Before Independent Hearing Commissioner At Lower Hutt

Under the Resource Management Act 1991 ('**the Act**')

In the matter of a notice of requirement for a designation by Wellington Water

Limited ('**WWL**'), on behalf of Hutt City Council ('**HCC**'), in accordance with section 168A of the Act, for the construction, operation and maintenance of a water supply reservoir at

Summit Road, Fairfield, Lower Hutt.

Joint Witness Statement of WWL and HCC planners, following hearing

Dated 17 December 2024

1 Introduction

- 1.1 This joint witness statement relates to a notice of requirement ('NOR') for a designation issued by Hutt City Council ('HCC'), in accordance with section 168A of the Resource Management Act 1991 ('RMA'), for the proposed Eastern Hills Reservoir. This joint witness statement covers expert conferencing on:
 - a The conditions of the NOR;
 - b Analysis against Policy 51 of the Regional Policy Statement ('RPS') for the Wellington Region.
- 1.2 The expert conferencing was held on 4 December 2024 and 16 December 2024 via a video conference, and attendees at the conference were Cathy Crooks for WWL and Dan Kellow for HCC (in its regulatory capacity). We confirm that we have read and complied with the Environment Court Practice Note 2023, and in particular section 9 – Code of Conduct for Expert Witnesses.

2 Outcome of conferencing

- 2.1 We confirm that all conditions were agreed except the ones identified below.
- 2.2 Matters not agreed (condition numbering refers to the updated draft condition set attached to this statement):
 - a Condition 36. c)
 - b Condition 36. g)
 - c Condition 36. h)
 - d Condition 36. j)
 - e Condition 36. k)
 - f Condition 38. I)
- 2.3 The reasons for the party's positions are as outlined below:

- In terms of the matters not agreed by Ms Crooks, Ms Crooks records that:
 - The deletion of Condition 36 c) requiring the Bird Management Plan ('BMP') to define of vegetation types is not supported for the reasons outlined in the attached memo from Mr Mark Hansen,
 - The specification of one particular type of demarcation for identifying active nests in Condition 36. g) is not supported for the reasons outlined in the attached memo from Mr Mark Hansen,
 - The minimum buffer zones in Condition 36. h) are not supported for the reasons outlined in the attached memo from Mr Mark Hansen,
 - Condition 36. j) requiring pre-works checks for only one species
 of cavity nesting bird is not supported for the reasons outlined in
 the attached memo from Mr Mark Hansen,
 - Condition 36. k) ensuring pre-works checks for karearea during the breeding season rather than the active nest season is not supported for the reasons outlined in the attached memo from Mr Mark Hansen,
 - Condition 38. I) requiring enhancement of surrounding habitat is not supported for the reasons outlined in the attached memo from Mr Mark Hansen,
- b. The matters not agreed by Mr Kellow are recorded in his attached response dated 13 December 2024, based on feedback from Ms Roberts and Ms Kerkmeester.
- 2.4 We confirm we have agreed an assessment against Policy 51 of the Regional Policy Statement for the Wellington Region. Appendix B records the agreed assessment. Mr Kellow notes that HCC have lodged an appeal against the RPS – Plan Change 1 'Decision' on Policy 51 so limited weight should be given to the amended policy.

Date: 17 December 2024

Cathy Crooked

Cathy Crooks

Dan Kellow

Appendix A:

Updated NOR conditions

Appendix 1 Conditions proposed by the Requiring Authority 5.12.2024

The following shows the Requiring Authority's proposed conditions with amendments agreed to by the Requiring Authority and the HCC reporting office post the Hearing shown as <u>black underline</u> and <u>black strikethrough</u>.

Any suggested amendments recommended by the Hutt CC reporting officer and not agreed to by the Requiring Authority are shown as blue strikethrough.

Additional amendments proposed by the Requiring Authority are shown in green underline.

Definitions, abbreviations, acronyms, and terms

Term	Definition				
Active Nest	A nest containing eggs and/or chicks				
AEE	Assessment of Environmental Effects for the Eastern Hills Reservoir Project				
ВМР	Bird Management Plan				
CEMP	Construction Environmental Management Plan				
CMO	Hutt City Council's Compliance Monitoring Officer				
CNVMP	Construction Noise and Vibration Management Plan				
CTMP	Construction Traffic Management Plan				
Commencement	The time when the Construction Works start				
of Construction					
Completion of	Completion of reservoir earthworks, construction of the reservoir, restoration				
Construction	of the reservoir site and access track, and completion of planting in accordance				
	with the LCP (but not including any further planting that may be required				
	during the maintenance and monitoring period under the VMP)				
Construction	Activities undertaken to construct the Eastern Hills Reservoir, excluding				
Works	Enabling Works, up to Completion of Construction				
dB	Decibel				
Enabling Works	Includes the following and similar activities in relation to the Project:				
	 Geotechnical investigations and land investigations 				
	 Site establishment activities including site yards, site offices, fencing, 				
	and formation of site access points				
	 Construction of site access road 				
	 Ecological surveys and any necessary relocations 				
	 Vegetation protection and any salvage of manuka/forest duff 				
	 Construction and installation of erosion and sediment control measures 				
	 Establishment of mitigation measures (such as screening, bunds, noise walls) 				
	 The detailed scope of enabling works specified in Section 4 of the Notice of Requirement for a New Designation in relation to the Project dated 26/02/2024. 				
Enabling Works	An Outline Plan of Works covering the Enabling Works and excluding the				
Outline Plan	construction works				
ESCP	Erosion and Sediment Control Plan				
GWRC	Greater Wellington Regional Council, including any officer of Greater				
	Wellington Regional Council				

Term	Definition
HCC	Hutt City Council in its capacity as territorial authority or regulator
i) HCV	ii) Heavy Commercial Vehicle, including all truck and trailer units
LCP	Landscape Concept Plan
LMP	Lizard Management Plan
Material Change	Material change will include amendments to any base information informing
	the management plan which has the potential to materially increase adverse
	effects on a particular receiver, or on the environment. For clarity, changes to
	personnel, contact schedules and other administrative changes do not
	constitute a material change.
Outline Plan	An Outline Plan of Works prepared in accordance with section 176A of the
	Resource Management Act 1991
Project	The design, construction, maintenance, and operation of the Eastern Hills
	Reservoir as in the AEE and these designation conditions
Project	An Outline Plan of Works covering the Construction Works necessary for the
Construction	Project, and excluding Enabling Works.
Outline Plan	
Requiring	Hutt City Council in its capacity as the owner of the Project
Authority	
Protected	All species of mammals, birds, amphibians and reptiles within New Zealand,
Species	other than those listed as 'Wildlife not protected' within Schedule 5 of the
	Wildlife Act 1953 and includes 'Terrestrial and freshwater invertebrates
	declared to be animals' listed in Schedule 7 of the Wildlife Act 1953
Suitably	A person (or persons) who can provide evidence to demonstrate their
Qualified Person	suitability and competence in the relevant field of expertise and put those skills
	and knowledge into practice in order to perform a job in an effective and
	efficient manner to an established standard.
VMP	Vegetation Management Plan
Working day	Has the same meaning as under Section 2 of the Resource Management Act
	1991

General Conditions

- 1. Except as modified by the conditions below, and subject to final design and Outline Plan(s), the Project shall be undertaken in general accordance with the information provided by the Requiring Authority in the Notice of Requirement and supporting documents being:
 - i) The Description of the Project provided in Part B of the AEE Report prepared by Connect Water titled 'Notice of Requirement for a New Designation. Project Name: Eastern Hills Reservoir', dated 26/02/2024; and
 - ii) The Project's Technical Assessment Reports, Appendix A Appendix Q, of the Notice of Requirement for a New Designation; and
 - iii) The following "Notice of Requirement Plans prepared by Connect Water (Drawing Set 3-WW021.02_C000).

NOTE: Where there may be contradiction or inconsistencies between the application and any further information provided by the applicant, the most recent information applies. Where there is conflict between the documents listed above and these designation conditions, these conditions shall prevail.

- 2. The Project must be undertaken in accordance with any management plans required to be prepared under these conditions.
- 3. Other than as specified in, and required by, Conditions 1 & 41-41 (ongoing monitoring and management), all other conditions relate to the Construction Works of the Project only apply to construction activities. After the Completion of Construction, these conditions will no longer apply and can be removed as part of any subsequent District Plan review or change. For the avoidance of doubt, none of these conditions, Conditions 2 to 39 41 inclusive, prevent or apply to works required for the ongoing operation or maintenance of the Reservoir.
- 4. As soon as reasonably practicable following the Completion of Construction of the Project, the Requiring Authority shall:
 - a) Review the area designated for the Project
 - b) Identify any areas of designated land that are no longer necessary for the on-going operation or maintenance of the Project or for ongoing mitigation measures
 - c) Give notice to HCC in accordance with section 182 of the RMA seeking the removal of those parts of the designation identified under (b) above.
- 5. The Requiring Authority shall submit to the CMO at least 2 months prior to Commencement of Construction, a detailed programme outlining:
 - a) The proposed staging of the Construction Works
 - b) The anticipated submission dates of the management plans and outline plans required by these conditions
- 6. The Requiring Authority shall arrange and conduct an on-site meeting including the Project representative and appropriate contractor representative(s) and the CMO at least 10 working days prior to the Commencement of Construction. The following information shall be made available at the meeting:
 - a) Timeframes for key stages of the Construction Works;
 - b) Details of the Project representative(s), including their contact details (phone and email address); and
 - c) Contact details of the site contractor and other key contractors.

- iv) Note: In the case that any of the invited parties, other than the representative of the Requiring Authority and the contractor, do not attend this meeting, the Requiring Authority will have complied with this condition, provided the CMO is invited 5 days in advance of the on-site meeting occurring.
- v)
- 7. A Project Construction Outline Plan(s) shall be submitted to HCC unless a waiver for this requirement is provided in writing by the HCC.

Certification of Management Plans

- 8. The Construction Works management plans listed in clause (a) shall be submitted to HCC for certification. The certification process shall be confined to confirming that the Management Plan meets the requirements of the relevant management plan conditions(s). The preparation of all management plans required by these conditions shall be undertaken by a Suitably Qualified Person with reference to relevant industry standards and guidelines as applicable.
 - a) The following plans shall be submitted for certification:
 - i. Construction Environmental Management Plan (CEMP);
 - ii. Construction Noise and Vibration Management Plan (CNVMP);
 - iii. Construction Traffic Management Plan (CTMP);
 - iv. Landscape Concept Plan (LCP);
 - v. Bird Management Plan (BMP);
 - vi. Vegetation Management Plan (VMP); and
 - b) The certified Lizard Management Plan (LMP) shall be submitted provided in conjunction with the BMP and VMP
 - c) If twenty (20) working days have passed since the management plan has been provided to HCC under clause (a) above, and the Requiring Authority has not received a response from HCC, the Management Plan shall be deemed to be certified.
 - d) If the HCC's response is that they are not able to certify the Management Plan, they shall provide reasons and recommendations for changes to the management plan in writing. The Requiring Authority shall consider any of the reasons and recommendation of HCC and resubmit an amended Management Plan to be certified.
 - e) If the Requiring Authority has not received a response from HCC within ten (10) working days of the date of resubmission under clause (c) above, the amended Management Plan will be deemed to be certified.
 - f) Any certified management plan may be updated or revised to reflect any changes in design, construction methods or management of effects:
 - i. Any material changes are to be submitted to HCC for certification as soon as practicable following identification of the need for an update or revision. If the Requiring Authority has not received a response from HCC within ten (10) working days of submitting the revised information, the management plan will be deemed to be certified. Any material changes may not be implemented until certified by HCC.
 - Except for material changes, management plans may be amended to reflect any changes in design, construction methods or management of effects and

- submitted to Hutt City Council for information, without the need for recertification.
- g) No Construction Works may commence until all management plans that relate to those Construction Works or relevant stage(s) of works have been certified by the HCC or are deemed certified in the absence of a response from HCC.
- Management plans prepared under this designation must be consistent with and not hinder the implementation of the Lizard Management Plan approved under the Wildlife Act.
- i) Where possible, the authors of the management plans required under these conditions shall confer in order to achieve consistency and integration between different management plan requirements. They must ensure that:
 - i. the Bird Management Plan is consistent with the Lizard Management Plan,
 - ii. <u>the Vegetation Management Plan is consistent with the Lizard and Bird</u>
 Management Plans, and
 - iii. <u>the Landscape Concept Plan is consistent with the Vegetation, Lizard and Bird Management Plans,</u>
 - iv. <u>the Construction Environmental Management Plan is consistent with the</u> plans referred to in i. ii and iii.

Construction Environmental Management

- 9. The Requiring Authority shall not commence Construction Works (or relevant stage of Construction Works, if the works are carried out in stages) until a Construction Environmental Management Plan (CEMP) has been certified by HCC, in accordance with condition 8, confirming that the CEMP satisfies the requirements of Condition 10.
- 10. The purpose of the CEMP is to set out the management procedures and construction methods to be undertaken to avoid, remedy or mitigate any adverse effects associated with the Construction Works. To achieve the purpose, the CEMP must include details of:
 - a) How it links to other management plans as detailed in condition 8 h);
 - b) Construction methodologies and construction timeframes, including staging <u>and</u> <u>timing of vegetation clearance set out in the Lizard Management Plan (LMP) and conditions 33 c), d) and 38 c);</u>
 - c) Working hours, which should generally be 7:30am to 6:00pm Monday to Saturday except as otherwise provided for under condition 18;
 - d) The roles and responsibilities of staff and contractors;
 - e) Details of the project manager and the Project representative(s), including their contact details (phone and email address);
 - f) The proposed site layouts (including construction yards), locations of refuelling activities and construction lighting;
 - g) Methods for providing for the health and safety of the general public;
 - h) Procedures for incident and complaint management and reporting including details of who can be contacted to report complaints throughout the duration of the Construction Works;
 - The complaints register that shall be maintained for the duration of the works detailing complaints received alleging adverse effects from, or related to, the works;
 - j) Procedures for how complaints are to be addressed;
 - k) Details of where machinery operations must be excluded, to ensure minimal disturbance of these areas; and

- Details of where temporary signage shall be installed during construction of the Project, which informs the general public of the works, including alternative access points for accessing the Eastern Hills recreational area.
- 11. The Requiring Authority must implement the certified CEMP (with any amendments) for the duration of the Construction Works.
- 12. The Requiring Authority must ensure that a copy of the certified CEMP, including any amendments made in accordance with the process specified in Condition 8, is kept onsite and this copy is updated within 10 working days of any amendments being certified by, or provided to, the HCC.

Earthworks

- 13. The Requiring Authority must submit an Erosion and Sediment Control Plan (ESCP) to the Hutt City Council for information once it has been certified by the Greater Wellington Regional Council.
- 14. The Requiring Authority shall stabilise all areas exposed by earthworks, trenching or building work as soon as possible after excavation or, at the latest, within one month of completing earthworks.
- 15. The Requiring Authority shall ensure all Construction Works, including any earthworks, are carried out in a manner that controls dust travelling beyond site boundaries to the extent that it does not cause a nuisance or hazard.
- 16. The Requiring Authority shall ensure that vehicles and machinery leaving the site do not deposit earth or other material in or on road reserve, the road surfaces or surrounds. If such spills occur, the Requiring Authority shall clean the road surfaces to their original condition as soon as possible after the spill occurs and within 24 hours.
- 17. Prior to the Commencement of Construction Works, a stabilised vehicle crossing shall be installed at the site entrance(s) for the Construction Works and/or suitable wheel wash facilities on site so that earth material from the site is not tracked onto the road.

Construction Noise and Vibration

18. The Requiring Authority shall not commence Construction Works until a Construction Noise and Vibration Management Plan (**CNVMP**) has been certified by HCC, confirming that the CNVMP satisfies the <u>intent purpose</u> established in this Condition 19 and the requirements of Conditions 19-20 to 24-26. Certification shall occur in accordance with the process set out in Condition 8. The intent of the CNVMP is to provide a framework for the development and implementation of the Best Practicable Option for the management of Construction Works noise and vibration effects, and to set out how compliance with the construction noise and vibration standards set out in Conditions 23 and 24 below will be achieved as far as practicable.

- 19. The purpose of the CNVMP is to provide a framework for the development and implementation of the Best Practicable Option for the management of Construction Works noise and vibration effects, and to set out how compliance with the construction noise and vibration standards (set out in Conditions 25 and 26 below) will be achieved as far as practicable. The CNVMP must provide methods to manage noise and vibration appropriately to minimise effects where practicable for a variety of circumstances within the project site by outlining the measures, procedures and standards for mitigating the effects of noise and vibration during construction of the Project.
- 20. The purpose of the CNVMP is to provide methods to manage noise and vibration appropriately for a variety of circumstances within the project site by outlining the measures, procedures and standards for mitigating the effects of noise and vibration during construction of the Project. The CNVMP must include, as a minimum:
 - a) A description of the likely construction noise and vibration emissions anticipated as a result of construction activities;
 - b) A description of the construction work, anticipated equipment and processes and their scheduled durations;
 - c) A description of noise or vibration suppression devices to be used on equipment or processes;
 - d) The normal hours of operation being 7:00 am till 6:00pm Monday to Saturday, with noisy activities restricted prior to 7.30am;
 - e) The construction noise and vibration criteria that apply for the Project, which must be consistent with those standards specified in NZS 6803:1999 'Acoustics Construction Noise' (Condition 23) and BS 5228-2:2009 Code of practice for noise and vibration control on construction and open sites Part 2: Vibration and DIN 4150-3 (Condition 24);
 - f) Identification of affected houses and other Noise Sensitive Receptors where noise and vibration criteria apply, including a list of Noise Sensitive Receivers (as defined in NZS 6803:1999 'Acoustics Construction Noise');
 - g) Requirements for monitoring road surface condition to minimise noise and vibration from trucks travelling over potholes and uneven surfaces;
 - h) Methods and frequency for monitoring and reporting on construction noise and vibration to HCC;
 - Procedures for maintaining contact with stakeholders, notifying of proposed construction activities in advance of works taking place, and handling of noise and vibration complaints (consistent with the complaints procedures and complaints register within the CEMP);
 - j) Where compliance with the criteria in Conditions <u>2325</u>- and <u>24-26</u>-may not be achieved, a description of <u>alternative mitigation strategies</u>-Best Practicable Option that will be used including notification requirement to affected parties;
 - k) The requirement for pre-construction building inspections at locations close to activities generating significant vibration, prior to and after completion of construction and processes for repair of any damage caused by the Work;
 - Construction equipment operator training procedures and expected construction site behaviours; and
 - m) Contact numbers for key construction staff, and staff responsible for noise assessment and the CMO(s).
 - n) Procedures for community liaison,

- 21. Where practicable, based on the topography, ecological/landscape features and phasing of noise-generating works, an acoustic site hoarding expected to be up to 3 metres high (unless this is not physically possible, in which case a smaller acoustic hoarding may be constructed) a 3 metre high site hoarding shall be constructed around the boundary of the construction site. The site hoarding shall be designed by a suitably qualified acoustic consultant and constructed to act as a noise barrier and be maintained for the duration of noise generating activities.
- 22. Where Construction Works require <u>concrete pouring and post-tensioning over</u> night, <u>time</u> <u>works</u> the CNVMP must address the following matters:
 - a) The arrangement for night works, including:
 - i. Enhanced communication procedures with residents on Summit Road and Tilbury Street identified as PPFs in the Noise and Vibration Assessment submitted with the application (e.g. regular updates on the project programme, nature and reason for the works, indicative timeframes, phone number(s) for complaints);
 - ii. <u>Scheduling in respite periods (e.g., a A maximum of 3 consecutive nights of works.</u>
 - iii. The consideration to provide temporary relocation to affected residents on Summit Road and Tilbury Street, where reasonable (and other arrangements are not practicable) for noise associated with night-time traffic movements for concrete pours.
 - b) Controls to minimise the occurrence of events generating intermittent sounds such as reverse beepers, shouting, or whistling.
- 23. The Requiring Authority must implement the certified CNVMP (with any amendments) for the duration of the Construction Works.
- 24. The Requiring Authority must ensure that a copy of the certified CNVMP, including any amendments, is kept onsite and this copy is updated within 10 working days of any amendments being made.
- 25. Construction noise shall be measured and assessed in accordance with NZS 6803:1999 'Acoustics Construction Noise'. The construction noise shall comply with the following criteria as far as practicable:

vi)	Day of week	vii)	Time	viii)	dB L _{Aeq (15min)}	ix)	dB L _{AFmax}
x)	Noise Criteria at Residential Neighbours						
xi)	Weekdays	xii)	0630 - 0730	xiii)	55	xiv)	75
		xv)	0730 – 1800	xvi)	70	xvii)	85
		xviii)	1800 – 2000	xix)	65	xx)	80
		xxi)	2000 – 0630	xxii)	45	xxiii)	75
xxiv)	Saturdays	xxv)	0630 - 0730	xxvi)	45	xxvii)	75
		xxviii)	0730 – 1800	xxix)	70	xxx)	85
		xxxi)	1800 – 2000	xxxii)	45	xxxiii)	75
		xxxiv)	2000 – 0630	xxxv)	45	xxxvi)	75
xxxvii)	Sundays and	xxxviii)	0630 - 0730	xxxix)	45	xl)	75
public l	nolidays	xli)	0730 – 1800	xlii)	55	xliii)	85

vi)	Day of week	vii)	Time	viii)	dB L _{Aeq (15min)}	ix)	dB L _{AFmax}	
x)	Noise Criteria at Residential Neighbours							
		xliv)	1800 – 2000	xlv)	45	xlvi)	75	
		xlvii)	2000 – 0630	xlviii)	45	xlix)	75	

26. Vibration from the Construction Works must comply with the following criteria as far as practicable:

I)	Receiver	li)	Details	lii)	Category A	liii)	Category B
liv)	liv) Noise Criteria at Residential Neighbours						
lv)	Occupied	lvi)	Night-time	lvii)	0.3mm/s	lviii)	1mm/s ppv
Activit	ies sensitive	2000h - 0630h		ppv			
to vibr	ation	lix)	Daytime	lx)	1mm/s ppv	lxi)	5mm/s ppv
		0630h	– 2000h				
lxii)	Other	lxiii)	Daytime	lxiv)	2mm/s ppv	lxv)	5mm/s ppv
occup	ied buildings	0630h – 2000h					
lxvi)	All other	lxvii)	At all other	lxviii)	5mm/s ppv	lxix)	BS 5228-2*
buildings		times Vibration –				Table E	32
		transie	nt				
		lxx)	At all other	lxxi)	5mm/s ppv	lxxii)	BS 5228-2*
		times Vibration –				50% of	Table B2
		continu	ious			values	

BS 5228-2:2009 *Code of* practice for noise and vibration control on construction and open sites – Part 2: Vibration

Advice Note: For vibration measurements, reference should be made to BS 5228-2 and DIN 4150-3. For additional guidance on measurement techniques, reference can be made to BS 6472-1 in relation to human annoyance and ISO 4866:2010 for building damage.

Construction Traffic

- 27. The Requiring Authority shall not commence Construction Works until a Construction Traffic Management Plan (CTMP) has been certified by Hutt City Council confirming that the CTMP satisfies the requirements of Condition 26, 27, and 28. Certification shall occur in accordance with the process set out in Condition 8. The purpose of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects of the Project on the availability of kerbside parking, damage to the roading surface, property access, traffic safety and efficiency during construction. Temporary traffic management as part of the CTMP will be planned and delivered as per the most up-to-date temporary traffic management guidance provided (currently the NZ Transport Agency's NZ Guide to Temporary Traffic Management).
- 28. The CTMP must include, as a minimum:
 - a) Measures to minimise the disruption to users of local travel routes;
 - b) Temporary traffic management measures required to manage <u>and minimise</u> impacts on road users during the proposed construction works including signage and traffic control:
 - c) Measures to maintain safe existing vehicle access to adjacent properties including safe sight lines where trucks or materials are parked or stored in the carriageway;
 - d) Any proposed temporary changes in speed limits;

- e) Measures to control HCV so that two HCVs are not travelling in opposite directions along Summit Road or Tilbury Street at any one time including detailing appropriate waiting locations;
- f) Provision for safe and efficient access of vehicles to and from the construction site;
- g) Details of induction/briefing to HCV drivers associated with the construction of the reservoir, which must include:
 - i. Awareness of the potential risks and the importance of slowing down when driving past any school site; and
 - ii. Adhering to temporary and permanent speed limits at all times when driving to and from the site.
- h) Details of where parking will be temporarily removed and where alternative on-street parking can be accessed; and
- i) Details as to where footpaths will be temporarily closed and for how long <u>and details</u> of alternatives walking routes for pedestrians if necessary;
- j) Details of the pre and post construction pavement surveys on Tilbury Street, Summit Road and Balgownie Grove during construction;
- k) Measures to manage staff parking so that it is provided off-site to avoid parking impacts on local roads;
- Details of the Temporary Traffic Management needed to ensure the safe movement of HCVs, including truck and trailer units through the Summit Road intersection with Tilbury Street.;
- 29. The Requiring Authority shall carry out a preconstruction survey of the road pavement, footpath pavement on Summit Road, Tilbury Street and Balgownie Grove and the Tilbury Street bridge prior to the commencement of Construction Works. The methodology for the survey is to be agreed with the Road Asset Manager. Prior to the Construction Works commencing, the preconstruction survey shall be supplied to the Road Asset Manager.
- 30. Following completion of the Construction Works, the Requiring Authority shall complete a postconstruction survey of Summit Road, Tilbury Street, and Balgownie Grove and the Tilbury Street bridge. The Requiring Authority shall contribute a fair and reasonable cost, as determined by a Suitably Qualified Person, towards repair and maintenance of Summit Road and, Tilbury Street, Balgownie Grove and the Tilbury Street bridge should damage to the road be attributable to the Construction Works.
- 31. All HGV construction traffic that will utilise SH2, travelling to or from the North or South, shall use the Kennedy Good Bridge, Fairway Drive, Daysh Street route when unless this is not practicable (for example, if roads are closed or construction traffic is not utilising SH2).

Landscape, Visual Amenity and Natural Character

32. The Requiring Authority shall not commence Construction Works until a Landscape Concept Plan (LCP) developed in partnership with Taranaki Whānui ki Te Upoko o Te Ika has been certified by HCC, confirming that the LCP satisfies the requirements of Condition 33. Certification shall occur in accordance with the process set out in Condition 8. The purpose of the LCP is to outline the methods and measures to be implemented to avoid, remedy or

mitigate adverse landscape, natural character and visual amenity effects associated with the construction and operation of the Project on nearby receivers.

33. The LCP must, as a minimum, include:

- a) Details of how the Project's landscape treatments are context-sensitive in terms of acknowledging Taranaki Whānui ki Te Upoko o Te Ika values, land use, sense of place and the viewing audience;
- Details of the final earthworks levels, including confirming that they will integrate
 with adjacent topography, and provide appropriate revegetation conditions and
 include specific details for the revegetation of the cut face;
- c) Identification of proposed planting including eco-sourced plant species and use of mānuka slash (where practicable), plant/grass mixes, spacing/densities, sites (at time of planting) and layout and planting methods with input from the Project ecologist;
- d) Specific details for the remediation and revegetation of the cut face/north facing batter slope around the reservoir and the firebreak track edge consistent with the LMP requirements for mānuka/kānuka skink habitat creation, with input from the Project herpetologist/ecologist₇
- e) Details of the replaced and/or reinstated pathways through the site including the location of replacement and/or new seating and_signage;
- f) Appropriate design treatment(s) to support safety and wayfinding;
- g) Consideration of CPTED (Crime Prevention Through Environmental Design) principles in relation to the project;
- h) Identification of vegetation to be retained, including retention of as many as practicable significant trees and areas of regenerating indigenous vegetation;
- i) Protection measures for vegetation to be retained;
- j) Identification of proposed planting including eco-sourced (where practicable) plant species, plant/grass mixes, spacing/densities, sites (at time of planting) and layout and planting methods with input from the Project ecologist, including remediation of mānuka/ and kānuka around the reservoir and remediated firebreak track to form suitable skink habitat, with input from the Project herpetologist/ecologist;
- k) Details of the proposed planting that is to occur within the riparian margin of the Waiwhetū Stream;
- Planting programme detailing the staging of planting in relation to the construction programme which shall, as far as practicable, require planting to occur within the first planting seasons following completion of the Construction Works. <u>This includes</u> <u>identifying areas that will require temporary measures such as hydro-seeding (or</u> <u>similar) immediately following the completion of construction until planting can</u> <u>occur in the next planting season;</u>
- m) Details of how the input of a suitably qualified ecologist has provided input so that ecological benefits are attained via the proposed planting; and
- n) The proposed maintenance and management of plantings, (including the replacement of unsuccessful plantings, pest plant control and pest animal control) for a minimum of 5 years or until canopy closure density of 80% is achieved, whichever is the longer to ensure effective remediation, sediment control and plant survivorship occurs.
- o) Detail how vegetation clearance, salvage, stockpiling and its reuse/spread on site
 (where practicable), will be managed under the supervision of an ecologist and/or
 landscape architect, including the salvage of indigenous plant material and forest duff

(topsoil layer) as part of the earthworks stage. *Note: This clause is redundant if the Vegetation Management Plan has already been certified*

Ecological Management Plans

- 34. At least 10 days prior to any works on land identified as lizard habitat, the Requiring Authority shall provide a copy of the Lizard Management Plan (**LMP**) and a copy of the permit obtained under Wildlife Act 1953, as certified by the Department of Conservation, to the CMO for their records.
 - Advice note: The Requiring Authority shall undertake the works in line with the Lizard Management Plan and any conditions of the permit obtained under the Wildlife Act 1953.
- 35. The Requiring Authority shall not commence <u>vegetation clearance</u> or Construction Works until a Bird Management Plan (**BMP**) has been certified by Hutt City Council confirming that the **BMP** satisfies the requirement of Condition 34. The purpose of the **BMP** is to avoid <u>disturbance</u> or death of protected species¹ of <u>remedy, or mitigate the potential adverse</u> <u>effects of the Project on-birds</u>.
- 36. The BMP must include, as a minimum:
 - a) Cross refer to the other management plans as detailed in condition 8 h) with the Lizard Management Plan taking priority;
 - b) Identify all protected species¹ possible, likely, highly likely, or confirmed to utilise nest at the site as defined in the Ecological Impact Assessment prepared by WSP dated 20 June 2024
 - c) Define vegetation types that provide nesting habitats for all protected species of birds possible, likely, highly likely, or confirmed to utilise the site. Define vegetation types that provide nesting habitats for all protected species of birds possible, likely, highly likely, or confirmed to utilise the site.
 - d) <u>Define the active nest² season for all protected species possible, likely, highly likely, or confirmed to utilise the site;</u>
 - e) Define species-specific Zones of Influence/exclusion zones for all protected species possible, likely, highly likely, or confirmed to utilise the site;
 - f) Define pre-works survey requirements Provide methodologies for pre-works survey to be undertaken for active nests, if vegetation removal impacts nesting habitat and occurs during a month when active nesting is possible;
 - g) Incorporate the include use of (i) hi-vis flagging tape or similar material to identify the active nest of protected tree-nesting bird species and (ii) temporary cordoning to physically demarcate and the buffer zone to be imposed around the active nest

¹ for the purposes of these conditions, protected species is defined as all species of mammals, birds, amphibians and reptiles within New Zealand, other than those listed as 'Wildlife not protected' within Schedule 5 of the Wildlife Act 1953 and includes 'Terrestrial and freshwater invertebrates declared to be animals' listed in Schedule 7 of the Wildlife Act 1953

² A nest containing eggs and/or chicks

- (which must be appropriate so that vegetation clearance and construction activities will not adversely affect an adult bird, such that they may abandon the active nest). Include methods to clearly demarcate an active nest of any protected bird, and the buffer zone to be imposed around the active nest (e.g. flagging tape/tree tags/spray paint etc).
- h) Ensure that buffer zones are a minimum of (i) 25 metres from active nests of non-threatened bird species that are identified during the survey; (ii) 50 metres from active nest of Threatened or At Risk bird species that are identified during the survey (excluding karearea); and (iii) 200 metres from active karearea nests that are identified during the survey. Define species specific zones of influence/buffer zones for all protected birds that are possible, likely or highly likely to nest on-site, with 'Introduced and Naturalised' and 'Not Threatened' species to range from 10 to 25 m and all 'At Risk' and 'Threatened' species to be 50m.
- i) Provide a methodology to re-survey active nest to confirm fledging or natural nest failure, to allow vegetation removal and construction activities to commence within the previously imposed buffer zone.
- j) Ensure pre-works checks of any suitable nesting cavities within vegetation in the Project footprint is undertaken, if vegetation removal and construction activities occur during the active nest season for ruru (morepork) Ensure pre-works checks of any suitable nesting cavities within vegetation in the Project Footprint is undertaken, if vegetation removal and construction activities occur during the active nest season for any cavity nester possible, likely or highly likely to nest on-site.
- k) Ensure pre-works checks for kārearea shall also be undertaken if any vegetation clearance is to occur within the kārearea breeding season active nest (August to May inclusive).
- Outline measures to address the loss of any confirmed active nest or cavity for any regionally or nationally 'Threatened' bird species (e.g.: artificial nest box installations).
- a)—The Zone of Influence for all protected species¹ possible on site;
- b) The active nest² season for all protected species on site;
- c) Methodologies to determine if active nests are present prior to vegetation removal occurring and construction activities commencing that would disturb species on site (if construction were to occur during the active nest season); and
- d)—The management actions, including exclusion zones, that must be implemented should active nests of protected species be discovered during checks.
- e) Methodologies to offset the loss of any confirmed nesting habitat for threatened species
- f) Confirmation that pre clearance checks of cavities in large trees shall be undertaken during active nest seasons (in case cavity nesters are present).
- g) Confirmation that pre clearance checks for karearea shall also be undertaken if vegetation clearance is to occur within the active nest season
- 37. The Requiring Authority shall not commence Construction Works until a Vegetation Management Plan (VMP) has been certified by Hutt City Council confirming that the VMP satisfies the requirements of Condition 38. The purpose of the VMP is to avoid, remedy or mitigate the potential adverse effects of the Project on indigenous vegetation is to outline the

methods and measures to salvage and reuse vegetation on-site and to identify where planting is required to ensure the site is appropriately remediated.

38. The **VMP** must, as a minimum:

- a) Cross refer to the other management plans as detailed in condition 8 h) with the Lizard Management Plan taking priority;
- b) Ensure 'At Risk' orchids (spotted fleshy orchid and *Thylemitra* spp.) shall be searched for during pre-works checks and outline procedures for the salvage and transfer, and management, including success monitoring of any salvage and transfer attempts of orchids if discovered on site prior to vegetation clearance occurring;
- c) Detail how vegetation clearance, salvage, stockpiling and its reuse/spread on site (where practicable), will be managed under the supervision of an ecologist and/or landscape architect, including the salvage of forest duff (topsoil layer) as part of the earthworks stage.
- d) <u>Identify a method to confirm and calculate the areas of vegetation lost during site</u> <u>clearance activities and define areas where remediation is possible;</u>
- e) <u>Identify the suitable planting season (months) for site remediation, to promote plant establishment and survivorship.</u> <u>This includes identifying areas that will require temporary measures such as hydro-seeding (or similar) immediately following the completion of construction until planting can occur in the next planting season;</u>
- f) Ensure that all areas identified in d) as able to be remediated are planted with ecosourced indigenous vegetation (where practicable), with input from the Project herpetologist, as outlined within the LMP, and landscape architect as outlined within the LCP. This includes identifying the areas requiring arborescent broadleaved indigenous hardwoods and indigenous low growing shrubs, and mānuka/kānuka, and areas of riparian planting proposed along the banks of the Waiwhetū Stream.
- g) Identify the plant species suitable for the site and SNR12, that are unpalatable to browsing herbivores present on-site (possums, deer etc) to be used for site remediation;
- h) Include methods to protect remediation planting from pests;
- i) Detail a suitable annual monitoring and maintenance schedule to ensure 80% canopy closure on-site or for 5 years following completion of the Project, which ever is longer, to ensure effective remediation, sediment control and plant survivorship occurs;
- j) Ensure the maintenance schedule includes the replacement of dead or dying remediation plants to achieve canopy closure and remediation goals;
- k) Identify where riparian planting is proposed along the banks of the Waiwhetū stream.
- l) Confirm the extent and method of enhancing surrounding habitat through exotic species removal and enrichment replanting methodology.
- a) Include methods to protect remediation planting from pests;
- b) Detail a suitable annual monitoring and maintenance schedule for 5 years following completion of the Project to ensure canopy closure and plant survivorship occurs;
- c) <u>Identify those areas of indigenous vegetation lost during site clearance activities;</u>
- d) <u>Identify those areas on site where remediation with eco-sourced indigenous</u> vegetation (where practicable) will occur, including remediation of mānuka/kānuka

- around the reservoir and remediated firebreak track to form suitable skins habitat, with input from the Project herpetologist/ecologist; and
- e) <u>Identify where riparian planting is proposed along the banks of the Waiwhetū</u> stream.
- f) Detail how vegetation clearance, salvage, stockpiling and its reuse/spread on site, will be managed under the supervision of an ecologist and/or landscape architect, including the salvage of indigenous plant material and forest duff (topsoil layer) as part of the earthworks stage.
- g) Confirm that all at risk or threatened orchid species shall be searched for prior to any clearance works and outline procedures for the translocation and management of orchids if discovered on site prior to vegetation clearance occurring.
- 39. An Enabling Works Outline Plan(s) must be prepared and submitted to Hutt City Council in accordance with section 176A of the RMA for enabling works that are not otherwise a permitted activity pursuant to the Hutt City District Plan (unless the requirement is waived by Hutt City Council) prior to the Project Construction Outline Plan.

 In addition to the matters required by section 176A(3) of the RMA, the Enabling Works outline plan(s) must:
 - a) Detail the purpose for undertaking the Enabling Works activity prior to the Construction Works;
 - b) Detail the mitigation required, and an appropriate timescale for implementing that mitigation, if an enabling work occurs and the project does not commence; and
 - c) Address the requirements of ecological management plans if ecological surveys and relocations are required.

The Enabling Works Outline Plan(s) is not required to include:

d) The management plans required by Condition 8(a).

Accidental Discovery

- 40. At least 15 Working Days prior to Construction Works commencing, the Requiring Authority shall prepare an accidental discovery protocol and provide a copy to HCC for information. The protocol shall be implemented in the event of the accidental discovery of cultural or archaeological artefacts or features during construction of the Project. The protocol shall include, but not be limited to:
 - a) Identification of parties to be notified in the event of an accidental discovery, who shall include, but need not be limited to, Taranaki Whānui ki Te Upoko o Te Ika, Te Rūnanga o Toa Rangatira, Heritage New Zealand Pouhere Taonga, HCC, and if koiwi are discovered, the New Zealand Police.
 - b) Setting out procedures to be undertaken in the event of an accidental discovery, which shall include the cessation of Construction Works in the vicinity of the discovery until authorised to proceed.
 - c) Training procedures for all contractors regarding the possible presence of cultural or archaeological sites or material, what these sites or material may look like, and the relevant procedures if any sites or material are discovered.

Earthworks – Site stability

41. Further investigations and geomorphological mapping are required to be submitted as part of the Project Construction Outline Plan.

Note: Hutt City Council will have this information peer reviewed by an external experienced chartered geo-professional.

42. A fully-dynamic deformation analysis shall be undertaken by a suitably qualified engineer showing that a seismic resilient engineered solution in accordance with the latest versions of Wellington Water's Regional Standard and Regional Specification for Water Services³ can be constructed at the site. The analysis shall be submitted to Hutt City Council as part of the Project Construction Outline Plan.

Note: Hutt City Council will have the information peer reviewed by an external experienced chartered geo-professional.

Ongoing Monitoring, Maintenance and Management

- 43. Notwithstanding Condition <u>3</u> <u>8</u>, monitoring and management measures required by the following management plans must remain in place for 5 years once Construction Works are complete:
 - a) Condition 30, LCP;
 - b) Condition 32, LMP;
 - c) Condition 35, VMP.
- 44. <u>If maintenance works require the removal of indigenous vegetation on-site, like-for-like remediation planting, if practicable, should be implemented no later than the next available planting season.</u>

³ https://www.wellingtonwater.co.nz/contractors/technical-information/specifications-and-standards

Appendix B:

Agreed assessment against Policy 51 of the Wellington Region RPS



RPS Policy 51 Assessment

(including the operative RPS, and Proposed RPS Change 1)

An analysis is provided below of Policy 51 as per the proposed changes under Proposed Regional Policy Statement (RS) Plan Change 1. The same matters are broadly relevant under the operative version.

Policy 51: Minimising the risks and consequences of natural hazards – consideration

When considering an application for a resource consent, notice of requirement, or a change, variation or review to a district plan, the risk and consequences of natural hazards on people, communities, their property and infrastructure shall be minimised, and/or in determining whether an activity is inappropriate particular regard shall be given to:

a) The frequency and magnitude likelihood and consequences of the range of natural hazards that may adversely affect the proposal or development subdivision, use or development, including those that may be exacerbated by climate change and sea level rise.

The natural hazards that may adversely affect the site are earthquakes, slope instability and flooding.

A range of measures have been adopted to minimise the effects of these hazards, which are discussed further in the sections below. The probability of different intensities of earthquake and slope instability occurring at a site are assessed in the geotechnical reports provided to HCC on 8 April 2024 and was also discussed in the evidence of Mr Paul Carran and Mr Campbell Keepa. The risk of flooding is considered to be very low.

The proposed reservoir will be a seismically resilient structure designed under NZS1170.5. to Importance Level 4 (IL4) (of a possible 5), which is typically used for post-disaster critical structures. The intention of designing to this standard is that the reservoir is still operational after a 1-in-500 year earthquake and not collapse in a much larger 1-in-2,500 year earthquake.

The existing slope hazard will be alleviated by reducing the weight currently experienced at the top of the ridge through the proposed earthworks cut, and replacing it with a lighter engineered structure, set back from the natural slopes below. Slope stabilisation measures (such as piles) may be required to enable the tank to meet its IL4 performance requirements and this would further reduce the risk of instability of the natural slopes below the reservoir. This is discussed in the geotechnical reports provided to HCC on 8 April 2024. The site, including slopes, will be revegetated following construction, further reducing the potential for shallow instability.

b) The potential for climate change and sea level rise to increase the frequency or magnitude of a hazard event Increased intensity of rainfall as a result of climate change has the potential to have a negative impact on slope stability. Remediation planting, improving drainage and reticulating site stormwater to the overflow pipe will reduce the risk of slope

1



	instability. Design of the reservoir would consider the potential effects of climate change over the life of the facility. The proposed reservoir is inland and elevated and will not be impacted by sea level rise.
c) Whether the location of the subdivision, use or development will foreseeably require hazard mitigation works in the future	No hazard mitigation works in the future prior to a hazard occurring are currently anticipated, although it should be noted that further geotechnical testing is required to inform the detailed design of the reservoir. Hazard mitigation will be incorporated into the construction of the reservoir including slope stabilisation and drainage to mitigate flood and slope risks. The reservoir will be designed to IL4 with the intent that it still be operational after a 1-in-500 year event. Slope instability may need to be rectified, and minor repairs carried out to the reservoir structure after an event of this size.
d) The potential for injury or loss of life, social and economic disruption and civil defence emergency management implications – such as access routes to and from the site;	The potential for injury or loss of life from failure of the reservoir, social and economic disruption and emergency management implications are considered to be very low by Mr Keepa. The potential for adverse effects is discussed in the geotechnical reports provided to HCC on 8 April 2024. By designing the reservoir to IL:4, the risk to life will be reduced, and social and economic outcomes improved as the reservoir will assist in response and recovery through providing water to the residents of the water service area. The project will contribute positively towards the Hutt Valley's water resilience, especially following a significant natural hazard event as it will enable the rapid re-establishment of portions of the water supply network, as discussed in the evidence of Mr Laurence Edwards.
e) Whether the subdivision, use or development causes any change in the risk and consequences from natural hazards in areas beyond the application site	Additional stormwater runoff from the proposed reservoir is very low and is expected to be approximately 60 L/s for a 10-year ARI rainfall event. The peer-reviewed Eastern Lower Hutt model predicts that the estimated Waiwhetū Stream flow rate during the same event will be approximately 27,000 L/s. The time of concentration for the site is less than 101 minutes and therefore the peak flows from the reservoir are expected to occur much sooner than peak flows in Waiwhetū Stream. Therefore, the effect of the increased stormwater discharge on flood flows in the stream (beyond the extent of the designation) is considered negligible. Draining the reservoir(s) is a planned activity, and only one reservoir would be drained at a



time. Any planned draining of a reservoir would not be undertaken during flood flows in Waiwhetū Stream. The scheduled draining would only occur if the weather was suitable; otherwise, it would be postponed. Auto shut-off values will be installed on the reservoir outlet pipeline. These are designed to close automatically if there is an earthquake, to retain the water within the reservoir structure. Reservoir overflow is a rare event, and would require a cause, such as a control system failure. This would activate alarms, and the system would be quickly repaired. Slope instability is not expected to be adversely affected beyond application site. Mr Keepa considers that the risk of tank failure or slope instability after development of the site is likely lower than the current risk of the houses below being inundated by debris from instability of the natural hillside slopes f) Minimising effects on the impact of the Vegetation currently on site provides a buffer proposed <u>subdivision</u>, <u>use or</u> development minimising erosion and assisting with site on any natural features that <u>may</u> act as a stability on the site. Remediation of buffer to or reduce the impacts of a from vegetation post-construction as outlined in natural hazards event; and where the evidence of Mr Mark Hansen will minimise development should not interfere with long-term impacts. There are no other natural their ability to reduce the risks of natural features that may act as a buffer to reduce the hazards impacts from natural hazards. g) avoiding inappropriate subdivision, use or The hazards and risks at the site are not development and hazard sensitive considered by Mr Keepa as high to extreme activities¹ where the hazards and risks are based on analysis carried out in the assessed as high to extreme; in areas at geotechnical reports provided to HCC on 8 high risk from natural hazards; April 2024. The reservoir does not meet the definition of a hazard sensitive activity. h) appropriate hazard risk management Low to moderate risk hazards from ground and/or adaptation and/or mitigation shaking, slope stability and flooding will be measures for subdivision, use or appropriately managed as set out below. development in areas where the hazards Mr Keepa considers that the risk to the and risks are assessed as low to moderate reservoir of ground shaking at the site is moderate to low and will be minimised hazard areas, including an assessment of residual risk; and through design of a stable platform and slopes, and design of the reservoir to IL4 standards. Draining of the reservoir(s) is a planned activity (except in extreme emergencies), with only one reservoir would be drained at a time

- community facility
- early childhood centre
- educational facility
- emergency service facilities
- hazardous and major hazardous facilities
- healthcare activity

- kōhanga reo
- marae
- residential activity
- retirement village
- research activities
- visitor accommodation"

due to the capacity of the overflow pipe, and

¹ Page 218 of Proposed Plan Change 1 of the Regional Policy Statement for the Wellington Region includes a new definition of hazard sensitive activity as meaning "any building that contains one or more of the following activities:



	this would not be undertaken concurrently with flooding in Waiwhetū Stream to minimise the effects of the draining activity. The site, including slopes, will be revegetated, further reducing the potential for shallow instability. Following this no residual risk exists, as per the evidence of Mr Laurence Edwards.
i) the allowance for floodwater conveyancing in identified overland flow paths and stream corridors; and	The delivery pipeline that connects the Project to the bulk water supply will be constructed under Waiwhetū Stream to minimise impacts on the stream, including impeding flood flows. An above-ground crossing was assessed but not progressed due to the need to clear the 100-year flood level which would result in the pipe being approximately 4m above stream level.
j) the need to locate habitable floor areas levels of habitable buildings and buildings used as places of employment above the 1% AEP (1:100 year) flood level, in identified flood hazard areas.	The reservoir does not involve the construction of habitable buildings or buildings used as places of employment.

Explanation

Policy 51 aims to minimise the risk and consequences of natural hazards events through sound preparation, investigation and planning prior to development. This policy reflects a need to employ a precautionary, risk-based approach, taking into consideration the likelihood of the hazard and the vulnerability of the development.

Appendix C:

HCC comments in response to proposed conditions provided 5.12.2024 and RPS-PC1 Policy 51 analysis

BEFORE THE INDEPENDENT COMMISSIONER

APPOINTED BY HUTT CITY COUNCIL

IN THE MATTER of the Resource Management

Act 1991

AND

IN THE MATTER of Notice of Requirement:

Eastern Hill Reservoir

HCC comments

_

In response to proposed conditions provided 5.12.2024 and RPS-PC1 Policy 51 analysis

13 December 2024

Policy 51

(1) I have reviewed the RPS-PC1 Policy 51 assessment provided to me 4.12.2024 and agree with the assessment. The only point I would like added is confirmation to the Commissioner that HCC have lodged an appeal against the RPS - PC1 'Decision' on Policy 51 so limited weight should be given to the amended policy.

Conditions

(2) I have reviewed the latest draft of proposed conditions that were provided to me 5.12.2024. Tessa Roberts (ecology) and Linda Kerkmeester (landscape and visual) have provided me with comments on the draft conditions. I did not consider comment from other technical experts was required. Any condition or change to condition which is not commented upon should be considered to be supported.

Landscape and Visual

- (3) I recommend some tightening up of the cross-referencing for vegetation salvage so it does not get missed at the enabling works stage. It is also important that the manuka slash salvage is timed to coincide with seed dispersal as this method is recognised as effective in revegetating disturbed soils with manuka. The use of manuka slash is a proven effective revegetation method, particularly on bare and compacted slopes. It also provides surface erosion control and saves costs on planting which is likely to have low survival rates in these conditions.
- (4) Currently the definitions for the Enabling Works are listed out with 8 bullets which include erosion & sediment control, site yard establishment which will likely require vegetation removal. The definition for Construction Works specifically excludes Enabling Works. I therefore recommend that vegetation salvage be included in the Enabling Works. See amended defintion in appendix 1 to this document.
- (5) For the same reason, it will be important that the Construction Environmental Management Plan (CEMP) includes a reference to timing of manuka slash salvage to coincide with seed dispersal. I therefore recommend adding a cross-reference in condition 10 b) to condition 33 by adding in 'c)'. See amended condition 10.
- (6) At condition 33 c) to add: 'use of manuka slash'. See amended condition 33.

(7) The reason for this specificity about manuka salvage and timing is due to direct experience of this on Transmission Gully where extensive areas were cleared and disposed of off-site because the requirements for salvage were 'buried' in the landscape construction specifications and were missed at the earthworks stage.

Ecology

- (8) An amendment to condition 8 is recommended by adding the following <u>The certified</u>
 <u>Lizard Management Plan (LMP) shall be submitted in conjunction with the BMP and VMP</u> see amended condition 8.
- (9) The reason for this requested change is due to the pivotal nature of the LMP. The LMP needs to be submitted with other EMPs in order to gain an overall picture of remediation works. This is needed to be confident that overall project effects after remediation will be no more than minor, and give context to where trade-offs are made in terms of lizard vs bird effects. Also there is also no way of knowing whether condition 8 h) 'Where possible, the authors of the management plans required under these conditions shall confer in order to achieve consistency and integration between different management plan requirements' is met without looking at these plans in unison.
- (10) For example, the scenario we don't want to end up with is all available remediation works being designated lizard habitat, and no bird habitat being created. This would mean the ecological effects would change and be more than minor for birds or invertebrates or vegetation, meaning further mitigation work needs to be done specific to this. Given the context of this site and the lack of surrounding areas available to be restored this will likely result in the additional need for mitigation/compensation. This could perhaps be clarified in condition 38 d) where remedial work calculated is also to be linked to the ecological feature and habitat value that it is remedying.
- (11) Condition 36 (c) is recommended to be removed because while birds have preferences they can nest anywhere in vegetation.
- (12) In regard to condition 36 (d) the reason stated for not having a generalised Sept-April nesting season was due to the fact that Kereru are present and nest all year round.

Would there be any difference in methodology between active nest checks for Kereru and other (tree nesting) species? If Kereru nest all year round and are likely at the site then the clause (d) could state nest checks need to happen for all vegetation clearance on site no matter what time of year.

- (13) In regard to condition 36 (e) it is not clear what the definition is of Zone of Influence (ZOI) and Exclusion Zone. Are these all synonyms of each other or do they differ? It is not clear why each of these need to be defined per species what changes in the protection methodology (the active nest check) due to differences in ZOI or exclusion zones? I suggest to remove the whole of clause as it is quite vague and it is not clear how it would impact on the ground methodologies.
- (14) In regard to 36 (g) recommended wording is shown to provide greater certainty and clarity. It is not clear what is meant by the method to demarcate the nest and buffer zone. Does this mean the methodology used to actually mark out the buffer zone when an active nest is found, or the methodology to calculate the area of buffer zone? A suggested known methodology for this is provided.
- (15) In regard to clause (h) it is recommended this is split as they are two different methodologies.
- (16) It is recommended to amend (h) to relate only to ruru as this is the only species relevant to this rule at this site.
- (17) In regard to condition 38 modest recommended changes are shown in Appendix 1 with expanatory comments below.
- (18) A general comment on the revised VMP conditions (37 and 38) is that they are not really prescriptive or transparent as to what ecological features are being remediated, which doesn't give confidence that these effects are to be fully remedied. Remediating vegetation removal typically involves reinstating vegetation like for like once work is completed. The area of manuka/kanuka that is being cleared needs to be reinstated to the same area within the site, same for the indigenous hardwoods it is not clear that this is the case, especially with the LMP being given priority.
- (19) In regard to the suggested amendment to clause b) any and all remedial works must be monitored to ensure successful remediation is carried out. Monitoring needs to

- follow an adaptive management plan where should the remediation not be successful, further management actions are needed to remedy this outcome.
- (20) 38 (d) This doesn't give surety on whether ecological effects will be remedied or not. Need to state specific remedial works as they relate to specific effects on vegetation/habitat. For example, the area of manuka/kanuka lost to be remedied by a specified area of manuka/kanuka to be reinstated, same for orchid habitat and indigenous broadleaved habitat. Without this we cannot have confidence regarding the extent of mitigation.
- (21) 38 (k) and (i) can be combined.
- (22) I continue to recommend a clause relating to extent and method of enhancing vegetation through exotic tree removal and enrichment replanting methodolgy for the following reasons.
 - The amount of remedial work here remains uncertain due to detailed design yet to be finalised. Having this clause gives us some contingency and buffer, should detailed design mean that even further vegetation is lost without remediation.
 - There is also a deficit in remedial work vs. vegetation area lost. This
 enhancement work will further ensure that ecological effects are buffered by
 enhancement of surrounding habitat.
 - Some of this 'reinstatement' remedial work encompasses the overflow pipe line. The fact that this pipeline is vulnerable to maintenance activities and large trees discouraged from above it means that this cannot fully compensate for loss of vegetation habitat.
 - On a more practical note, removing the seed burden of these pest tree species will significantly decrease pest seed establishment in the wider area. This will likely decrease the need for maintenance and increase the chance of success in the areas of remedial planting. Thereby increasing our confidence that the ecological remediation efforts are successful and effects of this project will be less than minor. The reality is that drilling and filling exotic trees around the site is a very simple, low-cost exercise that gains great ecological benefits for

the site. Principles of ecological restoration state that it is always best to restore ecology that is present, rather than trying to recreate it from scratch.

Dan Kellow

Planning Consultant

Acting for Hutt City Council

Appendix 1 Conditions proposed by the Requiring Authority 5.12.2024

The following shows the Requiring Authorities proposed conditions with any amendments by the Requiring Authority post the Hearing shown as <u>red underline</u> and <u>red strikethrough</u>.

Any suggested amendments recommended by the Hutt CC reporting officer are shown as <u>blue underline</u> or <u>blue strikethrough</u>

g. Definitions, abbreviations, acronyms, and terms

i)	Term	ii)	Definition
iii)	Active Nest	iv)	A nest containing eggs and/or chicks
v)	AEE	vi)	Assessment of Environmental Effects for the Eastern Hills
		Reserve	oir Project
vii)	BMP	viii)	Bird Management Plan
ix)	CEMP	x)	Construction Environmental Management Plan
xi)	CMO	xii)	Hutt City Council's Compliance Monitoring Officer
xiii)	CNVMP	xiv)	Construction Noise and Vibration Management Plan
xv)	CTMP	xvi)	Construction Traffic Management Plan
xvii)	Commencement	xviii)	The time when the Construction Works start
	struction		
xix)	Completion of	xx)	Completion of reservoir earthworks, construction of the
Constru	uction		oir, restoration of the reservoir site and access track, and
			tion of planting in accordance with the LCP (but not including
		-	ther planting that may be required during the maintenance and
			ring period under the VMP)
xxi)	Construction	xxii)	Activities undertaken to construct the Eastern Hills Reservoir,
Works		excludi	ng Enabling Works, up to Completion of Construction
xxiii)	dB	xxiv)	Decibel
xxv)	Enabling Works	xxvi)	Includes the following and similar activities in relation to the
		Project	
		•	Geotechnical investigations and land investigations
		•	Site establishment activities including site yards, site offices,
			fencing, and formation of site access points
		•	Construction of site access road
		•	Ecological surveys and any necessary relocations
		•	Vegetation protection and salvage of manuka/forest duff
		•	Construction and installation of erosion and sediment control
			measures
		•	Establishment of mitigation measures (such as screening,
			bunds, noise walls)
		•	The detailed scope of enabling works specified in Section 4 of
			the Notice of Requirement for a New Designation in relation to
			the Project dated 26/02/2024.
xxvii)	Enabling Works	xxviii)	An Outline Plan of Works covering the Enabling Works and
Outline		_	ng the construction works
xxix)	ESCP	xxx)	Erosion and Sediment Control Plan

i)	Term	ii) Definition	
xxxi)	GWRC	xxxii) Greater Wellington Regional Council, including any officer of	
		Greater Wellington Regional Council	
xxxiii)	HCC	xxxiv) Hutt City Council in its capacity as territorial authority or	
		regulator	
xxxv)	HCV	xxxvi) Heavy Commercial Vehicle, including all truck and trailer units	
xxxvii)	LCP	xxxviii) Landscape Concept Plan	
xxxix)	LMP	xl) Lizard Management Plan	
xli)	Material Change	xlii) Material change will include amendments to any base	
		information informing the management plan which has the potential t	:0
		materially increase adverse effects on a particular receiver, or on the	
		environment. For clarity, changes to personnel, contact schedules and	
		other administrative changes do not constitute a material change.	
xliii)	Outline Plan	xliv) An Outline Plan of Works prepared in accordance with section	
		176A of the Resource Management Act 1991	
xlv)	Project	xlvi) The design, construction, maintenance, and operation of the	
		Eastern Hills Reservoir as in the AEE and these designation conditions	
xlvii)	Project	xlviii) An Outline Plan of Works covering the Construction Works	
Constru	uction Outline	necessary for the Project, and excluding Enabling Works.	
Plan			
xlix)	Requiring	Hutt City Council in its capacity as the owner of the Project	
Author	ity		
li)	Protected	lii) All species of mammals, birds, amphibians and reptiles within	
Species	5	New Zealand, other than those listed as 'Wildlife not protected' within	ì
		Schedule 5 of the Wildlife Act 1953 and includes 'Terrestrial and	
		freshwater invertebrates declared to be animals' listed in Schedule 7 o)f
		the Wildlife Act 1953	
liii)	Suitably	liv) A person (or persons) who can provide evidence to	
Qualifie	ed Person	demonstrate their suitability and competence in the relevant field of	
		expertise and put those skills and knowledge into practice in order to	
		perform a job in an effective and efficient manner to an established	
		standard.	
lv)	VMP	lvi) Vegetation Management Plan	
lvii)	Working day	lviii) Has the same meaning as under Section 2 of the Resource	
		Management Act 1991	

<u>Text</u> that is underlined in red and struck through is proposed to be deleted by Wellington Water <u>Text</u> that is underlined in red is proposed to be added by Wellington Water

General Conditions

- 1. Except as modified by the conditions below, and subject to final design and Outline Plan(s), the Project shall be undertaken in general accordance with the information provided by the Requiring Authority in the Notice of Requirement and supporting documents being:
 - lix) The Description of the Project provided in Part B of the AEE Report prepared by Connect Water titled 'Notice of Requirement for a New Designation. Project Name: Eastern Hills Reservoir', dated 26/02/2024; and
 - lx) The Project's Technical Assessment Reports, Appendix A Appendix Q, of the Notice of Requirement for a New Designation; and
 - lxi) The following "Notice of Requirement Plans prepared by Connect Water (Drawing Set 3-WW021.02_C000).

NOTE: Where there may be contradiction or inconsistencies between the application and any further information provided by the applicant, the most recent information applies. Where there is conflict between the documents listed above and these designation conditions, these conditions shall prevail.

- 2. The Project must be undertaken in accordance with any management plans required to be prepared under these conditions.
- 3. Other than as specified in, and required by, Conditions 1 & 41-41 (ongoing monitoring and management), all other conditions relate to the Construction Works of the Project only apply to construction activities. After the Completion of Construction, these conditions will no longer apply and can be removed as part of any subsequent District Plan review or change. For the avoidance of doubt, none of these conditions, Conditions 2 to 39 41 inclusive, prevent or apply to works required for the ongoing operation or maintenance of the Reservoir.
- 4. As soon as reasonably practicable following the Completion of Construction of the Project, the Requiring Authority shall:
 - a) Review the area designated for the Project
 - b) Identify any areas of designated land that are no longer necessary for the on-going operation or maintenance of the Project or for ongoing mitigation measures
 - c) Give notice to HCC in accordance with section 182 of the RMA seeking the removal of those parts of the designation identified under (b) above.
- 5. The Requiring Authority shall submit to the CMO at least 2 months prior to Commencement of Construction, a detailed programme outlining:
 - a) The proposed staging of the Construction Works
 - b) The anticipated submission dates of the management plans and outline plans required by these conditions
- 6. The Requiring Authority shall arrange and conduct an on-site meeting including the Project representative and appropriate contractor representative(s) and the CMO at least 10 working days prior to the Commencement of Construction. The following information shall be made available at the meeting:
 - a) Timeframes for key stages of the Construction Works;
 - b) Details of the Project representative(s), including their contact details (phone and email address); and
 - c) Contact details of the site contractor and other key contractors.

- Ixii) Note: In the case that any of the invited parties, other than the representative of the Requiring Authority and the contractor, do not attend this meeting, the Requiring Authority will have complied with this condition, provided the CMO is invited 5 days in advance of the on-site meeting occurring.

 | Xiiii |
- 7. A Project Construction Outline Plan(s) shall be submitted to HCC unless a waiver for this requirement is provided in writing by the HCC.

Certification of Management Plans

- 8. The Construction Works management plans listed in clause (a) shall be submitted to HCC for certification. The certification process shall be confined to confirming that the Management Plan meets the requirements of the relevant management plan conditions(s). The preparation of all management plans required by these conditions shall be undertaken by a Suitably Qualified Person with reference to relevant industry standards and guidelines as applicable.
 - a) The following plans shall be submitted for certification:
 - i. Construction Environmental Management Plan (CEMP);
 - ii. Construction Noise and Vibration Management Plan (CNVMP);
 - iii. Construction Traffic Management Plan (CTMP);
 - iv. Landscape Concept Plan (LCP);
 - v. Bird Management Plan (BMP);
 - vi. Vegetation Management Plan (VMP); and
 - b) The certified Lizard Management Plan (LMP) shall be submitted in conjunction with the BMP and VMP
 - c) If twenty (20) working days have passed since the management plan has been provided to HCC under clause (a) above, and the Requiring Authority has not received a response from HCC, the Management Plan shall be deemed to be certified.
 - d) If the HCC's response is that they are not able to certify the Management Plan, they shall provide reasons and recommendations for changes to the management plan in writing. The Requiring Authority shall consider any of the reasons and recommendation of HCC and resubmit an amended Management Plan to be certified.
 - e) If the Requiring Authority has not received a response from HCC within ten (10) working days of the date of resubmission under clause (c) above, the amended Management Plan will be deemed to be certified.
 - f) Any certified management plan may be updated or revised to reflect any changes in design, construction methods or management of effects:
 - i. Any material changes are to be submitted to HCC for certification as soon as practicable following identification of the need for an update or revision. If the Requiring Authority has not received a response from HCC within ten (10) working days of submitting the revised information, the management plan will be deemed to be certified. Any material changes may not be implemented until certified by HCC.
 - ii. Except for material changes, management plans may be amended to reflect any changes in design, construction methods or management of effects and

- submitted to Hutt City Council for information, without the need for recertification.
- g) No Construction Works may commence until all management plans that relate to those Construction Works or relevant stage(s) of works have been certified by the HCC or are deemed certified in the absence of a response from HCC.
- Management plans prepared under this designation must be consistent with and not hinder the implementation of the Lizard Management Plan approved under the Wildlife Act.
- i) Where possible, the authors of the management plans required under these conditions shall confer in order to achieve consistency and integration between different management plan requirements. They must ensure that:
 - i. the Bird Management Plan is consistent with the Lizard Management Plan,
 - ii. <u>the Vegetation Management Plan is consistent with the Lizard and Bird</u>
 Management Plans, and
 - iii. <u>the Landscape Concept Plan is consistent with the Vegetation, Lizard and Bird Management Plans,</u>
 - iv. <u>the Construction Environmental Management Plan is consistent with the</u> plans referred to in i. ii and iii.

Construction Environmental Management

- 9. The Requiring Authority shall not commence Construction Works (or relevant stage of Construction Works, if the works are carried out in stages) until a Construction Environmental Management Plan (CEMP) has been certified by HCC, in accordance with condition 8, confirming that the CEMP satisfies the requirements of Condition 10.
- 10. The purpose of the CEMP is to set out the management procedures and construction methods to be undertaken to avoid, remedy or mitigate any adverse effects associated with the Construction Works. To achieve the purpose, the CEMP must include details of:
 - a) How it links to other management plans as detailed in condition 8 h);
 - b) Construction methodologies and construction timeframes, including staging <u>and</u> <u>timing of vegetation clearance set out in the Lizard Management Plan (LMP) and conditions 33 c), d) and 38 c);</u>
 - c) Working hours, which should generally be 7:30am to 6:00pm Monday to Saturday except as otherwise provided for under condition 18;
 - d) The roles and responsibilities of staff and contractors;
 - e) Details of the project manager and the Project representative(s), including their contact details (phone and email address);
 - f) The proposed site layouts (including construction yards), locations of refuelling activities and construction lighting;
 - g) Methods for providing for the health and safety of the general public;
 - Procedures for incident and complaint management and reporting including details of who can be contacted to report complaints throughout the duration of the Construction Works;
 - The complaints register that shall be maintained for the duration of the works detailing complaints received alleging adverse effects from, or related to, the works;
 - j) Procedures for how complaints are to be addressed;
 - k) Details of where machinery operations must be excluded, to ensure minimal disturbance of these areas; and

- Details of where temporary signage shall be installed during construction of the Project, which informs the general public of the works, including alternative access points for accessing the Eastern Hills recreational area.
- 11. The Requiring Authority must implement the certified CEMP (with any amendments) for the duration of the Construction Works.
- 12. The Requiring Authority must ensure that a copy of the certified CEMP, including any amendments made in accordance with the process specified in Condition 8, is kept onsite and this copy is updated within 10 working days of any amendments being certified by, or provided to, the HCC.

Earthworks

- 13. The Requiring Authority must submit an Erosion and Sediment Control Plan (ESCP) to the Hutt City Council for information once it has been certified by the Greater Wellington Regional Council.
- 14. The Requiring Authority shall stabilise all areas exposed by earthworks, trenching or building work as soon as possible after excavation or, at the latest, within one month of completing earthworks.
- 15. The Requiring Authority shall ensure all Construction Works, including any earthworks, are carried out in a manner that controls dust travelling beyond site boundaries to the extent that it does not cause a nuisance or hazard.
- 16. The Requiring Authority shall ensure that vehicles and machinery leaving the site do not deposit earth or other material in or on road reserve, the road surfaces or surrounds. If such spills occur, the Requiring Authority shall clean the road surfaces to their original condition as soon as possible after the spill occurs and within 24 hours.
- 17. Prior to the Commencement of Construction Works, a stabilised vehicle crossing shall be installed at the site entrance(s) for the Construction Works and/or suitable wheel wash facilities on site so that earth material from the site is not tracked onto the road.

Construction Noise and Vibration

18. The Requiring Authority shall not commence Construction Works until a Construction Noise and Vibration Management Plan (**CNVMP**) has been certified by HCC, confirming that the CNVMP satisfies the <u>intent purpose</u> established in <u>this</u> Condition 19 and the requirements of Conditions <u>19-20</u> to <u>24-26</u>. Certification shall occur in accordance with the process set out in Condition 8. The intent of the CNVMP is to provide a framework for the development and implementation of the Best Practicable Option for the management of Construction Works noise and vibration effects, and to set out how compliance with the construction noise and vibration standards set out in Conditions <u>23</u> and <u>24</u> below will be achieved as far as practicable.

- 19. The purpose of the CNVMP is to provide a framework for the development and implementation of the Best Practicable Option for the management of Construction Works noise and vibration effects, and to set out how compliance with the construction noise and vibration standards (set out in Conditions 25 and 26 below) will be achieved as far as practicable. The CNVMP must provide methods to manage noise and vibration appropriately to minimise effects where practicable for a variety of circumstances within the project site by outlining the measures, procedures and standards for mitigating the effects of noise and vibration during construction of the Project.
- 20. The purpose of the CNVMP is to provide methods to manage noise and vibration appropriately for a variety of circumstances within the project site by outlining the measures, procedures and standards for mitigating the effects of noise and vibration during construction of the Project. The CNVMP must include, as a minimum:
 - a) A description of the likely construction noise and vibration emissions anticipated as a result of construction activities;
 - b) A description of the construction work, anticipated equipment and processes and their scheduled durations;
 - c) A description of noise or vibration suppression devices to be used on equipment or processes;
 - d) The normal hours of operation being 7:00 am till 6:00pm Monday to Saturday, with noisy activities restricted prior to 7.30am;
 - e) The construction noise and vibration criteria that apply for the Project, which must be consistent with those standards specified in NZS 6803:1999 'Acoustics Construction Noise' (Condition 23) and BS 5228-2:2009 Code of practice for noise and vibration control on construction and open sites Part 2: Vibration and DIN 4150-3 (Condition 24);
 - f) Identification of affected houses and other Noise Sensitive Receptors where noise and vibration criteria apply, including a list of Noise Sensitive Receivers (as defined in NZS 6803:1999 'Acoustics – Construction Noise');
 - g) Requirements for monitoring road surface condition to minimise noise and vibration from trucks travelling over potholes and uneven surfaces;
 - h) Methods and frequency for monitoring and reporting on construction noise and vibration to HCC;
 - Procedures for maintaining contact with stakeholders, notifying of proposed construction activities in advance of works taking place, and handling of noise and vibration complaints (consistent with the complaints procedures and complaints register within the CEMP);
 - j) Where compliance with the criteria in Conditions <u>2325</u>- and <u>24-26</u>-may not be achieved, a description of <u>alternative mitigation strategies</u>-Best Practicable Option that will be used including notification requirement to affected parties;
 - k) The requirement for pre-construction building inspections at locations close to activities generating significant vibration, prior to and after completion of construction and processes for repair of any damage caused by the Work;
 - Construction equipment operator training procedures and expected construction site behaviours; and
 - m) Contact numbers for key construction staff, and staff responsible for noise assessment and the CMO(s).
 - n) Procedures for community liaison,

- 21. Where practicable, based on the topography, ecological/landscape features and phasing of noise-generating works, an acoustic site hoarding expected to be up to 3 metres high (unless this is not physically possible, in which case a smaller acoustic hoarding may be constructed) a 3 metre high site hoarding shall be constructed around the boundary of the construction site. The site hoarding shall be designed by a suitably qualified acoustic consultant and constructed to act as a noise barrier and be maintained for the duration of noise generating activities.
- 22. Where Construction Works require <u>concrete pouring and post-tensioning over</u> night, <u>time</u> <u>works</u> the CNVMP must address the following matters:
 - a) The arrangement for night works, including:
 - i. Enhanced communication procedures with residents on Summit Road and Tilbury Street identified as PPFs in the Noise and Vibration Assessment submitted with the application (e.g. regular updates on the project programme, nature and reason for the works, indicative timeframes, phone number(s) for complaints);
 - ii. <u>Scheduling in respite periods (e.g., a A maximum of 3 consecutive nights of works.</u>
 - iii. The consideration to provide temporary relocation to affected residents on Summit Road, where reasonable (and other arrangements are not practicable) for noise associated with night-time traffic movements for concrete pours.
 - b) Controls to minimise the occurrence of events generating intermittent sounds such as reverse beepers, shouting, or whistling.
- 23. The Requiring Authority must implement the certified CNVMP (with any amendments) for the duration of the Construction Works.
- 24. The Requiring Authority must ensure that a copy of the certified CNVMP, including any amendments, is kept onsite and this copy is updated within 10 working days of any amendments being made.
- 25. Construction noise shall be measured and assessed in accordance with NZS 6803:1999 'Acoustics Construction Noise'. The construction noise shall comply with the following criteria as far as practicable:

lxiv)	Day of week	lxv)	Time	lxvi)	dB L _{Aeq (15min)}	lxvii)	dB L _{AFmax}	
lxviii)	Noise Criteria at Residential Neighbours							
lxix)	Weekdays	lxx)	0630 – 0730	lxxi)	55	lxxii)	75	
		lxxiii)	0730 – 1800	lxxiv)	70	lxxv)	85	
		lxxvi)	1800 – 2000	lxxvii)	65	lxxviii)	80	
		lxxix)	2000 – 0630	lxxx)	45	lxxxi)	75	
lxxxii)	Saturdays	lxxxiii)	0630 – 0730	lxxxiv)	45	lxxxv)	75	
		lxxxvi)	0730 – 1800	lxxxvii)	70	lxxxviii)	85	
		lxxxix)	1800 – 2000	xc)	45	xci)	75	
		xcii)	2000 – 0630	xciii)	45	xciv)	75	
xcv)	Sundays and	xcvi)	0630 - 0730	xcvii)	45	xcviii)	75	
public holidays		xcix)	0730 – 1800	c)	55	ci)	85	

lxiv)	Day of week	lxv)	Time	lxvi)	dB L _{Aeq (15min)}	lxvii)	dB L _{AFmax}	
lxviii)	Noise Criteria at Residential Neighbours							
		cii)	1800 – 2000	ciii)	45	civ)	75	
		cv)	2000 – 0630	cvi)	45	cvii)	75	

26. Vibration from the Construction Works must comply with the following criteria as far as practicable:

cviii)	Receiver	cix)	Details	cx)	Category A	cxi)	Category B
cxii)	cxii) Noise Criteria at Residential Neighbours						
cxiii)	Occupied	cxiv)	Night-time	cxv)	0.3mm/s	cxvi)	1mm/s ppv
Activiti	Activities sensitive		- 0630h	ppv			
to vibr	to vibration		Daytime	cxviii)	1mm/s ppv	cxix)	5mm/s ppv
		0630h -	– 2000h				
cxx)	Other	cxxi)	Daytime	cxxii)	2mm/s ppv	cxxiii)	5mm/s ppv
occupi	occupied buildings		0630h – 2000h				
cxxiv)	All other	cxxv)	At all other	cxxvi)	5mm/s ppv	cxxvii)	BS 5228-2*
buildings		times Vibration –				Table B2	
		transie	nt				
		cxxviii)	At all other	cxxix)	5mm/s ppv	cxxx)	BS 5228-2*
		times Vibration –		50% of Ta		Table B2	
		continuous				values	

BS 5228-2:2009 *Code of* practice for noise and vibration control on construction and open sites – Part 2: Vibration

Advice Note: For vibration measurements, reference should be made to BS 5228-2 and DIN 4150-3. For additional guidance on measurement techniques, reference can be made to BS 6472-1 in relation to human annoyance and ISO 4866:2010 for building damage.

Construction Traffic

- 27. The Requiring Authority shall not commence Construction Works until a Construction Traffic Management Plan (CTMP) has been certified by Hutt City Council confirming that the CTMP satisfies the requirements of Condition 26, 27, and 28. Certification shall occur in accordance with the process set out in Condition 8. The purpose of the CTMP is to avoid, remedy or mitigate, as far as practicable, adverse construction traffic effects of the Project on the availability of kerbside parking, damage to the roading surface, property access, traffic safety and efficiency during construction. Temporary traffic management as part of the CTMP will be planned and delivered as per the most up-to-date temporary traffic management guidance provided (currently the NZ Transport Agency's NZ Guide to Temporary Traffic Management).
- 28. The CTMP must include, as a minimum:
 - a) Measures to minimise the disruption to users of local travel routes;
 - b) Temporary traffic management measures required to manage <u>and minimise</u> impacts on road users during the proposed construction works including signage and traffic control;
 - c) Measures to maintain safe existing vehicle access to adjacent properties including safe sight lines where trucks or materials are parked or stored in the carriageway;
 - d) Any proposed temporary changes in speed limits;

- Measures to control HCV so that two HCVs are not travelling in opposite directions along Summit Road or Tilbury Street at any one time including detailing appropriate waiting locations;
- f) Provision for safe and efficient access of vehicles to and from the construction site;
- g) Details of induction/briefing to HCV drivers associated with the construction of the reservoir, which must include:
 - i. Awareness of the potential risks and the importance of slowing down when driving past any school site; and
 - ii. Adhering to temporary and permanent speed limits at all times when driving to and from the site.
- h) Details of where parking will be temporarily removed and where alternative on-street parking can be accessed; and
- Details as to where footpaths will be temporarily closed and for how long <u>and details</u> of <u>alternatives walking routes for pedestrians if necessary;</u>
- j) Details of the pre and post construction pavement surveys on Tilbury Street, Summit Road and Balgownie Grove during construction;
- k) Measures to manage staff parking so that it is provided off-site to avoid parking impacts on local roads;
- Details of the Temporary Traffic Management needed to ensure the safe movement of HCVs, including truck and trailer units through the Summit Road intersection with Tilbury Street.;
- 29. The Requiring Authority shall carry out a preconstruction survey of the road pavement, footpath pavement on Summit Road, Tilbury Street and Balgownie Grove and the Tilbury Street bridge prior to the commencement of Construction Works. The methodology for the survey is to be agreed with the Road Asset Manager. Prior to the Construction Works commencing, the preconstruction survey shall be supplied to the Road Asset Manager.
- 30. Following completion of the Construction Works, the Requiring Authority shall complete a postconstruction survey of Summit Road, Tilbury Street, and Balgownie Grove and the Tilbury Street bridge. The Requiring Authority shall contribute a fair and reasonable cost, as determined by a Suitably Qualified Person, towards repair and maintenance of Summit Road and, Tilbury Street, Balgownie Grove and the Tilbury Street bridge should damage to the road be attributable to the Construction Works.
- 31. All HGV construction traffic that will utilise SH2, travelling to or from the North or South, shall use the Kennedy Good Bridge, Fairway Drive, Daysh Street route when unless this is not practicable (for example, if roads are closed or construction traffic is not utilising SH2).

Landscape, Visual Amenity and Natural Character

32. The Requiring Authority shall not commence Construction Works until a Landscape Concept Plan (LCP) developed in partnership with Taranaki Whānui ki Te Upoko o Te Ika has been certified by HCC, confirming that the LCP satisfies the requirements of Condition 33. Certification shall occur in accordance with the process set out in Condition 8. The purpose of the LCP is to outline the methods and measures to be implemented to avoid, remedy or

mitigate adverse landscape, natural character and visual amenity effects associated with the construction and operation of the Project on nearby receivers.

33. The LCP must, as a minimum, include:

- a) Details of how the Project's landscape treatments are context-sensitive in terms of acknowledging Taranaki Whānui ki Te Upoko o Te Ika values, land use, sense of place and the viewing audience;
- Details of the final earthworks levels, including confirming that they will integrate
 with adjacent topography, and provide appropriate revegetation conditions and
 include specific details for the revegetation of the cut face;
- c) <u>Identification of proposed planting including eco-sourced (where practicable) plant species, use of manuka slash, plant/grass mixes, spacing/densities, sites (at time of planting) and layout and planting methods with input from the Project ecologist;</u>
- d) Specific details for the remediation and revegetation of the cut face/north facing batter slope around the reservoir and the firebreak track edge consistent with the LMP requirements for mānuka/kānuka skink habitat creation, with input from the Project herpetologist/ecologist₇
- e) Details of the replaced and/or reinstated pathways through the site including the location of replacement and/or new seating and_signage;
- f) Appropriate design treatment(s) to support safety and wayfinding;
- g) Consideration of CPTED (Crime Prevention Through Environmental Design) principles in relation to the project;
- h) Identification of vegetation to be retained, including retention of as many as practicable significant trees and areas of regenerating indigenous vegetation;
- i) Protection measures for vegetation to be retained;
- j) Identification of proposed planting including eco-sourced (where practicable) plant species, plant/grass mixes, spacing/densities, sites (at time of planting) and layout and planting methods with input from the Project ecologist, including remediation of mānuka/ and kānuka around the reservoir and remediated firebreak track to form suitable skink habitat, with input from the Project herpetologist/ecologist;
- k) Details of the proposed planting that is to occur within the riparian margin of the Waiwhetū Stream;
- Planting programme detailing the staging of planting in relation to the construction programme which shall, as far as practicable, require planting to occur within the first planting seasons following completion of the Construction Works. <u>This includes</u> identifying areas that will require temporary measures such as hydro-seeding (or similar) immediately following the completion of construction until planting can occur in the next planting season;
- m) Details of how the input of a suitably qualified ecologist has provided input so that ecological benefits are attained via the proposed planting; and
- n) The proposed maintenance and management of plantings, (including the replacement of unsuccessful plantings, pest plant control and pest animal control) for a minimum of 5 years or until canopy closure density of 80% is achieved, whichever is the longer to ensure effective remediation, sediment control and plant survivorship occurs.
- o) Detail how vegetation clearance, salvage, stockpiling and its reuse/spread on site
 (where practicable), will be managed under the supervision of an ecologist and/or
 landscape architect, including the salvage of indigenous plant material and forest duff

(topsoil layer) as part of the earthworks stage. *Note: This clause is redundant if the Vegetation Management Plan has already been certified*

Ecological Management Plans

- 34. At least 10 days prior to any works on land identified as lizard habitat, the Requiring Authority shall provide a copy of the Lizard Management Plan (**LMP**) and a copy of the permit obtained under Wildlife Act 1953, as certified by the Department of Conservation, to the CMO for their records.
 - Advice note: The Requiring Authority shall undertake the works in line with the Lizard Management Plan and any conditions of the permit obtained under the Wildlife Act 1953.
- 35. The Requiring Authority shall not commence <u>vegetation clearance</u> or Construction Works until a Bird Management Plan (**BMP**) has been certified by Hutt City Council confirming that the **BMP** satisfies the requirement of Condition 34. The purpose of the **BMP** is to avoid <u>disturbance or death of protected species¹ of remedy, or mitigate the potential adverse effects of the Project on birds.</u>
- 36. The BMP must include, as a minimum:
 - a) Cross refer to the other management plans as detailed in condition 8 h) with the Lizard Management Plan taking priority;
 - b) Identify all protected species¹ possible, likely, highly likely, or confirmed to utilise nest
 <u>at</u> the site as defined in the Ecological Impact Assessment prepared by WSP dated 20
 June 2024
 - c) Define vegetation types that provide nesting habitats for all protected species of birds possible, likely, highly likely, or confirmed to utilise the site.
 - d) Define the active nest² season for all protected species possible, likely, highly likely, or confirmed to utilise the site;
 - e) Define species-specific Zones of Influence/exclusion zones for all protected species possible, likely, highly likely, or confirmed to utilise the site;
 - f) Define pre-works survey requirements Provide methodologies for pre-works survey to be undertaken for active nests, if vegetation removal impacts nesting habitat and occurs during a month when active nesting is possible;
 - g) Include methods to clearly demarcate Incorporate the include use of (i) hi-vis flagging tape or similar material to identify the active nest of protected tree-nesting bird species and (ii) temporary cordoning to physically demarcate and the buffer zone to be imposed around the active nest (which must be appropriate so that vegetation

¹ for the purposes of these conditions, protected species is defined as all species of mammals, birds, amphibians and reptiles within New Zealand, other than those listed as 'Wildlife not protected' within Schedule 5 of the Wildlife Act 1953 and includes 'Terrestrial and freshwater invertebrates declared to be animals' listed in Schedule 7 of the Wildlife Act 1953

² A nest containing eggs and/or chicks

- clearance and construction activities will not adversely affect an adult bird, such that they may abandon the active nest).
- h) Ensure that buffer zones are a minimum of (i) 25 metres from active nests of non-threatened bird species that are identified during the survey; (ii) 50 metres from active nest of Threatened or At Risk bird species that are identified during the survey (excluding karearea); and (iii) 200 metres from active karearea nests that are identified during the survey.
- i) Define Provide a methodology to re-survey active nest re-surveys to confirm fledging or natural nest failure, to allow vegetation removal and construction activities to commence within the previously imposed buffer zone.
- j) Ensure pre-works checks of any suitable nesting cavities within vegetation in the Project footprint shall be is undertaken, if vegetation removal and construction activities occur during the active nest season for ruru (morepork) any cavity nester possible, likely, highly likely, or confirmed to utilise the.
- k) Ensure pre-works checks for kārearea shall also be undertaken if any vegetation clearance is to occur within the kārearea active nest breeding season (August to May inclusive).
- Include Outline methodologies measures to account for address the loss of any confirmed active nest or cavity for any regionally or nationally 'Threatened' bird species (e.g.: artificial nest box installations).
- a)—The Zone of Influence for all protected species¹ possible on site;
- b) The active nest² season for all protected species on site;
- c) Methodologies to determine if active nests are present prior to vegetation removal occurring and construction activities commencing that would disturb species on site (if construction were to occur during the active nest season); and
- d)—The management actions, including exclusion zones, that must be implemented should active nests of protected species be discovered during checks.—
- e) Methodologies to offset the loss of any confirmed nesting habitat for threatened species
- f) Confirmation that pre clearance checks of cavities in large trees shall be undertaken during active nest seasons (in case cavity nesters are present).
- g) Confirmation that pre clearance checks for karearea shall also be undertaken if vegetation clearance is to occur within the active nest season
- 37. The Requiring Authority shall not commence Construction Works until a Vegetation Management Plan (VMP) has been certified by Hutt City Council confirming that the VMP satisfies the requirements of Condition 38. The purpose of the VMP is to avoid, remedy or mitigate the potential adverse effects of the Project on indigenous vegetation is to outline the methods and measures to salvage and reuse vegetation on-site and to identify where planting is required to ensure the site is appropriately remediated.
- 38. The **VMP** must, as a minimum:
 - a) Cross refer to the other management plans as detailed in condition 8 h) with the Lizard Management Plan taking priority;
 - b) Ensure 'At Risk' orchids (spotted fleshy orchid and *Thylemitra* spp.) shall be searched for during pre-works checks and outline procedures for the salvage and transfer, and

- management, including success monitoring of any salvage and transfer attempts of orchids if discovered on site prior to vegetation clearance occurring;
- c) <u>Detail how vegetation clearance, salvage, stockpiling and its reuse/spread on site</u> (where practicable), will be managed under the supervision of an ecologist and/or landscape architect, including the salvage of forest duff (topsoil layer) as part of the earthworks stage.
- d) <u>Identify a method to confirm and calculate the areas of vegetation lost during site</u> <u>clearance activities and define areas where remediation is possible;</u>
- e) Identify the suitable planting season (months) for site remediation, to promote plant establishment and survivorship. This includes identifying areas that will require temporary measures such as hydro-seeding (or similar) immediately following the completion of construction until planting can occur in the next planting season;
- f) Ensure that all areas identified in d) as able to be remediated are planted with ecosourced indigenous vegetation (where practicable), with input from the Project herpetologist, as outlined within the LMP, and landscape architect as outlined within the LCP. This includes identifying the areas requiring arborescent broadleaved indigenous hardwoods and indigenous low growing shrubs, and mānuka/kānuka,, and area of riparian planting proposed along the banks of the Waiwhetū stream.
- g) Identify the plant species suitable for the site and SNR12, that are unpalatable to browsing herbivores present on-site (possums, deer etc) to be used for site remediation;
- h) <u>Include methods to protect remediation planting from pests;</u>
- i) Detail a suitable annual monitoring and maintenance schedule to ensure 80% canopy closure on-site or for 5 years following completion of the Project, which ever is longer, to ensure effective remediation, sediment control and plant survivorship occurs;
- j) Ensure the maintenance schedule includes the replacement of dead or dying remediation plants to achieve canopy closure and remediation goals;
- k) Identify where riparian planting is proposed along the banks of the Waiwhetū stream.
- Confirm the extent and method of enhancing surrounding habitat through exotic species removal and enrichment replanting methodology.
- a) Include methods to protect remediation planting from pests;
- b) Detail a suitable annual monitoring and maintenance schedule for 5 years following completion of the Project to ensure canopy closure and plant survivorship occurs;
- c) <u>Identify those areas of indigenous vegetation lost during site clearance activities;</u>
- d) Identify those areas on site where remediation with eco-sourced indigenous vegetation (where practicable) will occur, including remediation of mānuka/kānuka around the reservoir and remediated firebreak track to form suitable skins habitat, with input from the Project herpetologist/ecologist; and
- e) <u>Identify where riparian planting is proposed along the banks of the Waiwhetū</u> <u>stream.</u>
- f) Detail how vegetation clearance, salvage, stockpiling and its reuse/spread on site, will be managed under the supervision of an ecologist and/or landscape architect, including the salvage of indigenous plant material and forest duff (topsoil layer) as part of the earthworks stage.

- g) Confirm that all at risk or threatened orchid species shall be searched for prior to any clearance works and outline procedures for the translocation and management of orchids if discovered on site prior to vegetation clearance occurring.
- 39. An Enabling Works Outline Plan(s) must be prepared and submitted to Hutt City Council in accordance with section 176A of the RMA for enabling works that are not otherwise a permitted activity pursuant to the Hutt City District Plan (unless the requirement is waived by Hutt City Council) prior to the Project Construction Outline Plan.

 In addition to the matters required by section 176A(3) of the RMA, the Enabling Works outline plan(s) must:
 - a) Detail the purpose for undertaking the Enabling Works activity prior to the Construction Works;
 - b) Detail the mitigation required, and an appropriate timescale for implementing that mitigation, if an enabling work occurs and the project does not commence; and
 - c) Address the requirements of ecological management plans if ecological surveys and relocations are required.

The Enabling Works Outline Plan(s) is not required to include:

d) The management plans required by Condition 8(a).

Accidental Discovery

- 40. At least 15 Working Days prior to Construction Works commencing, the Requiring Authority shall prepare an accidental discovery protocol and provide a copy to HCC for information. The protocol shall be implemented in the event of the accidental discovery of cultural or archaeological artefacts or features during construction of the Project. The protocol shall include, but not be limited to:
 - a) Identification of parties to be notified in the event of an accidental discovery, who shall include, but need not be limited to, Taranaki Whānui ki Te Upoko o Te Ika, Te Rūnanga o Toa Rangatira, Heritage New Zealand Pouhere Taonga, HCC, and if koiwi are discovered, the New Zealand Police.
 - b) Setting out procedures to be undertaken in the event of an accidental discovery, which shall include the cessation of Construction Works in the vicinity of the discovery until authorised to proceed.
 - c) Training procedures for all contractors regarding the possible presence of cultural or archaeological sites or material, what these sites or material may look like, and the relevant procedures if any sites or material are discovered.

Earthworks – Site stability

- 41. Further investigations and geomorphological mapping are required to be submitted as part of the Project Construction Outline Plan.
 - Note: Hutt City Council will have this information peer reviewed by an external experienced chartered geo-professional.
- 42. A fully-dynamic deformation analysis shall be undertaken by a suitably qualified engineer showing that a seismic resilient engineered solution in accordance with the latest versions of

<u>Wellington Water's Regional Standard and Regional Specification for Water Services³</u> can be constructed at the site. The analysis shall be submitted to Hutt City Council as part of the Project Construction Outline Plan.

Note: Hutt City Council will have the information peer reviewed by an external experienced chartered geo-professional.

Ongoing Monitoring, Maintenance and Management

- 43. Notwithstanding Condition 3 &, monitoring and management measures required by the following management plans must remain in place for 5 years once Construction Works are complete:
 - a) Condition 30, LCP;
 - b) Condition 32, LMP;
 - c) Condition 35, VMP.
- 44. <u>If maintenance works require the removal of indigenous vegetation on-site, like-for-like remediation planting, if practicable, should be implemented no later than the next available planting season.</u>

³ https://www.wellingtonwater.co.nz/contractors/technical-information/specifications-and-standards