

BEFORE TAUPŌ DISTRICT COUNCIL

IN THE MATTER OF the Resource Management Act 1991 ('the Act')

AND

IN THE MATTER OF of an application for a Proposed Plan Change 36
Whareroa North Residential Area

**EVIDENCE OF WILLIAM BRUCE SHAW ON BEHALF OF
TAUPŌ DISTRICT COUNCIL**

Date: 22 April 2020

QUALIFICATIONS AND EXPERIENCE

- 1 I am Principal Ecologist and a Director of Wildland Consultants Ltd, and have been a practicing ecologist for more than 40 years. I have worked on many projects in Taupō District and have provided peer reviews of technical reports on the subject property at Whareroa (as described further in my evidence below). A longer overview of my qualifications and relevant experience is provided in Appendix 1.

CODE OF CONDUCT

- 2 I have read the Code of Conduct for Expert Witnesses outlined in the Environment Court's Consolidated Practice Note and have complied with it in preparing this evidence. I also agree to follow the Code when presenting evidence. I confirm that the issues addressed in this brief of evidence are within my area of expertise and that I have not omitted to consider material facts known to me that might alter or detract from my opinions.

SCOPE OF EVIDENCE

- 3 I have been engaged to provide a statement of evidence by Taupō District Council. My evidence forms part of the District Council Section 42A Evaluation of the proposed Private Plan Change.
- 4 In my evidence I address the following issues:
 - Background.
 - Previous involvement at Whareroa.
 - Statutory context.
 - Technical review undertaken in 2020.
 - Ecological significance of vegetation and habitats.
 - Comments on submissions.
- 12 This is followed by discussion of ecological issues and my conclusions.

BACKGROUND

- 5 Taupō District Council is processing a private plan change request from The Proprietors of Hauhungaroa No 6. The Council, has notified the Plan Change and received submissions and is preparing for the subsequent hearing.
- 6 The Plan Change seeks to rezone approximately 14.63 hectares on the western edge of Lake Taupō adjoining the existing Whareroa Settlement, from Rural Environment to Residential Environment.
- 7 The intent of the application is to provide an additional 140-160 residential sections, with densities ranging between 500m² to 1,100m². The request seeks to constrain residential development, by way of consent notice through subdivision, a maximum of one (1) dwelling per lot, i.e. a maximum of 160 dwellings.
- 8 A new access road to the proposed 'village' is required to pass through a Significant Natural Area (SNA 062) recognised in the Operative Taupō District Plan. The proponent seeks to address this matter by way of a subsequent resource consent under the more general provisions of the Plan (Rules 4e6.2, 4b.2.7 and 4b.2.8), rather than to resolve it through the Plan Change process.
- 9 In addition, the proposal seeks to remove indigenous vegetation, which is referred to in the application as 'regenerating scrub'.

PREVIOUS INVOLVEMENT AT WHAREROA

- 10 I first visited the site in 2007 and subsequently, in the period 2007-2009, produced various reports and provided comments on ecological aspects of a proposed structure plan at Whareroa: Wildland Consultants 2007a, 2007b, 2008, and 2009.
- 11 In 2020 I provided a further review of ecological information available to underpin the Proposed Plan Change (Wildland Consultants 2020). The project brief was to provide a peer review of the ecological assessment for the Whareroa Private Plan Change, including:
 - An assessment of the quality and comprehensiveness of the assessment and whether it meets best practice.
 - Identification of areas of potential adverse effect that will require further assessment and/or response.

- Whether the assessment provided on the ecological effects are adequate and can be relied upon for this application.

STATUTORY CONTEXT

National Policy Statements

- 12 The National Policy Statement (NPS) Freshwater Management is potentially relevant as it contains a suite of objectives with a strong focus on safeguarding the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water. As such, the NPS Freshwater Management is relevant to the stream crossing and any activities that could affect the stream and/or the receiving environment of the lake.
- 13 The Proposed NPS on Indigenous Biodiversity currently has no statutory weight but does nevertheless provide useful national-level context (and could potentially become operative prior to a resource consent stage for this project). The Proposed NPS, if retained in its current form, will provide strongly directive policy to avoid any net loss of indigenous biodiversity. It will also provide a standard set of criteria to be used for the assessment of ecological significance across Aotearoa/New Zealand.

Waikato PRPS And Regional Plan

- 14 The site is within the Waikato Region and is subject to provisions in the Waikato Regional Policy Statement (WRPS) and the Waikato Regional Plan (WRP). Relevant WRPS policies are set out in Appendix 2. Policy 11.1.1 sets out a requirement to maintain or enhance indigenous biodiversity when undertaking activities such as subdivisions. Policy 11.1.2 identifies the types of adverse effects that can occur, e.g. fragmentation, loss of corridors and connections, loss of ecological sequences, effects on water quality, changes resulting from the effects of pest plants and animals, and so on.
- 15 The WRPS criteria set to be used for the assessment of ecological significance is set out in Appendix 3.
- 16 The Waikato Regional Plan contains stringent provisions relating to the protection of Lake Taupō and its catchment.

Taupō District Plan

- 17 The project site is immediately adjacent to an area of indigenous vegetation formally recognised in the Taupō District Plan as a Significant Natural Area - SNA 062. It is proposed that a new access road will be formed to the subdivision through the SNA. A new bridge will also be required to cross the Whareroa Stream.
- 18 District Plan provisions relating to indigenous biodiversity are set out in Appendix 4.
- 19 The District Plan contains provisions that recognise the concept of Net Environmental gain:
- “The concept of Net Environmental Gain recognises that in some instances, a level of disturbance to Significant Natural Areas can be balanced by other measures that may result in an overall increase in the level of protection for such Areas. Fencing, pest control, planting, etc can all contribute to their protection and therefore help to enhance such Areas. However, such measures would have to be of a scale that is sufficient to result in some measurable benefit to a Significant Natural Area, and will need to be assessed on a case by case basis. This concept can also be extended to development outside of SNAs that result in the appropriate enhancement of areas of natural value that would not otherwise occur.”*
- 20 Within Taupō District, Whareroa is addressed in the Southern Settlements Structure Plan.

Southern Settlements Structure Plan

- 21 The potential expansion of Whareroa has been addressed in the ‘Southern Settlements Structure Plan’ (TDC 2013), and the following excerpts are from that document:
- 22 *“The area identified for future growth is detailed on the plan below and comprises three distinct areas:*
- i. The upper plateau, being an open grazed pasture area with flat to gently undulating topography and a natural ‘bowl’ landform (WFG1);*
 - ii. The upper plateau area with regenerating bush (WFG2); and*
 - iii. The steep river corridor and lake escarpment with regenerating bush.*

In addition, the growth area is bordered by the Poukura Marae lands to the north, open pasture to the west, Te Kokomiko Point significant natural area to the south and Western Lake Taupō Bays outstanding landscape area and Lake Taupō to the east. Specifically the development site is subject to Significant Natural (SNA) and Outstanding Landscape Area (OLA) notations; SNA 062 and OLA 60 respectively.

SNA 062 is an ecological area around the Lake edge and Whareroa Stream. Its ecological features include the site of a large tract of native forest which is habitat for two threatened bird species; karearea (NZ bush falcon) and kereru (native wood pigeon). Development that results in indigenous vegetation clearance within the SNA will need to ensure the objectives, policies and implementation methods in section 3i of the District Plan are met. This may require particular attention by a suitably qualified and experienced ecologist.”

23 The Structure Plan also includes the following requirement:

“As a result of this Structure Plan assessment, any plan change proposing future development in Whareroa future growth area shall consider (but not be limited to) the following:

- Potential effects of development on the significant natural area (SNA) including assessment against the relevant objectives, policies, and implementation methods of the Taupō District Plan, Waikato Regional Policy Statement and Region Plan;*
- Ecological effects of the removal of indigenous vegetation (if any) and potential for new ecological corridors and connections to be made;*
- Any need for potential erosion control;*
- Potential conflict that may arise between the desire for views and new vegetation planting;*
- Retaining buffer vegetation between the built environment and remaining farm land.”*

TECHNICAL REVIEW UNDERTAKEN IN 2020

Resource Information

- 24 The applicant has provided the following information on ecological aspects of the proposed plan change:
- Bioresearches 2005: Ecological characteristics of the north side development area and adjoining Whareroa Stream riparian habitat. *Bioresearches Group Ltd Report*. Prepared for Blance and Associates. 51 pp plus photographs.
 - Bioresearches 2007: Whareroa structure plan comments. *Bioresearches Group Ltd Report*. Prepared for Lewis Consultancy, Taupō. 1 p.
 - Bioresearches 2019: Whareroa Village vegetation report. Final Whareroa Memo. *Bioresearches Report*. 7 pp.
 - Barr B. and Habgood M. 2007: Report on the long-tailed bat (*Chalinolobus tuberculatus*) survey conducted at Pt Hauhungaroa 6A Block, Whareroa North. *Unpublished report*. Te Ngāhere, Auckland. 3 pp.
 - Barr B. and Habgood M. 2008: Report on the lizard survey conducted at Pt Hauhungaroa 6A Block, Whareroa North March 2008. *Unpublished report*. Te Ngāhere, Auckland. 4 pp.

Comments on Bioresearches 2005 and 2019

- 25 A reasonably comprehensive review of Bioresearches (2005) was provided by Wildland Consultants (2007a). Bioresearches (2005) assessed the vegetation and avifauna but is now 15 years old, and a more recent assessment of the vegetation cover (Bioresearches 2019) has also been provided.
- 26 Bioresearches (2005) divided the area into two broad zones:
- North Side Development Area.
 - Whareroa Stream Riparian Habitat.
- 27 Bioresearches (2005) considered that both the 'North Side Development Area' and the 'Whareroa Stream Riparian Habitat' trigger two Waikato Regional Council ecological significance criteria: "an under-represented vegetation type and an area of

representative vegetation”. Bioresearches (2005, page 34) also noted that the presence of a conservation covenant along the Whareroa Stream means that this area is automatically considered to be regionally significant.

- 28 Bioresearches (2019) provides a more recent description of the vegetation and flora in the North Side Development Area, but does not address the Whareroa Stream Riparian Habitat described by Bioresearches (2005).
- 29 Bioresearches (2019) provides a more detailed description of the vegetation and habitats present in the ‘*North Side Development Area*’ and notes that the vegetation has increased in stature, which is what would be expected over the intervening 14 years since the previous survey. The later survey was presumably undertaken in 2019, but a field survey date is not provided in Bioresearches (2019).
- 30 Bioresearches (2019) does not provide an assessment of the relative ecological significance of the vegetation in the ‘*North Side Development Area*’, and does not refer to SNA 062.
- 31 Neither Bioresearches (2005) or Bioresearches (2019) provide an assessment of the adverse ecological effects that will result from subdivision and development of either the ‘*North Side Development Area*’ or the ‘*Whareroa Stream Riparian Habitat*’, such as:
- Loss of indigenous vegetation within an SNA as a result of clearance for roading.
 - Fragmentation of indigenous vegetation within an SNA.
 - Edge effects along the road to be formed through indigenous vegetation.
 - Increased potential for weed invasion along edges and associated with domestic houses.
 - Increased numbers of domestic cats and potential for increased predation of indigenous fauna.
- Fragmentation of significant indigenous vegetation immediately adjacent to Lake Taupō.
- Increased potential for tracking and other localised disturbance and clearance of indigenous vegetation immediately adjacent to the site.

- 32 There is also no assessment of how adverse effects will be avoided, minimised, mitigated, offset, or otherwise compensated for.

Bats

- 33 Barr and Habgood (2007) undertook an appropriate bat survey 13 years ago and no bats were detected. The short survey period, however, means that the presence of bats at the site cannot be ruled out.

Lizards

- 34 The survey undertaken 12 years ago by Barr and Habgood (2008) was comprehensive and involved a good level of effort using a range of detection techniques. The survey was undertaken at an appropriate time of the year (November and December), in appropriate weather and temperature conditions.
- 35 Indigenous lizard records within a five kilometre radius of the site are extremely limited with only a single unidentified gecko (2015) listed in the Department of Conservation's herpetofauna database. Within a 10 kilometre radius there are four records of elegant gecko (*Naultinus elegans*) that were detected between 2004 and 2017 to the south of the project site, and a single record of speckled skink (*Oligosoma infrapunctatum*) from 2005 (noting that the correct identification of this species is most likely crenulate skink; *O. aff. infrapunctatum* "crenulate").
- 36 However, given the period of time that has elapsed since the survey was undertaken, a precautionary approach may be justified and a brief follow-up survey could be undertaken. The purpose of this would be to confirm lizard habitat conditions remain the same, and could involve a brief survey over one or two days, using hand-searching and spotlighting techniques. It is noted in Bioresearches (2019) that pig sign was present and feral pigs may have removed ground lizards, but arboreal species will not have been affected by pigs.

ECOLOGICAL SIGNIFICANCE OF VEGETATION AND HABITATS

- 37 Bioresearches (2005) and Bioresearches (2019) mapped the vegetation and habitats in four zones: 1 - pasture, 2 - regenerating scrub, 3 - tall scrub, and 4 - scrub on tall slope above the stream, and Bioresearches (2005) also mapped a Zone 5 - scrub of steep slope above lake. Refer to Appendix 5 which is a map showing the boundary of the proposed residential area, and the road to be formed through indigenous

vegetation Zones 2-4. Brief descriptions of these zones are provided below, along with commentary on terminology and the relative degree of successional development of woody habitat types.

- 38 **Zone 1** is pasture dominated by exotic grasses.
- 39 **Zone 2** ‘Regenerating scrub’ is 8-9 metres tall and is predominantly kānuka and five finger, and is “consistent with Zone 3 - tall scrub of five finger and kānuka” (Bioresearches 2019). The stature of this vegetation type (i.e. 8-9 metres tall) means that it would be more appropriately termed ‘early successional secondary forest’.
- 40 **Zone 3** is described as “tall scrub of five finger and kānuka”. No height is given for the vegetation by Bioresearches (2019) but heights for kānuka of up to 13-16 metres and diameters of 20-30 cm are provided by Bioresearches (2005), along with heights for five finger and kohūhū of 6-10 metres. Based on these dimensions, this vegetation type is definitely secondary forest, not “tall scrub”. Given that it is 15 years since the description provided by Bioresearches (2005), this vegetation type will be even taller and more developed forest.
- 41 **Zone 4** is described as “scrub on steep slope above stream” (Bioresearches 2019) and in 2005 it was described as comprising kānuka and five finger to eight metres in height, with some kānuka up to 16 metres (Bioresearches 2005). This is also clearly forest, rather than “scrub”.
- 42 **Zone 5** is described by Bioresearches (2005) as “scrub of steep slope above lake”, but was not described by Bioresearches (2019). This type was dominated by fivefinger and kohūhū, but no heights were provided.
- 43 Ecological significance of the five vegetation and habitat zones described in Bioresearches (2005 and 2019) is assessed below against the ‘criteria for determining significance of indigenous biodiversity’ provided in the Waikato RPS (refer to Appendix 3 for the criteria set)

RPS Criteria	Vegetation and Habitat Zones				
	1	2	3	4	5
1					
2					
3		✓	✓	✓	✓
4					
5					
6					
7		✓	✓	✓	✓

RPS Criteria	Vegetation and Habitat Zones				
	1	2	3	4	5
8					
9		✓	✓	✓	✓
10					
11		✓	✓	✓	✓

45 Vegetation and habitat types in four of the five zones (i.e. 2-5) trigger at least four Waikato RPS criteria, and are ecologically significant (only a single criterion needs to be triggered for a feature to be considered to be ecologically-significant).

46 It is notable that Bioresarches (2005) also considered that both the 'North Side Development Area' and the 'Whareroa Stream Riparian Habitat' trigger the Waikato Regional Council criteria for ecological significance, and suggested that they were of local and regional significance, respectively.

COMMENTS ON SUBMISSIONS

47 Six submissions - all opposed to the proposal - have addressed ecological matters, as set out below.

Submitter 1 - R. and D. Ewen

48 This submitter has raised concerns about:

- Potential effects on the lake and the stream.
- Effects of the access roading on the environment.

49 *Response:* These are valid concerns. No information is provided in the application on how these matters are to be addressed.

Submitter 9 - I. Sutcliffe

50 This submitter has raised concerns about:

- Adverse effects on ecological natural characteristics of the environment.
- Potential effects on the Whareroa Stream.
- The extent of indigenous vegetation to be removed and the reliance on unspecified mitigation.

- The lack of information on the above matters.

51 *Response:* These are valid concerns as the matters have not been addressed in the application.

Submitter 10 - C. Skipper

52 This submitter has raised concerns about:

- Detrimental effects on “endemic creatures of New Zealand”.
- The importance of indigenous trees and shrubs to birds in the local environment.
- The special character of the “land and bush”.

53 *Response:* These are valid concerns, as these matters have not been addressed in the application.

Submitter 13 - R. and J. Colman

54 This submitter has raised concerns about:

- Native bush and wildlife.
- Use of the stream to be crossed with a bridge as spawning habitat for brown trout.

55 *Response:* These are valid concerns as they have not been addressed in the application.

Submitter 14 - M.T. Miller

56 This submitter has raised concerns about:

- The “fragile ecological area”.
- The access road.
- Sewerage plant.

57 *Response:* These are valid concerns as they have not been addressed in the application.

Submitter 17 - Waikato Regional Council

58 This submitter has raised concerns about:

- Maintenance and enhancement of biodiversity values.
- Plan change does not adequately give effect to the Waikato RPS.
- Lack of consideration of access to the site, including effects on an identified SNA.
- Lack of information on the scale of effects likely to result from the Plan Change.
- *“WRPS Policy 11.2.2 requires that SNAs are protected and that activities avoid loss in preference to remediation or mitigation. The WRPS then considers employing a hierarchy of remediation, mitigation and then applying biodiversity offsets for residual adverse effects that cannot be avoided, remedied or mitigated. It would be useful to know and understand as part of the plan change process how and where within the applicant’s site adverse effects on SNAs are to be avoided, and how and where to employ mitigation and offsetting measures. It is important that the impacts on the high value local ecology and outstanding landscape are considered alongside the other merits of the proposed plan change.”*
- *“WRPS Policy 6.1 requires that subdivision, use and development of the built environment, including transport, occurs in a planned and coordinated manner which has regard to the principles in section 6A. New development should be directed away from natural hazard areas (6A(h)) and should promote positive indigenous biodiversity outcomes and protect significant indigenous vegetation and significant habitats of indigenous fauna (6A(k)). The indicative access does not fulfil either of these principles.”*
- The development is contingent on road access therefore options should be proposed and considered through this private plan change application. Providing policy direction at the outset of the development would be preferable to relying on a staged resource consent process and would enable a coordinated approach to biodiversity offsetting for the development as a whole. Given the potential impact the access will have on the SNA, ONF and the Whareroa Stream it would be preferable that alternative access route options are investigated, including access from the north of Whareroa Stream. There are already small pockets of

residential development, and forestry roads located to the north of the subject site which have not been presented as alternative options. These options should be considered as alternatives.”

- *“The principles in section 6A are not absolutes and it is recognised that in some cases, certain principles may need to be traded off against others. The RPS notes that ‘It is important however, that all principles are appropriately considered when councils are managing the built environment.’ Consideration of the practicalities of accessing the proposed subdivision should form part of the planned and coordinated plan change process. Given the subdivision is contingent on road access it would be inappropriate to not consider the access options via this plan change, rather than a resource consent. The applicant has not demonstrated that access can be provided to the proposed subdivision. An indicative route up the steep slope on the northern side of the Whareroa Stream has been provided, but this route does not currently form part of the plan change under consideration. This indicative access route faces two potentially significant environmental constraints:*
 1. *The route goes through a Taupō District Plan Significant Natural Area – SNA 062 Te Kokomiko Point, Poukara Pa Bush, Whareroa Stream (Figure 4). SNA 062 meets criterion 3 (habitat for threatened species) due to the presence of NZ falcon and long-tailed cuckoo. Long-tailed cuckoo (or koekoea), an ‘At Risk’ naturally uncommon endemic species, relies upon whitehead (popokatea), its ‘At Risk’ declining North Island host. Whitehead are found in the SNAs along the western shores of Taupō, particularly where strong connections exist to the Hauhangaroa Ranges to the west. If formed, the access at this site would contribute to the cumulative fragmentation of the functional corridor that connects the bulk of this SNA to the western ranges. Access to the proposed development is contingent upon clearance of the vegetation that forms this important habitat.”*
- *“An assessment of the biodiversity of the subject site was included as part of the proposal. However, this assessment does not adequately consider the wider locality, in particular the possible ecological connections which exist along the western shores of lake Taupō and span towards Hauhangaroa Ranges to the west. As outlined in the access section above, the indicative access route goes through a Taupō District Plan Significant Natural Area – SNA 062 Te Kokomiko*

Point, Poukara Pa Bush, Whareroa Stream (Figure 4). SNA 062 meets criterion 3 (habitat for threatened species) due to the presence of NZ falcon and long-tailed cuckoo. Long-tailed cuckoo (or koekoea), an 'At Risk' naturally uncommon endemic species, relies upon whitehead (popokatea), its 'At Risk' declining North Island host. Whitehead are found in the SNAs along the western shores of Taupō, particularly where strong connections exist to the Hauhangaroa Ranges to the west. If formed, the access at this site would contribute to the cumulative fragmentation of the functional corridor that connects the bulk of this SNA to the western ranges. Clearance of the vegetation that forms this important habitat would be required."

- *"WRPS Development Principle 6A(k) states that new development should "promote positive indigenous biodiversity outcomes and protect significant indigenous vegetation and significant habitats of indigenous fauna".*

59 *Response:* These are valid concerns as they have not been addressed in the application.

DISCUSSION

60 As noted above, indigenous vegetation to be cleared for access to the site has longstanding recognition in the District Plan as SNA 062. Recent desktop reassessment of SNAs in Taupō District - undertaken by Wildland Consultants for the District Council - has resulted in more of the site being potentially recognised as an SNA, i.e. Zone 2 described in Bioresearches (2005 and 2019). Evaluation of aerial photographs was used in the desktop assessment - with no detailed field assessments at this stage - but information on vegetation composition and stature provided in Bioresearches (2019) supports the status of the SNA recognised in the District Plan, and also the additional area identified in the desktop study, i.e. Zone 2. It is acknowledged in this evidence that the recent desktop SNA evaluation has no statutory status in the Operative District Plan.

61 SNA 062 is significant in terms of the District Plan, criteria in the Waikato Regional Policy Statement (RPS), and Section 6c of the Resource Management Act (RMA) 1991. The additional area identified in the desktop assessment (i.e. Zone 2 mapped and described in Bioresearches 2005 and 2019, see Appendix 5) is likely to trigger the same criteria in the Waikato RPS and, if this is the case, would also be significant in terms of Section 6c of the RMA.

62 The application for the Plan Change refers to the proposed development resulting in the following ecological effects:

- Potential effects of bridge/road and associated works at the margin and in relation to the Whareroa Stream environment.
- Potential effects of vegetation removal required to provide access for road and services through the river escarpment up to the residential development area (through the SNA).
- Potential edge effects arising from the future residential area adjoining parts of SNA 062.

63 The application goes on to mention concepts such as net environmental gain, legal and physical protection of the SNA, and indigenous planting but no details are provided as it is claimed that these matters will be dealt with at the resource consent stage. The reality is, however, that key elements of this project are to be located within a context which comprises a sensitive and significant natural environment and will involve clearance of a reasonably large area of indigenous forest, a substantial bridge across a sensitive stream, and substantial earthworks to form the accessway and the subdivision site.

64 For this type of development - within such a sensitive environment, and within a policy framework that clearly places considerable importance on the types of ecological values that are clearly present at this site, and off-site and could also be affected – it would be usual to expect very considerable detail on the ecological effects that are to occur. This would typically be accompanied by a comprehensive package of mitigation, biodiversity offsets, and/or compensation. There is a serious possibility at this site that the applicant may not be able to provide a package that could actually attain net environmental gain, or even a 'balancing' of the impacts against the mitigation/offsets/compensation to be provided. Accordingly, there is no context provided as to whether such consents could be obtained, and therefore no comfort can be provided that the rezoning should / could occur in the absence of such. Neither, and perhaps more appropriately are these matters more comprehensively considered (and associated management regimes identified) as integrated into the Plan Change request itself. Ultimately, I am unable to speculate on potential ecological outcomes as no detailed information is provided on the effects or measures required to address them.

CONCLUSIONS

- 65 There is no doubt that indigenous vegetation at the site is significant.
- 66 A reasonable level of resource information has been provided by the applicant, although some is quite dated. Some of the information provided seems to under-rate the degree of development of the indigenous vegetation, i.e. referring to it as “scrub” when it is forest.
- 67 No information is provided on the type and scale of adverse effects that will occur.
- 68 A critical deficiency is that no information is provided on how the suite of significant adverse effects that will occur will be addressed, i.e. avoided, minimised, mitigated, offset, or compensated for.
- 69 Because of these deficiencies, the information provided does not meet the requirements of the Southern Settlements Structure Plan. It also doesn’t address key policy requirements in the District Plan and the Waikato RPS.
- 70 Accordingly, on ecological grounds, I can’t support approval of the Plan Change, which should be rejected.

REFERENCES

- Barr B. and Habgood M. 2007: Report on the long-tailed bat (*Chalinolobus tuberculatus*) survey conducted at Pt Hauhungaroa 6A Block, Whareroa North. *Unpublished report*. Te Ngāhere, Auckland. 3 pp.
- Barr B. and Habgood M. 2008: Report on the lizard survey conducted at Pt Hauhungaroa 6A Block, Whareroa North March 2008. *Unpublished report*. Te Ngāhere, Auckland. 4 pp.
- Bioresearches 2005: Ecological characteristics of the north side development area and adjoining Whareroa Stream riparian habitat. Bioresearches Group Ltd Report. Prepared for Blance and Associates. 51 pp plus photographs.
- Bioresearches 2007: Whareroa structure plan comments. Prepared for Lewis Consultancy, Taupō. 1 p.
- Bioresearches 2019: Whareroa Village vegetation report. Final Whareroa Memo. *Bioresearches Report*. 7 pp.
- TDC 2013: South Settlements Structure Plan. Taupō District Council. 75 pp.
- Wildland Consultants 2007a: Comments on ecological aspects of the proposed Whareroa Structure Plan and Private Plan Change, Taupō District. *Wildland Consultants Ltd Contract Report No. 1717*. Prepared for Taupō District Council. 5 pp.

Wildland Consultants 2007b: Comments on constraints and opportunities analysis for Whareroa Structure Plan process. *Wildland Consultants Ltd Contract Report No. 1717a*. Prepared for Taupō District Council. 2 pp.

Wildland Consultants 2008: Whareroa Structure Plan process: objectives and policies/ criteria constraints and opportunities. *Wildland Consultants Ltd Contract Report No. 2089*. prepared for Taupō District Council. 5 pp.

Wildland Consultants 2009: Whareroa Structure Plan - comments on further information. *Wildland Consultants Ltd Contract Report No. 2089a*. Prepared for Taupō District Council. 9 pp.

Wildland Consultants 2020: Comments on ecological aspects of the proposed Whareroa Private pan Change. *Wildland Consultants Ltd Contract Report No. 5368a*. Prepared for Taupō District Council. 30pp.

APPENDIX 1: Qualifications and Experience

I am Principal Ecologist and a Director of Wildland Consultants Ltd, based in Rotorua. I have a Master of Science degree from the University of Canterbury, 1980, and a Bachelor of Science in Earth Sciences and Biology (double major) from the University of Waikato, 1977.

My professional memberships include the Royal Society of New Zealand (MRSNZ), the New Zealand Ecological Society, the New Zealand Institute of Forestry (MNZIF), the New Zealand Biosecurity Institute, the Ornithological Society of New Zealand, and the New Zealand Botanical Society.

I am the author of 24 conference papers, 25 scientific or technical publications, 39 published articles, and more than 500 ecological reports, species lists, and general ecological accounts.

I have been a practising ecologist since 1980, and have lectured in ecology and nature conservation at Lincoln College and the Waiariki Institute of Technology. I previously worked for a consulting firm in Christchurch, and have undertaken ecological survey work and related assessments in urban, rural, and remote back country situations over more than 40 years. From 1986-1990 I was employed as a Scientist by the Forest Research Institute, Rotorua, specialising in forest ecology, threatened plants, vegetation mapping, and the ranking and management of natural areas. From 1990 to 1996 I was a Conservancy Advisory Scientist (1990-1994) and then (1994-1996) Protection, Planning and Use Manager for the Department of Conservation. I also performed national-level roles with the Department.

Since 1996 I have been Principal Ecologist and a Director of Wildland Consultants Ltd. I have particular expertise in the evaluation of ecological significance, ecological management, especially ecological restoration, and the assessment of ecological effects of actual and proposed land uses.

Ecological evaluation is a discipline in which I have more than 35 years of experience having, in the 1980s, developed an ecological ranking system that was applied regionally and nationally by the Department of Conservation. I have also developed, for Environment Waikato, a technical guideline for application of natural heritage criteria in their Regional Policy Statement, been an advisor to the Ministry for the Environment on criteria for the evaluation of Section 6(c) of the Resource Management Act, developed ecological evaluation criteria for the previous Bay of Plenty Regional Policy Statement (which became

operative in January 2008), and developed (with Dr Kelvin Lloyd) ecological criteria for the Canterbury Regional Policy Statement.

My professional experience in Taupō District extends over c.35 years and includes the following:

- Ecological assessments of proposed subdivisions.
- Ecological input for structure plans.
- Botanical surveys of reserves.
- Ecological assessments of Significant Natural Areas on private land.
- Provision of advice on the management of threatened ecosystems, habitats, and species, including management of pest plants and animals.
- A major assessment of contorta pine, a serious pest plant across the Kaingaroa Plateau and adjacent inland ranges.
- Surveys and provision of management advice on geothermal areas.
- Ecological assessments of major infrastructure projects, such as the Taupō Eastern Arterial and the associated bridge over the Waikato River.
- Wetland surveys along the Waikato River.
- Avifauna surveys along the Waikato River.
- Ecological assessments of proposed tourism/recreational developments, such as mountain biking and walking trails, ziplines, ski facilities, and other activities.
- Botanical surveys of large tracts of indigenous forest.
- Forest condition surveys.
- Ecological assessments of large exotic plantation forest estates.
- Preparation of ecological restoration plans for terrestrial and wetland sites.

APPENDIX 2: Waikato Regional Policy Statement Policies on Indigenous Biodiversity

11.1.1 Maintain or enhance indigenous biodiversity

Regional and district plans shall maintain or enhance indigenous biodiversity, including by:

- a. providing for positive indigenous biodiversity outcomes when managing activities including subdivision and land use change;
- b. having regard to any local indigenous biodiversity strategies developed under Method 11.1.11; and
- c. creating buffers, linkages and corridors to protect and support indigenous biodiversity values, including esplanade reserves and esplanade strips to maintain and enhance indigenous biodiversity values.

11.1.2 Adverse effects on indigenous biodiversity

Regional and district plans shall recognise that adverse effects on indigenous biodiversity within terrestrial, freshwater and coastal environments are cumulative and may include:

- a. fragmentation and isolation of indigenous ecosystems and habitats;
- b. reduction in the extent and quality of indigenous ecosystems and habitats;
- c. loss of corridors or connections linking indigenous ecosystems and habitat fragments or between ecosystems and habitats;
- d. the loss of **ecological sequences**;
- e. loss or disruption to migratory pathways in water, land or air;
- f. effects of changes to hydrological flows, water levels, and water quality on ecosystems;
- g. loss of buffering of indigenous ecosystems;
- h. loss of ecosystem services;
- i. loss, damage or disruption to ecological processes, functions and ecological integrity;
- j. changes resulting in an increased threat from animal and plant pests;
- k. effects which contribute to a cumulative loss or degradation of indigenous habitats and ecosystems;
- l. noise, visual and physical disturbance on indigenous species, particularly within the ; and
- m. loss of habitat that supports or provides a key life-cycle function for indigenous species listed as 'Threatened' or 'At Risk' in the New Zealand Threat Classification System lists.

11.1.3 Avoidance, remediation, mitigation and offsetting (for indigenous biodiversity that is not significant)

Regional and district plans:

a. for non-significant indigenous vegetation and non-significant habitats of indigenous fauna (excluding activities pursuant to 11.1.4):

i. shall require that where loss or degradation of indigenous biodiversity is authorised adverse effects are avoided, remedied or mitigated (whether by onsite or offsite methods).

ii. should promote biodiversity offsets as a means to achieve no net loss of indigenous biodiversity where significant residual adverse effects are unable to be avoided, remedied or mitigated.

iii. when considering remediation, mitigation or offsetting, methods may include the following:

- i. replacing the indigenous biodiversity that has been lost or degraded;
- ii. replacing like-for-like habitats or ecosystems (including being of at least equivalent size or ecological value);
- iii. the legal and physical protection of existing habitat;
- iv. the re-creation of habitat; or
- v. replacing habitats or ecosystems with indigenous biodiversity of greater ecological value.

b. for significant indigenous vegetation and significant habitats of indigenous fauna Method 11.2.2 applies

APPENDIX 3 – Waikato Regional Policy Statement Criteria for Determining Significance of Indigenous Biodiversity

11A Criteria for determining significance of indigenous biodiversity

The following criteria are to be used to identify areas of significant indigenous biodiversity and their characteristics as they exist at the time the criteria are being applied. Criteria may be specific to a habitat type including water, land or airspace or be more inclusive to address connectivity, or movement of species across habitat types.

To be identified as significant an area needs to meet one or more of the criteria identified in the table below.

Areas of significant indigenous biodiversity shall not include areas that have been created and subsequently maintained for or in connection with:

- artificial **structures** (unless they have been created specifically or primarily for the purpose of protecting or enhancing biodiversity); or
- beach nourishment and coastal planting (unless they have been created specifically or primarily for the purpose of protecting or enhancing biodiversity).

Table11-1: Criteria for determining significance of indigenous biodiversity

Previously assessed site	
1.	It is indigenous vegetation or habitat for indigenous fauna that is currently, or is recommended to be, set aside by statute or covenant or by the Nature Heritage Fund, or Ngā Whenua Rāhui committees, or the Queen Elizabeth the Second National Trust Board of Directors, specifically for the protection of biodiversity, and meets at least one of criteria 3-11.
Ecological values	
2.	In the Coastal Marine Area, it is indigenous vegetation or habitat for indigenous fauna that has reduced in extent or degraded due to historic or present anthropogenic activity to a level where the ecological sustainability of the ecosystem is threatened.
3.	It is vegetation or habitat that is currently habitat for indigenous species or associations of indigenous species that are: classified as threatened or at risk, or

	to the Waikato region, or
	at the limit of their natural range.
4.	It is indigenous vegetation, habitat or ecosystem type that is under-represented (20% or less of its known or likely original extent remaining) in an Ecological District, or Ecological Region, or nationally.
5.	It is indigenous vegetation or habitat that is, and prior to human settlement was, nationally uncommon such as geothermal, chenier plain, or karst ecosystems, hydrothermal vents or cold seeps.
	It is wetland habitat for indigenous plant communities and/or indigenous fauna communities (excluding exotic rush/pasture communities) that has not been created and subsequently maintained for or in connection with:
	waste treatment;
6.	wastewater renovation;
	hydro electric power lakes (excluding Lake Taupō);
	water storage for irrigation; or
	water supply storage;
	unless in those instances they meet the criteria in Whaley et al. (1995).
7.	It is an area of indigenous vegetation or naturally occurring habitat that is large relative to other examples in the Waikato region of similar habitat types, and which contains all or almost all indigenous species typical of that habitat type. Note this criterion is not intended to select the largest example only in the Waikato region of any habitat type.
8.	It is aquatic habitat (excluding artificial water bodies, except for those created for the maintenance and enhancement of biodiversity or as mitigation as part of a consented activity) that is within a stream, river, lake, groundwater system, wetland, intertidal mudflat or estuary, or any other part of the coastal marine area and their margins, that is critical to the self sustainability of an indigenous species within a catchment of the Waikato region, or within the coastal marine area. In this context “critical” means essential for a specific component of the life cycle and includes breeding and spawning grounds, juvenile nursery areas, important feeding areas and migratory and dispersal pathways of an indigenous species. This includes areas that maintain connectivity between habitats.
	It is an area of indigenous vegetation or habitat that is a healthy and representative example of its type because:
9.	its structure, composition, and ecological processes are largely intact; and if protected from the adverse effects of plant and animal pests and of adjacent land and water use (e.g. , discharges, erosion, sediment disturbance), can maintain its ecological sustainability over time.
10.	It is an area of indigenous vegetation or habitat that forms part of an , that is either not common in the Waikato region or an ecological district, or is an exceptional, representative example of its type.
Role in protecting ecologically significant area	
11.	It is an area of indigenous vegetation or habitat for indigenous species (which habitat is either naturally occurring or has been established as a mitigation measure) that forms,

either on its own or in combination with other similar areas, an ecological buffer, linkage or corridor and which is necessary to protect any site identified as significant under criteria 1-10 from external adverse effects.

APPENDIX 4: Excerpts from the Operative Taupō District Plan

ISSUE 4 – THE NATURAL ENVIRONMENT

Within the Taupō District there are a number of outstanding natural areas, features and landscapes that are of significance. Often natural features are subject to a range of conflicting development pressures. Balance is required between the competing demands of protecting those areas, the community's desire to use and enjoy those areas, and the landowners' right to use those areas.

Of special importance within the District are waterbodies, being some of the District's greatest natural assets. Many values are associated with these waterbodies, including resource use, recreation, natural, cultural and historic values that all need to be appropriately incorporated in to their management. Of concern is the potential for activities on the surface of the water to have adverse effects on the amenity values of particular waterbodies, causing conflict and limiting the waterbodies' capacity to cope with use.

In particular, Lake Taupō, considered by many to be the central natural feature and taonga of the District, is a significant natural feature. Only a long term and integrated approach to resource management in the Lake Taupō catchment will be effective in dealing with the complex and often inter-related resource management issues facing this waterbody. Of importance is water quality, with nutrient inputs from sources such as run-off from pastoral agriculture activities, poorly managed on-site effluent treatment, and stormwater from roads and development, thereby deteriorating the existing quality of water.

The protection and enhancement of the District's natural environment is an important issue locally, nationally and internationally. The identification and protection of our natural areas is important with the District Plan providing a range of opportunities to achieve this.

The Plan includes the results of research undertaken by the Council in the identification of the District's valued landscapes and natural environment. Proposed development or activities will be required to demonstrate an understanding of the pressures and the threats and the community values associated with these natural areas in order to avoid, remedy or mitigate any adverse effects on the environment.

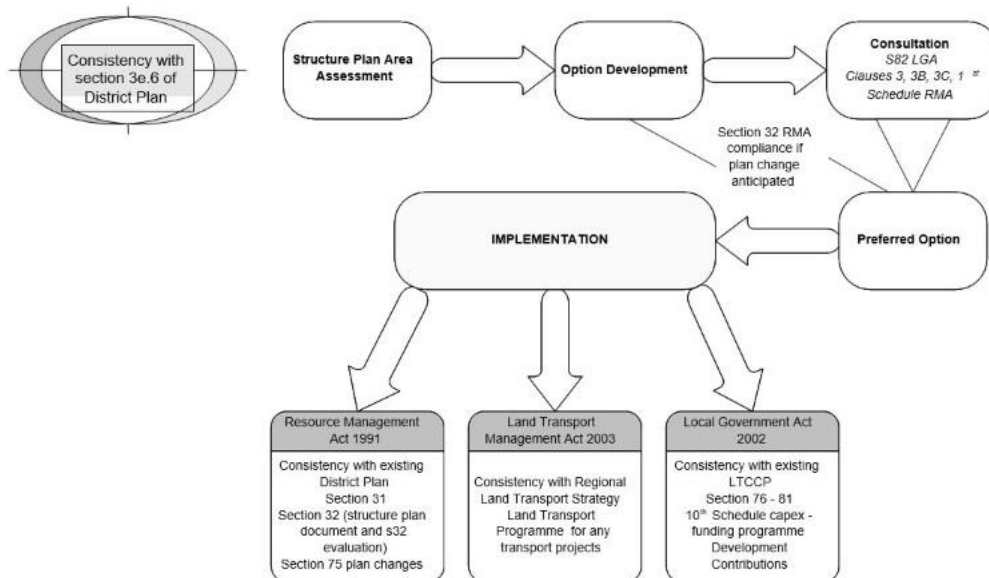
3b.5

Anticipated Environmental Outcomes

- i. A range of activities compatible in scale, amenity and character with development within the Rural Environment.
- ii. New activities and development does not create adverse impacts in terms of overshadowing, excessive building scale, and vehicle movements.
- iii. Protection of the amenity of adjoining Environments from the adverse effects of activities within the Rural Environment such as noise.
- iv. Protection of the wider environment and community from nuisances such as excessive dust, noise, glare, odour and stormwater.
- v. The establishment, maintenance and enhancement of Papakainga housing in the District that enables tangata whenua to provide for their cultural, social and economic wellbeing.
- vi. No urban development in the Rural Environment except as provided through the TD2050 Structure Plan Process and associated plan change.

3e.7 Taupō District Structure Plan Process

Figure 1 Taupō District Structure Plan process



Matters to be considered in structure plan area assessment

The Taupō District Structure Plan shall contain consideration of the following:

Landscape and natural value management

- identification and management of areas with landscape value
- identification and management of significant natural areas

Natural resources

- catchment characteristics (upstream and downstream)
- vegetation coverage
- biodiversity

Heritage Sites

- sites, places, and values of importance to Tangata Whenua
- sites, places, and values of importance to the general Community including the likely presence of archaeological sites.

3i NATURAL VALUES

3i.i Introduction

Natural values are an important part of the Taupō Districts environment. The ecological significance of these areas means they are either relatively scarce habitats, are representative of natural areas within the District, or comprise habitats for rare, or endangered plants or animals. Such areas are valuable to the Community and provide a historical and ecological baseline record. To damage or destroy a natural area either in part or in whole, may mean the permanent loss of a significant element of our natural heritage. Therefore, these Significant Natural Areas require protection and, where possible, enhancement to ensure that these values remain.

Land use and development can result in the loss and degradation of ecosystems and habitats, and the fragmentation and isolation of habitats, resulting in a reduction in the abundance of certain species and a reduction in the natural values of an area.

The extent and degree of modification of indigenous vegetation and fauna habitats in the Taupō District reflects the pattern of human settlement and related activity. The vegetation of Taupō District was extensively modified by volcanic disturbance long before any human occupation, but the vegetation grew back, covering bare land prior to human settlement. Maori occupation resulted in the early clearing of much forest, particularly on flat rolling country. This was followed by further clearance by European settlers for conversion to farmland and exotic plantation forests. Most flat and rolling hill country has been cleared, and generally only small forest remnants remain, mostly secondary growth. Much of this clearance was initially done prior to the economic depression of the 1930s, and large areas have subsequently reverted to tussock land, shrub land and secondary forest. Clearance of indigenous vegetation has continued post 1930 as a result of further landuse changes. There is a direct relationship between topography and the degree of clearance of the indigenous vegetation. Geothermal fields are also a feature of the Taupō District, and have specialised vegetation types.

Large areas of the Significant Natural Area lie within Maori land. It is important to acknowledge the role that Iwi have played over time which has enabled the retention of these areas for the benefit of current generations. The existence of native vegetation on these lands also reflects the inherent complexities and restrictions that have been imposed on Maori land as a result of its tenure.

The Resource Management Act 1991 (The Act) requires that the Council provide for the protection of the natural heritage of the Taupō District. The Act identifies that the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna is a matter of national importance (Section 6(c)). Such an obligation needs to be balanced with the Council's wider obligations under the Act, as well as the defining characteristics of the District's environment. Section 7 of the Act also requests that the Council has regard to the intrinsic values of ecosystems (Section 7 (d)), and with Section S31(b)(iii) the maintenance of indigenous biological diversity, The Act recognises that the Plan needs to address areas of natural value outside of Significant Natural Areas. The plan further recognises the benefits to be gained from the enhancement of areas of value, and recognising where landowners have undertaken such work. Not only do such activities have a direct positive effect on the intrinsic values of such areas but will also have the additional effects of enhancing the amenity of an area in line with Section 7 (c) of the Act.

Currently the District has 251,836 ha of land which is identified as having these values. These are termed Significant Natural Areas. These Significant Natural Areas have been identified based on the significance criteria in [Appendix 5](#). All Significant Natural Areas are shown on the District Planning Maps, and are listed in [Schedule 7.8](#) of the Plan. It is important to note that where these areas are mapped, they are mapped as Overlays to the underlying Environment. The vast majority of these are in the Rural Environment, and the Rural Environment provisions along with any appropriate District Wide provisions are still a necessary consideration for all activities undertaken in these Areas. The Plan generally seeks to provide for the protection and where possible the enhancement of the ecological values associated with those Areas. However the Plan does not seek to prohibit use and development within the Significant Natural Areas. For example, limited areas of discrete, well sited and designed development may be capable of being undertaken in a manner that is appropriate in relation to the values of the Significant Natural Area in question.

Each of the Significant Natural Areas has differing ecological characteristics, and tenure. A large amount of these areas are currently legally protected under other enactments and landowner initiatives. It is the intent of this Section of the Plan that these landowner initiatives are recognised and promoted to provide for the voluntary protection and enhancement of Biodiversity in the District. A range of regulatory and non-regulatory methods have been identified to meet the Objectives, recognising that a combination of methods is likely to be more successful in achieving the protection of Significant Natural Areas, and therefore the purpose of the Act.

It is important also to note that Regional Councils also have responsibilities under the Act in relation to biodiversity. Whilst the rules in this Plan reflect this and look to exclude activities that would require consent under a Regional Plan for biodiversity reasons, consideration of these documents is recommended. This is especially pertinent for undertaking activities in areas of geothermal vegetation or wetlands. Regional Plans may also include rules that relate to vegetation clearance on steep erodible areas or near waterways.

The majority of the Department of Conservation scenic and recreation reserves within the Taupō District have been identified as Significant Natural Areas. This land is both within the Rural and Residential Environments and is protected from development under a Department of Conservation Conservation Management Strategy. Section 4(3) of The Act excludes activities undertaken under such strategies and other management plans undertaken under the Conservation Act 1987 as being excluded from land use rules in the District Plan.

3i.2 Objectives and Policies

OBJECTIVE

3i.2.1

The protection of Significant Natural Areas in the Taupō District from more than minor adverse effects of indigenous vegetation clearance.

POLICIES

- i. Avoid remedy or mitigate more than minor adverse effects of vegetation clearance on the ecological values of Significant Natural Areas.
- ii. Consideration of the scale, intensity, purpose, location and design of activities within Significant Natural Areas to avoid, remedy or mitigate adverse effects on their ecological values, considering the effects of the vegetation clearance on:

- a. The composition of significant indigenous flora and fauna, and the naturalness, diversity and the life supporting capacity of Significant Natural Areas.
- b. Ecosystems located across a succession of natural habitats (such as geothermal areas, aquatic areas, riparian areas, foreshores, alpine areas and forest sequences etc), or in areas which experience occasional stress events (such as seasonal wetlands, slip faces, etc), and are more likely to be more diverse than anywhere else.
- c. Rare or threatened indigenous flora or fauna, or species unique to the District, including adverse effects on areas used by rare or threatened indigenous fauna on a regular basis.
- d. Protection of the long term ecological sustainability of a Significant Natural Area, including taking into account the level of disturbance within the area, pest impact, or threats, by existing or proposed protection measures with particular regard to covenants or other mechanisms which ensure the long term protection of natural values including significant indigenous vegetation or habitat.
- e. The extent to which the Significant Natural Area makes up part of an ecological corridor, and provides linkages to other indigenous habitats.

EXPLANATION

The Resource Management Act requires the Taupō District Council to provide for the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna. To meet this statutory obligation, there is a need to protect the ecological values of these areas. The resource consent process has been identified as the primary method by which these areas will be protected. The clearance of Indigenous Vegetation within Significant Natural Areas, that requires a resource consent, will be notified where it is determined necessary as per section 95A(2) of the Act (see also [section 1.8](#) of this Plan for more information about notification). The location of these areas with significant values has been identified and are shown on the Planning Maps and listed in [Schedule 7.8](#) as Significant Natural Areas. Vegetation clearance has been identified as the primary threat to the values of these areas, which is able to be managed through the District planning process under Section 31 of the Act. Whilst it is acknowledged that there remain other threats such as invasive plant and animal pests, such measures are best controlled by Regional Councils or through the other methods identified in [section 3i.3](#).

Vegetation clearance within Significant Natural Areas need to be assessed on a case by case basis to ensure that the effects on the Significant Natural Areas can be avoided, remedied or mitigated as appropriate. It is considered that vegetation clearance including erosion protection activities and the ongoing practical operational requirements of existing (and future enhancements to) hydro electric infrastructure may be undertaken in a manner that is appropriate in relation to the values of the Significant Natural Area in question.

The policies listed under [Objective 3i.2.1](#) list matters which will need to be taken into account by applicants for resource consent and decision-makers alike. These policies identify important considerations based on the potential effects that activities such as Indigenous Vegetation Clearance can have on a Significant Natural Area. The Council recognises that some landowners will desire or need to obtain an economic return from their land whilst protecting its natural qualities. Given the importance that the Act and the wider Community places on Significant Natural Areas, it is expected that an applicant for resource consent for vegetation clearance within a Significant Natural Area will demonstrate the manner in which potential effects on that Area will avoided, or mitigated, or remedied.

Each Significant Natural Area has characteristics which form the basis for its importance, whether it is the species present, the size of the Area, its location, its altitude, etc. As a result, the effects of Indigenous Vegetation Clearance activities will differ. The level of

clearance proposed will also have differing effects based on its scale, its location and intensity. There will be situations where the effects of the clearance can be appropriately avoided, remedied or mitigated based on the characteristics of the activity and the Significant Natural Area. An appropriate assessment of potential effects of the clearance on the Significant Natural Area will be required through the resource consent process based on these policies.

The protection of Significant Natural Areas would ideally involve avoiding development throughout the entire Significant Natural Area. However, some activities will be permitted in Significant Natural Areas and others may be found to be appropriate through a resource consent process where their effects are managed to protect the Area's important values. In that regard it may be preferable to develop small areas at a higher intensity as opposed to developing a larger part of a Significant Natural Area to a relatively low intensity.

OBJECTIVE

3i.2.2

Facilitate the long term protection of areas of natural value in the Taupō District.

POLICIES

- i. To provide a variety of mechanisms which encourage and facilitate, where possible, the formal protection of identified Significant Natural Areas in the Taupō District.
- ii. Enable and recognise activities that result in a Net Environmental Gain for areas of natural value in the District.
- iii. Recognise the historical and current role that maori have played in the long term management and protection of Significant Natural Areas in the Taupō District.

Bonus Lots

- iv. Enable the limited creation of Bonus Lots in the Rural Environment which will result in the voluntary formal protection in perpetuity of all or part of a nominated Significant Natural Area (being not less than 10ha per Bonus Lot created) whilst ensuring that:
 - a. Adverse effects of the Bonus Lots on rural amenity, Infrastructure or result in the urbanisation of the Rural Environment will be avoided remedied or mitigated; and
 - b. If the Bonus Lots are created adjacent to the Significant Natural Area to be protected, that the resulting land use on those Lots will not adversely impact the natural values of that Area.

EXPLANATION

The protection of Significant Natural Areas in the Taupō District will generally result in an enhancement of the values of these areas. Promotion of such activities is seen as a key component of meeting the Council's obligations under section 6(c) of the Resource Management Act 1991, which is to take appropriate steps to ensure protection of the specified values, being areas of significant indigenous flora and significant habitats of indigenous fauna. Reliance solely on the use of regulation will provide for the maintenance of these values, but will not result in the actual protection. It is important therefore that Council encourages and enables landowners and the wider community to protect these areas, by making provision for non-regulatory methods including voluntary approaches to protection.

The concept of Net Environmental Gain recognises that in some instances, a level of disturbance to Significant Natural Areas can be balanced by other measures that may result in an overall increase in the level of protection for such Areas. Fencing, pest control, planting, etc can all contribute to their protection and therefore help to enhance such Areas. However, such measures would have to be of a scale that is sufficient to result in some measureable benefit to a Significant Natural Area, and will need to be assessed on a case by case basis. This concept can also be extended to development outside of SNAs that result in the appropriate enhancement of areas of natural value that would not otherwise occur.

Large areas of the Significant Natural Areas lie within Māori land. It is important to acknowledge the role that Iwi have played over time which has enabled the retention of these Areas for the benefit of current generations. The existence of native vegetation on these lands also reflects the inherent complexities and restrictions that have been imposed on Māori land as a result of its tenure.

Bonus Lots

Bonus Lots are able to be created as a result of the voluntary protection of all or part of an identified Significant Natural Area. The development right afforded through the Bonus Lot process recognises that the landowner is making a commitment to the long term protection of natural values within the Taupō District. The resulting Bonus Lots do not necessarily need to be on or adjacent to the same allotment as the Significant Natural Area to be protected and are able to be located elsewhere in the Rural Environment within the Taupō District. Bonus Lots may introduce urban landuses into the Rural Environment, but also result in a degree of Net Environmental Gain that has national implications due to the subsequent protection of areas of national importance. However the potential effects, in relation to rural amenity, rural infrastructure and growth management, associated with the creation of the bonus lots will need to be considered at the stage of consent, as there may be situations where the location and/or distribution of these lots may not be appropriate. Such landuses can have potential adverse effects when located next to Significant Natural Areas, such as the introduction of pests into these areas. Such potential effects will need to be assessed at the time of consent.

To avoid intensive development, a maximum of 10 Bonus Lots can be created based on a ratio of one Bonus Lot per 10 Hectares protected. Whilst recognising the benefits to the District arising from the protection of the Significant Natural Area, it is still important to consider the effects that the creation of these Lots may have on the Rural Environment, and to apply the wider Rural Environment provisions in [Section 3b](#) of the Plan.

OBJECTIVE

3i.2.3

The enhancement of areas of natural value in the Taupō District.

POLICIES

- i. To enable the enhancement of areas of natural value by:
 - a. Recognising landowners and trustees who have protected the areas of natural value on their lands,
 - b. Recognising the extent of Significant Natural Areas under Māori land tenure, and the need to provide for the relationship of Māori and their culture and traditions with their ancestral lands and tāonga,

- c. Recognising all landowners as having kaitiakitanga (the ethic of stewardship) of the biodiversity on their lands, and identifying and implementing statutory and non statutory mechanisms to implement this.
- d. Facilitating landowners to achieve the long term protection and enhancement of areas of natural value through the use of non regulatory methods.
 - ii. Recognise and encourage development that enhances areas of natural value, particularly the establishment, re-establishment, extension or buffering of ecological linkages along waterways, and between existing areas of natural value.

EXPLANATION

The natural values of the Taupō District should be enhanced where possible. It is acknowledged that these areas of natural value may exist outside of Significant Natural Areas, and the enhancement of these areas is also an appropriate objective. It is the landowner who has often had the key role in the enhancement and ongoing protection of areas containing such values, as it is their actions which have ensured that these areas are present. A large majority of these areas are on multiple owned Māori land, and the contribution that present and past generations have made to the protection of these areas needs to be recognised. It is also recognised that Council has a role in encouraging and, where possible enabling the enhancement of areas of natural value. The use of non-regulatory methods and working in a collaborative fashion with landowners will assist in the enhancement of the Districts natural values.

Development can also provide for the enhancement of these values, and such outcomes should be recognised and encouraged where opportunities exist, whether this is through protection mechanisms on adjacent areas, or creation of new areas through planting, they will have a positive effect on the natural values of the District.

3i.3

Methods

Protection Mechanisms

- i. Identification of Significant Natural Areas as a schedule to the Plan and on the District Planning Maps.
 - ii. Provide for the protection of Significant Natural Areas by regulating vegetation clearance through rules in the Plan.
- Co-operation with other Agencies
- iii. Advocate and comment on relevant rules and policies within any relevant Department of Conservation's Conservation Management Strategy, Regional Plan, or Regional or National Policy Statement.
 - iv. Collaboration with groups that operate in the Taupō District, which have biodiversity goals.
- Education and Assistance
- v. Production of the Taupō District Natural Heritage Strategy to give effect to and provide more information on the implementation of the methods in this section.
 - vi. Facilitation of the distribution of education and information on the importance of natural values, and the mechanisms available for the protection and enhancement of these values.
 - vii. Liaison and consultation with landowners whose properties contain areas of natural value, and with the wider Community, to determine other management options for

these areas.

Incentives

- viii. Provision of incentives for landowners to encourage voluntary protection such as potential assistance with fencing and pest control, and/or assistance with applications for protection covenants.
- ix. Assistance to landowners to apply to national and regional government and other sources for funding for the protection and enhancement of natural values in the Taupō District.
- x. Allocation of resources through the LTCCP and Annual Plan processes such as funds to assist the voluntary protection of areas.
- xi. Encourage the creation of Bonus Lots through the subdivision consent process to promote and incentivise the active protection of Significant Natural Areas. Council will keep a register of those Bonus Lots created and the areas of Significant Natural Area being protected.
- xii. The implementation of any Joint Management Agreement between Council and Iwi.
- xiii. Five years after the rules in section 4e.6 of the Plan become operative, review their effectiveness relative to the effectiveness of the other non regulatory methods in section 3i.3 of the Plan.
- xiv. Monitor the effectiveness of the provisions of the Plan as they relate to the protection of the values of Significant Natural Areas.

EXPLANATION

Identification of these Significant Natural Areas, allows the Council to target regulation and/or resources to protect and enhance these Areas. The mapped Significant Natural Areas are overlays, and the areas will still be subject to the provisions of the underlying zoning.

Rules can be used to implement the overlay approach, to provide certainty that defined environmental standards will be able to be achieved, and to provide certainty for the applicant and for the administration of the Plan. Rule 4e.6 is the regulatory method which promotes certainty. The use of rules does not mean that any activity which requires consent is not appropriate to proceed, instead the consent process is a trigger for an assessment to occur of the effects of that activity on the values of the Significant Natural Area concerned. The rules contained in Section 4e.6 of the Plan identify situations where it is permissible to clear indigenous vegetation within a Significant Natural Area. This is in identified situations where there is already considered to be in existence a management regime for the area which provides for the enhancement of the values of the area, or where the effects of the clearance will be less than minor.

Advocacy involves working with landowners in relation to unsustainable land use in Significant Natural Areas, what the best methods are to resolve the issue, and how those methods can be implemented. Emphasis is on direct contact with landowners, but Council also has an advocacy role in ensuring that Council's policies are considered by other resource user groups in the Community when they are planning or undertaking their activities. Advocacy with Regional and Central Government may also be necessary, where those agencies may be able to facilitate the protection and enhancement of Significant Natural Areas in the Taupō District. Council will support Regional policies and rules which aim to achieve the protection of natural values in the District.

Many landowners may be unaware of the values of the Significant Natural Areas on their properties and so modify, or destroy these Areas. Therefore, it is important that landowners and the wider Community are informed about such features within the District. This

education can cover matters including methods of protection and enhancement, funding available, types of species in these Areas, and traditional uses of species by Māori.

A Taupō District Natural Heritage Strategy will be developed by the Council, for the Taupō District, to provide more information as to how the Council will implement the non-regulatory methods described in [Section 3i.3](#) of this Plan. This strategy will act as supplementary planning guidance to the District Plan. The strategy will be developed under the Local Government Act special consultative process to provide more guidance to landowners and the community to assist in their understanding of the natural values in the District as well as mechanisms available to provide for their protection and enhancement.

The methods and rules relating to natural values will be monitored so to ensure their effectiveness in achieving the objectives of the Plan. These methods will be reviewed five years after the rules become operative, so to ensure that the use of rules is an effective way in meeting the objectives.

3i.4

Anticipated Environmental Outcomes

- i. Protection of the ecological values of Significant Natural Areas from more than minor adverse effects of activities and development.
- ii. The enhancement of the ecological values of Significant Natural Areas.
- iii. An increase in those Significant Natural Areas with formal protection.
- iv. Greater public awareness of the importance of natural values.
- v. The long-term protection and enhancement of natural values, minimising the more than minor loss or degradation of the natural environment.

4e.6

Natural Values

4e.6.1

Indigenous Vegetation Clearance within a Significant Natural Area is a **permitted activity** where the following criteria are met:

- i. The vegetation cleared is:
 - a. no more than 3 metres in height; and
 - b. no more than 700m² in area per allotment, or 1% of the total area of the identified Significant Natural Area on that allotment, whichever is the lesser, provided that this is the maximum total area cleared within the Significant Natural Area after December 19 2008; and
 - c. mapped and provided to Council prior to clearance, and
 - d. more than 20 metres from any waterbody, and
 - e. not Monoao or Frost Flat vegetation, and
 - f. for any of the following purposes:
 - i. a building or structure and its curtilage;
 - ii. pedestrian and/or cycling use;
 - iii. removal of trees that endanger human life, structures or utilities or obstruct existing access to utilities;
 - iv. conservation fencing to exclude stock and/or pests;
 - v. gathering of plants in accordance with Maori custom and values;

- vi. maintenance of productive pasture and exotic plantation forests;
 - vii. access for any of the above purposes and for pest management; or
- ii. The vegetation is in an area which is:
 - a. Public Conservation land managed under the Conservation Act 1987 or the National Parks Act 1980, or
 - b. Subject to management by entities that have certification under:
 - i. Forest Stewardship Council Certification; or
 - ii. Programme for the Endorsement of Forest Certification; or
 - iii. Sustainable Forestry Initiative; or
 - c. A Queen Elizabeth II Covenant; or
 - d. Nga Whenua Rahui Kawenata; or
 - e. Any Maori Reservation established under Te Ture Whenua Maori Act 1993/Maori Land Act 1993 for the purposes of scenic interest and/or wildlife protection and/or burial ground, or
 - f. Subject to a Heritage Protection Order, or
- iii. The Indigenous Vegetation Clearance is:
 - a. the indigenous understorey to plantation forest, and is incidental to plantation forest clearance; or
 - b. an integral part of the maintenance of lawfully established roads, tracks, earth dams or fence lines (as long as the clearance is within 1 metre of the fence line); or
 - c. necessary to protect and maintain hydro electric generation structures or to prevent or remedy erosion that may adversely affect the operation of a hydro electric power scheme and where:
 - i. the vegetation clearance is within SNA 035 only;
 - ii. the vegetation clearance is within 5 metres of a water body;
 - iii. the vegetation clearance is no more than 1,000m² in area per allotment or 1% of the total area of the identified SNA on the allotment whichever is the lesser, provided that this is the maximum total area cleared within the Significant Natural Area after December 19 2008; and
 - iv. a report is provided to Council one month prior to clearance that:
 - a. includes a map of the area subject to clearance and identifies the total area involved; and
 - b. identifies the general nature of the vegetation to be cleared and the method to be utilised for the clearance; and
 - c. details why the clearance is necessary for the protection and maintenance of hydro electric generation structures or to prevent or remedy erosion.

NOTE: Regional Plans should also be consulted to ensure that there are no additional Regional Resource Consents required for Indigenous Vegetation clearance.

4e.6.2

Indigenous Vegetation Clearance within a Significant Natural Area that is not a permitted activity is a **restricted discretionary activity**.

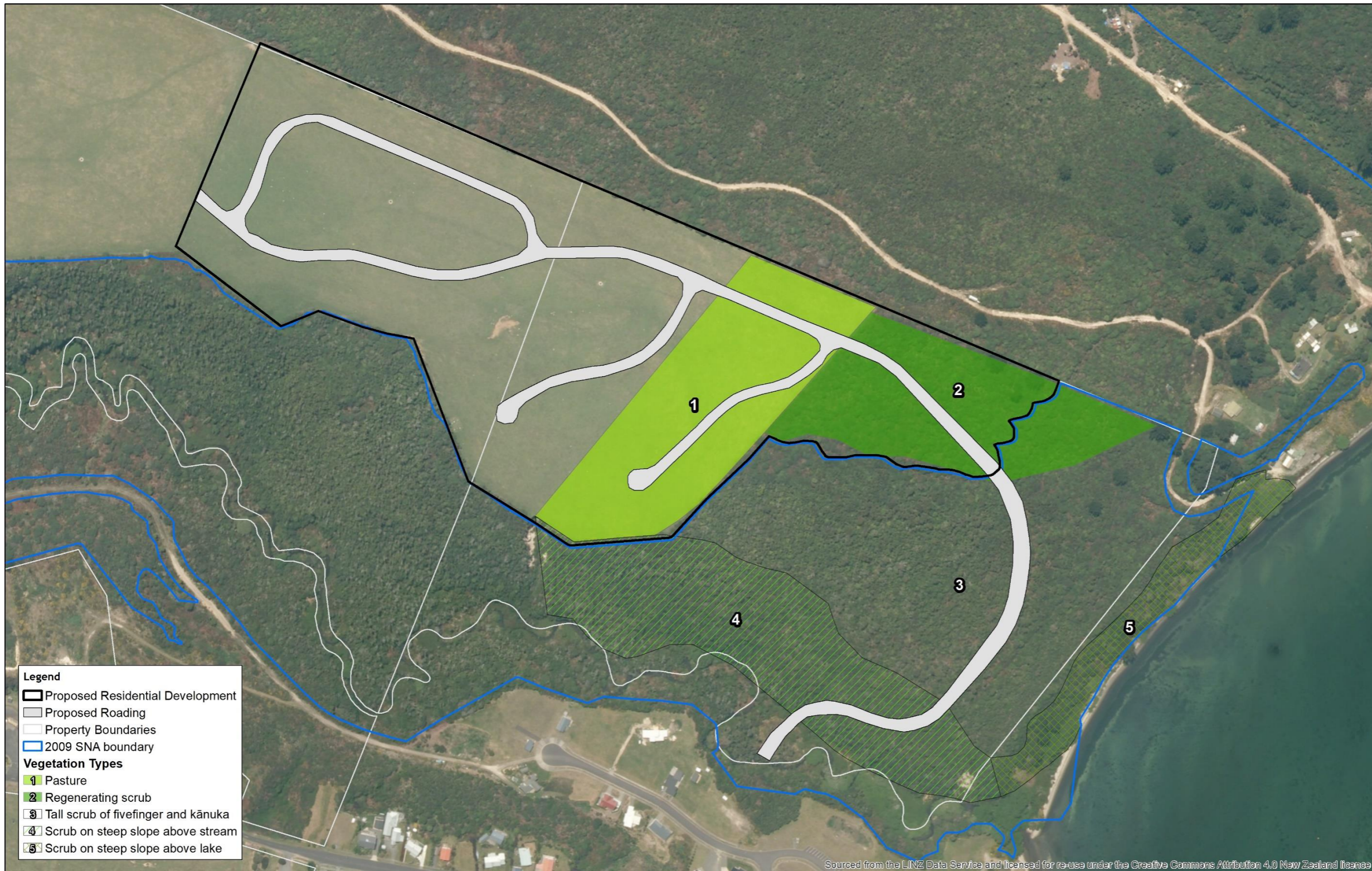
- i. EXCEPTION: Where consent has been granted under a Regional rule which has required an assessment of the effects on the ecological value of the area, or is permitted by a Regional rule to which the focus is in respect to ecological values.

ASSESSMENT CRITERIA:

The matters over which the Council reserves discretion for the purposes of assessment are:

- a. The need for, or purpose of, any indigenous vegetation clearance.
- b. Having regard to measures proposed for avoidance mitigation or protection, the effects, including the cumulative effects of the proposed vegetation clearance on:
 - i. the values associated with natural character, biodiversity, significant habitat of indigenous flora and fauna and the ecological values of the Significant Natural Area.
 - ii. any indigenous vegetation that is to be retained including having regard to the rate of the recovery of that vegetation.
 - iii. the composition of significant indigenous flora and fauna and the naturalness, diversity, and the life supporting capacity and long term ecological sustainability of the Significant Natural Area.
 - iv. areas which experience occasional stress events (such as seasonal wetlands, slip faces).
 - v. ecosystems located across a succession of natural habitats (such as geothermal areas, aquatic areas, waterways, wetlands, riparian areas, foreshores, alpine areas and forest sequences).
 - vi. rare or threatened indigenous flora or fauna, or species unique to the District, including any adverse effects on areas used by rare or threatened indigenous fauna on a regular or seasonal basis.
 - vii. changes resulting in an increased threat from animal and plant pests.
 - viii. the extent to which the Significant Natural Area makes up part of an ecological corridor, and provides linkages to other habitats.
 - ix. ecological effects arising from the changed size and shape of the vegetated areas of the Significant Natural Area before and after clearance, including effects of fragmenting vegetated areas, and edge effects.
- c. Any Net Environmental Gain, or environmental compensation, that results from the clearance or other activities associated or as a consequence to that clearance.
- d. The effect that the clearance will have on the attributes of any identified Landscape Area.
- e. Any further matters arising from the results of a report by a suitably qualified and experienced ecologist as to the effects which the clearance will have on the ecological values of the Significant Natural Area.
- f. Consideration of the scale, intensity, location and design of the area to be cleared so as to avoid, remedy, or mitigate adverse effects on the ecological values of the Significant Natural Area.
- g. Methods to protect the long term ecological sustainability of the Significant Natural Area, including the clearance, methodology, the scale, intensity, location and design of the area to be cleared and the scale and density of any revegetation proposed, maintenance of retained and revegetated areas, legal protection measures such as covenants or other mechanisms so as to avoid, remedy or mitigate adverse effects on the ecological values of the Significant Natural Area.

APPENDIX 5: Vegetation and Habitat Map



Legend

- Proposed Residential Development
- Proposed Roading
- Property Boundaries
- 2009 SNA boundary

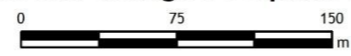
Vegetation Types

- 1 Pasture
- 2 Regenerating scrub
- 3 Tall scrub of fivefinger and kānuka
- 4 Scrub on steep slope above stream
- 5 Scrub on steep slope above lake

Data Acknowledgment
 Map contains data sourced from LINZ
 Crown Copyright Reserved

Report: 5368
 Client: Taupo District Council
 Ref: 01 2131
 Path: E:\gis\Whareroa Village Subdivision\mxd
 File: WhareroaPlan.mxd

Vegetation and Habitats Within and Adjacent to the Proposed Plan Change Footprint at Whareroa.



Wildlands
 www.wildlands.co.nz, 0508 WILDNZ

Scale: 1:3,000
 Date: 22/04/2020
 Cartographer: LD
 Format: A3R

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