion and Sediment Control Plan'** in Appendix C of the application, and all other subsequent supporting documentation submitted, except where otherwise required in the resource consent conditions below. Where there is any discrepancy between the application documents and the resource consent conditions then the conditions below shall prevail.
2. The consent holder shall appoint a representative(s) prior to commencement of any works authorised by this resource consent, who shall be the Waikato Regional Council's principal contact person in regard to matters relating to this consent. The consent holder shall inform the Waikato Regional Council of the representative's name and how they can be contacted prior to this consent being exercised. Should that person(s) change during the term of this resource consent, the consent holder shall immediately inform the Waikato Regional Council and shall also give written notice to the Waikato Regional Council of the new representatives name and how they can be contacted.
3. The consent holder shall be responsible for all contracted operations relating to the exercise of this resource consent, and shall ensure contractors are made aware of the conditions of this consent and ensure compliance with those conditions.
4. A copy of this resource consent shall be kept onsite at all times that the works authorised by this consent are being undertaken, and shall be produced without unreasonable delay upon request from a servant or agent of the Waikato Regional Council.

Winter Works

5. The works authorised by this resource consent shall not be carried out during the winter period 1st May to 30th September inclusive in any year that this consent is current unless authorised by the Waikato Regional Council as per condition 7.
6. The consent holder shall ensure that the site is appropriately stabilised by 30 April of each year unless otherwise approved in writing by the Waikato Regional Council. Stabilisation shall be undertaken by providing adequate measures (vegetative and/or structural and including, pavement, metalling, hydroseeding, revegetating and mulching) that will minimise erosion of exposed soil to the extent practicable.
7. Requests to undertake works during the period 1st May to 30th September inclusive shall be submitted in writing to the Waikato Regional Council by 1st April, and shall be in the form of amendments to the approved Earthworks and Sediment Control Plan.

Advice Note: *In considering a request for the continuation of winter works, the Waikato Regional Council will consider a number of factors; including:*

- *the nature of the site and the winter soil disturbance works proposed;*
- *the quality of the existing/proposed erosion and sediment controls;*
- *the compliance history of the site/operator;*
- *seasonal/local soil and weather conditions;*

- *sensitivity of the receiving environment; and*
- *any other relevant factor.*

Pre-works Requirements

8. The consent holder shall inform the Waikato Regional Council in writing, at least 10 working days prior to commencement of any works, of the start date of the works authorised by this resource consent.
9. The consent holder shall arrange and conduct a pre-construction site meeting and invite, with a minimum of 10 working days notice, the Waikato Regional Council, the site representative nominated under condition 2 of this consent, the contractor, and any other party representing the consent holder prior to any works authorised by this consent commencing on the site.

Advice Note: *In the case that any of the invited parties, other than the site representative does not attend this meeting, the consent holder will have complied with this condition, provided the invitation requirements are met.*

Erosion and Sediment Control

10. The consent holder shall provide the Waikato Regional Council with an updated '***Erosion and Sediment Control Plan***' (ESCP), at least 10 working days prior to the commencement of each stage of earthworks for the activities authorised by this consent. The objective of the ESCP shall be to minimise sediment discharge from the site to the extent practicable over the earthworks period.
11. The ESCP shall as a minimum be based upon and incorporate those specific principles and practices which are appropriate for the activity authorised by this consent and contained within the Waikato Regional Council document titled "Erosion and Sediment Control – Guidelines for Soil Disturbing Activities" (Technical Report No. 2009/02 – dated January 2009), and shall include at least the following;
 - a. Details of all principles, procedures and practices that will be implemented to undertake erosion and sediment control to minimise the potential for sediment discharge from the site;
 - b. Detailed design methodology for the dewatering of the wetland and artificial drains along the boundary of the wetland;
 - c. The design criteria and dimensions of all key erosion and sediment control structures;
 - d. A site plan of a suitable scale to identify;
 - i. The locations of waterways;
 - ii. The extent of soil disturbance and vegetation removal;
 - iii. Any "no go" and/or buffer areas to be maintained undisturbed adjacent to watercourses;
 - iv. Areas of cut and fill;
 - v. Locations of topsoil stockpiles;
 - vi. All key erosion and sediment control structures;
 - vii. The boundaries and area of catchments contributing to all stormwater impoundment structures;
 - viii. The locations of all specific points of discharge to the environment; and
 - ix. Any other relevant site information.
 - e. Construction timetable for the erosion and sediment control works and the bulk earthworks proposed;
 - f. Timetable and nature of progressive site rehabilitation and re-vegetation

- proposed;
- g. Maintenance, monitoring and reporting procedures;
- h. Rainfall response and contingency measures including procedures to minimise adverse effects in the event of extreme rainfall events and/or the failure of any key erosion and sediment control structures;
- i. Procedures and timing for review and/or amendment to the ESCP; and
- j. Identification and contact details of personnel responsible for the operation and maintenance of all key erosion and sediment control structures.

The ESCP shall be approved in writing by the Waikato Regional Council acting in a technical certification capacity prior to any works authorised by this consent commencing and the consent holder shall undertake all earthworks authorised by this consent in accordance with the approved ESCP.

12. The consent holder shall ensure that a copy of the approved ESCP, including any approved amendments, is kept onsite and this copy is updated within 5 working days of any amendments being approved.
13. Any changes proposed to the approved ESCP shall be confirmed in writing by the consent holder following consultation with the Waikato Regional Council, and approved in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of the changes proposed.
14. Prior to bulk earthworks commencing on any area, the consent holder shall submit to the Waikato Regional Council a certificate signed by an appropriately qualified and experienced engineer to certify that the erosion and sediment controls have been constructed in accordance with the approved erosion and sediment control plans and in accordance with the document titled "*Erosion and Sediment Control Guidelines for Soil Disturbing Activities January 2009*". Certified controls shall include the sediment retention ponds, decanting earth bunds, silt fences and diversion channels/bunds. The certification for these measures shall be supplied within 5 working days of completion of construction of those measures.

Information supplied if applicable shall include:

- a. Contributing catchment area; and
- b. Retention volume of structure (dead storage and live storage measured to the top of the primary spillway); and
- c. Shape and dimensions of structure; and
- d. Position of inlets/outlets; and
- e. Stabilisation of the structure; and
- f. Compliance with the Waikato Regional Council document titled "*Erosion and Sediment Control Guidelines for Soil Disturbing Activities January 2009*" (Technical Report No. 2009/02); and
- g. Compliance with any relevant conditions of this consent.

Advice Note: *An example template and the information required for the As Built Certification Statements can be found on the Waikato Regional Council website www.waikatoregion.govt.nz/earthworks.*

15. The consent holder shall ensure that all sediment laden run-off from the site is treated by sediment retention structures. These structures are to be fully operational before bulk earthworks commence and shall be maintained to perform at least at 80% of their full operational capacity.

16. The consent holder shall ensure that all clean water run-off from stabilised surfaces including catchment areas above and around the site shall be diverted away from the earthworks area via a stabilised diversion system.
17. The consent holder shall ensure that all runoff diversion systems are designed and installed to convey flows from contributing catchment areas up to the 20% AEP rainfall event without overtopping and shall also ensure that these systems incorporate adequate protection against erosion.
18. The consent holder shall ensure that all erosion and sediment controls are inspected and in good working order prior to, and immediately after rain events. The consent holder shall further ensure that all erosion and sediment controls are maintained such that optimal sediment capture efficiency is achieved at all times.
19. The erosion and sediment controls specified in the ESCP shall not be disestablished without the prior written approval of the Waikato Regional Council, acting in a technical certification capacity.

Importation of Cleanfill

20. The consent holder shall ensure that any importation of cleanfill from off-site must meet the definition of cleanfill as defined by the Waikato Regional Plan. Cleanfill, deposition authorised by this consent shall exclude:
 - a. material that has combustible, putrescible or degradable components;
 - b. materials likely to create leachate by means of biological or chemical breakdown;
 - c. any products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices;
 - d. materials such as medical and veterinary waste, asbestos, or radioactive substances that may present a risk to human health; and
 - e. soils or other materials contaminated with hazardous substances or pathogens

Flocculation

21. Prior to bulk earthworks commencing, the consent holder shall undertake flocculant bench testing to determine the reactivity of soils to chemical treatment within those areas of the site where runoff is proposed to be treated by sediment retention ponds or decanting earth bunds.
22. If the bench testing required in condition 21 above determines that the soils are conducive for the use of flocculant, the consent holder shall incorporate a suitable rain activated dosing system unless otherwise agreed to by the Waikato Regional Council.
23. Prior to the commissioning of any flocculation treatment system, the consent holder shall provide the Waikato Regional Council with a Flocculation Management Plan (FMP), for the written approval of the Waikato Regional Council. The FMP shall include as a minimum:
 - a. Specific design details for the flocculation system;
 - b. Monitoring, maintenance (including posts-storm) and including a record system;
 - c. Details of optimum dosage (including assumptions);
 - d. Results of any initial flocculation trial;
 - e. A spill contingency plan; and
 - f. Contact details of the persons responsible for the operation and maintenance of the flocculation treatment system and the organisational structure to which this person shall report.

24. The FMP required by condition 23 shall be approved in writing by the Waikato Regional Council acting in a technical certification capacity prior to any works authorised by this consent commencing.
25. Any changes proposed to the FMP required by condition 23 shall be confirmed in writing by the consent holder and approved in writing by the Waikato Regional Council acting in a technical certification capacity, prior to the implementation of any changes proposed.

Machinery

26. All earthmoving machinery, pumps and generators shall be operated in a manner which ensures that spillages of fuel, oil and similar contaminants are prevented, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities shall be carried out away from any surface water such that any spillage can be contained and does not enter any surface water.
27. The consent holder shall ensure that all machinery used in the exercising of this consent is cleaned prior to being transported to the site to ensure that all seed and/or plant matter has been removed and documented in accordance with the WRC document titled 'KEEP IT CLEAN' – Machinery hygiene guidelines and logbook to prevent the spread of pests and weeds (June 2013)'.

Monitoring and Maintenance

28. The consent holder shall ensure that the erosion and sediment controls at the site are inspected a minimum of once per week and within 24 hours of each rainstorm event that is likely to impair the function or performance of the controls.
29. The consent holder shall carry out monitoring and maintenance of erosion and sediment controls in accordance with the conditions of this consent and shall maintain records detailing;
 - a. The date, time and results of the monitoring undertaken; and
 - b. The erosion and sediment controls that required maintenance; and
 - c. The time when the maintenance was undertaken; and
 - d. The type of maintenance carried out.

These records shall be provided to the Waikato Regional Council on request.

Sampling

30. If requested in writing by the Waikato Regional Council the consent holder shall take samples of the discharges from all sediment retention ponds on the site a minimum of once per month and after all rainfall events greater than 20 millimetres in the preceding 24 hours, excepting times when there are no discharges. The consent holder shall take the samples within four hours of becoming aware of a rainfall event greater than 20 millimetres in the preceding 24 hours.

Advice Note: *The purpose of this condition is to provide an opportunity for pond discharge sampling to be required if either flocculants are being used due to potential overdosing pH/Al issues, or where the discharge from a pond is not acceptable and actions are required (potentially including the use of flocculants) to resolve that situation.*

31. Within one working day of taking any samples required, the consent holder shall have those samples analysed for suspended solids and turbidity and (if flocculants are being used to treat

any sediment retention pond) pH, and soluble aluminium. The results of the analysis shall be forwarded to the Waikato Regional Council within 7 days of analysis.

32. The consent holder shall ensure that the soluble aluminium concentration of any discharge from a sediment retention pond flocculated in accordance with a Flocculation Management Plan approved in accordance with condition 23, shall not exceed 0.2 grams per cubic metre.
33. The consent holder shall ensure that the pH of any discharge from a sediment retention pond flocculated in accordance with a Flocculation Management Plan approved in accordance with condition 23, shall not be less than 5.5 or greater than 8.5 pH units.
34. Any sampling required by this resource consent, the frequency of sampling, analyses and reporting may be altered or reduced with the written agreement of the Waikato Regional Council.

Discharges

35. The concentration of suspended solids in the downstream farm drain or any other downstream water body shall not exceed 150 grams per cubic metre suspended solids concentration as a result of the exercise of this consent. This standard shall apply, except where the suspended solids concentration in the named water body, unaffected by the activity, is greater than the standard specified. When the concentration of suspended solids in the named water body, unaffected by the activity, exceeds 150 grams per cubic metre then there shall not be any increase in the suspended solids concentration in the named water body as a result of activities authorised by this consent.

Advice Note: *When assessing compliance with this condition a minimum of three water samples should be collected: (a) upstream and unaffected by the activities authorised by this consent; (b) the point source discharge from the activities authorised by this consent; and (c) downstream after reasonable mixing.*

Archaeological

36. The consent holder shall ensure that the exercise of this resource consent does not disturb any sites of archaeological value or of cultural significance to Tangata Whenua. In the event of any archaeological artefacts being discovered the works shall, in the vicinity of the discovery, cease immediately and the Waikato Regional Council, Heritage New Zealand and representatives of local iwi (where artefacts are of maori origin) shall be notified within 24 hours. Works may recommence on the written approval of the Waikato Regional Council after considering:
 - a. Tangata Whenua interests and values;
 - b. Protocols agreed upon by Tangata Whenua and the consent holder;
 - c. The consent holders interests;
 - d. Any Heritage New Zealand authorisations; and
 - e. Any archaeological or scientific evidence.

Stabilisation/Rehabilitation

37. All construction entranceways to the site shall be stabilised with aggregate or similar non-erosive cover to the satisfaction of the Waikato Regional Council.
38. The site shall be stabilised against erosion as soon as practicable and in a progressive manner as earthworks are finished over various areas of the site. The consent holder shall monitor and maintain the site until vegetation is established to such an extent that it prevents erosion and

prevents sediment from entering any watercourse.

39. The discharge of untreated surface runoff from any area where soil has been disturbed as a result of the exercise of this resource consent shall only occur after consultation and the prior written approval of the Waikato Regional Council acting in a technical certification capacity. In this regard, the main issues that will be considered by the Waikato Regional Council include:
 - a. The quality of the stabilisation and/or covering vegetation;
 - b. The quality of the water discharged from the rehabilitated land; and
 - c. The quality of the receiving water.
40. If so required by the Waikato Regional Council, the consent holder shall carry out immediate stabilisation of any required area of exposed earthworks surfaces on site using straw mulching, pinned geotextile or similar instant stabilisation techniques to the satisfaction of the Waikato Regional Council.

Dust

41. All earthworks activities carried out on site shall be conducted and managed in such a manner as to ensure that all dust and particulate emissions are kept to a practical minimum to the extent that there are no dust discharges beyond the boundary of the site that cause an objectionable effect.
42. The consent holder shall ensure that, at all times, the soil moisture of exposed areas is maintained at sufficient levels, under prevailing wind conditions, to prevent dust generated by normal earthmoving operations from remaining airborne beyond the boundary of the work site.
43. The consent holder shall ensure that, outside of normal working hours, staff are available on-call at all times to operate the water application systems for dust suppression in accordance with the Dust Management Plan approved through condition 45.
44. If so required by the Waikato Regional Council, the consent holder carry out immediate sealing of any problematic dust generating surfaces within the site using hydro-seed/hydro-mulch, polymer soil stabilisers or a similar dust control product to provide instant remediation of dust effects to the satisfaction of the Waikato Regional Council.
45. The consent holder shall provide the Waikato Regional Council with a detailed **Dust Management Plan** (DMP), at least 10 working days prior to the commencement of activities authorised by this consent. The objective of the DMP shall be to outline the site management methods to ensure that compliance with conditions 41 to 44 is achieved throughout the earthworks and as a minimum shall address the following items:
 - a) Confirmation of the parties responsible for dust management throughout the works;
 - b) Detailed monitoring methods for weather/soil conditions to ensure that any periods of elevated dust risk are appropriately anticipated and managed;
 - c) Detailed staging plan for each season of earthworks to ensure that exposed surfaces at any one time are minimised in accordance with the requirements of this consent;
 - d) Proposed dust control methods to ensure damp ground conditions can be maintained within the site during high dust risk periods;
 - e) Confirmation of the required water supply volumes for dust control purposes for each stage of works and the provision of an appropriate supply source for the site;
 - f) Methods for managing dust risk outside of standard working hours e.g weekends;
 - g) Contingency methods for controlling any identified dust effects e.g cease works/site

- stabilisation; and
- h) Protocols for responding to and addressing any complaints received from neighbours.

The DMP shall be approved in writing by the Waikato Regional Council acting in a technical certification capacity prior to any works authorised by this consent commencing and the consent holder shall undertake all earthworks authorised by this consent in accordance with the approved DMP.

Administrative

46. The consent holder shall pay the Waikato Regional Council any administrative charge fixed in accordance with section 36 of the Resource Management Act (1991), or any charge prescribed in accordance with regulations made under section 360 of the Resource Management Act (1991).

In terms of s116 of the Resource Management Act 1991, this consent commences on 24 September 2020

Advice Notes - General

1. This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
2. This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
3. The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
4. The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
5. Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
6. If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.

RESOURCE CONSENT CERTIFICATE

Resource Consent: AUTH142118.02.01

File Number: 61 76 45A

*Pursuant to the Resource Management Act 1991, the
Regional Council hereby grants consent to:*

Sanderson Group Limited & Kotare Properties Limited
75 Elizabeth Street
Tauranga 3110

(hereinafter referred to as the Consent Holder)

Consent Type: Discharge Permit

Consent Subtype: Water - stormwater

Activity authorised: To divert and discharge stormwater in association with a residential subdivision and retirement village development

Location: 52 Frontier Road, Te Awamutu

Map reference: NZTM 1801366.0000 E 5790395.0000 N

Consent duration: This consent will commence on the date of decision notification and will expire on 15 September 2055

Subject to the conditions overleaf:

CONDITIONS

General

1. The stormwater diversion and discharge activities authorised by this resource consent shall be undertaken in accordance with the application for this resource consent (WRC doc ref# **16989874**), titled '**Sanderson Group Ltd & Kotare Properties Ltd – Resource Consent Application to Waikato Regional Council to Undertake Earthworks and Discharge Stormwater – Frontier Road, Te Awamutu**, dated 1 August 2020, prepared by Wainui Environmental Ltd and in particular the '**Stormwater Management Plan**' in Appendix D of the application,, and all other subsequent supporting documentation submitted, except where otherwise required in the resource consent conditions below. Where there is any discrepancy between the application documents and the resource consent conditions, the conditions below shall prevail.
2. The stormwater diversion and discharge activities authorised by this resource consent relates to the Te Awamutu Country Club & Kotare Properties Ltd residential development 'stormwater network' which includes, but is not necessarily limited to, the stormwater wetland, swale, stormwater inlet and outlet structures, and overland flow paths (as described in the, '**Stormwater Management Plan**', Appendix D of the application).
3. The consent holder shall be responsible for the design, structural integrity and maintenance of the stormwater network so that it continues to perform in accordance with the application and consent to avoid, remedy or mitigate any actual or potential adverse effects of the stormwater diversion and discharge activities authorised by this resource consent on the downstream watercourses.
4. The consent holder shall appoint a representative, who shall be the Waikato Regional Council's principal contact person in regard to matters relating to this resource consent. The consent holder shall inform the Waikato Regional Council of the representative's name and how they can be contacted. Should that person change during the term of this resource consent, the consent holder shall give written notice to the Waikato Regional Council of the new representative's name and how they can be contacted.
5. The consent holder shall be responsible for all contracted operations related to the exercise of this resource consent, and must ensure contractors are made aware of the conditions of this resource consent and ensure compliance with those conditions.
6. The consent holder shall not undertake any changes to the stormwater network which would increase the scale or intensity of the actual and potential adverse effects of the stormwater diversion and discharge activities authorised by this consent on the environment.

Detailed Engineering Design

7. The consent holder shall retain an appropriately qualified and experienced person to complete and finalise the detailed design for the stormwater management system for the development catchment. More specifically, the consent holder shall submit a report(s) summarising the detailed design and plans for the development catchment which confirms provision of the following stormwater management functions of the various components of the stormwater system in accordance with the **Stormwater Management Plan** and Waikato Regional Council's Stormwater Management Guideline (WRC Technical Report 2020/07):
 - a. Stormwater wetland;

- b. Planted treatment swale;
- c. Stormwater reticulation network including all catchpits, pipelines and overland flowpaths; and
- d. Discharge outlet structures.

The detailed engineering design and drawings shall be to a standard acceptable to the Waikato Regional Council and shall be submitted to the Waikato Regional Council for written approval in a technical certification capacity, prior to construction of the permanent stormwater network for each development stage within the catchment.

Stormwater Operations and Maintenance Plan

8. The consent holder shall retain an appropriately qualified and experienced person to prepare a **'Stormwater Operations and Maintenance Plan'** for the stormwater network inclusive of all stormwater management devices, and in particular the stormwater wetland, swale and inlet/outlet structures. The **'Stormwater Operations and Maintenance Plan'** shall be developed in general accordance with Waikato Regional Council's Stormwater Management Guideline (WRC Technical Report 2020/07). The **'Stormwater Operations and Maintenance Plan'** shall provide for all operational, maintenance, planting and monitoring measures associated with the stormwater discharge activity authorised by this resource consent and may include but not be limited to:
 - a. A programme for regular monitoring and inspection of the stormwater management system, in particular any potential scour and erosion effects downstream of the stormwater wetland outlet structure and planted swale (Reach 1) including details of monitoring and inspection frequency;
 - b. A programme for the regular collection and disposal of debris and sediment collected by the stormwater management devices to ensure that attenuation volumes are not compromised and that appropriate contaminant removal procedures are established;
 - c. Inspection checklists for all aspects of the stormwater management system including monitoring and management of the wetland, swale and overland flowpaths and stormwater inlet/outlet structures;
 - d. Details of who will be responsible for the operation and maintenance works;
 - e. Details of recording and reporting of operation and maintenance activities.

The **'Stormwater Operations and Maintenance Plan'** shall be approved by Waikato Regional Council acting in a technical certification capacity prior to the completion of the stormwater infrastructure and it becoming operational.

9. The consent holder shall implement the operations, monitoring, and maintenance activities adopted by the **'Stormwater Operations and Maintenance Plan'**, in accordance with that plan and as required by Condition 8 of this resource consent.
10. The **'Stormwater Operations and Maintenance Plan'** shall be reviewable at any time by the Waikato Regional Council, or at the written request of the consent holder, or at any time a significant adverse effect has arisen. Any proposed changes to the **'Stormwater Operations and Maintenance Plan'** shall be subject to the written approval of the Waikato Regional Council acting in a technical certification capacity.

Stormwater Treatment Planting Management Plan

11. The consent holder shall retain an appropriately qualified and experienced person to prepare a **'Stormwater Treatment Management Planting Plan'** for the stormwater wetland and planted swale. The Plan shall be developed in general accordance with Waikato Regional Council's Stormwater Management Guideline (WRC Technical Report 2020/07). The Plan shall be to a standard acceptable to the Waikato Regional Council and shall be submitted to the Waikato Regional Council for written approval in a technical certification capacity, prior to commencement of the activities authorised by this resource consent. The Plan shall include but not be limited to:
 - a. Site plantings including species to be planted, size of plants, and where they are to be planted;
 - b. Site preparation for planting including weed and pest control;
 - c. Timeline for planting;
 - d. Ongoing weed and pest control;
 - e. Supplementary/replacement planting plan specifications;
 - f. Timing of monitoring, maintenance and inspections; and

12. The consent holder shall implement the planting, monitoring and maintenance activities adopted by the **'Wetland Planting Plan'**, in accordance with that plan and as required by Condition 11 of this resource consent.

As Built Certification Statements

13. The consent holder shall retain an appropriately qualified and experienced person to prepare and sign 'As Built Certification Statements', which certify that the stormwater management system including wetland, swale and outlet structure have been constructed in accordance with the approved detailed engineering design details and drawings required by Condition 7 of this resource consent. The 'As Built Certification Statements' shall be submitted to the Waikato Regional Council within 3 months of completion of the final construction works associated with the stormwater management devices.

Stormwater Quantity and Receiving Environment

14. The consent holder shall manage the stormwater network to avoid the following stormwater quantity effects:
 - a. Adverse scour, erosion and sediment deposition on land, property and the beds of stormwater receiving water bodies.
 - b. Adverse flooding of land, property and stormwater receiving water bodies;
 - c. Adverse effects on aquatic ecosystems.

All such adverse effects that are more than minor shall be addressed in the manner provided for in Condition 15 hereof, where they have been caused by the stormwater diversion and discharge activities authorised by this consent.

Advice Note: *Stormwater diversion and discharge activities in conjunction with urban land-use, can adversely affect flood potential by either limiting the rate at which stormwater drains from a catchment, or by increasing the rate and volume of discharge to downstream catchments. Whilst such effects are the subject of this consent, it is also recognised that 'levels of service' for*

flood alleviation in urban catchments are established by territorial authorities through separate statutory procedures and community consultation. The 'levels of service' that are established between the territorial authority and the community are not the subject of this resource consent.

15. As soon as practicable after becoming aware of any of the adverse effects of the nature specified in Condition 14 that are more than minor, the consent holder shall submit a report to the Waikato Regional Council in relation to the adverse effects. As a minimum, the report shall include:
 - a. A description of the adverse effects;
 - b. A description of the cause of the adverse effects;
 - c. An explanation of any measures taken to remedy or mitigate the adverse effects, the outcome of those measures, and whether further measures are necessary and reasonably practicable;
 - d. If no measures have been taken in accordance with (c), a description of any reasonably practicable measures that could be taken to remedy or mitigate the adverse effects and a recommendation as to whether those measures are necessary.

The consent holder shall liaise with the Waikato Regional Council with a view to determining any reasonably practicable measures which should be taken to remedy or mitigate the adverse effects.

Advice Note: *Separate resource consents may be required to undertake remedial or mitigation works. The consent holder is advised to obtain all such consents at its sole expense, prior to any works being undertaken.*

Stormwater Quality and Receiving Environment

16. The consent holder shall manage the stormwater network to avoid the discharge of any substance that is likely to cause the production of conspicuous oil, or grease films, scums or foams, or floatable suspended materials in stormwater receiving water bodies after reasonable mixing.
17. The consent holder shall manage the stormwater network to avoid as far as practicable and otherwise minimise, the discharge of suspended solids and any other substances that are likely to cause the following effects in stormwater receiving water bodies after reasonable mixing:
 - a. Conspicuous changes in colour or visual clarity;
 - b. Increases in suspended solids concentrations by more than 10 percent;
 - c. 100 grams per cubic metre suspended solids concentrations or greater.

Advice Note: *For the purposes of this condition, the suspended solids discharge parameters referenced above shall only apply to the post development stormwater discharges authorised by this resource consent and do not apply to the earthworks activities which are authorised under a separate land disturbance resource consent.*

18. The consent holder shall manage the stormwater network to avoid as far as practicable and otherwise minimise, the discharge of hazardous substances in concentrations that are likely to adversely affect aquatic life, or the suitability of water for human consumption after treatment. Where a question arises as to whether the concentration of any particular hazardous substance is causing these effects, it shall be determined through the application of the United States Environmental Protection Agency National Recommended Water Quality

Criteria (USEPA, 2009) – Criteria Maximum Concentration, or any other technical publication approved in advance by the Waikato Regional Council in a technical certification capacity.

19. The consent holder shall manage the stormwater network to avoid as far as practicable and otherwise minimise, discharges that are likely to adversely affect aquatic ecosystems and cause the following effects in the downstream farm drain after reasonable mixing:
 - a. Dissolved oxygen levels to fall below 80% of saturation;
 - b. pH to fall below 6 or exceed 9;
 - c. Suspended sediments to smother benthic organisms;
 - d. Undesirable biological growths;
 - e. Water temperature to change by more than 3 degree C or exceed 25 degree C;
 - f. Turbidity levels to exceed 25 NTU between the months of August and December;
 - g. Ammoniacal nitrogen concentrations to exceed 0.88 grams of nitrogen per cubic metre; and
 - h. Other contaminant concentrations to exceed the United States Environmental Protection Agency National Recommended Water Quality Criteria (USEPA, 2009) – Criteria Maximum Concentration.

Stormwater Treatment Devices

20. All stormwater treatment devices which form part of the stormwater network and are designed to attenuate and/or treat contaminated stormwater, shall be operated and maintained by the consent holder to provide best practicable stormwater treatment efficiency at all times.

Review Clause

21. The Waikato Regional Council may at any time two months either side of January of 2022, 2027, 2032, 2037, 2042, 2047, and 2052 serve notice on the consent holder under section 128(1) of the Resource Management Act (1991), and commence a review of the conditions of this resource consent for the following purposes:
 - a. To review the effectiveness of the conditions of this resource consent in avoiding, remedying or mitigating any adverse effects on the environment from the exercise of this resource consent, and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions;
 - b. If necessary and appropriate, to require the consent holder to adopt the Best Practicable Option or other specific measures to avoid, remedy or mitigate any adverse effects on the environment that result from the exercise of this resource consent;
 - c. To review the adequacy of and necessity for the monitoring and reporting undertaken by the consent holder, and if necessary, to amend and/or introduce new conditions to monitor any adverse effects on the environment that result from the exercise of this resource consent;

- d. To achieve consistency with any future changes to the Waikato Regional Council's plans or policies in regard to catchment management planning and stormwater management.

Costs associated with any review of the conditions of this resource consent will be recovered from the consent holder in accordance with the provisions of section 36 of the Resource Management Act (1991).

Administrative

22. The consent holder shall pay the Waikato Regional Council any administrative charge fixed in accordance with section 36 of the Resource Management Act (1991), or any charge prescribed in accordance with regulations made under section 360 of the Resource Management Act (1991).

In terms of s116 of the Resource Management Act 1991, this consent commences on 24 September 2020

Advice Notes - General

1. In accordance with section 125 RMA, this consent shall lapse five (5) years after the date on which it was granted unless it has been given effect to before the end of that period.
2. This resource consent does not give any right of access over private or public property. Arrangements for access must be made between the consent holder and the property owner.
3. This resource consent is transferable to another owner or occupier of the land concerned, upon application, on the same conditions and for the same use as originally granted (s.134-137 RMA). The transfer of water, including changes of location, may occur as provided for in Chapter 3.4 of the Waikato Regional Plan, subject to the requirements of those rules.
4. The consent holder may apply to change the conditions of the resource consent under s.127 RMA.
5. The reasonable costs incurred by Waikato Regional Council arising from supervision and monitoring of this/these consents will be charged to the consent holder. This may include but not be limited to routine inspection of the site by Waikato Regional Council officers or agents, liaison with the consent holder, responding to complaints or enquiries relating to the site, and review and assessment of compliance with the conditions of consents.
6. Note that pursuant to s332 of the RMA 1991, enforcement officers may at all reasonable times go onto the property that is the subject of this consent, for the purpose of carrying out inspections, surveys, investigations, tests, measurements or taking samples.
7. If you intend to replace this consent upon its expiry, please note that an application for a new consent made at least 6 months prior to this consent's expiry gives you the right to continue exercising this consent after it expires in the event that your application is not processed prior to this consent's expiry.