

5 July 2021

Ngati Te Ata

For: Karl Flavell

Email: s 9(2)(a)

Dear Karl

## **1 SELFS ROAD - SUMMARY PACKAGE OF DOCUMENTS**

Kia ora Karl,

Thank you and David for taking some time on Wednesday to talk through the Selfs Road project, it is much better talking these things through in person and on reflection maybe we should have presented the design package to you first up.

This letter is just to follow up on Andrew Fawcett's email and to provide you with A3 hard copies of the summary he sent through.

Please call me if you have any questions, need any further information

ngā mihi



Lance Hessell  
Senior Planner  
0210469400

s 9(2)(a)

**CIVIX LIMITED**

5 July 2021

Ngati Whanaunga

For: Michael Baker

Email: s 9(2)(a)

Tena koe Mike

## 1 SELFS ROAD - SUMMARY PACKAGE

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2. In discussions with another iwi, it became apparent that some of the links to the background information were not easy to use and in other cases some of the best pictures of the development were lost amongst the volume of application materials.
3. As a result of that korero, we have prepared a summary package of the key documents of interest, and we thought that you might find this package useful to .
4. In light of this, please find **enclosed** a summary package of documents that includes:
  - (a) 3D renders prepared by David Moore of DM Studio in A3;
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  - (d) An excerpt from Schedule 6: Outstanding Natural Features overlay showing the listing of Crater Hill (ID 22); and
  - (e) A key excerpt from the geological assessment prepared by Shane Moore of Tonkin & Taylor.
5. In addition, a number of questions arose about what cultural and environmental benefits would be achieved and how they would be protected in perpetuity. Without wishing to get ahead of ourselves, our current thinking is that:
  - (a) Public access along the Tuff Ring public space at the top of the residential development enabling views over the Crater which are currently not available. It seems to me that it might be best that this was in the form of an easement / resource consent covenant in favour of Auckland Council and relevant iwi – to recognise and provide for the ongoing interest in the land and views across Ngā Kapua Kohu Ora / Crater Hill. Of course, this would need to be worded in a way which ensures that the residents society has to maintain the land at a good standard and not put any financial burden on those iwi.
  - (b) Design of the Tuff Ring public space (and other public interfaces across the site). Rachel de Lambert / Boffa Miskell will be doing this work and it is my intention that the CVA feedback would influence those designs & that she would work directly with relevant iwi to deliver a high-quality design. This will have to cover:
    - (i) Appropriate treatment of the public and private interface at the proposed public walkway near the ridgeline.

- (ii) The protection of significant native trees fronting Selfs Road, and the enhancement of the site through additional native planting included in the landscape plan including planting along the new walkway overlooking the crater.
  - (iii) Design and location of landscape features linking the land to cultural values.
  - (c) Consent conditions limiting the height of buildings to the current designed form.
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    - (i) The treatment of stormwater runoff from the proposed private access lots (Commonly Owned Access Lots – COAL's).
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  - (e) And of course, you may have some other ideas as well
6. Andrew Fawcett and the design team also found it really helpful to spend some time talking through the plans and hearing directly some of the initial thoughts about the development, to at least reach a common understanding of how the design package had evolved and endeavoured to respond to the special characteristics of this site.
7. We would welcome a similar opportunity to have a korero to discuss your initial thoughts about the project before you complete your CVA. If you would like to take up this invitation, please email me and we can set up a time.

If you have any queries, please do not hesitate to contact either Mr Fawcett, or me.

ngā mihi



Lance Hessel  
Senior Planner  
s 9(2)(a)

**CIVIX LIMITED**

5 July 2021

Ngati Tamaoho

For: Edith Tuhimata

Email: s 9(2)(a)

Tena koe Edith

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ngā mihi



Lance Hessel  
Senior Planner

9(2)(a)

**CIVIX LIMITED**

5 July 2021

Te Ākitai Waiohūa

For: Nigel Denny | Jeff Lee

Email: s 9(2)(a)

Kia ora rā kōrua Nigel and Jeff

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ngā mihi



Lance Hessel  
Senior Planner

s 9(2)(a)

**CIVIX LIMITED**

## **Summary package of documents dated 2 July 2021**

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Note: Development designed so that roof lines will not be visible from within the crater

Section 2: Excerpt from graphic supplement prepared by Rachel de Lambert, Boffa Miskell (page 09)

Section 3: Precinct map and precinct provisions of I432 Puhinui Precinct of the Auckland Unitary Plan (which only applies to the other side of State Highway 22 (page 14)

Section 4: Excerpt from Schedule 6: Outstanding Natural Features Schedule of the Auckland Unitary Plan (page 19)

Note: Key aspects highlighted yellow and green

Section 5: Excerpt from draft geological assessment prepared by Shane Moore, Tonkin & Taylor (page 22)

Note: Key aspects highlighted yellow and green where they link back to the AUP Schedule / criteria for ONF

Note: Criteria not listed in the AUP as a reason for ONF classification highlighted red

## **Section 1:**

**3D renders prepared by David Moore, DM Studios**

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the Official Information Act 1982













## **Section 2:**

**Excerpt from graphic supplement prepared by Rachel de Lambert, Boffa Miskell**

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# Selfs Road

LANDSCAPE AND VISUAL ASSESSMENT GRAPHIC SUPPLEMENT

30 March 2021





View from northern edge of Crater Hill tuff ring looking east towards site



View from northern edge of Crater Hill tuff ring looking east towards site - AUP:OP zones and Waka Kotahi land overlay markup

- AUP:OP Special Purpose Zone - Quarry Zone. 20m Permitted height limit
- Waka Kotahi land
- AUP:OP Rural - Rural Production Zone

Figure 6: View from northern edge of Crater Hill towards sitewith AUP:OP zoning and Waka Kotahi land overlay Viewpoint 13

**SELS ROAD**

Date: 01 April 2021 Revision: 0

Prepared for Myland Partners by Boffa Miskell Limited

Project Manager: s 9(2)(a) | Drawn: JWi | Checked: RdL



Site Appraisal Photograph 17: View from northern end of site looking west towards northern edge of Crater Hill tuff ring



Site Appraisal Photograph 18: View from northern end of site looking north

Dwelling at 7 Selfs Road

Low point of site

SW Motorway

Quarry / Cleanfill Site



Site Appraisal Photograph 19: View from approximate mid point of site looking south

Manukau City Centre

Dwelling at 1 Catkin Cres

Extent of site

SW Motorway



Site Appraisal Photograph 20: View from southern portion of site looking south

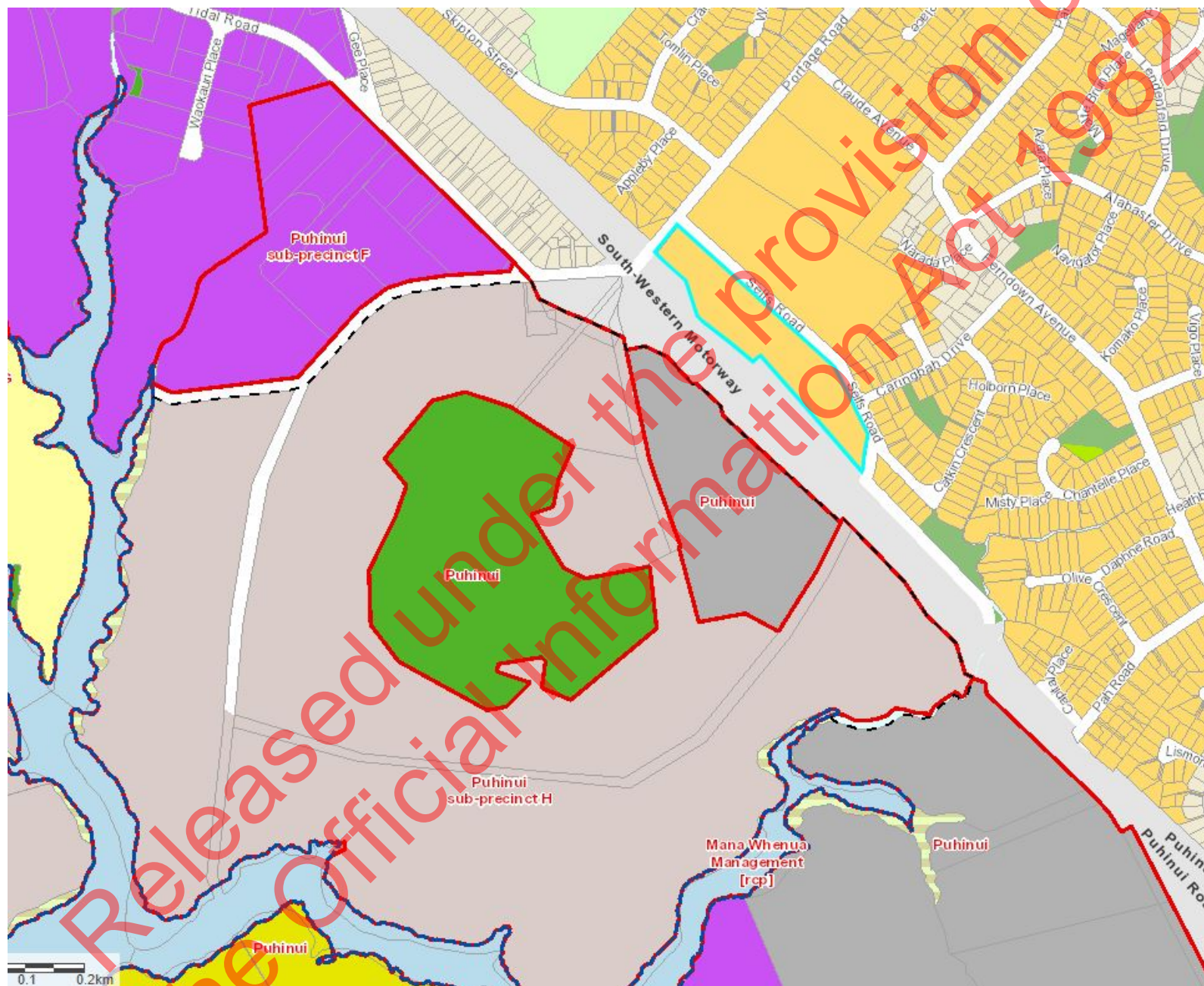
### **Section 3:**

#### **Precinct map and precinct provisions of I432 Puhinui Precinct of the Auckland Unitary Plan**

NB: As depicted in the planning map, the Puhinui precinct does not apply to the site at 1 Selfs Road, and applies only to the land on the opposite side of State Highway 22.

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the Official Information Act 1982

Extent of Puhinui Precinct - applies south and west of the South Western Motorway.  
 Subject site marked with **turquoise** boundary. Live zoned, no precinct.



## I432. Puhinui Precinct

[ENV-2016-AKL-000199: Self Family Trust] – Addition sought

### I432.1. Precinct Description

The primary purpose of the Puhinui Precinct is to enable a transition from rural to urban development, while recognising the cultural, spiritual and historical values and relationships that Te Ākitai Waiohūa have with the land and sea in Puhinui as part of the Māori cultural landscape. The precinct also recognises the relationship which exists between Māori cultural landscape values and the management of natural and physical resources.

The precinct provides for predominately light industrial and airport related activities and some large lot residential development, using specific standards and assessment criteria to guide urban development. This is to ensure that development and subdivision is co-ordinated with the provision of transport infrastructure improvements, and does not adversely affect the performance of the road network across a range of criteria including reliability, safety and intersection performance; as well as ensure that an integrated approach is taken to managing the adverse effects on the Māori cultural landscape values. The cultural landscape applies to the entire precinct, in areas within and outside of the Rural Urban Boundary.

The Precinct includes the land area bounded by Waokauri Creek, State Highway 20B, Manukau Memorial Gardens Designation and sub-Precincts A and B. Development within this area has significant potential to adversely impact on the safe and efficient operation of State Highway 20B. It is also an area of identified cultural significance. Future Urban zones are proposed to defer development until appropriately planned and funded transportation infrastructure is available and further consideration has been given as to how the land would be developed to reflect these values.

The provision for land extensive industrial activities is in alignment with the Regional Policy Statement and the Auckland Plan, although Puhinui is not identified as a greenfield area for investigation in the latter. However, the Auckland Plan supports further expansion of the Rural Urban Boundary in relation to the location of business land and recognises that some flexibility is needed to provide additional capacity where it is most required (e.g. southern Auckland).

Much of the land to the south of the Waokauri Creek (east of the Auckland International Airport and west of the South-Western motorway) is zoned Business - Light Industry. The inclusion of the land will create the potential for increased business and employment opportunities over time. A limited range of commercial activities will provide for some convenience retail and amenities. The Puhinui Precinct allows development where supported by infrastructure. In particular, development will be managed to ensure transport network improvements are coordinated with trip generation arising from development. This reflects the need for substantial transport infrastructure investment to support full development within the precinct.

The comprehensive and coordinated approach to development promoted in the precinct reflects its significant size and the strategic location of light industry zoned land in proximity to the intersection of two major transport corridors. The underlying Business -

Light Industry Zone provisions are tailored to fit the desired outcomes for this area and address the constrained transport infrastructure to ensure potential effects on the transport network are avoided, remedied or mitigated. This approach acknowledges that significant transport upgrades will be required to support the level of development envisaged.

The precinct therefore encourages landowners of light industry zoned land in sub-precincts A to F to establish the spatial pattern of development and to address the integration of the sub-precincts, both with each other and within the wider context. The provisions address issues such as built form, future street/pedestrian networks and layout of road connections with transport corridors, provision of activities, staging of development and the recognition of Māori cultural landscape values.

### **Puhinui southern gateway connection and transport infrastructure**

Puhinui Road (State Highway 20B) provides a direct transport linkage between Auckland International Airport and the South-Western Motorway which forms the eastern boundary of the precinct. Puhinui Road is recognised not only as a transport corridor, being a main entry and exit point for tourists and visitors to the country and an important freight route, but for its importance as a cultural heritage gateway.

The precinct identifies the 'Puhinui Heritage Gateway', which includes the State Highway 20B designation, a 40m strip on the southern side of the designation, and 40m strip on the northern side of the designation. The entire route runs the length from the State Highway 20 interchange through to the Auckland International Airport.

The route is intended to provide for possible transport requirements, including dedicated bus and rail corridors, and to integrate with the surrounding business areas that develop and public open space areas in the precinct. The route will promote important physical, ecological, and visual connections between the northern and southern areas of the precinct, and for this reason needs to achieve a high level of legibility and cohesiveness in its elements. This is achieved through provisions which will contribute towards the creation of a distinctive gateway.

The existing road network, and in particular, State Highway 20B, is reaching capacity and has limited ability to cater for the additional traffic generation which will result from urbanisation of the precinct. Improvements to the roading network will need to be considered concurrently with urban development of the Puhinui Precinct to ensure the functionality of the road network (including the critical link to Auckland International Airport) is maintained.

### **Mana Whenua cultural landscape**

The Puhinui peninsula reveals a complex but unique cultural ecosystem of inter-related settlements, travel routes, and fishing, gardening and food and resource gathering areas all closely associated with a series of prominent natural features and waterways that together form an integral part of the stories, genealogy, mythology and history of Te Ākitai Waiohū.

The Puhinui peninsula is notable for its continued occupation by Te Ākitai Waiohū since pre-European times due to its proximity and access to the coast (Manukau Harbour and

its tributaries) for collecting kaimoana, fertile soils for food growing, and maunga for defence purposes. Puhinui is inextricably linked to the history, stories, whakapapa and mythology of Te Ākitai Waiohū. Te Ākitai Waiohū have a strong spiritual (Taha wairua) association with Puhinui which gives its people a sense of meaning and purpose.

Due to its proximity to the Manukau Harbour and its tributaries which weave through this area, the influence of the coast on the ecological, recreational, cultural and spiritual values and visual character is recognised in the Puhinui Precinct. The Puhinui Precinct is bisected by the Waokauri Creek, a Mana Whenua Management Precinct, which recognises the Māori reservation status of the Creek under the Te Ture Whenua Māori Act 1993, for the purpose of a landing place, and place of historic, spiritual and cultural significance for the use and benefit of the local hapu of Te Akitai and Te Ahiwaru o Wai-o-hua.

Cultural values to be protected encompass the geological, the coastal, archaeological, and ecological features within the precinct. The Pukaki Crater and lagoon (Te Pukakitapu o Poutukeka) is ancestral Māori land of particular spiritual value to tangata whenua, and ownership is held by the Pukaki Māori Marae Committee. The Portage Road Reserve at the centre of Nga Kapua Kohuora (Crater Hill) is vested in Council as reserve land. Pukaki Crater and Portage Road reserve are zoned Open Space – Conservation.

### **Natural environment**

The southern boundary of the precinct follows the Puhinui stream, a Significant Ecological Area which connects to the Puhinui Creek in the upper reaches of the Manukau Harbour that is also a Significant Ecological Area. In recognition of these receiving environments, a Stormwater Management Area Flow overlay applies to address stormwater matters.

### **Designations and special purpose zones**

The precinct is subject to several designations for various purposes. These include Puhinui Road which is designated for state highway purposes, and part of the Auckland International Airport designation which provides for a range of aeronautical operations.

Parts of the precinct are located within Auckland Airport's High Aircraft Noise and Moderate Aircraft Noise Areas, for which there are controls on the establishment of Activities Sensitive to Aircraft Noise. As a consequence the precinct has both business opportunities for land development related to the airport and other local industry, and constraints relating to activities sensitive to aircraft noise and building heights related to the approach paths.

The precinct contains the Manukau Memorial Gardens Special Purpose zone - Cemetery and the adjoining site which is a designated extension for cemetery purposes. Petroleum supply and water/wastewater supply designations overlay underground pipes that bisect the precinct.

The Puhinui precinct comprises of the following seven sub-precincts and zones:

- Sub-precinct A (Airport- Coastal) and Sub-precinct B (Airport- Core) – Business - Light Industry Zone and Coastal - Coastal Transition Zone

## **Section 4:**

### **Excerpt from Schedule 6: Outstanding Natural Features Schedule of the Auckland Unitary Plan**

NB: Crater Hill (ID 22) is highlighted for ease of reference:

Yellow highlights link to the description analysis in Section 4

Green highlights link to the criteria analysis in Section 5

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**Schedule 6 Outstanding Natural Features Overlay Schedule [rcp/dp]****Introduction**

The factors in [B4.2.2\(4\)](#) have been used to determine the features included in Schedule 6 Outstanding Natural Features Overlay Schedule, and will be used to assess proposed future additions to the schedule.

ID	Name	Location	Site type	Description	Unitary Plan criteria
2	Algies Beach melange	Algies Bay	E	This site is one of the best examples of an exposure of the contact between Northland Allocthon and Miocene Waitemata Group rocks.	a, b, g
3	Ambury Road lava cave	Mangere Bridge	F	A complex 140m long lava cave with two branches and many well-preserved flow features. Part of the cave contains unusual lava stalagmites with corresponding stalactites above.	a, b, c, d, g, i
4	Anawhata gorge and beach	Waitākere	A	This locality includes a combination of unmodified landforms, produced by the dynamic geomorphic processes of the Waitakere coast. Anawhata Beach is an exposed sandy beach, accumulated between dramatic rocky headlands. Inland from the beach, the Anawhata Stream has incised a deep gorge into the surrounding conglomerate rock.	a, c, e, g, i, l
5	Anawhata intrusion	Waitākere	E	A well-exposed, and unusual mushroom-shaped andesite intrusion in sea cliffs in a small embayment around rocks at the north side of Anawhata Beach.	a, b, g, l
6	Arataki volcanic breccia and sandstone	Titirangi	E	The best and most easily accessible exposure in the eastern Waitākere Ranges illustrating the interfingering nature of	a, c, l

Schedule 6 Outstanding Natural Features Overlay Schedule

	Peninsula proximal volcanic- rich flysch			rocks bearing a good exposure of a sequence of volcanic-rich flysch beds that accumulated close to the contemporaneous late Miocene Waitākere volcanoes.	
22	Crater Hill	Mangere	V F - Caves	Crater Hill is one of the two best remaining explosion craters and tuff rings in Manukau City. It is a complex volcanic centre including a large, embayed tuff ring 600m in diameter, enclosing a (quarried) scoria cone and small lava flow. Crater Hill has a unique example in the Auckland volcanic field of the cooled remnants of a lava lake that filled the crater and later withdrew down the vent. It is also the only remaining explosion crater in the Auckland field where the external slopes of the volcano outside the crater rim are nearly entirely intact and unmodified. Two lava caves are present. Selfs lava cave is about 48m long and circumferentially oriented within the volcanic crater. Underground Press lava cave is 40m long lava cave with a large main chamber, reputedly used as a base for clandestine, subversive publishing during World War II. The Crater Hill quarry exposures are a useful educational site with excellent exposures of lithic tuff, basaltic lapilli, crater rim collapse features and a thin layer of rhyolitic tephra from the central North Island.	a, b, c, d, e, g, i
23	Cudlip Point deformed	Mahurangi West	D	Excellent and easily accessible examples of	a, c, g, i

## **Section 5:**

**Excerpt from draft geological assessment prepared by Shane Moore, Tonkin & Taylor**

NB:

Yellow highlights link to the feature description in Section 4

Green highlights link to the Unitary Plan Criteria in Section 4

Red highlights are criteria which are not identified as a Unitary Plan reason for listing the ONF

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- 35 Schedule 6 Outstanding Natural Features Overlay Schedule of the AUP now describes Crater Hill (ONF 22) as follows. I provide comment in the context of the subject site:

Scheduling description	Comments
Crater Hill is one of the two best remaining explosion craters and tuff rings in Manukau City.	While accurate this statement is misleading as Crater Hill should be assessed in the context of the entire Auckland Volcanic Field, not on a local basis. As described above, Crater Hill is one of about 34 Auckland volcanoes with explosion craters (Kermode 1992). It is one of 19 explosion craters with surrounding tuff rings in the Auckland Volcanic Field (Hayward et al. 2011). It is therefore rare but not unique in the region.
It is a complex volcanic centre including a large, embayed tuff ring 600m in diameter, enclosing a (quarried) scoria cone and small lava flow.	This description can be applied to many of the 50 some volcanic centres that comprise the Auckland Volcanic Field. It is not an appropriate measure of its uniqueness.
Crater Hill has a unique example in the Auckland volcanic field of the cooled remnants of a lava lake that filled the crater and later withdrew down the vent.	Acknowledged, however, these features are located a considerable distance from the subject site (>250 metres).
It is also the only remaining explosion crater in the Auckland field where the external slopes of the volcano outside the crater rim are nearly entirely intact and unmodified.	This is a somewhat subjective statement. Based on its mapped extent (by Edbrooke 2001, see Figure 3) some 27 hectares of the outer slopes of Crater Hill have been developed on, with some of this development being permitted as recently as 2016 (refer to Paragraph 34). This equates to some 16% of the total mapped extent (~170 ha) of the entire feature, or some 25% of the external slopes. This statement is more accurate with respect to the western and south external slopes, which remain largely in use for pastoral farming.
Two lava caves are present. Selfs lava cave is about 48m long and circumferentially oriented within the volcanic crater. Underground Press lava cave is 40m long lava cave with a large main chamber, reputedly used as a base for clandestine, subversive publishing during World War II.	Acknowledged, however, these features are located a considerable distance from the subject site (>700 metres).
The Crater Hill quarry exposures are a useful educational site with excellent exposures of lithic tuff, basaltic lapilli, crater rim collapse features and a thin layer of rhyolitic tephra from the central North Island.	These exposures have now been covered by filling operations and therefore provide limited (if any) ongoing educational value. They are also located some distance from the subject site (>100 metres).

- 36 The criteria set out in Policy B4.2.2(4) of the AUP have been used by Council to schedule ONFs. Council has assessed that criteria a, b, c, d, e, g and i (in grey highlight below) apply to the Crater Hill ONF. As indicated in Paragraph 30, Council does not detail its assessment. However, Hayward 2013 provides an assessment of both the wider Crater Hill volcano as a whole and specific features of it, including the eastern portion of the tuff cone on which the subject site is located. I consider that this is an appropriate way to treat the site considering its dislocation

from the wider volcanic centre by SH20. I provide the following comments as context to my assessment of the geological effects of this development proposal:

Scheduling criteria	Hayward 2013	Comment
a. the extent to which the landform feature or geological site contributes to the understanding of the geology or evolution of the biota in the region, New Zealand or the earth (includes type localities of rock formations, minerals and fossils)	" <u>moderate</u> , retains eastern edge of small crater on cone crest, highest point on tuff cone provides excellent views over rest of volcano"	Agreed, however, as shown in Figure 9 neither the crest (crater rim) nor small crater (secondary explosion crater) will be materially impacted by the proposed development as a setback has been intentionally maintained from these features. The sites contribution to the understanding of the geology will therefore not be compromised.  The development will provide public access, that is not currently available, to the excellent views over the rest of the volcano (see examples in Photograph Appendix C.6 to Photograph Appendix C.8).
b. the rarity or unusual nature of the site or feature	" <u>moderately low</u> , this eastern crest of the tuff cone and some of its outer slopes are only slightly modified compared with majority of other tuff cones in Auckland Volcanic Field"	I apply this criterion as being rare or unusual from a geological perspective, rather than reflecting its level of modification, since the state of preservation or modification is addressed by criteria i.  As described previously Crater Hill is one of 19 explosion craters with surrounding tuff rings in the Auckland Volcanic Field (Hayward et al. 2011). It is therefore rare but not unique in the region. As described in response to point a., the crest of the tuff cone/ring will not be materially impacted by the proposed development.
c. the extent to which the feature or site is an outstanding representative example of the diversity of natural landforms and geological features in Auckland	" <u>moderately high</u> , as part of the highly-rated whole Crater Hill Volcano, downgraded because it is dislocated from it"	As described in response to point b., Crater Hill is one of 19 explosion craters with surrounding tuff rings in the Auckland Volcanic Field (Hayward et al. 2011). This section of it is no longer an outstanding representative example as it has been extensively modified and dislocated by the construction of SH20. Nevertheless, the development proposal provides protection of the remanent features, being the crest/rim.
d. the extent to which the landform, geological feature or site is part of a recognisable group of features	" <u>moderate</u> , when viewed from numerous passing aeroplanes and the south; this is the highest and therefore most visible part of the volcanic cone"	Parts of the development maybe visible from within the crater, beyond SH20 (see Photograph Appendix C.14 to Photograph Appendix C.17) or from aircraft. Nevertheless, by setting back from and below the tuff ring rim the proposed development is not considered to further alter the ability to recognise the feature as part of the wider tuff ring.  In addition: <ul style="list-style-type: none"> <li>• The crater is not currently accessible to the public; and</li> <li>• I place limited weight on the momentary views provided from aircraft. When approaching from the east the development will merge with its existing urban neighbours and the crater and lake beyond SH20 are likely to become of the focal point for observers. When approaching from the</li> </ul>

Scheduling criteria	Hayward 2013	Comment
		<p>west the current (modified by SH20) inner face and crest of the tuff ring will remain recognisable.</p> <ul style="list-style-type: none"> <li>The images provided in Appendix D<sup>10</sup> show that the site has a subdued form from all but its western side. It is primarily discernible because it is undeveloped relative to its surrounds. Once developed it is likely to merge with its existing urban neighbours. The sites western frontage onto SH20 will not be materially changed by the proposed development. However, even passengers (or drivers in stationary traffic) only get an underwhelming, and normally momentary, view of the wider Crater Hill volcano when travelling along SH20 (see Photograph Appendix D.23 and Photograph Appendix D.24).</li> </ul>
e. the extent to which the landform or geological feature or site contributes to the value of the wider landscape	[no comment provided by Hayward]	The site contributes to the wider form of the Crater Hill volcanic landscape, albeit modified and dislocated by SH20. As described in response to the previous points, the development proposal is not expected to materially change this contribution.
f. the community association with, or public appreciation of, the values of the feature or site	[no comment provided by Hayward]	<p>I cannot comment conclusively on the community association with, or public appreciation of the values of the feature. However, given its limited discernibility and accessibility I expect that the general public has a low level of appreciation of the feature. As described in response to point a., the development will provide public access to the excellent views over the rest of the volcano. This has the potential to greatly increase the public appreciation of the wider Crater Hill volcanic centre.</p> <p>The unique features of the wider Crater Hill volcanic centre clearly have a high value to a small special interest group. However, as indicated above, these features will not be impacted by this proposal.</p>
g. the potential value of the feature or site for public education	<p>"moderate, as a view point over the volcano and surrounding countryside"</p> <p>[note comment is erroneously provided against point f. by Hayward]</p>	I give more weight to the educational value that the excellent views this development will provide over the wider Crater Hill.
h. the potential value of the feature or site to provide additional understanding of the geological or biotic history of the region	<p>"moderately low as potential for research on base surges and on the small explosion crater remnant"</p> <p>[note comment is erroneously provided]</p>	Agreed.

<sup>10</sup> Images were captured from Google Street View (in April 2021)

Scheduling criteria	Hayward 2013	Comment
	against point g. by Hayward]	
i. the state of preservation of the feature or site	" <u>moderate</u> , with significant damage and loss of value as a result of the motorway" [note comment is erroneously provided against point h. by Hayward]	Agreed.
j. the extent to which a feature or site is associated with an historically important natural event, geologically related industry, or individual involved in earth science research	[no comment provided by Hayward]	While not relevant to the reason for its inclusion as an ONF, I am not aware of the feature being associated with an historically important natural event, geologically related industry, or individual involved in earth science research, excepting the respected authors who have written about Crater Hill. However, as far as I am aware none of the authors is specifically recognised with respect to Crater Hill, rather all have been involved more widely in the study of the Auckland Volcanic Field.
k. the importance of the feature or site to Mana Whenua	[no comment provided by Hayward]	I am unable to comment on the importance of the feature or site to Mana Whenua but note that this was not considered to be a matter of relevance to the reason for its inclusion as an ONF.

- 37 In his assessment Hayward (2013) concludes that *"the high eastern portion of the tuff cone rim (east of the motorway)"* is *"regionally rare and outstanding"*. He assesses *"...that Crater Hill volcano as a whole (tuff cone and crater) is of national importance"*.
- 38 I concur with the approach of assessing the eastern portion of the tuff cone/ring, on which the subject site is located, separately from the wider Crater Hill volcanic centre from which it has been dislocated by the construction of SH20.
- 39 I also agree that the remanent inner slope of the tuff ring and its rim remain of significance. Accordingly, this development proposal seeks to protect the inner slope and rim of the tuff rim adjacent to the site.
- 40 However, in my opinion the outer tuff ring, which except for the subject site has been almost entirely built over (across its northern and eastern portions) does not warrant the same level of protection. Rather, consideration should be given to maintaining the general visual form of the outer tuff ring. This can be achieved by establishing new structures and/or vegetation which are sympathetic to the general form, rather than needing to limit excavation or development in these areas.