

1.0 SUMMARY - Assessment of Environmental Effects

1.1 Actual or Potential Effects

Section 88 and the Fourth Schedule of the Act sets out the matters to be considered when preparing as Assessment of Effects on the environment. The actual and potential effects associated with the proposed activities are broadly considered to include those related to:

- *Positive Effects*
- *Effect on the Soil Resource*
- *Reverse Sensitivity effects- Odour;*
- *Amenity and Visual effects;*
- *Natural Hazard effects;*
- *Infrastructure effects - Water, Wastewater and Stormwater;*
- *Traffic / Access effects;*
- *Effects arising from earthworks*
- *Other matters*

Section 3 of the Resource Management Act 1991 provides the meaning of “effect”. This includes any positive or adverse effect, whether temporary or permanent and can include past, present or future effects including cumulative effects.

1.1.2 Visual and Amenity Effects

Amenity values are defined in Section 2 of the Resource Management Act 1991 as “*those natural or physical qualities and characteristics of an area that contribute to people’s appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes*”.

In considering visual and amenity effects it is recognised that the transformation from a site exhibiting essentially a rural character to one that is of an urban (or suburban environment) will represent a significant change to the environment. That does not necessarily mean that such a change is by default considered to be one that is material adverse. This consideration is afforded statutory weight by Policy 6B of the National Policy Statement on Urban Development 2020 (“NPS-UD 2020”) which expressly states [emphasis added]:

- **Policy 6:** *When making planning decisions that affect urban environments, decision makers have particular regard to the following matters:*
 - (a) the planned urban built form anticipated by those RMA planning documents that have given effect to this National Policy Statement.*
 - (b) that the planned urban built form in those RMA planning documents may involve significant changes to an area, and those changes:*
 - (i) may detract from amenity values appreciated by some people but improve amenity values appreciated by other people, communities, and future generations, including by providing increased and varied housing densities and types; and*
 - (ii) are not, of themselves, an adverse effect*
 - (c) the benefits of urban development that are consistent with well-functioning urban environments (as described in Policy 1)*
 - (d) any relevant contribution that will be made to meeting the requirements of this National Policy Statement to provide or realise development capacity.*

(e) the likely current and future effects of climate change.

The consideration of visual and amenity effects should also appropriately be viewed in the context of the identification of the land as a residential growth area in HPUDES 2010; some 12 years ago as well as those matters considered within the Urban Design Assessment included in *Appendix J* of this application. In considering the issue of visual effects (noting that the effects of earthworks are assessed under *Part 6.1.8* below), the following matters of assessment are relevant.

In respect of the Brookvale Road frontage and environs (including No. 160 Arataki Road), the development has a limited frontage and there are no new dwellings fronting onto or backing directly onto Brookvale Road. The subject site frontage is to be utilised for a landscaped stormwater attenuation and treatment reserve over its length, presenting an open and landscaped appearance to that primary access into the Havelock North urban environment.

This area of the site is currently used for grazing with an existing strip of “informal” mixed quality shrub and smaller tree planting along the road reserve corridor. The development of the stormwater reserve in this area will have the visual effect of “opening up” this frontage visually to passing traffic as well as those properties situated at 159-161A Brookvale Road. It is noted that these properties all have their primary outdoor living areas oriented to the north apart from the property at 160 Arataki Road which has the main outdoor living area (with pool and courtyard areas), situated in the yard adjoining the future reserve. However, there are several established trees within this yard area and with appropriate fencing treatments, it is not considered that the effects of this property are any greater than minor along this boundary.

Two future dwellings will be positioned along the southern boundary of No. 160 however these are positioned well away from the primary outdoor living areas of No. 160 and while considered to be a change, the effect of such development is not considered to be adverse.

In summary, visually, when viewed from Brookvale Road and the nearby properties, the visual effects of the development are considered on balance to represent a minor level of visual effect.

In respect of the Arataki Road frontage and environs, the level of change from a rural environment to a suburban environment is greater given the extent of development along this frontage albeit the level of visual effect is not considered to be any greater than minor. The intensity of and form of future residential development is comparable with that which already exists along Arataki Road, and it is expected that most of the development will consist of single storey single home typologies. The planting of street trees and the berm treatments will assist in softening this frontage and present a level of amenity that is expected for a residential development of this nature.

The position of potential CRD lots may lead to some limited views of future CRD development with a likely 2 storey typology being visible from those existing dwellings on Arataki Road however it is considered that this form of development in a central location within the site does not represent an adverse visual effect and that the extent of the CRD typologies envisaged is not such that an adverse visual effect will be generated.

In respect of the southern frontage and No. 96 Arataki Road, A large shelterbelt runs slightly offset to the common boundary visually partially separating 70 Arataki Road from the subject site. Another shelterbelt/hedge extends from the Arataki Road frontage partially along the length of the subject site. The former currently provides a significant element of visual screening between the subject site and No. 70 Arataki Road which is currently used as a small arable block with what appear to be old olive trees. While that hedge is not within the ownership of The Applicant, it does provide a degree of visual separation between the 2 sites. Correspondingly, the visual effects relative to No. 70 Arataki Road and the subject site are less than minor.

In respect of the *eastern frontage* and *No. 104 Arataki Road*, there is a significant visual screen provided by the existing planting in the Local Purpose Reserve and the intended 10m wide planting strip running along the rear of proposed lots 74-81 and 92-100. There is also a defined change in elevation between the subject site and the existing Te Mata Mushroom facility which combined with the existing vegetated bank creates a strong visual screen for future residential development. No. 104 Arataki Road is abutting future Lots 97-100 however the main dwelling is oriented to the north and with the vegetated strip proposed of 10 metres in depth, means that there will be no direct visual contact with the existing dwelling and the visual effects are therefore considered to be less than minor. The Applicant has been in discussions with the owners of "Shaggy Range" regarding enhancements to their existing driveway to provide some visual mitigation from the residential development each side of that existing driveway. Discussions are currently ongoing regarding this property and access to it.

Overall, while visually the character of the site will *change* from a rural character to one that is predominantly urban, the *visual effects* of the development are, on balance considered to be minor. This conclusion is reached on the basis that suitable controls are imposed over key areas of the site regarding landscape mitigation (and ongoing maintenance) as well as the managed application of the Havelock North General Residential zone rules, with resulting development around the fringes of the site being of a similar size and scale to established residential properties. Conditions and associated Consent Notices can be imposed to regulate such matters in perpetuity.

1.1.3 Effects on the Life-Supporting Capacity of the Soil Resource

At approximately 10 hectares in area, whilst of a reasonable size, given its proximity to housing the site is not considered to be of a commercially viable size for a productive use. The Plains Production Zone has a minimum site area required for subdivision of 12 hectares which it is presumed the District Plan considers is the size required to be an economic unit viable for cropping. A significant limiting factor is the site does not have any water consents allocated to it.

An assessment of the effects on the life-supporting capacity of the soil resource has been undertaken as part of this proposal. A Soils Report has been obtained from Fruition Consultants dated March 2022. This report identifies that the shallow topsoil limits the versatility of the land for horticultural production however would be suited to some uses such as grapes and arable cropping. Importantly Fruition have stated "*there are no water consents allocated to the properties and supplementary irrigation is essential for successful commercial horticultural production. Without water these properties are **not suitable** for horticultural production*"

In the wider context, expansion of residential development onto the subject land and the effects of this on the soil resource has also been considered as part of the HPUDS submissions and hearing process, resulting in an acknowledgement that use of the land for residential purposes would be appropriate from a strategic land use perspective. Therefore, from a strategic point of view, combined with the opinion of Fruition urbanisation of the land will generate less than minor adverse effects on the life-supporting capacity of the district's soils resources particularly given its lack of water allocation and the surrounding residential environment to the west. Simply put there appears to be better land available for land based primary production.

As the above permitted baseline assessment shows the Hastings District Plan allows a portion of the site to accommodate non-productive uses i.e. uses that do not utilise the life producing capacity of the soil resource. Accordingly, the soil resource is not precluded from non-productive use and in the context of a broader assessment of relevant matters it is not considered that an urban use results in effects that are less than minor in this instance.

1.1.4 Reverse Sensitivity Effects

Reverse sensitivity is a matter often arising from the introduction of residential or 'sensitive' activities into a previously rural or productive environment, and where a new boundary is essentially created at this interface. The interface with existing residential activity can also be a potential source of concern for those landowners who had an expectation of adjoining land use which will not change, although this is less about the commonly discussed effects arising from odour, noises, spray drift, farm machinery, and bird scarers.

In terms of the subject sites receiving environment there is an intensive rural production activity occurring immediately to the east, rural grazing, dog boarding kennels and bee keeping activities to the south. Notwithstanding the specific need that these uses must comply with the District Plan, the Hawkes Bay Regional Resource Management Plan ("HBRRMP") and their associated resource consent conditions, the applicant is also accepting of a no complaints covenant¹ (to apply to each newly created title) in respect of these activities, secured by way of a Consent Notice.

The imposition of Consent Notices serves as one part of a mechanism to manage the potential for reverse sensitivity effects.

The second element in the management of such effects are the conditions of consent that are attached to the Shaggy Range facility and particularly the Te Mata Mushroom Facility which while well established, has been the subject to a number of complaints and Environment Court decisions in respect of the offsite effects of its operations; that decision however had the intent of creating a clear pathway for the resolution of the odour issues experienced over the years.

By way of background, concurrent with the progressive expansion of the mushroom farm, Havelock North also grew by converting what were once rural uses to the east of the existing settlement into residential housing. As the infrastructure was provided to service the area a transition of land uses from rural to urban occurred with significant acceleration of development over the last 10 -15 years. The land to the west of Arataki Road is now developed and established as a settled residential community.

The encroaching residential development resulted however, in an increasing number of odour complaints about the company's operations from around 2013 onwards. Things came to a head in 2015 when the company was prosecuted by HBRC, and again in 2018. The issue of odour complaints and the increasing likelihood of reverse sensitivity effects impacting on the mushroom farm meant the Hastings Council deferred its plans to develop the Arataki Extension for residential housing in the short term.

The mushroom farm applied for new resource consents for its existing facilities at Brookvale Road to provide for an increase in mushroom production to help offset the costs associated with providing upgraded facilities to control odour emissions associated with mushroom production. In response to concerns from air quality experts about the original application the mushroom farm revised their proposal so that composting operations would occur within an almost completely enclosed structure.

The issue of increasing production from the site prior to full completion of upgrading work to capture odour discharges was debated at the hearing and the commissioners decided a conservative approach was necessary to minimise any likely offensive and objectionable odours beyond the boundary of the subject site.

¹ *The existing Record of Title has a no complaints covenant already in place, these will need updating/replacing*

A condition was imposed not permitting any production increases until the implementation of the proposed mitigation. This condition gave the commissioners confidence to conclude that any odour effects could be adequately managed, avoided or mitigated. A consent condition was also imposed that there be no offensive or objectionable odour beyond the boundary of the site from the time of granting consent rather than waiting the approximately 30 months before all the upgrade work was planned to be completed.

The expectation from the hearings commissioners was that the mushroom farm would and should take all practical steps to avoid odour discharges. Compliance with an approved Odour Management Plan that provides for interim measures to be implemented prior to the upgrades being completed would provide reasonable certainty for everyone while placing an obligation on the consent holder to exercise the consent diligently.

Appeals were subsequently lodged on the resource consent issued by HBRC for a discharge permit and HDC for a land use consent as recommended by the hearing commissioners. The appeals did not challenge the merits of the resource consents issued or points of law, rather the appeals challenged the workability of the conditions attached to the consent. The Environment Court in November 2020 issued a consent order based on a joint memorandum by the parties to the appeal amending the wording of the conditions of consent to ensure they were clear, practicable and workable for all parties. The appeals are now otherwise dismissed, signalling an end to legal proceedings associated with the expansion of the mushroom farm and its authorisation to discharge odour.

The consents to expand operations on the mushroom farm site combined with building and operating the enclosed composting operations in accordance with the amended proposal and the conditions of consent, mean that the *“the odour and reverse sensitivity issues due to proximity of the mushroom farming operations, (to residential dwellings have now been) overcome”*. The issue encumbering the residential development of the Arataki Extension in the 2017 version of HPUDES have therefore been addressed freeing up the land to be developed and used as a preferred greenfield growth area.

Due to the lead in time between obtaining subdivision and land uses consents for new dwellings and constructing houses on the Arataki Extension, all upgrades on the Te Mata mushroom site will have been completed and odour effects mitigated long before any new residents take occupation of their houses. The concern of new dwellings on the Arataki Extension greenfield site causing reverse sensitivity effects on the mushroom farm are redundant and the proposed development of Arataki Extension can now be seen as having due regard to the Hawkes Bay Regional Resource Management Plan- RPS.

After discussion with Council planning staff, The Applicant has commissioned a further Odour Assessment report prepared by Terry Brady Consulting. The conclusions within that report are that the obligation for the avoidance of odours that are objectionable or offensive (as opposed to odours typical of what would be expected living adjoining a rural environment) are the responsibility of the mushroom facility to manage. The report concludes that:

- a) The Resource Management Act and the TMM consent places the duty to prevent offensive odours on the discharger and it is not the responsibility of those exposed to mitigate them; and
- b) Mitigating odours at the individual residences is not considered to be viable nor reasonable; and
- c) That setbacks and distance controls are not appropriate in this instance and that if the composting operation was contained indoors as is required under the current consents, or moved off site then the previous issues with odour cease to be a problem; and
- d) That despite these findings, the recommendation is to still utilise no complaints covenants provided they are worded carefully to protect both landowners and mushroom facility operations.

The development of residential activities on the subject site is not considered to generate any additional requirements on the operation of the mushroom facility over and above what they are already required to undertake to mitigate the offensive and objectionable odour issues experienced in the past.

In respect of acoustic effects, it is acknowledged that there are activities within the proximity of the site that have the potential to generate noise. The Applicant has commissioned an acoustic assessment prepared by Dcibel Limited to provide a professional opinion on the potential for reverse sensitivity effects arising from surrounding intensive rural activities which includes the existing Shaggy Range dog boarding facility. The report considers the Te Mata Mushroom Facility, the Shaggy Range Dog Kennels, the Arataki Honey Centre and the general agricultural and horticultural activities in the surrounding environment.

The acoustic assessment has considered the noise emanating from all these activities and also reconciled these against relevant consents held by those activities. In the case of the Shaggy Range facility at 104 Arataki Road, the assessment also references an acoustic report prepared by Malcom Hunt and Associates forming part of RMA20170139 which confirms that it is unlikely that this operation will create the potential for a reverse sensitivity effect to manifest itself on new residential activities on the subject site.

Accordingly, the nature of the activities adjoining, combined with the reliance on their compliance with relevant conditions of the respective consents held, and combined with the recommended use of covenants (by both the odour and acoustic consultants) leads to the conclusion that the potential for reverse sensitivity effects is low and that such effects are less than minor.

A corresponding potential positive effect is also identified in as much as the development of the Arataki Extension for residential housing will also remove a potential for what the application states as the 'lingering threat of further reverse sensitivities impacting on land uses in this locality'. The current zoning of Plains Production on an extended strip of land with multiple dwellings directly facing it across Arataki Road could result in a perverse and unworkable outcome of intensive rural production occurring as a permitted activity directly opposite established residential dwellings. Developing houses on the Arataki Extension may assist in resolving any potential issues associated with reverse sensitivity of residential activities and adjacent productive land uses reliant on versatile soils immediately adjacent to the Arataki area. In that regard it is also noted that No. 70 Arataki Road is also denoted as part of the residential growth area in HPUDS, that growth area extending to just north of the existing development in Albany Lane.

1.1.5 Effects in relation to Natural Hazards

The site is not subject to any significant identified hazards that would unnecessarily constrain or completely preclude development of the land.

Initial geotechnical consultants have confirmed that the land is able to be developed for the residential activities proposed. A series of recommendations are included within that report but none of the recommendations are such that are not commonly employed elsewhere in the District.

Based on the above, in terms of Section 106 of the Resource Management Act the site can be developed to ensure that—

- *The land, or any structure on the land, is unlikely to be subject to damage by erosion, falling debris, subsidence, slippage or inundation from any source, or*
- *Any subsequent use that is likely to be made of that land is unlikely to accelerate, worsen or result in material damage to the land by erosion, falling debris, subsidence, slippage or inundation; or*

- *Sufficient provision will be made for legal and physical access to each allotment to be created by the subdivision.*

1.1.6 Effects on Infrastructure

The development is able to be serviced with 3-waters infrastructure and from the assessment and engineering design completed it is concluded that the effects on infrastructure are less than minor and there are positive effects arising in respect of the proposed wastewater system and the additional capacity that the proposed infrastructure will unlock, including other growth areas in Havelock North as well as an improved level of service for some of the existing sites in Arataki itself.

Wastewater

The site can be serviced via the existing reticulated 3 water services in Arataki Road. Of note is that the provision of a new pump station which is situated in the north-eastern corner of the Brookvale Structure Plan, and which when completed, the proposed new network delivered by the development of the Arataki Extension will have benefits in that it will be able to accept and convey wastewater from the following areas:

- a) The subject site; and*
- b) 96 additional existing dwellings connecting to the infrastructure in Arataki Road, including Grooby Place and Whittaker Place; and*
- c) Area C denoted on the Brookvale Structure Plan; and*
- d) The HPUDS area of the Brookvale Structure Plan.*

The proposed network will effectively service the proposed development, the future HPUDs area and divert 96 existing and Area C of the BSP away from the existing infrastructure in Romanes Drive. Considering development progression, and land ownership in the area, it is anticipated that the development of Area A (Stage 2) may not occur for some time. Therefore, providing an alternate connection location for Area C will mitigate any significant delay for developing this area. Diverting Area C of the BSP also has the added benefit of increasing the capacity of the wastewater pump station currently under construction in Area A of the BSP. The proposed works will see a significant improvement in the capacity constraints within Romanes Drive while providing opportunities for connections to the network for future developments in the area. It is noted that a new lot will be created over the pumpstation "site" with earthworks and structural solutions to be prepared at the time of detailed design.

Stormwater

The main feature is the use of 2 large, shallow combined bio-retention and attenuation basins providing adequate storage for 80% of the pre-development 100-year event stormwater flows. As mentioned above, stormwater flows will be designed and controlled to ensure no increased stormwater runoff onto adjoining sites. These will rely on the use of planting material and engineered filter media to treat stormwater prior to the discharge into the existing municipal network. The development incorporates onsite detention areas to vest in Council.

The development's road network has been designed to ensure that runoff generated from the road will be discharged to one of the two basins to be attenuated. The site has been designed so that no residential lot will be affected by floods in a major storm event. The proposed grading of the roads and lots is such that the existing pre-development overland flow direction from South to North has been maintained in the proposed design. The attenuation ponds will limit SW discharge of the site to 80% of the pre-development 100-year event flows and then release these volumes slowly via a series of pipes and culvert outlets.

1.1.7 Effects on the Safety and Performance of the Roding Network

The internal roading design for the development factors in the addition of the traffic flows from the CRD development sites.

The analysis completed by East Cape Consulting concludes that existing transport network and the proposed subdivision road network have adequate capacity to accommodate the subdivision. The addendum notes that the original recommendations of the original TAR remain valid; namely:

- a) *To provide a path (of a width to be confirmed with HDC) along the eastern side of Arataki Road for the full frontage of the site; and*
- b) *Address the issue of substandard sight distance at the intersection of Arataki Road/Brookvale Road; and*
- c) *Develop an appropriate four-leg intersection treatment (refer to figure 3.29 of MOTSAM2), in consultation with Hastings District Council, where the new subdivision road meets Meissner Road.*

Subject to these recommendations, the updated subdivision it can be appropriately integrated with the surrounding transport network. It is considered that the matters set out a)-c) immediately above can be implemented through conditions of consent and in more detail through the Engineering Approvals stage.

1.1.8 Effects Arising from Earthworks

In respect of *Soil erosion and stability*, the earthworks on the site will be managed to ensure that replacement fill is appropriately compacted and surfaced to prevent erosion potential, and the site will be re-grassed as soon as possible following completion of the works. Several measures to limit erosion and scouring have been identified and will be implemented as part of the earthworks methodology for the site and will form part of the contractor documentation.

In respect of *Soil Runoff and Sedimentation*, there will be a need to ensure that on a staged basis that the appropriate sediment control mechanisms are installed and approved prior to each stage of work commencing. The measure proposed include the creation of sedimentation ponds for subsequent adaption into the bio-retention basins in some instances, cut-off drains with bunding and the installation of silt fencing including around existing dwellings where necessary to protect them from silt run-off. These measures are considered appropriate to manage the effects of works from sediment runoff.

Regarding *Natural Landforms and Contours*, there will inevitably be changed and recontouring to the existing landform and that is unavoidable in the context of land that has been earmarked for future urban development. The site is notably devoid of natural landform features with a relatively uniform contour and grade. The earthworks design aims to achieve a blending of contours where possible, however some retaining terraces are required in several areas, primarily internalised within the development site. One external boundary will have a single level retaining terrace erected on the boundary (160 Arataki Road) and the effects of this have been considered in part in the visual assessment above and have been considered to represent only a minor effect.

In respect of *Significant cultural, ecological and historic heritage sites* (including archaeological sites), an archaeological assessment has been commissioned. It is confirmed that there are no sites of significance recorded for the Arataki site or the immediate area. At this point, a General or Site Archaeological Authority has not been obtained and given the findings in the Archaeological Assessment, it is considered appropriate to adopt Accidental Discovery Protocols and controls set out in the Heritage New Zealand Pouhere Taonga Act 2014. These provisions will be included in contractor documentation as per the "on-call procedures" meaning the effects of the works on any archaeological sites can effectively be mitigated.

Regarding *Composition and characteristics of any fill used*, the geotechnical assessment of the suitability of fill material to be utilised is specified and backfilling and compaction will be overseen by a suitably qualified engineer to ensure that future residential development will have appropriate bearing capacity.

Overall, on the basis that the engineering measures are adopted during the construction period, the effects the effects arising from these elements of the proposed works are less than minor.

1.1.9 NES – Contamination and Soil Remediation

A soil volume of approximately 201.5m³ has been identified onsite that will require remediation or management. Areas of possible soil contamination include the Northern dwelling and packhouse located at 108 Arataki Road and the dwelling and shed located at 86 Arataki Road. To address the contamination issues highlighted in the DSI, remediation is recommended including:

- a) An area onsite will be designated for the stockpiling of contaminated soil on-site until it can be repurposed.
- b) Soil within the demarcated areas is to be excavated to specified depths.
- c) Excavations will be undertaken mechanically and transported directly to the designated stockpiling area.
- d) Adequate validation inspections and sampling will be completed post remedial works. Management of the contaminated soil once removed is to be undertaken in accordance with technical recommendations.

6.1.10 Cultural Effects

These are no registered archaeological sites, recorded heritage items or known sites of Waahi tapu within the subject area. The Applicant will adopt an accidental discovery protocol which will be embedded into the contractor documents governing physical works.

While the subject sits outside the Karanema Reserve area boundaries, which is of great significance to Nga Uri o Te Heipora, it is noted that there has been significant cultural input into a recent Hastings District Council publication which are draft Reserve Management Plans (2022-2032) for 5 reserves situated between Havelock North Village and Te Mata Peak (Tainui, Tanner, Tauroa, Hikanui and Keith Sands Grove Reserves). This draft document provides guidance and direction covering a wide range of ecological, cultural and recreational aspects for open spaces. Although the opportunities for the Arataki extension development are somewhat limited in comparison, there are opportunities to embed the design and planting approaches into the development and The Applicant is desirous of pursuing this aspect further during the detailed design phase.

Although no formal dialogue has yet been undertaken with Mana whenua, it is presumed that the Council will provide the resource consent documentation for initial review through the Council Mana Whenua team and then wider distribution will follow as part of the notification process.

Based upon current known information, the proposed subdivision will not have any adverse effects on natural or physical resources having aesthetic, recreational, scientific, historical, spiritual or cultural or other special value for present or future generations. Additionally, the proposed subdivision will have no significant adverse environmental effects on flora or fauna or animals and any physical disturbance of habitats.

It has been observed during field visits that Tui and Piwakawaka are a commonly occurring species amongst the existing gum trees along the embankment. The enhancement of this area through the removal of the gum trees and the appropriate palette of planting to enhance the ecological values of this small habitat area is an aspect which will be developed further during the detailed design phase of the development.

1.1.12 S104G – Resource Management Act - Drinking Water Supply

S104G of The Act requires the Consent Authority to have regard to

When considering an application for a resource consent, the consent authority must have regard to—

(a) the actual or potential effect of the proposed activity on the source of a drinking water supply that is registered under [section 55](#) of the Water Services Act 2021; and

(b) any risks that the proposed activity may pose to the source of a drinking water supply that are identified in a source water risk management plan prepared in accordance with the requirements of the [Water Services Act 2021](#).

The subject site is situated within approximately 270m from a registered drinking water supply bore. That is the Havelock North (Brookvale) well which is subject to Consent Ref WP070080tb, issued by HBRC and is registered nos. as well 1329, 2106 and 4151. These are distributed along Brookvale Road. It is noted that this consent has an expiry date of 2018. It is recognised that the key intent of S.14G is to manage the actual and potential effects relating to any ingress of contaminants or substances/organisms which may lead to a lowering of water quality or contamination. In this instance, it is not considered that the development of this land for residential activities has the potential to adversely impact upon the security or safety of these registered wells:

- a) The activities proposed are such that stormwater from the site will be directed to the reticulated system with the bio retention basins proposed providing sufficient low impact design treatment prior to the discharge of stormwater.
- b) The residential activities on the site will all be required to connect to a reticulated wastewater network so there is no risk of groundwater contamination or the discharge of waste into the ground.
- c) During construction, silt and runoff if generated will be captured by the sediment and erosion control measures.
- d) More significantly however, it is noted from the Council's Water Supply Strategy 2018 that the objectives for the enhancement of water supply resilience are to move the Brookvale wells to either an augmentation supply role as opposed to a primary supply role and to eventually decommission them entirely and reliance upon a Hastings to Havelock North pipeline to provide potable water.
- e) Stage 1B of the Strategy will see the upgrading of the Eastbourne bore field in Hastings and that will enable the full decommissioning of the Brookfield bore fields. Currently the one operating augmenting Brookfield bore is subject to a high degree of water treatment including UV as well as chlorine and can be used to supplement the primary supply if needed.

Based on the matters above, it is considered that the effects to be considered by the Consent Authority in relation to the actual or potential effects on the safety and resilience of a registered water supply are less than minor.

6.1.13 Environmental Effects Assessment Summary of Conclusions

The Assessment of Environmental Effects leads to the overarching conclusion that the effects arising from the proposal are considered to range through positive, de-minimis to minor. There are several mitigatory measures recommended that are considered appropriate to be addressed via specific consent conditions and ongoing maintenance and management regimes. Overall, having regard to the

level of effects, it is considered that the *adverse* effects of the development on the environment (as expressly limited by S104D (1)) are considered to be minor.