

BEFORE THE HEARING PANEL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of a Notice of Requirement to alter a designation for the
HCC Central City Reservoir – Ruakiwi Road

STATEMENT OF REBUTTAL EVIDENCE OF CHRISTOPHER JOHN DAWSON

(Planning)

Dated 5 February 2026

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INTRODUCTION

1. My full name is Christopher John Dawson.
2. My qualifications and experience are as set out in paragraphs 1-3 of my primary statement of evidence dated 19 December 2025.
3. I reconfirm that I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2023 and I agree to comply with it.

PURPOSE OF REBUTTAL EVIDENCE

4. The purpose of this rebuttal statement of evidence is to address comments raised by the Department of Conservation (**the Department**) in relation to the duration of monitoring and maintenance of artificial roost boxes in its letter dated 19 January 2026 (**the Department's letter**)¹. I have also provided comment in relation to the suggested changes to the consent conditions proposed by the Department relating to the means of implementation for condition 50(c).

REBUTTAL

5. The Department retains concerns at the 10 year limit on the inspection and maintenance of artificial bat roosts as set out in proposed condition 42(d)(ii) of the draft conditions attached to my primary evidence.
6. Dr MacKay notes that bat monitoring at the site showed bat activity to be consistently low, commensurate with the proximity of the site to Ruakiwi Road (a well-lit, busy, suburban road) and the predation pressure in place

¹ "Withdrawal of right to be heard in respect of notice of requirement – alteration to Ruakiwi Road reservoir designation". Letter from Niwha Jones (Operations Manager, Waikato, Department of Conservation) to Hearing Panel dated 19 January 2026.

around the area². Dr MacKay concludes that: “the artificial roost boxes are one component of a compensation package designed to enhance long-tailed bat activity, and the impacts of light and pest mammals reducing the quality of existing roosting habitat”³.

7. In my opinion, and in reliance on the evidence of Dr MacKay, the 10 year monitoring period for the inspection and maintenance of artificial bat roosts is appropriate and proportionate to the level of effect that is predicted. I do not support altering proposed condition 42(d)(ii) in relation to the monitoring period.
8. As stated in my supplementary evidence Policy 7 of the National Policy Statement for Infrastructure 2025 (**NPS-I**) relates to assessing and managing the effects of proposed infrastructure activities. Policy 7(1)(e) specifically states that when assessing and managing the effects of infrastructure activities, decision makers must “ensure that the mitigation measures and consent conditions are proportionate to the scale of adverse effects generated by the activity”.
9. In my opinion, the retention of the 10 year period for the inspection and maintenance of the artificial bat roosts will be consistent with the direction of Policy 7(1)(e) of the NPS-I.
10. The Department has also recommended some amendments to condition 41 in order to more clearly enable the requirements of condition 50 to be implemented. I concur with the recommendation to amend the objective; however, I have adopted slightly different wording that achieves the intent. The additional text has been inserted into the 5 February 2026 version of the draft conditions, which is attached as **Appendix A** to my rebuttal evidence. The amended condition 41 is set out below with additional text noted in red:

² Rebuttal evidence of Dr MacKay, paragraph 9.

³ Rebuttal evidence of Dr MacKay, paragraph 10.

The objective of the ELMP shall be to:

- a) Ensure the reservoirs and valve chamber are integrated into the Lake Domain through the combination of landscape, tree planting and paths.
- b) Ensure the landscape treatment takes into account the CEMP.
- c) Protect bat habitat and support its restoration through pest control and wider effects management including:
 - i. Provide^{ing} 42 bat roost features (artificial and protected natural) with predator proof banding above and below.
 - ii. Provide^{ing} 7.4 hectares of pest control within the Lake Domain.
 - iii. Provide^{ing} 0.58 hectares of restoration planting within the Lake Domain.
 - iv. Provide^{ing} 1 hectare of “no mow” grassland within the Lake Domain.

...

CONCLUSION

11. The retention of the 10 year monitoring regime for artificial bat roosts and the amendments to condition 41 will ensure that the project will appropriately mitigate for the loss of mature trees within the project footprint. It will also ensure that there is a net gain outcome of 27%⁴ through the combination of ecological compensation measures proposed in the conditions of consent.

Christopher John Dawson

5 February 2026

⁴ Primary evidence of Dr MacKay, paragraph 79.

Appendix A
Draft consent conditions
5-2-26 version

Recommended NoR conditions – Ruakiwi Reservoir

5 February 2026

Key:

Text added since issue of s42A condition set

~~Text removed since issue of s42A condition set~~

Definitions of Terms and Abbreviations used in these Conditions

Term	Meaning
AMP	Avifauna Management Plan
BMP	Bat Management Plan
BPO	Best Practicable Option
Construction Works	Means the physical works and related activities necessary to construct the Project.
Contact Details	Means mobile phone number, land-line number (if any), postal address, and email address
CEMP	Cultural Effects Management Plan
CMP	Construction Management Plan
CTMP	Construction Traffic Management Plan
CNVMP	Construction Noise and Vibration Management Plan
Designation	Means the designation for the Ruakiwi Reservoir (Designation Number A67).
Discovery	The unearthing, dislodgement, uncovering, or otherwise finding or discovering during earthworks of any archaeological sites or remains, artefacts, taonga (Maaori artefacts), or kooiwi.
ELMP	Ecological and Landscape Management Plan
ESCP	Erosion and Sediment Control Plan
HCC	Hamilton City Council
HMP	Heritage Management Plan
HNZPT	Heritage New Zealand Pouhere Taonga
LP	Lighting Plan
Mana Whenua	Means Ngaati Maahanga, Ngaati Tamainupoo, Ngaati Wairere, Ngaati Hauaa, Ngaati Koroki Kahukura
NOR	Means the Central City Reservoir – Ruakiwi, dated August 2025 and prepared by BBO on behalf of HCC as Requiring Authority.
Outline Plan	An Outline Plan prepared in accordance with section 176A of the RMA
Project Partner	Means Mana Whenua and Waikato Tainui.
Requiring Authority	Has the same meaning as section 166 of the RMA and, for the Designation is Hamilton City Council
Reservoir 1	Means that Reservoir located closest to Ruakiwi Road
Reservoir 2	Means that Reservoir located furthest from Ruakiwi Road.

Term	Meaning
RMA	Resource Management Act 1991
Te Ture Whaimana	Means the Vision and Strategy for the Waikato River as set out in the Waikato-Tainui Raupatu (Waikato River) Settlement Act 2010
Territorial Authority	Means Hamilton City Council
TDMP	Travel Demand Management Plan
TPMP	Tree Protection Management Plan
Standard	Any reference in these conditions to an International or New Zealand Standard includes any later Standard that amends or replaces it.

Pursuant to section 168A (4) of the Resource Management Act 1991, Hamilton City Council confirms the requirement for the designation of two new water reservoirs, valve station and associated works, subject to the following recommended conditions:

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Description of Works

The terms and conditions described herein apply to the designation for the Ruakiwi water supply reservoirs and valve station, specifically for their construction, operation, inspection and maintenance to allow for the storage and supply of water.

Land Subject to the Designation

The designation applies to the area of land shown on the Designation plans CB000-CIV-3010 & 3011 entitled "Central City Reservoir and Pump Station, IAF Projects, Designation Areas Plan View prepared by Holmes and contained in **Appendix A**. The area is described below:

- The land legally described as Lot 2 DP 16167 held in Computer freehold Register (CFR) SA399/80 with an area of 5296 m², and
- An area of 2798 m² of the land legally described as Lot 1 DP 16167 held in Computer Freehold Register (CFR) 263543, and
- An area of 11905 m² of the land legally described within Allot 74 Hamilton West TN Belt held in Computer Freehold Register 263543.

General

1. The works to give effect to the designation for the water reservoirs and valve station shall be in accordance with the information provided with the Notice of Requirement for an Alteration to a designation - Ruakiwi Road Reservoir by BBO dated August 2025 including all [relevant appendices and further information responses as set out below in Table A:](#)

Table A:

<u>Location</u>	<u>Title / Author</u>	<u>Date / Rev</u>
Appendix B	Structure Design Drawings (90% Preliminary Design)/ Holmes	C
Appendix C	Designation Drawings / Holmes	
Appendix D	Hamilton CBD Water Supply Zone (Water supply reservoir upgrade location assessment) / WSP	2
Appendix F1	HCC Central City Reservoir Project Construction Traffic Assessment / BBO	August 2025
Appendix F2	HCC Central City Reservoir Project Draft Construction Traffic Management Plan / BBO	August 2025
Appendix G	Ecological Impact Assessment Report / Tonkin & Taylor	3
Appendix H	Geotechnical Design Report / CMW Geosciences	B
Appendix I1	Heritage Impact Assessment / Archifact	June 2025
Appendix I2	Heritage Structural Memo / Archifact	18 August 2025
Appendix J	Construction Method Statement / A Stewart	26 June 2025
Appendix K	Civil Plans and Erosion and Sediment Control Memo / Holmes	19 August 2025
Appendix M	DSA report / WSP	22 August 2025
Appendix N1	Cultural Impact Assessment / Te Ha o Te Whenua o Kirikiriroa	
Appendix N2	Cultural Impact Assessment: New Ruakiwi Reservoir and Infrastructure Upgrades / Carol Henry, Ngati Wairere,	7 July 2025
Appendix O1	Landscape and Visual Impact Assessment / Adrian Morton Landscape Architects Ltd	11 August 2025
Appendix O2	Landscape Appendices / Edwards White Architects, Brodie Hailwood, Adrian Morton Landscape Architects	August 2025
Appendix P	Assessment of Acoustic Effects / Marshall Day Acoustics	7 August 2025

Appendix Q	Archaeological Assessment Ruakiwi Reservoir / Sian Keith	June 2025
Appendix R	Hamilton City Council Urban Design Panel letter / HCC	30 July 2025
Post lodgement	Council as Requiring Authority response to further information questions on regional consents, civil, stormwater and heritage matters.	9 September 2025
Post lodgement	Council as Requiring Authority response to further information questions on Geotechnical matters.	19 September 2025
Post lodgement	Ruakiwi Road Reservoir Development, Resource Consent, Lighting Effects Assessment / LDP	14 October 2025

Built Form

2. The layout of Reservoir 1 and the valve station shall be in accordance with Plan CB300-STR-1010 Rev C and Plan CB300-STR-1210 Rev C prepared by Holmes and the Designation Drawings prepared by Holmes (Ref: CB000-CIV-3010 and 3011) included as **Appendix A**.

Landscape and Architectural Design

3. The architectural and landscape design features illustrated in the concept design, which are integral to the proposal and described as mitigation, must be carried through the detailed design stages and implemented to a standard that is equal to or better than what is presented in the concept renders¹
 - a. This includes, but is not limited to, the following Architectural design features:
 - i. An architectural screening element encasing the reservoir tanks to provide a visually cohesive and contextually sensitive frontage to Ruakiwi Road and the adjoining Domain open space. The screen shall incorporate integrated gates positioned in front of any exposed roller doors, designed in the same profile and materiality for continuity. Material selection must exhibit recessive colour and texture qualities such as weathered Corten steel or natural timber with a matte finish and no reflectivity to maintain visual integration with the surrounding landscape;
 - b. And the following landscape design features:
 - i. A network of pedestrian path connections linking Ruakiwi Road to the existing circulation routes, providing access around all sides of the new reservoirs and establishing connections into the Lake Domain pathway network.
 - ii. Gentle undulating slopes of the open space abutting the mass concrete retaining wall, designed to minimise changes to the landform and create the appearance of the reservoirs 'emerging' from the landscape;
 - iii. Strategically located tree species to soften the visual impact of the reservoir structures;
 - iv. Staged removal of trees to coincide with the two construction stages.

¹ Ruakiwi Reservoirs, Hamilton Lake Domain, Architectural + Landscape Preliminary Design: Revision D. Edwards White Registered Architects, Adrian Morton Landscape Architects Ltd, BHW Studio (25 July 2025).

- ~~c. The requiring authority must either:

 - ~~i. Implement one or more of the following reuse or recycling options for timber from the mature trees to be removed, such as use in architectural elements, public art, street furniture, or other applications within the domain;~~
 - ~~or~~
 - ~~ii. Demonstrate to the satisfaction of the territorial authority why such reuse or recycling is not feasible, including consideration of practical, environmental, or cultural constraints.~~~~
- d. Architectural and Landscape design shall be developed in accordance with the Hamilton Kirikiriroa Central City Public Space Design Guidelines (June 2023).
- e. Architectural and Landscape design promotes a sense of personal safety by aligning with best practice guidelines, such as:
 - i. Crime Prevention Through Environmental Design (CPTED) principles;
 - ii. Safety in Design (SID) requirements, and
 - iii. Maintenance in Design (MID) requirements and anti-vandalism/anti-graffiti measures.

Construction Management Plan

- 4. At least 20 working days prior to the proposed commencement of activities authorised by this designation a Construction Management Plan (CMP) shall be provided to Hamilton City Council's Chief Executive Officer (or nominee) for certification that the plan meets the objective in condition 5.
- 5. The objective of the CMP is to outline the approach to be taken for the managing of construction works to ensure that impacts that may arise from the works have been appropriately identified, managed and minimised. As a minimum, the CMP shall include:
 - a. Details of the site manager, including 24-hour contact details (telephone, email, and postal address),
 - b. The proposed start date of the works authorised by this designation,
 - c. A schedule of construction activities,
 - d. Staging of the project including the commencement date and expected duration of the cut and fill operations and staged construction of the reservoir and valve station,
 - e. The location of a large notice board on the site visible from a public place that clearly identifies the name, telephone number, email, and address for service for the site manager,
 - f. Measures to maintain the site in a tidy condition in terms of the storage and disposal of rubbish, unloading and storage of building materials and similar construction activities,
 - g. Proposed hours of work on the site (noting the working hours authorised by the conditions of this designation),
 - h. Procedures for ensuring that the owners and/or occupiers in the immediate vicinity of the construction area are given prior notice of the commencement of construction activities and are informed about the expected duration of works and potential effects of the works (e.g. noise associated with construction activities,

- extended concrete pours etc). The minimum area of owners and/or occupiers are to be those shown on the plan attached as **Appendix B** to these conditions,
- i. Those temporary tree protection measures relating to the existing trees referenced in the Tree Protection Management Plan in **condition 27**.
 - j. Dust management technique and procedures to ensure that all dust and particulate emissions are kept to a practical minimum to the extent that there are no dust discharges beyond the boundary of the site that may cause an objectionable effect.
 - k. Any measures to address the management of hazardous substances used on the site;
6. The CMP shall be implemented for the duration of the construction works period associated with Reservoir 1.
 7. Any changes to the CMP shall be made in accordance with the methodology and approved procedures in that plan and shall be confirmed in writing by the Requiring Authority following consultation with the Hamilton City Council's Chief Executive or nominee (before implementation).

Heritage Management Plan

8. At least 20 working days prior to the proposed commencement of activities authorised by this designation, the Requiring Authority shall submit a Heritage Management Plan (HMP) to Hamilton City Council's Chief Executive or nominee for certification that the plan meets the objectives in Condition 9 (a) to (d).
9. The objective of the HMP shall be to:
 - a. Ensure that the structural integrity of the existing heritage ranked water tower is not adversely affected by the construction of the new reservoirs, valve station and surrounding landscape elements.
 - b. Ensure that post de-commissioning, the existing water tower is returned as close as possible to its original state and setting (excluding the roof, communications facilities and stairs).
 - c. Describe how the Requiring Authority will maintain an ongoing relationship with Heritage NZ in relation to the care and maintenance of the heritage ranked water tower, including interpretative information for the public.
 - d. Describe how the Requiring Authority will programme the seismic strengthening work as set out in the Detailed Seismic Assessment.
10. The HMP shall, as a minimum, address the following matters:
 - a. Provide a heritage plan (text and graphics) for the water tower and its immediate surroundings which details the following:
 - i. Buildings and features to be removed,
 - ii. Existing trees to be removed,

- iii. Removal of existing paint and graffiti to return the water tower to its original concrete,
- iv. Location and type of new trees to be planted,
- v. Location and content of interpretive panels,
- vi. Survey marks, including location and monitoring before and after conditions.
- vii. Recreation of “cone shaped” area immediately surrounding the water tower.
- viii. Outline measures that will be taken to protect existing heritage fabric from damage during construction.

Noise & Vibration

11. Construction noise shall be measured and assessed in accordance with the provisions of New Zealand Standard NZS 6803:1999 “*Acoustics – Construction Noise*” and comply with the limits in the following table, except where authorised by the required CNVMP in Condition 14.

Time	Weekdays (dBA)		Saturdays (dBA)		Sundays and Public Holidays (dBA)	
	L _{eq}	L _{max}	L _{eq}	L _{max}	L _{eq}	L _{max}
0630 - 0730	55	75	45	75	45	75
0730 – 1800	70	85	70	85	55	85
1800 – 2000	65	80	45	75	45	75
2000 - 0630	45	75	45	75	45	75

12. All construction work shall comply with the vibration limits in German Standard DIN 4150-3:2016 “*Vibration in buildings – Part 3: Effects on structures*” when measured in accordance with that Standard on any structure not on the same site.
13. The construction works shall only be carried out between the hours of 7:30am to 6:00pm, Monday to Friday and 7.30 am to 2.30 pm Saturday and shall not be carried out on any Sunday or public holiday. This restriction does not apply to the following activities which shall be specifically managed under the Construction Noise Management Plan (CNMP):
- a. site specific concrete pours;
 - b. the delivery of oversized loads and equipment;
 - c. tie ins to existing networks;
 - d. Arrival to site of construction crews and start up/toolbox meetings and health and safety briefings;
 - e. Dewatering or over-pumping operations requiring 24/7 operation;
 - f. Commissioning activities requiring 24/7 operations.
 - g. Trenching across roadways to avoid road closures during the day (except for initial saw cuts which shall be completed within the hours specified in condition 13.

Construction Noise and Vibration Management Plan

14. At least 20 working days prior to the date construction work (including earthworks) is commenced on site, a CNVMP shall be provided to Hamilton City Council's Chief Executive or nominee for certification that the plan meets the objectives in condition 15 (a) to (c).
15. The objective of the CNVMP is to set out the Best Practicable Option for the management of noise and vibration effects. The plan shall be prepared by a suitably qualified and experienced acoustic consultant in construction noise and vibration and shall provide for the following objectives:
 - a. Designed and implemented to demonstrate compliance with the requirements of NZS6803:1999 Acoustics – Construction Noise; and
 - b. Designed and implemented to demonstrate compliance with German Standard DIN 4150-3:2016 "*Vibration in buildings – Part 3: Effects on structures*"; and
 - c. Implemented in accordance with the requirements of section 16 of the Resource Management Act 1991, so as to adopt the best practicable option to ensure the emission of noise (including vibration) from construction works does not exceed a reasonable level.
16. In order to achieve the objectives established in condition 15 above, the CNVMP shall, as a minimum, address the following matters:
 - a. Construction noise criteria
 - b. Identification of likely affected properties (off-site) which shall include (as a minimum) those properties identified in Appendix C of the Marshall Day Acoustics Assessment of Acoustic Effects dated 7 August 2025;
 - c. Site Manager as per condition 5 (a) of this designation.
 - d. Description and duration of the works, anticipated equipment and the processes to be undertaken,
 - e. Hours of operation, including specific times and days when construction activities causing noise would occur including those specific activities listed in condition 13 (a) to (g),
 - f. Identify and adopt the BPO for minimising adverse construction noise effects on neighbours including specific mitigation measures to be implemented when noise levels approach or exceed relevant limits. Such measures shall include but not be limited to:
 - i. the site hoarding shown as Figure 5 in the Marshall Day Acoustics Assessment of Acoustic Effects dated 7 August 2025 including the guidance on the design and use of temporary noise barriers as contained in Section 6.0 of that same report.
 - ii. time management and
 - iii. alternative construction methodologies.
 - g. Schedule and methods for sound level monitoring by a suitably qualified and experienced person in construction noise (a third party acoustic consultant) of the first occurrence of earthworks to confirm compliance with the construction noise limits;

- h. Define the procedures to be followed to ensure that the construction noise and vibration standards set out in these conditions are being met.
 - i. A complaint management procedure, which shall include the use of sound and vibration level monitoring if required.
 - j. Details of the process for ensuring contractors and operators are aware of the potential for noise and vibration effects on neighbours and procedures for the minimisation of noise and vibration as far as practicable.
 - k. A pre and post building condition survey of the dwellings at 1/17 and 4/17 Ruakiwi Road is carried out by a suitability qualified and experienced building assessor.
17. Construction works shall not commence until certification of the CNVMP has been received in writing from the Hamilton City Council's Chief Executive or nominee.
18. All construction works shall be carried out in accordance with the certified CNVMP.
19. Any changes to the CNVMP shall be made in accordance with the methodology and certification procedures in that plan and shall be confirmed in writing by the Requiring Authority following consultation with the Hamilton City Council's Chief Executive (or nominee) before implementation.

Construction Traffic Management Plan

20. At least 20 working days prior to the date construction work (including earthworks) is commenced on site, a Construction Traffic Management Plan (CTMP) shall be provided to Hamilton City Council's Chief Executive or nominee for certification that the plan meets the objectives in Condition 21 (a) to (c).
21. The objective of the CTMP shall be to:
- a. Ensure all legislative requirements and designation conditions in relation to construction traffic are adhered to;
 - b. Minimise disruption to the local road users and local residents;
 - c. Keep the local community informed of construction operations.
22. In order to achieve the objectives established in condition 21 above, the CTMP shall, as a minimum, address the following matters:
- a. Hours of operation;
 - b. A general outline of the construction programme for each stage.
 - c. Details of site access and egress over the entire construction period and any limitation on truck movements.
 - d. Plans showing the location of any site office, staff facilities and vehicle parking requirements for site staff, contractors, sub-contractors and visitors, including the Workforce Travel Demand Management Plan (TDMP),
 - e. Identification of haul routes and Over Weight Over Dimension (OW-OD) movements to the site, onsite location of stockpile and storage including internal manoeuvring;

- f. Construction truck movements and proposed haul routes shall be planned to comply with the local road network peak hours (Peak hour movement cap) and nearby school drop off and pick up times (School safety window);
- g. Wheel washing facilities (if required to ensure that material is not tracked onto Ruakiwi Road);
- h. Measures to ensure satisfactory vehicular and pedestrian access is maintained to all adjacent properties throughout construction;
- i. Location of the proposed signage (this should include signage that warns the public of turning vehicle movements) at site access;
- j. Ensuring access to neighbouring properties is not compromised;
- k. Temporary parking removal and reinstatement: The CTMP/SSTMPs shall define the extent, signage, and duration of any temporary removal of public parking spaces to enable site access operations; include monitoring of parking conditions; and coordinate reinstatement with Council at completion of the relevant construction phase(s).
- l. Any temporary adjustments to road infrastructure (e.g., removal of belisha beacons) required for OW-OD deliveries shall be managed under SSTMPs; ensuring traffic and vulnerable use safety and reinstatement at the earliest practicable time;
- m. Complaints/incidents register and liaison: The Requiring Authority shall maintain a construction traffic complaints/incidents register, provide summaries to Council on request, and maintain a community liaison contact during working hours to respond to traffic-related enquiries; and
- n. Any other general issues that are applicable as listed within the standard CTMP guidelines.

23. The CTMP shall be prepared in accordance with the NZ Transport Agency (Waka Kotahi) New Zealand Guide to Temporary Traffic Management (NZGTTM) and shall be complied with at all times throughout construction.

24. No works within the road reserve shall commence until the CTMP has been certified by Council and approved by the Road Controlling Authority via the Corridor Access Request (CAR) process or TMP portal. CTMPs must be available on site at all times, and an STMS shall be present whenever temporary traffic management is in effect.

25. Any changes to the CTMP shall be made in accordance with the methodology, and certified procedures outlined in the plan. Amendments shall be confirmed in writing by the Requiring Authority following consultation with the Hamilton City Council's Chief Executive or nominee (before implementation).

Works in proximity to Retained Trees

26. Prior to any works commencing including site preparation:

- a. The Requiring Authority shall engage the services of a suitably qualified and experienced on-site supervising arborist, having a minimum NZQA level 4 qualification in arboriculture and sound knowledge of the Australian Standard AS-4970-2009, Protection of trees on development sites. They are to supervise and

coordinate all works and activities relating to tree protection. They will be the point of communication between the site team and Council.

- b. Appropriate tree protection fencing or area marking shall be erected around Retained Trees 1 – 10, 15, 41, 42 and 43 as shown on the Adrian Morton/Edwards White/Brodie Hailwood plans 4.1 and 4.2 included as an Appendix to the application and as **Appendix C** to the conditions.
The fence or area marking shall serve to demarcate a construction exclusion zone.
- c. Suitably visible weather-resistant signs shall be hung on each face of the tree protection fence that states the following: *“Construction Exclusion Zone Tree Protection Area – Keep Out”*.

Tree Protection Management Plan

27. At engineering design stage, a Tree Protection Management Plan (“TPMP”) shall be prepared by a suitably qualified and experienced arborist and submitted to Hamilton City Council’s Chief Executive (or nominee) for certification that the plan meets the objective in condition 28.
28. The objective of the TPMP is to ensure that the proposed construction works will not compromise the survival of Trees 1 to 10 and 41, 42 and 43 as set out on the Adrian Morton/Edwards White/Brodie Hailwood plans 4.1 and 4.2 in **Appendix C** to conditions.
29. The TPMP shall provide details of the construction foundations for Reservoir 1 and associated works (ie. Impermeable surfaces, paths, underground services, sheet pile locations) within the root protection zone or canopy, whichever is the greater.

The TPMP shall include the following (but not limited to):

- a. Pruning of Retained Trees 1 to 10, 41, 42 and 43;
 - i. Maximum amount of foliage to be removed
 - ii. The maximum pruning of living canopy and branches required
 - b. Activities in the Root Protection Zone of Retained Trees 1 to 10, 41, 42 and 43;
 - i. Maximum thickness (cross-section at point of severance) of any root that will be cut
 - ii. The maximum soil level depth
 - iii. Mulch layer depth
 - iv. Area of earthworks using mechanical or non-mechanical practices for the purpose of installing and/or replacing underground services.
30. Methodology for pruning and activities within the root protection zone, including measures to minimise the extent of disturbance, and to ensure the ongoing health, wellbeing and longevity of the trees.
 31. The TPMP shall be amended by the Requiring Authority, if required, until they are stamped as ‘certified’ by Hamilton City Council’s Chief Executive (or nominee). No work for Reservoir 1 shall commence until the TPMP is certified.

32. The certified TPMP shall be implemented. Any amendments to the proposal or methodology shall be submitted for certification by the Hamilton City Council's Chief Executive (or nominee) prior to any works for Reservoir 1 commencing.

Post Works Tree Protection Methods

33. At the completion of works, the supervising arborist, at their discretion, shall 'sign off' the work of the contractor and provide a brief account of the project to Council's arborist (if necessary, with photos). The account of works shall include, but not be limited to:
- a. The effects of the works on the subject trees,
 - b. Any remedial work that may be necessary

Cultural Effects Management Plan (CEMP)

34. In collaboration with Mana Whenua, a CEMP shall be prepared and submitted to the Hamilton City Council's Chief Executive (or nominee) for certification prior to the commencement of the construction of Reservoir 1.
35. The objectives of the CEMP are:
- a. to manage the cultural effects of the activities in a manner that is culturally appropriate to Mana Whenua during Construction Works.
 - b. to provide a plan to enable Mana Whenua cultural elements including symbolism, artwork, landscaping and interpretative materials to be incorporated into the design of the project.
36. To achieve the objective, the CEMP shall include:
- a. Methods to assist with the management of any cultural effects of these activities,
 - b. Identification of activities, sites and areas where cultural monitoring is required during particular construction works on the site;
~~Inputs to cultural symbolism and other design elements that will be developed as part of the project to recognise the cultural significance of the site to Mana Whenua.~~
 - c. The methods by which Mana Whenua will be engaged in delivering the cultural elements of the project.
 - d. Requirements and protocols for cultural ceremonies to be undertaken prior to the start of the activities in areas Mana Whenua identify as having significance to them, and
 - e. Requirements and protocols for cultural inductions for contractors and subcontractors, including training of the cultural monitors by Iwi approved representatives, and
 - f. Identification of personnel to undertake cultural monitoring and the sub-parts of the Project, if any, to which their cultural monitoring responsibilities are limited, and
 - g. Details of personnel to assist with management of any cultural effects identified during cultural monitoring, including implementation of the Accidental Discovery Protocol and cultural practices to clear the site.

37. Should any of the personnel described above become unavailable over the course of the project, then the Requiring Authority shall engage with Mana Whenua regarding who will replace them.
38. The CEMP shall be consistent with any cultural monitoring activities required by other conditions of the Designation.
39. The Requiring Authority shall give Mana Whenua 20 working days' notice of commencement of activities that fall within the scope of this condition.

Ecological and Landscape Management Plan

40. At least 20 working days prior to the date construction work (including earthworks) is commenced on site, an Ecological and Landscape Management Plan (ELMP) shall be provided to Hamilton City Council's Chief Executive or nominee for certification that the plan meets the objectives in Condition 41 (a) to (e). The draft ELMP shall be prepared in collaboration with Mana Whenua to ensure it aligns with the cultural symbolism and other design elements contained in the CEMP required under condition 34.
41. The objective of the ELMP shall be to:
 - a. Ensure the reservoirs and valve chamber are integrated into the Lake Domain through the combination of landscape, tree planting and paths.
 - b. Ensure the landscape treatment takes into account the CEMP.
 - c. Protect bat habitat and support its restoration through pest control and wider effects management including:
 - i. Provide ing 42 bat roost features (artificial and protected natural) with predator proof banding above and below.
 - ii. Provide ing 7.4 hectares of pest control within the Lake Domain.
 - iii. Provide ing 0.58 hectares of restoration planting within the Lake Domain.
 - iv. Provide ing 1 hectare of "no mow" grassland within the Lake Domain.
42. The ELMP shall, as a minimum, address the following matters:
 - a. Provide a detailed landscape planting plan based on the Ruakiwi Road Water Reservoir Landscape Plans Pages 057, 058 and 059 prepared by Adrian Morton Landscape Architects, Edwards White Architects and Brodie Hailwood to provide the following:
 - i. A schedule of species to be planted including botanical name, average plant size at time of planting, planting density and average mature height of each plant.
 - ii. Maintenance specifications including weed control, pest plant control and animal control necessary to ensure the successful establishment of the plants over a two year period following planting.
 - iii. Requirements for monitoring of and reporting on the successful establishment of the planting.

- iv. A staging plan to detail those trees to be removed or transplanted to facilitate the construction of Reservoir 1 and those trees that will be tagged and retained until the commencement of the construction of Reservoir 2.
 - v. Identification of those trees to be removed around the base of the heritage water tower to enhance sight lines and uphold the visual amenity of the water tower.
- b. Provide a detailed ecological plan based on the Ecological Impact Assessment Report prepared by Tonkin and Taylor to provide the following:
- i. Map showing the available locations for the 42 bat roost features within the Hamilton Lake Domain.
 - ii. Map showing the location of the 7.4 hectares of pest mammal control within the Hamilton Lake Domain and details of how that pest mammal control will be carried out including required duration.
 - iii. Map showing where the 0.58 hectares of planting will be located within the Hamilton Lake Domain and how that planting will be established, monitored and maintained. Plant maintenance should be undertaken for a minimum of five years.
 - iv. Map showing the location of the 1 hectare of “no mow” grassland within the Lake Domain and a description of how that area will be established, monitored and maintained.
- c. The ELMP shall include the following plant performance standards
- i. Establish landscape planting as soon as reasonably practicable following the completion of each stage, or discreet location, of the Construction Works.
 - ii. All native restoration plants supplied to the project shall be certified eco-sourced from the Hamilton Ecological District.
- d. The ELMP shall include the following information in relation to the implementation of condition 42 (b) (i):
- i. The forty two bat roost features shall comprise some or all of the following; artificial bat roost boxes, artificial roost cavities, relocated natural cavities and protected natural cavities.
 - ii. Artificial bat roosts shall be checked annually for a period of 10 years to remove any accumulated debris and repaired or replaced if damaged or missing.
 - iii. Artificial roost cavities shall be checked annually for a period of 10 years to remove any sap deposits or bark growth that may prevent bats from accessing the cavities.
 - iv. Relocated or protected natural cavities shall be checked for bat occupancy annually for a period of 10 years.
 - v. Metal bands shall be checked annually for a period of 10 years and maintained or replaced as required.

43. The Requiring Authority shall submit an annual report detailing the results of the roost checks carried out under conditions 42 (d). The annual report shall be prepared by a suitably qualified and experienced person and shall be submitted to Hamilton City Council’s Chief

Executive or nominee within two months of the completion of the maintenance checks. A copy of the annual report shall also be provided to the Department of Conservation for information.

44. No hard or soft landscaping works shall commence on site for the relevant stage of works until the landscape plans required by condition 41 are certified, with stamped copies being held on the site during the landscaping works.
45. All hard and soft landscaping (including fencing) associated with Reservoir 1 shall be implemented during the first planting season after construction works are completed and shall be thereafter maintained by the Requiring Authority.

EARTHWORKS

Pre-Start Conditions

Erosion and Sediment Control

46. At least 10 working days prior to the commencement of earthworks within any part of the site, a finalised Erosion and Sediment Control Plan (ESCP) shall be provided the Hamilton City Council's Chief Executive or nominee in general accordance with the plans referenced in this designation for certification. The draft ESCP shall be provided to Mana Whenua for comment prior to being sent to the Hamilton City Council for certification.
47. The objective of the ESCP shall be to minimise sediment discharge from the site to the extent practicable over the earthworks period. Details of a chemical treatment plan shall also be provided, if required or proposed to be utilised on-site.
48. The Requiring Authority shall ensure that a copy of the certified ESCP, including any approved amendments, is kept on-site and this copy is to be updated within 5 working days of any amendments being approved.
49. Prior to bulk earthworks commencing on any area, the Requiring Authority shall submit to the Hamilton City Council's Chief Executive or nominee a certificate signed by an appropriately qualified and experienced engineer to certify that the erosion and sediment controls have been constructed in accordance with the approved erosion and sediment control plans and in accordance with the document titled "*Erosion and Sediment Control Guidelines for Soil Disturbing Activities January 2009*". Certified controls shall include any sediment retention pond, decanting earth bunds, silt fences and diversion channels/bunds. The certification for these measures shall be supplied within five working days of completion of construction of those measures.

Information supplied if applicable shall include:

- a. Contributing catchment area; and
- b. Retention volume of structure; and
- c. Shape and dimensions of structure; and
- d. Position of inlets/outlets; and
- e. Stabilisation of the structure; and

- f. Compliance with the Waikato Regional Council document titled “*Erosion and Sediment Control Guidelines for Soil Disturbing Activities January 2009*” (Technical Report No. 2009/02); and
- g. Compliance with any relevant conditions of this designation.

Planting and Vegetation Removal Conditions

Vegetation Removal – Bat Management Plan

50. Prior to any vegetation removal, the Requiring Authority shall submit and have certified by the Hamilton City Council Chief Executive or nominee, a Bat Management Plan (BMP), incorporating Vegetation Removal Protocols (VRP). The BMP shall be prepared by a suitably qualified and experienced ecologist and shall manage the impact of the activity on bats so as to:

- a. Avoid and mitigate the effects on long tailed bats from the removal of any vegetation and/or trees that are potential bat roost habitat:
- b. Provide for the safety of long-tailed bats and avoid as much as practicable the risk of injury or death of bats during vegetation removal;
- c. Protect bat habitat and restore through pest control and revegetation including through wider effects management.

51. The BMP shall provide the following:

- a. A map identifying all trees (alive and standing dead) that are ≥15 cm DBH (Diameter at Breast Height),
- b. A pre-felling survey method for trees identified in (a) above that is consistent with the Department of Conservation “Protocols for minimising the risk of felling occupied bat roosts”, produced by the NZ DoC Bat Recovery Group 2024), or any update to that document,
- ~~c.—Forty two bat roost features shall be installed or protected in habitat suitable for bat roosting within the Hamilton Lake Domain. The bat roost features shall comprise some or all of the following; artificial bat roost boxes, artificial roost cavities, relocated natural cavities and protected natural cavities.~~
- ~~d.—Artificial bat roosts shall be checked annually for a period of 10 years to remove any accumulated debris and repaired or replaced if damaged or missing.~~
- ~~e.—Artificial roost cavities shall be checked annually for a period of 10 years to remove any sap deposits or bark growth that may prevent bats from accessing the cavities.~~
- ~~f.—Relocated or protected natural cavities shall be checked for bat occupancy annually for a period of 10 years.~~
- ~~g.—Metal bands shall be checked annually for a period of 10 years and maintained or replaced as required.~~

~~The Requiring Authority shall submit an annual report detailing the results of the roost checks carried out under conditions 42 (d). The annual report shall be prepared by a suitably qualified and experienced person and shall be submitted to Hamilton City Council’s Chief Executive or nominee within two months of the completion of the maintenance checks. A copy of the annual report shall also be provided to the Department of Conservation for information.~~

Vegetation Removal – Avifauna Management Plan

52. The Requiring Authority shall engage a suitably qualified ecologist(s) to prepare and implement an Avifauna Management Plan (AMP) across the subject site. The objective of the AMP is to protect native birds during construction works. The AMP shall be provided to Council's Chief Executive (or nominee) for certification at least 20 working days prior to commencing construction works on the site.
53. Vegetation to be removed shall be inspected for nesting of native birds. If nesting birds are detected, exclusion zones shall be implemented until fledging of chicks is completed.
54. The AMP shall record the following information in support of achieving condition 51:
 - a. A description of the methodology for pre-vegetation clearance nesting bird surveys including consideration of:
 - b. the nesting periods of native birds present onsite; and
 - c. appropriate timing of vegetation clearance and surveys;
 - d. The details for exclusion zones around nesting birds until fledging of chicks if detected within proposed vegetation clearance areas; and
 - e. Protocols for dealing with injured or dead birds encountered during the works.
55. The certified AMP shall be implemented for the duration of earthworks for each stage of the project.

Vegetation Removal

56. An Incidental Discovery Protocol should be prepared in the unlikely event that native lizards are found during clearance of suitable habitat (i.e. agapanthus). Protocols should detail appropriate steps to undertake following the incidental discovery of a lizard, particularly regarding the discovery of an injured lizard(s) and reporting requirements.

During Construction

Certified Management Plans

57. The Requiring Authority shall maintain and implement the certified management plans throughout the entire earthworks and construction period. Any proposed changes to a certified management plan shall be prepared using the process set out in the certified management plan and submitted to the Hamilton City Council Chief Executive or nominee for re-certification. Such certification shall be obtained before the amended management plan is implemented.

Erosion and Sediment Control

58. The Requiring Authority shall ensure that all sediment laden run-off from the site is treated by sediment retention structures. These structures shall be fully operational before bulk earthworks commence and shall be maintained to perform to at least 80% of their full operational capacity.
59. The Requiring Authority shall ensure that all clean water run-off from stabilised surfaces including catchment areas above and around the site shall be diverted away from the

earthworks area via a stabilised diversion system.

60. The Requiring Authority shall ensure that all erosion and sediment controls are inspected and in good working order prior to, and immediately after rain events. The Requiring Authority shall further ensure that all erosion and sediment controls are maintained such that optimal sediment capture efficiency is achieved at all times.
61. The Requiring Authority shall construct two stabilised construction entrances as set out in the HCC Central City Reservoir Construction Transportation Assessment and shall manage all traffic leaving the site to prevent the tracking of sediment onto Ruakiwi Road.
62. In the event that any persistent sediment tracking effects are identified, the Requiring Authority shall install an appropriate wheel wash facility to prevent any on-going effects.
63. The erosion and sediment controls specified in the Erosion and Sediment Control Plan, shall not be disestablished without the prior written certification by the Hamilton City Council Chief Executive or nominee, acting in a technical certification capacity.

Geotechnical

64. Prior to constructing Reservoir 1, the building consent application plans and earthworks plans shall be reviewed by a geotechnical engineer to ensure they are consistent with the recommendations of the Geotechnical Summary Report dated 17 July 2025, Ref. HAM2023-0099AI Version B.
65. Earthworks shall be supervised by a suitably qualified professional geotechnical engineer in accordance with NZS4431:2022². In supervising the works, the suitably qualified engineering professional shall ensure that they are implemented and completed in accordance with the certified earthworks plans and geotechnical investigation report.
66. The Requiring Authority shall implement a Surcharge and Settlement Monitoring Plan including trigger levels and response actions to monitor the surcharge (preload) for Reservoir 1. The surcharge (pre-load) required as part of the mitigation of static settlement associated with the placement of fill and future building loads shall remain in place until it can be demonstrated that settlements have reached 90% of primary settlements or that post construction limits will be less than the threshold as per the recommendations of the Geotechnical Summary Report dated 17 July 2025, Ref. HAM2023-0099AI Version B.
67. On completion of the earthworks a geotechnical completion report shall be prepared by a suitably qualified professional geotechnical engineer presenting the earthworks testing and verification results, and settlement monitoring data

Stockpiles

68. If the stockpile material contains silt or is erosion-prone, the Requiring Authority shall place topsoil on top of the stockpile before stabilisation.

² Standards New Zealand (2022) Engineered fill construction for lightweight structures, NZS 4431:2022

69. If a stockpile is to be stored for longer than 1 week, the Requiring Authority shall seal, mulch and stabilise the stockpile to minimise potential erosion and sedimentation. Controls are to remain until stockpiles are removed or used on site.

70. No stockpiles shall be placed in an identified overland flow path.

Machinery

71. All earthmoving machinery, pumps and generators shall be operated in a manner which ensures that spillages of fuel, oil and similar contaminants are prevented, particularly during refuelling and machinery servicing and maintenance. Refuelling and lubrication activities shall be carried out away from any surface water such that any spillage is contained and does not enter any surface water or public drainage systems.

Discovery of Archaeological or Culturally Significant Sites or Materials

72. If Heritage New Zealand Pouhere Taonga (HNZPT) has not issued an archaeological authority in relation to the Project, the Requiring Authority shall give at least 20 working-days written notice of the date that the construction contractor intends to commence earthworks or construction activity to:

- (i) Mana Whenua to enable them to brief the contractor and
- (ii) The Project archaeologist, to enable him or her to establish with the contractor a working relationship, in accordance with good practice, in relation to the earthworks stage of construction.

73. This condition will apply only if a Heritage New Zealand Pouhere Taonga archaeological authority is not in place. If any archaeological sites, artefacts, taonga (Maaori artefacts) or kooiwi are unearthed, dislodged, uncovered, or otherwise found or discovered during the earthworks (the Discovery), the Requiring Authority shall:

- (i) Notify Mana Whenua, the Project archaeologist, and the Territorial Authority within one day of the Discovery,
- (ii) Cease works in any part of the Project site affected by the Discovery,
- (iii) Ensure that the Project archaeologist attends the site to confirm whether the material is archaeological in nature or kooiwi,
- (iv) Notify the NZ Police, Coroner and HNZPT, as appropriate,
- (v) Undertake specific preservation measures to address any Discovery that includes water-logged or wet archaeological materials, and
- (vi) Not recommence works in the parts of the Project site affected by the Discovery until all necessary statutory authorisations or consents and cultural clearance from Mana Whenua have been obtained.

74. The conditions of any HNZPT authority that applies to a site within the Designation shall prevail over any inconsistent Designation conditions.

Design Requirements

Operational Noise

75. The cumulative noise emission from all activities on the site (excluding construction noise) shall not exceed the rating noise levels in the following table during the stated times at any point within the boundary of any other site in the residential zone. In the event it is necessary to determine compliance with the noise limits, noise levels shall be measured in accordance with NZS6801:2008 'Acoustics – Measurement of Environmental Sound' and assessed in accordance with NZS6802:2008 'Acoustics – Environmental Noise' before comparison with those levels.

Time of day	Noise level measured in Laeq (15-mins)	Noise level measured in LAF max
0600 – 0700 hours	45dB	75dB
0700 – 2000 hours	50dB	
2000 – 2300 hours	45dB	
2300 – 0600 hours	40dB	75dB

Lighting Design

76. A Lighting Plan (LP) shall be provided to Hamilton City Council's Chief Executive or nominee for certification at least 3 months before the issue of practical completion of Reservoir 1.
77. The objectives of the LP is to set out the Best Practicable Option for the management of lighting effects. The plan shall be prepared by a suitably qualified and experienced person in lighting design and shall provide for the following objectives:
- a. The spill of light from artificial lighting from the activities within the designation shall satisfy the recommendations contained in AS/NZS 4282: 2023 (Control of the obtrusive effects of outdoor lighting) for environmental zone A3 (medium district brightness).
 - b. The spill of light from artificial lighting from the activities within the designation shall seek to address adverse effects on LTB and their foraging and roosting habitats by managing light strength, placement of luminaries, lighting wavelength, shielding, and timing controls.
78. In order to achieve the objectives established in condition 76 above, the LP shall, as a minimum, address the following matters:
- a. Provide a detailed LP (text and graphics) for the Reservoir site that incorporates the following requirements:
 - i. Exterior lighting fixtures shall be selected, designed and installed to ensure that the light source is not directly visible from any residential window.

- ii. Lighting fixtures shall be fully downward facing with zero upward light output and have a nominal colour temperature no more than 2700K.
 - iii. Artwork lighting on the façade shall comprise luminaires with grazing optics with minimal forward throw, be controlled to limit its use from sunset to 11.00 pm and shall be provided with dimming for the initial commissioning – set to achieve the desired effect while minimising the total light output
 - iv. Functional maintenance lighting fixtures shall be controlled by a motion sensor with a maximum 5-minute timer and a master override switch to completely turn off when not required.
 - v. Designed to ensure that the added light spill (ie light in excess of the ambient light from natural and other sources) at the Bat Habitat Boundary (ie the Designation boundary and further than 20 metres from the western boundary of the Ruakiwi Road Reserve) does not exceed 0.1 lux in the vertical plane at any height).
 - vi. Designed in accordance with the NZ DOC Bat Recovery Group best practice lighting design principles. (Note: The artwork lighting on the façade is not considered façade lighting).
- b. Identify the nearest residential properties where post construction light levels can be measured to confirm compliance with the recommended limits in AS/NZS 4282 and the permitted activity limits in the Operative District Plan.

79. Within 3 months after the issue of practical completion of Reservoir 1, the Requiring Authority shall undertake post construction light level monitoring. The monitoring shall be undertaken by a suitably qualified and experienced person and shall measure light levels as set out in the Lighting Plan certified under condition 74 above. Within 1 week of the light level monitoring being completed, the suitably qualified and experienced person shall provide a copy of the monitoring report to the Monitoring Team leader at Hamilton City Council for confirmation that the light levels satisfy the requirements in condition 75 (a) above. The Requiring Authority shall amend the lighting elements associated with Reservoir 1 until the monitoring demonstrates that compliance is being achieved.

Completion of Earthworks

Stabilisation/Rehabilitation

80. The site shall be stabilised against erosion as soon as practicable and in a progressive manner as earthworks are finished over various areas (catchments) of the site. The Requiring Authority shall monitor and maintain the site until vegetation is established to such an extent that it prevents erosion and prevents sediment from entering any watercourse.
81. All areas of bare earth shall be re-vegetated or re-grassed as soon as practicably possible and within three calendar months following the completion of earthworks. If this cannot be achieved, the area shall be temporarily covered by a surface suitable to protect against soil erosion until such time as re-vegetation or re-grassing can occur.

Reservoir 2

82. An Outline Plan of Works will need to be submitted by the Requiring Authority prior to the construction of Reservoir 2, including addressing the following:
- a. Further detailed ground investigation, laboratory testing, groundwater monitoring and design in the area of Reservoir 2 shall be undertaken prior to the detailed design of that structure. The design of Reservoir 2 shall also take into account the geotechnical interaction between Reservoir 1 and Reservoir 2.
 - b. Further analyses of slope stability and construction induced settlement for the final location of Reservoir 2 shall be undertaken.
 - c. Revised Management Plans shall be developed and implemented accordingly for Reservoir 2.

Advisory Notes:

- a) Following the confirmation of the alteration to designation decision and pursuant to section 176(A)(2) (b) of the Resource Management Act, Council will issue a waiver of the requirement for an Outline Plan of Works under Section 176 (3) on the basis that the details of proposed Reservoir 1 are already incorporated into the designation.

[https://bbonz-my.sharepoint.com/personal/cdawson_bbo_co_nz/Documents/HCC Central City Reservoir NOR/Reporting/Hearing/FINAL Ruakiwi NOR evidence/Rebuttal/Ruakiwi Designation Conditions 5-2-26 \(Hearing\).docx](https://bbonz-my.sharepoint.com/personal/cdawson_bbo_co_nz/Documents/HCC%20Central%20City%20Reservoir%20NOR/Reporting/Hearing/FINAL%20Ruakiwi%20NOR%20evidence/Rebuttal/Ruakiwi%20Designation%20Conditions%205-2-26%20(Hearing).docx)