

Report for an application for resource consent under the Resource Management Act 1991



Discretionary activity

1. Application description

Application numbers:	BUN60370958 (Council Reference) WAT60370959 (s14 Water permit) LUC60370990 (s9 Land use consent)
Applicant:	Three Blokes Limited
Site address:	362 Matakana Valley Road, Matakana
Legal description:	Sec 1 SO 400726, Pt Allot 51 Psh Of Matakana SO 1044
NZTM map reference:	1737691 mE; 5977438 mN
Site area:	2.6672ha

Auckland Unitary Plan (Operative in part)

Zoning and precinct:	Rural - Rural Production Zone
Overlays, controls, special features, designations, etc:	Historic Heritage and Special Character: Historic Heritage Overlay Extent of Place [rcp/dp] - 425, Sandstone setts Controls: Macroinvertebrate Community Index - Exotic Controls: Macroinvertebrate Community Index - Urban

2. Locality Plan



Source: Auckland Council GIS

3. The proposal, site and locality description

Proposal

The applicant proposes to operate a water delivery business as a rural industry and to take 115m³/day and 25,000m³/year of water from Matakana Waitematā aquifer through an existing water bore on the site.

The water carrying business is proposed to operate from the northern side of the subject site. Tanker trucks will enter the site through a vehicle crossing to the north, then fill up from the existing bore, turn around and exit the site via the same vehicle crossing. During peak times (summer) there will be a maximum of 10 delivers per day resulting in 20 heavy vehicle movements. The potable water will be used to supply local customers in the surrounding area and stored in three existing water tanks on the site adjacent to the Mill building.

The business is proposed to operate during business hours (7am to 7pm Monday to Saturday and 9am-6pm Sundays) with truck movements typically spaced out to one truck delivery per hour.

The existing vehicle crossing proposed to be used for the water supply business is currently unsealed and does not appear to be legally established with no record of a relevant permit or licence from Auckland Transport.

The site is partially within a Historic Heritage Overlay Extent of Place however the business will not be undertaken in this overlay.

Site and surrounding environment description

Jo Taylor of Terra Nova Planning has provided a description of the proposal and subject site on pages 2-3 of the Assessment of Environmental Effects (AEE) titled: *Assessment Of Environmental Effects For A Resource Consent Application To Take Groundwater And Operate A Rural Industry At 362 Matakana Valley Road, Matakana*; Report No: 1420-1; Dated January 2021. In addition, it is noted that a market activity selling handcrafts manufactured on site is currently operating at the site and the long established sawmill which is being reduced in the scale of activity over the last number of years.

Having undertaken a site visit on 3 February 2021, I concur with that description of the proposal and the site and have no further comment.



Figure 1. View west towards the proposed site entrance.



Figure 2. View south towards Matakana Valley Road from the site entrance.



Figure 3. View north towards Matakana Valley from the site entrance.



Figure 4. View south towards the site.



Figure 5. View east towards the water tanks and where trucks will fill up.

4. Background

Specialist Input

The proposal has been reviewed and assessed by the following specialists:

- Council's Water Allocation Specialist – Stephen Crane
- Council's Development Engineer – Steve Cavanagh

Iwi Consultation

The applicant has engaged in iwi consultation through Council's facilitation service on the 26 January 2021. The spokesperson for Ngaati Whanaunga indicated an interest in the application on 26 January 2021 and Ngāti Manuhiri indicated an interest in the application on 2 February 2021. The applicant attempted to make contact with Ngaati Whanaunga to discuss further however a response was never received. Ngāti Manuhiri undertook a site visit Cultural assessment and did not raise any issues associated with the application in their Kaitiaki Report as discussed later in this report.

Consent History

Consent was granted on 16 May 2018 under LUC60311264 to allow for manufacture of handcrafts on the site. The market is not yet established however the consent includes the following:

- The market activity is to be established within two of the existing sheds located at the southern end of the site. The market is to operate from units within the two buildings, with shared lunchroom and toilet facilities for vendors.
- In addition to selling handcrafts, horticultural or agricultural products, food and beverage, the vendors will be able to manufacture handcrafts on site.
- 20 car parking spaces are being made available adjacent to Matakana Valley Road and along the southern boundary. The car park will be access over an existing access and vehicle entrance with Matakana Valley Road.
- The market will operate between the specified hours of 7am and 7pm daily.
- An extensive list of common handicraft examples found in an on-line search includes:
 - Textiles: embroidery, quilting, tapestry, weaving,
 - Woodcraft: wood-carving, wood-turning, furniture making,
 - Papercraft: paper modelling, collage, papier-Mache,
 - Pottery and glass crafts: ceramics, mosaic art, glass blowing,
 - Metalwork: jewellery-making, engraving, enamelling, gilding
 - Other: basket weaving, floral design, leatherwork, toy-making.

The Groundwater Assessment makes mention of the construction of 12 new units on the site as market stalls. As of writing this no consent for these have been lodged with consent nor granted

and the purposes of the water take as stated in the Assessment of Environment Effects the water is proposed to be used for potable drinking water delivered offsite.

Remediation on the site

The site has a history of HAIL (hazardous activity and industry) and has previously undergone remediation on the site which is summarised below:

- 1997 an investigation was undertaken by Mobil in the area of a former underground storage tank which did not uncover any hydrocarbon contamination.
- 2003 a report was produced to assess the soils around the timber treatment plan. The report confirmed the property has been impacted by copper, chromium and arsenic (CCA). The levels of arsenic in particular, in the zone south and south west of the treatment plant, were above the level to protect human health for unpaved/paved industrial/commercial sites. Arsenic at these levels were also considered to pose a risk to the adjacent stream.
- 2004 a RAP was prepared which detailed a proposal to remediate the site (to a commercial/industrial standard) and assess depth to groundwater and nature and extent of any groundwater contamination.
- In June 2005 a SVR was produced to reduce the risk to the environment from contamination by timber treatment chemicals. The remediation strategy included the excavation and removal of arsenic contaminated material from site (areas exceeding industrial/commercial guidelines) over three stages, with material removed from the site.
- In 2006 additional remediation was undertaken with a further 8.9 tonnes of material being removed from the site to a landfill. Council then concluded that the levels of contamination present on site posed no unacceptable risk for the current use and no ongoing monitoring or long-term discharge consent was required.

National environmental standard for assessing and managing contaminants in soil to protect human health (NES Soils)

Under the NES Contaminated Soils the site is considered a HAIL site due to the timber treatment history however groundwater is not identified as one of the NES activities and therefore the proposal is not subject to the NES Contaminated Soils.

Risk associated with the drinking of groundwater taken from the site are subject to the Health (Drinking Water) Act 2007 and the Drinking Water Standards for New Zealand.

Water availability

Council's Water Allocation Specialist, Stephen Crane, has summarised the background and aquifer availability in his technical memo dated 9 February 2021:

The property has historically had an active timber mill but is now host to a variety of businesses including timber milling for furniture production. The Application Report page 2 notes that "The sawmilling history has led to contamination of some of the site soils with timber treatment chemicals. Contamination assessments and remediation have been undertaken at the site

however, the reports were not all contained within the site's property file, and a complete picture of the site contamination is not readily available."

It is proposed to build up to 12 new units on the site as market stall, and landscaping will require irrigation. The water supply companies will use tanker trucks filling on site and delivering to various local customers.



Figure 6. Three Blokes Ltd property and bore ID 29798 location.

Requirements of 'The Health (Drinking Water) Amendment Act 2007'

Section 1.3 of the Groundwater Report states: "A complete analysis of water quality for aesthetic and health chemical parameters will be carried out on the production groundwater in line with health requirements for the supply of drinking water."

"'The Health (Drinking Water) Amendment Act 2007' requires that all community drinking water supplies apply to be included in the 'Register of Community drinking water supplies and suppliers in New Zealand'. The proposed take will be required to be registered in accordance with the Act. Provision of the water supply will also be covered by the Drinking Water Standards for New Zealand 2005 (Revised 2018) which specifies minimum standards for the water supply."

Provision of drinking water is regulated under Part 2A of the Health Act 1956 revised 7 August 2020 and referred to as the Health (Drinking Water) Amendment Act 2007 revised 1 April 2008. Because the water is required for commercial supply TBL is deemed a “drinking water supplier” under section 69G of the Health Act 1956, rev 2020 and is required to be registered under s69K of the Act. The supply of water is required under s69V of the Act, to comply with the Drinking Water Standards for New Zealand (2005 rev 2019).

Production bore capacity

The yield from the proposed production bore ID 29798 is addressed in section 4.1 of the Groundwater Report. A copy of the drillers log is provided in Appendix B of the Report. The bore head is at an elevation of RL 27.5m. The 100 mm diameter bore was completed in 2016 to the Matakana Waitemata Aquifer. The driller's log records a bore depth of 146 m, casing to 75 m, and an artesian static water level of +0.3m or RL 27.8m. The bore was airlifted at 14.4 m³/hour in a 6-hour test. No drawdown (or compressor drop) was recorded on the driller's log but is inferred to be 17m from the Groundwater Report. This is equivalent to a specific capacity of 0.85m³/hour/m of drawdown given in the Groundwater Report. No pumping test has been undertaken.

The driller's log recommends a pump rate of 7.2 m³/ hour for a surface pump. The drawdown would be within the operational range of a surface pump.

Based on this the existing bore will be capable of extracting the daily and annual quantity applied for (E2.3.7 (g)).

5. Reasons for the application

Land use consent (s9) – LUC60370990

Auckland Unitary Plan (Operative in part)

Rural - Rural Production Zone

- To establish a rural industry on the site is a restricted discretionary activity under rule H19.8.1 (A21).
 - Accessory buildings have the same activity status as the activity they are accessory to under rule H19.8 and therefore the three water tanks being accessory buildings, have the same activity status.

Water take permit (s14) – WAT60370959

Auckland Unitary Plan (Operative in part)

Taking, using, damming and diversion of water and drilling

- Pursuant to Rule E7.4.1 (A26), water take and use of groundwater not otherwise listed or not meeting the permitted activity or restricted discretionary controls is a **discretionary activity**.

- The proposed water take exceeds the permitted activity threshold of E7.4.1(A15) of 20m³/day and 5,000m³/year from the Matakana Waitematā aquifer. The applicant proposes a water take of 115m³/day and 25,000m³/year.

The reasons for consent are considered together as a discretionary activity overall.

6. Status of the resource consents

Where a proposal:

- consists of more than one activity specified in the plan(s); and
- involves more than one type of resource consent or requires more than one resource consent; and
- the effects of the activities overlap;

the activities may be considered together.

Where different activities within a proposal have effects which do not overlap, the activities will be considered separately.

In the instance, the effects of the proposed resource consents will overlap and thus they are considered together as a discretionary activity overall.

7. Public notification assessment (sections 95A, 95C-95D)

Section 95A specifies the steps the council is to follow to determine whether an application is to be publicly notified. These steps are addressed in the statutory order below.

Step 1: mandatory public notification in certain circumstances

No mandatory notification is required as:

- the applicant has not requested that the application is publicly notified (s95A(3)(a))
- there are no outstanding or refused requests for further information (s95C and s95A(3)(b)), and
- the application does not involve any exchange of recreation reserve land under s15AA of the Reserves Act 1977 (s95A(3)(c)).

Step 2: if not required by step 1, public notification precluded in certain circumstances

The application is not precluded from public notification as:

- the activities are not subject to a rule or national environmental standard (NES) which precludes public notification (s95A(5)(a)); and
- the application does not involve one or more of the activities specified in s95A(5)(b).

Step 3: if not precluded by step 2, public notification required in certain circumstances

The application is not required to be publicly notified as the activities are not subject to any rule or a NES that requires public notification (s95A(8)(a)).

The following assessment addresses the adverse effects of the activities on the environment, as public notification is required if the activities will have or are likely to have adverse effects on the environment that are more than minor (s95A(8)(b)).

Adverse effects assessment (sections 95A(8)(b) and 95D)

Effects that must be disregarded

Effects on persons who are owners and occupiers of the land in, on or over which the application relates, or of land adjacent to that land

The council is to disregard any effects on the persons who own or occupy the land in, on, or over which the activities will occur, and on persons who own or occupy any adjacent land (s95D(a)). The land adjacent to the subject site is listed in the following table:

Table 1

Address

2 Ward Road, Matakana (Lot 2 DP 209253)
367 Matakana Valley Road, Matakana (Lot 1 DP 356206)
365 Matakana Valley Road, Matakana (Pt Allot 57 Psh Of Matakana SO 1110)
323 Matakana Valley Road, Matakana (LOT 9 DP 512946, Allot 125 Psh Of Matakana)
338 Matakana Valley Road, Matakana (Lot 1 DP 202168)



Figure 7: Subject site (★) and adjacent properties (★)

Any effect on a person who has given written approval to the application

No persons have provided their written approval in relation to this application.

Effects that may be disregarded

Permitted baseline

The permitted baseline refers to the effects of permitted activities on the subject site. The permitted baseline may be taken into account and the council has the discretion to disregard those effects where an activity is not fanciful. In this case the permitted baseline is not considered relevant as any water take over 20m³/day and 5,000m³/year and rural industrial activities requires resource consent under the Auckland Unitary Plan (Operative in Part).

Assessment

Receiving environment

The receiving environment beyond the subject site includes permitted activities under the relevant plans, lawfully established activities (via existing use rights or resource consent), and any unimplemented resource consents that are likely to be implemented. The effects of any unimplemented consents on the subject site that are likely to be implemented (and which are not being replaced by the current proposal) also form part of this reasonably foreseeable receiving environment. This is the environment within which the adverse effects of this application must be assessed.

The subject site has a history of timber treatment and sawmill activity, and the consented handcraft market activity (LUC60311264). The surrounding area is comprised of rural and rural residential properties. The Matakana Village is located to the south and contains residential areas, a range of shops and a weekly farmers market.

Adverse effects

Rural Character and amenity

The proposal involves the collection of potable water on the site which will be transported to the surrounding area via tanker trucks. The only building or structure associated with the proposed water supply business are the three existing watertanks used to store the water accessed from the bore which are located approximately 22m from the yard boundary adjacent to the Mill Building. Watertanks are a common feature within the rural environment, will comply with the relevant yard setbacks and therefore will be consistent with the anticipated rural character. Considering the receiving environment, the scale of the activity will not adversely affect the amenity of the surrounding area. The subject site is not located within a ridgeline, coastline, natural heritage overlay or otherwise visually sensitive location and will not have adverse effects in this regard.

A sawmill has operated on the site for a number decades which has in recent years seen a significant reduce in timber sales and therefore the associated truck movements on and off the site have also reduced. Although the number of sales does not strictly correspond to a number of vehicle movements, during the peak in operation between 2007 and 2010 between 15-20 truck deliveries (30 movements on and off the site) was occurring on the site. When considering that there have been a large number of trucks entering and exiting the site, and that these have been reducing recently, the proposed 10 truck delivers (20 truck movements) on and off the site is will not appear to be out of character or significantly increase noise in the surrounding area. In additional, truck movements in the rural environment are not uncommon particularly in the context of a large scale horticultural, greenhouse operations, or dairy farming activities.

The area where trucks will fill up, being adjacent to Matakana Valley Road, enables vehicles easy access to the facilities. The area where trucks will fill up is adjacent to the site entrances which will reduce the associated noise and dust where the filling tap located further from the road.

No signage associated with the water business are proposed and therefore will not have effects in this regard.

Traffic and noise

The proposal will include a maximum of 10 deliveries resulting in 20 heavy vehicle movements on and off the site per day. The anticipated trip generation from the site is considered capable of being accommodated within the road network. Furthermore, when considering the sites history with a sawmill and associated truck movements on the site which have reduce in recent years, the additional truck movements that will be associated with the water supply business will have less than minor effects in terms of road capacity.

The proposed unsealed vehicle crossing, although not appearing to have a relevant permit or licence, meets the AUP(OP) requirements in terms or width, gradient and distance from other

crossing. The proposal will have sufficient space so that trucks can manoeuvre on-site and exit the site forward facing position.

The applicant has supplied an assessment of the access in relation to the proposed activity from Traffic Planning Consultants Ltd (TPC) which states the crossing will comply with the Austroroads Stopping Distance (SSD) for both cars and truck, Safe Intersection Sight Distance (SISD) for cars, and Minimum Gap Sight Distance (MGSD). Although the vehicle access fails to meet SISD for trucks by a distance of 6m from the north, TPC concludes that considering the observed speed of trucks along Matakana Valley Road, the SSD requirements are met, and the one-way bridge north of the access where vehicles would slow down for, the access will be safe and efficient. The vehicle assessment also recommends that the chevron curve sign which has recently been installed immediately south of the crossing, be removed as it significantly reduces sightlines and will result in vehicles having to extend closer towards the carriageway. However, the report also states the relocation is not necessary as vehicles can still exit safely in current conditions. Considering the crossing will only be used by trucks where the driver would be in an elevated position and more likely to see above the sign, it is considered that the sightlines are sufficient and will have less than minor effects on other users of the road. Council's Development Engineer, Steve Cavanagh, has reviewed the application and associated access assessment and additionally states that the vehicle crossing be formed and sealed to the commercial crossing standards to ensure safe egress onto the site reduce the likelihood of potholes being formed and metal being carried onto the carriageway.

Overall, it is considered that the existing road network can suitably accommodate the additional traffic movements associated with the proposal and the vehicle access is in a suitable location and layout which can allow for safe and efficient vehicle movements.

Mana Whenua

The site is within Ngāti Manuhiri statutory acknowledgment area. The applicant has engaged with Ngāti Manuhiri who have undertaken a site visit and Kaitiaki assessment in regard to the potential impact of wāhi tapu, spiritual values and wellbeing. Ngāti Manuhiri have confirmed in their Kaitiaki assessment dated February 2021, that they do not oppose the proposal. Therefore, the adverse effects relating to Mana Whenua values are considered to be less than minor.

Water availability and quantities requested by the applicant

Council's Water Allocation Specialist, Stephen Crane, has reviewed the application regarding Water availability and quantities requested by the applicant and has stated the following in his Technical memo dated 9 February 2021:

The Matakana Waitemata Aquifer water availability

The Matakana Waitemata Aquifer groundwater availability is described in section 1.5, and the geology and hydrogeology in Sections 2 and 3, and Fig B of the Groundwater Report.

The Matakana Waitemata Aquifer is a not High Use Aquifer Management Area in terms of chapter D1 of the Auckland Unitary Plan –Operative in part (AUP(OP)) and has no availability in terms of chapter M Appendix 3 "Aquifer water availability and levels", of the (AUP(OP)).

As shown in Fig 8 below, the Matakana Waitemata Aquifer is bounded by the Hoteo and Mahurangi Waitemata Aquifers to the west; and the Omaha Waitemata Aquifer to the east.

Recharge to the Waitemata aquifer is inferred to occur via sandstone outcrops in the hills around the valley where the aquifer is unconfined. The overlying Tauranga Group silt deposits (up to 30m thick) in the lower valley form a confining layer. Many of the Waitemata bores in the lower valley are artesian demonstrating that the aquifer is confined (pressurised).



Figure 8. Matakana Waitemata Aquifer and Three Blokes site (red dot)

The aquifer on the valley sides has a connection to surface water and the water availability value allows for discharge to stream base flow and outflow at the coast to prevent saline intrusion.

Council has calculated an availability for the aquifer. For Waitemata aquifers with surficial exposure (not overlain by other aquifers): Rainfall recharge is assumed to be 4% of total rainfall unless specific evidence is present to suggest a greater infiltration rate. Local mean annual rainfall is 1450mm/year. The aquifer area is about 73 km² including the southern part of Tawharanui Peninsula. Because the aquifer is connected to surface water, availability is 35% of the recharge or 1,341,236 m³/year.

(c) Present allocation and water use from the Matakana Waitemata Aquifer

Table 2 presents the current groundwater allocation and remaining availability.

The table includes annual allocations of issued consents (pre- and post- May 2017 SAP consent database), any applications not yet determined, Permitted Activity authorisations to take from Matakana Waitemata Aquifer bores, and estimated RMA S14(3)(b) use from bores assessed to

be Matakana Waitemata Aquifer for animal drinking and domestic use. The table is also presented as table 2 in the Groundwater Report, however the issued take consent total in that table has been superseded.

Water allocation for the Matakana Waitemata Aquifer is:

Water Availability AUP(OP) Matakana Waitemata Aquifer: 1,341,236 m³/year	
Total water demand	
Issued take consents	73,900 m ³ /year
Applications not yet granted	nil m ³ /year
Seventeen permitted activity Takes @ 5000 m ³ /year	85,000 m ³ /year
Five dairy farm takes @ 5000 m ³ /year	25,000 m ³ /year
AC Model S14(3)(b) animal drinking water and domestic bores use	264,794 m ³ /year
Total water demand	448,694 m³/year
Remaining availability	892,542 m³/year
Allocation sought for this application by Three Blokes Ltd	25,000 m ³ /year
Remaining availability for further allocation	867,542 m³/year

Table 2 Groundwater availability and allocation in Matakana Waitemata aquifer.

The eight take consents in the aquifer total 73,900 m³/year.

The unconsented nature of RMA S14(3)(b) water takes means that no primary dataset exists to give extraction volume information for the Auckland region. To generate extraction volumes, Council has developed a computer-based model that utilizes bore location/type information, land use types, census information, rating information, aquifer geology, and estimates of the number and type of animals. The geospatially enabled model allows the input dataset to be filtered, merged and aggregated to build a picture of the s14(3)(b) groundwater takes across Auckland. The model calculates s14(3)(b) use for the aquifer as 264,794 m³/year.

There are five dairy farms still operating in the spatial area of the aquifer and they will all take from Waitemata aquifer bores. None have registered a Permitted Activity take. A Permitted Activity allowance for shed washdown of 5000 m³/year has been made for each. There are no chicken farms or piggeries in the aquifer area. There are seventeen Permitted Activity notifications @ 5000 m³/year each.

Water requirements are addressed in section 4.2 of the Application Report and in section 1.3 and Table 1 of the Groundwater Report.

It is proposed to build up 12 new units on the site as market stalls and landscaping that is already being undertaken requires irrigation. Water is also required for domestic use around the site. This site use amounts to 5000 m³/year.

The Application Report notes that peak demand for tanker delivery will generally be the summer months as this is when water shortages are most likely to occur. For water tankering Table 1 of the Groundwater Report shows that there will be a maximum 10 water trucks /day with a truck capacity of 10 m³. For the four summer months December to March it is anticipated to operate 30 days per month with the full 10 trucks /day, a total of 12,000m³ over this four month period. For the eight off-season months April to November it is anticipated to operate the equivalent of only 10 days per month with the 10 trucks /day, a total of 8,000m³ over this eight-month period.

The quantities appear realistic and represent the very seasonal pattern of water tankering to top up roof rainwater tanks.

In the light of the information presented, I consider that the applicant has made a reasonable assessment and the proposed take is consistent with efficient allocation and use (E2.3.4 (a) (ii)).

A condition requires provision of a Water Efficiency Report in 2024 and subsequently at 5 yearly intervals.

Production bore capacity and security of the bore casing

Mr Crane has stated the following regarding production bore capacity and security of the bore casing in his technical memo:

The yield from the proposed production bore ID 29798 is addressed in section 4.1 of the Groundwater Report. A copy of the drillers log is provided in Appendix B of the Report. The bore head is at an elevation of RL 27.5m. The 100 mm diameter bore was completed in 2016 to the Matakana Waitemata Aquifer. The driller's log records a bore depth of 146 m, casing to 75 m, and an artesian static water level of +0.3m or RL 27.8m. The bore was airlifted at 14.4 m³/hour in a 6-hour test. No drawdown (or compressor drop) was recorded on the driller's log but is inferred to be 17m from the Groundwater Report. This is equivalent to a specific capacity of 0.85m³/hour/m of drawdown given in the Groundwater Report. No pumping test has been undertaken.

The driller's log recommends a pump rate of 7.2 m³/ hour for a surface pump. The drawdown would be within the operational range of a surface pump.

Based on this the existing bore will be capable of extracting the daily and annual quantity applied for (E2.3.7 (g)).

It is a condition of the Land Use bore permit that the bore casing must be grouted a minimum length of 30m up from the mouth of the casing to seal the annulus (gap) between the hole drilled and external diameter of the casing to prevent contaminants flowing from the ground surface down the exterior of the casing. This is significant given the previous contamination of some of the site soils described in section 2.2 above.

An email from Nick Hazard, author of the groundwater report, regarding the grouting of the bore by driller Chris Brown states: "I have just spoken to Chris Brown re-grout. He uses 14 bags

(40kg) per 50m. So, his grouting with 28 bags allowed for approximately 104m of casing. I have since realised that Drillforce use 25kg bags.”

From this, I understand that the Three Blokes bore has a full grout of the entire 75m length of the casing, and this makes the bore more secure from potential contamination from the surface than if there was only 30m length of casing grout.

Recharge of other aquifers and aquifer consolidation and ground settlement

Mr Crane has reviewed the application regarding the effects on recharge of other aquifers and aquifer consolidation and ground settlement and has concluded the following in his technical memo:

Section 4.6 of the Groundwater Report states that “The deep Waitemata aquifer is the main source of groundwater in the district. There are a few shallow bores (<100m) utilising shallow Waitemata Group aquifer weathered sandstones.

There may be some shallow bores sourcing groundwater from The Tauranga Group sands within the [aquifer] management area however these are likely to be very limited and likely disused. There is limited connectivity between the two aquifers as evidenced by the strong upward gradient present in the vicinity of the site and confined nature of the Waitemata aquifer beneath the Tauranga Group.

Any effects on the Tauranga Group aquifer is expected to be negligible by the proposed abstraction.”

I concur. There is limited connectivity between the two aquifers as evidenced by the confined nature of the Waitemata aquifer beneath the Tauranga Group.

Section 4.5 of the Groundwater Report states: “Groundwater drawdown effects associated with the TBL proposed pumping are expected to be limited to the deep Waitemata aquifer.

The Waitemata aquifer comprises a strong sandstone and siltstone rock unit and the proposed abstraction from fresh rock at depth will not cause any risk of subsidence...The groundwater drawdown is within the deep sandstone aquifer and therefore there will be negligible settlement, if any.

No significant ground settlement effects are expected due to the low compressibility of the aquifer materials. Potential settlement effects are considered to be negligible.”

I concur. Taking water from the Waitemata aquifer does not present a risk of aquifer consolidation or surface subsidence due to the depth, low vertical permeability of the aquifer (pressure reduction is not transmitted up into the overlying Tauranga group materials), and the consolidated nature of the aquifer.

Effects on surface water and potential for saltwater intrusion

Mr Crane has concluded the following regarding the effects on surface water and potential for saltwater intrusion in his technical memo:

Section 4.4 of the Groundwater Report states: "The proposed production bore site is located close [65m] to the main stem of the Matakana River (No. 65280). The river invert levels [RL 19m] are positioned within Puketoka Formation sediments.

The production bore is proposed to abstract groundwater from a deep source with very limited hydraulic connectivity with surface water bodies in the vicinity of the site. This is primarily due to the significant thickness of overlying Tauranga Group sediments which form an aquiclude and that baseflow is most likely to be dominated by flow from Tauranga Group sediments and Waitemata Group sediments in the headwaters of the river.

There will be no adverse effects on surface water bodies by the applicant's proposed take. Potential surface water effects are considered to be negligible."

I concur. The bore is cased to a greater depth than the RL 19m level of the Matakana River in the vicinity of the bore. The bore is cased to 75m with an aquifer water level approximately 28m above msl (above the stream invert) and therefore the applicant's water take will not affect stream flow.

Section 4.3 of the Groundwater Report states: "The closest saline water to the site is located 2.3 km to the southeast of the proposed production bore. Saline water is restricted at the Matakana Township by a rock wall forming waterfall and rapids. East of this point the river is tidal.

Calculated drawdown at this position is 0.18m after four month's continuous pumping using the Theis (1935) well equation and parameters listed in section 4.2 of this report. This is a conservative calculation as there is no allowance for recharge and the calculation is for continuous pumping.

The groundwater availability established by Auckland Council for the aquifer provides an allowance ... of rainfall recharge for through-flow to the coast to protect against potential for saline intrusion. The potential for saline intrusion effects at the coast caused by the proposed groundwater take by Three Blokes Limited are considered to be negligible." I concur.

I concur with the applicant's assessment the Three Blokes Ltd application regarding issues of recharge to other aquifers, aquifer consolidation, effects on surface water, and saline intrusion.

Effects of Climate change

Auckland Council commissioned NIWA to provide climate change projections for the region. Groundwater recharge may decline due to projected reductions in soil moisture and mean annual low flow and increases in potential evapotranspiration deficit. Under the mid-range scenario, where future emissions stabilise, this is predicted to increase by 25% by the 2090s to 450mm deficit. I consider this scenario can be addressed appropriately within the duration of consent timeframes (consent replaced at least twice).

Adverse effects conclusions

Overall, and having particular regard to the adverse effects identified above, the effects of the proposal on the surrounding environment are considered to be less than minor.

Step 4: public notification in special circumstances

If an application has not been publicly notified as a result of any of the previous steps, then the council is required to determine whether special circumstances exist that warrant it being publicly notified (s95A(9)).

Special circumstances are those that are:

- Exceptional, abnormal or unusual, but something less than extraordinary or unique;
- outside of the common run of applications of this nature; or
- circumstances which make notification desirable, notwithstanding the conclusion that the activities will not have adverse effects on the environment that are more than minor.

In this instance I have turned my mind specifically to the existence of any special circumstances and conclude that there is nothing exceptional or unusual about the application, and that the proposal has nothing out of the ordinary run of things to suggest that public notification should occur.

Public notification conclusion

Having undertaken the s95A public notification tests, the following conclusions are reached:

- Under step 1, public notification is not mandatory.
- Under step 2, there is no rule or NES that specifically precludes public notification of the activities, and the application is for activities other than those specified in s95A(5)(b).
- Under step 3, public notification is not required as the application is for activities that are not subject to a rule that specifically requires it, and it is considered that the activities will not have adverse effects on the environment that are more than minor.
- Under step 4, there are no special circumstances that warrant the application being publicly notified.

It is therefore recommended that this application be processed without public notification.

8. Limited notification assessment (sections 95B, 95E-95G)

If the application is not publicly notified under s95A, the council must follow the steps set out in s95B to determine whether to limited notify the application. These steps are addressed in the statutory order below.

Step 1: certain affected protected customary rights groups must be notified

There are no protected customary rights groups or customary marine title groups affected by the proposed activities (s95B(2)).

In addition, the council must determine whether the proposed activities are on or adjacent to, or may affect, land that is subject of a statutory acknowledgement under schedule 11, and whether

the person to whom the statutory acknowledgement is made is an affected person (s95B(3)). Within the Auckland region the following statutory acknowledgements are relevant:

- Te Uri o Hau Claims Settlement Act 2002
- Ngāti Manuhiri Claims Settlement Act 2012
- Ngāti Whātua Ōrākei Claims Settlement Act 2012
- Ngāti Whātua o Kaipara Claims Settlement Act 2013
- Te Kawerau ā Maki Claims Settlement Act 2015
- Ngāti Tamaoho Claims Settlement Act 2018
- Ngāi Tai Ki Tāmaki Claims Settlement Act 2018

In this instance, the subject site is within Ngāti Manuhiri statutory acknowledgment area. Ngāti Manuhiri have undertaken a Kaitiaki assessment and for the reasons discussed above, is considered that the proposal will not result in adverse effects in this regard.

Step 2: if not required by step 1, limited notification precluded in certain circumstances

The application is not precluded from limited notification as:

- the application is not for one or more activities that are exclusively subject to a rule or NES which preclude limited notification (s95B(6)(a)); and
- the application is not exclusively for a controlled activity, other than a subdivision, that requires consent under a district plan (s95B(6)(b)).

Step 3: if not precluded by step 2, certain other affected persons must be notified

As this application is not for a boundary activity, there are no affected persons related to that type of activity (s95B(7)).

The following assessment addresses whether there are any affected persons that the application is required to be limited notified to (s95B(8)).

In determining whether a person is an affected person:

- a person is affected if adverse effects on that person are minor or more than minor (but not less than minor);
- adverse effects permitted by a rule in a plan or NES (the permitted baseline) may be disregarded; and
- the adverse effects on those persons who have provided their written approval must be disregarded.

Adversely affected persons assessment (sections 95B(8) and 95E)

No persons are considered to be adversely affected by the proposal because:

- The proposal will have less than minor effects to the adjoining owners and occupiers as there will be no new buildings associated with the water supply business besides the three existing watertanks which are a common feature within the rural environment and are

adequately setback from the site boundaries. Noise from filling up the trucks will be temporary and not dissimilar to noises associated with the sawmill that has existed on the site for decades.

- The 10 truck deliveries (20 truck movements) associated with the proposal will have less than minor effects to the neighbouring owners and occupiers when considering the receiving environment. In addition, with the reduced truck movements associated with the sawmill operation, the truck movements associated with the proposal will not appear obvious or out of scale.
- The proposed area where trucks will fill up is located off the Matakana Valley Road meaning trucks will not have to travel long distances to fill up therefore limiting the dust disturbance and noise associated with the truck movements. Noise associated with trucks entering and exiting the site will be temporary and not out of character for the site.
- The proposed access where trucks will enter and exit the site is considered to be safe and efficient as confirmed by Council's Development Engineer, and is not in close proximity to the vehicle crossings of the neighbouring sites.
- The closest vehicle crossing on another site is located approximately 47m away at 2 Ward Road. The entrance appears to be associated with the farm building located approximately 118m from the subject site which according to the AEE is not currently in use. Additionally, the vehicle access has sufficient sightlines of the neighbouring crossing so that vehicles at 2 Ward Road using the adjoining vehicle crossing would be easily seen.
- The habitable buildings located on the neighbouring sites to the east and south, 367, 365, and 338 Matakana Valley are approximately 511m, 368m, and 329m from the proposed water filling area respectively. Considering the distance, it is anticipated the proposal will not be seen or heard from owners and occupiers of these sites. The most noticeable element of the proposal will be the truck movements associated, however considering the receiving environment these will be indiscernible to what currently occurs.
- Council's Water Allocation Specialist, Stephen Crane, has reviewed the application regarding the effects on other lawful bore water takes and has stated the following in his technical memo dated 9 February 2021:
 - *Section 4.2 and Table 5 of the Groundwater Report addresses aquifer parameters transmissivity and storage coefficient derived from pumping tests and pumping interference effects on neighbouring bores. An assessment of bore interference effects calculates remaining pump submergence in neighbouring bores based on three components: the pump submergence in the neighbouring bore (determined by pump depth and natural static water level in the bore), the in-well drawdown in the neighbouring bore due to its own pumping rate, and the interference water level drawdown produced in the neighbouring bore from the applicant's proposed pumping. Table 5 lists the production bore ID 29798 and four existing Matakana Waitemata Aquifer bores in the area within 500m of the applicant's production bore, illustrated in Fig 6 of the Report and Fig 9 below.*



Figure 9. Three Blokes Ltd property, production bore Id 29798, and nearby Waitemata Aquifer bores (red) with bore Id number

- *Table 5 presents for the applicants and neighbouring bores the bore Id number, bore depth, casing depth, distance to TBL bore, bore head elevation, static water level (SWL) below top of bore casing, SWL above RL mean sea level, pump intake depth if known, in-well drawdown from the neighbouring bore owner's own pumping, calculated interference drawdown effect from the applicant's proposed take, and calculated remaining pump submergence in the neighbours bore. This table is the standard practice. Interference drawdown from the applicants proposed take was calculated based on four months continuous pumping at 115 m³/day using the conservative value for transmissivity of 175 m²/day and storage of 1.0×10^{-3} using the Theis well equation which is a conservative method (it assumes no aquifer recharge). Two of the four closest neighbouring bores (IDs 21440 and 23089) are less than 75m deep i.e. they are shallower than the casing depth of the applicants bore. The Groundwater Report correctly notes that there is not likely to be direct connectivity of these shallow bores with the TBL production bore. Therefore, interference effect calculations are quite conservative for these two bores. The closest neighbouring bore is ID21440 and located 221 m distant. The bore has 6.1m of submergence (8.2m pump depth minus 2.1m SWL) with in-well drawdown of 1.0m and interference drawdown of 0.7m (conservative given shallow bore depth). The bore will therefore have at least 4.4m (6.1 minus 1.7m) of remaining pump submergence. The water level drawdown effects in neighbouring bores from the applicant's proposed take are all less than 1m, and most have in-well drawdown of less than 1.2m. The nearby bore with greatest in-well drawdown is that of PM Guild & BML Esch at 367 Matakana Valley Road in bore ID 23089 with 20m of in-well drawdown due to their own take with a 2 m³/hour*

submersible pump because the bore is very low yielding (a specific capacity of 0.10 m³/hour/m of drawdown based on a 3-hour driller's airlift test). The bore has an estimated at rest 25m of pump submergence (50m pump depth minus 25m SWL), and 4.5m of remaining submergence when allowing for the predicted 0.5m drawdown effect of the applicant's proposed take. The Groundwater Report concludes: "Drawdown effects are not significant given the size of the drawdown, the pump submergence and the artesian nature of the adjacent bores." I concur with the applicant's assessment that proposed water take will not cause adverse interference effects on neighbouring bores to the extent their owners are prevented from exercising their lawfully established water takes (E2.3.7(e)).

Step 4: further notification in special circumstances

In addition to the findings of the previous steps, the council is also required to determine whether special circumstances exist in relation to the application that warrants it being notified to any other persons not already determined as eligible for limited notification (excluding persons assessed under section 95E as not being affected persons).

Special circumstances are those that are:

- Exceptional, abnormal or unusual, but something less than extraordinary or unique;
- outside of the common run of applications of this nature; or
- circumstances which make limited notification to any other person desirable, notwithstanding the conclusion that no other person has been considered eligible.

In this instance I have turned my mind specifically to the existence of any special circumstances under s95B(10) and conclude that there is nothing exceptional or unusual about the application, and that the proposal has nothing out of the ordinary run of things to suggest that notification to any other persons should occur.

Limited notification conclusion

Having undertaken the s95B limited notification tests, the following conclusions are reached:

- Under step 1, limited notification is not mandatory.
- Under step 2, there is no rule or NES that specifically precludes limited notification of the activities, and the application is for activities other than that specified in s95B(6)(b).
- Under step 3, limited notification is not required as it is considered that the activities will not result in any adversely affected persons.
- Under step 4, there are no special circumstances that warrant the application being limited notified to any other persons.

It is therefore recommended that this application be processed without limited notification.

9. Notification recommendation

Non-notification

For the above reasons under section 95A this application may be processed without public notification.

In addition, under section 95B, limited notification is not required.

Accordingly, I recommend that this application is processed non-notified.



Lucy Gerven

Date: 14 May 2021

Planner

Resource Consents

10. Notification determination

Acting under delegated authority, and for the reasons set out in the above assessment and recommendation, under sections 95A and 95C to 95D, and 95B and 95E to 95G of the RMA this application shall be processed non-notified.



Chelsea Gosden

Date: 14 May 2021

Team Leader

Resource Consents