BEFORE THE HEARINGS PANEL
FOR THE PROPOSED TIMARU DISTRICT PLAN

UNDER	the Resource Management Act 1991 (RMA)
IN THE MATTER	of the Proposed Timaru District Plan
AND	
IN THE MATTER	of the Ecosystems and Biodiversity, Natural Character and Natural Features and Landscapes Chapters and, the Open Space and Recreation Zones (OSRZ) Topic (Hearing D)

STATEMENT OF EVIDENCE OF JOLENE IRVINE ON BEHALF OF THE CANTERBURY REGIONAL COUNCIL

Ecosystems and Biodiversity, Natural Character and Natural Features and Landscapes Chapters

Open Space Zone Chapter

25 October 2024

Next date – 12 – 14 November 2024 – Hearing

INTRODUCTION

1 My full name is Jolene Margaret Irvine. I am a Rivers Planning Advisor at the Canterbury Regional Council (**Regional Council**).

2 I hold the following qualifications:

(a) Master of Science with Distinction in Zoology from University of Otago.

(b) Post Graduate Diploma in Science with Distinction in Environmental Science from Canterbury University.

(c) Bachelor of Science in Zoology (major) and Ecology (minor) from University of Otago.

3 I have been employed by the Regional Council for over 15 years. I have been in my current position as a Rivers Planning Advisor for 10 years, and prior to that, I was a Consents Planner.

4 My current role and relevant experience include:

(a) Providing plan interpretation and consenting advice to the Rivers Section, which delivers the Regional Council's flood, erosion and drainage responsibilities and river enhancement works.

(b) Advising on parts of the Regional Council's submission on the the proposed Timaru District Plan (**pTDP**) related to the delivery of the Regional Council's flood, erosion and drainage responsibilities.

5 I have prepared this planning evidence on behalf of the Regional Council.

CODE OF CONDUCT

6 While this is a council level hearing, I can confirm that I have read and am familiar with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in preparing this evidence and I agree to comply with it while giving any oral evidence during this hearing. Except where I state that I am relying on the evidence of another person, my evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

7 Although I am employed by the Regional Council, I am conscious that in giving evidence in an expert capacity that my overriding duty is to the Hearing Panel.

SCOPE OF EVIDENCE

8 I have been asked to provide evidence in support of the Regional Council's submission as it relates to the potential limitations the pTDP places on the Regional Council's ability to deliver flood, erosion and drainage protection to the Timaru community. Substantive evidence on this issue will be presented in Hearing Stream F, on the Natural Hazards Chapter. This evidence addresses submission point 183.79, with a focus on a single rule relating to clearance of vegetation within the Long-Tailed Bat Protection Area (**BPA**).

9 My evidence refers to and should be read in conjunction with evidence provided by Michael Boschen. Mr Boschen, describes the in-field assessments and practices undertaken by the Regional Council when required to remove trees within the BPA.

10 In preparing my evidence I have reviewed the following documents:

(a) the notified provisions of the Ecosystems and Biodiversity, Natural Character and Natural Features and Landscapes, Sites and Areas of Significance to Māori and Natural Hazards chapters pTDP.

(b) the relevant paragraphs of the section 42A report (**s42A report**); and

(c) the Canterbury Regional Code of Practice for Defences Against Water and Drainage Schemes (**COP**).

SUMMARY STATEMENT

11 The Regional Council seeks an amendment to the pTDP to allow a permitted activity pathway for vegetation clearance within the Long-Tailed Bat Habitat Area. This amendment aims to facilitate community flood and erosion protection efforts by the Regional Council.

12 My evidence details the flood and erosion protection schemes overlapping with Long-Tailed Bat Habitat, the reason for undertaking these protection works, and the established environmental planning processes undertaken by the Regional Council.

13 I recommend an addition to Rule ECO-R4 to provide a permitted activity pathway for both Councils. This will enable necessary works to protect lives and livelihoods while ensuring adequate assessments and protections for Long-Tailed Bats.

REGIONAL COUNCIL RESPONSIBILITIES IN PROVIDING FLOOD PROTECTION

14 The Regional Council is responsible for keeping communities safe from floods, primarily through the Soil Conservation and Rivers Control Act 1941 (**SCRCA**) and Resource Management Act 1991 (**RMA**). The function of Catchment Boards (now regional councils) in providing flood and erosion protection and drainage are outlined in the SCRCA[1] and Land Drainage Act 1908 (**LDA**). [2].

15 These responsibilities are delivered through public commitments made under the Local Government Act 2002 (**LGA**) via the Long-Term Plan[3], and subsequent Annual Plans, which connect to the Infrastructure Strategy[4]. This is where the funding and objectives for various river and drainage schemes are set.

16 The Regional Council has committed to 58 schemes throughout Canterbury, with a total combined asset value of $852 million (as of June 2022) and an annual maintenance expenditure of approximately $12 million (2020). These efforts reduce damage to floodplain assets (i.e. land, buildings, roads etc) valued at around $143 billion (2020).

17 Flood and erosion protection may also occur outside of the existing schemes, typically in response to natural hazards, community needs or additional funding opportunities. The Climate Resilience Projects, recently

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[1] Refer to s126 and s133 of SCRCA 1941

[2] Refer to s17 and s25 of LDA 1908

[3] As required under section 93 LHA 2002

[4] As required under section 101B LGA 2002

funded by central government, exemplify how the Regional Council has up-scaled works programs to deliver integrated flood and river resilience along with river enhancement projects. For instance, within the pekapeka tou-roa / Long-Tailed Bat Protection Area, the Regional Council collaborated with the Department of Conservation (**DOC**) to establish habitat enhancement through native plantings and installation of bat roost poles.

18 In undertaking the above powers/functions the Regional Council must still be compliant with the RMA, including any consenting requirements created through Regional and District Plans.

SCHEMES WITHIN THE LONG-TAILED BAT ROOST PROTECTION AREA

19 The BPA, as mapped in the notified pTDP is within the Opihi Catchment Control Scheme (**OPI**). The s42A officer has recommended this Overlay is amended to match the Canterbury maps bat habitat layer. If this adjustment is made, the Orari-Waihi-Temuka Rivers Scheme (**OWT**) has some overlap with the Canterbury maps bat habitat. The spatial extent of these schemes is shown in **Attachment 1**.

20 The objectives of OPI and OWT are to minimise flooding, erosion and to manage degradation/aggradation of riverbed levels in the lower river. These schemes provide a flood capacity maintenance, with banks stabilised with poplar and willow plantings, so rivers are capable of carrying listed flood flows which vary at different river locations.

21 The OPI and OWT protects over $1.1 billion and $3.4 billion respectively, worth of land and buildings on the floodplain, as well as national and community infrastructure such as roads, railways, pipelines, water supply intakes, power and telephone lines.

22 The OPI spends an average of $855,000[5] annually to maintain its $101.6m worth of assets. The highest valued group of assets includes 274.7km of erosion control tree plantings ($80.6 million), followed by stopbanks (71.6km at $19.4 million), drains and grassed waterways (13.8km at $0.9 million), lateral rock work (8200 tonne at $0.5 million) and

[5] 5 year average 2018-2023, as reported in Part B, Canterbury Regional Council Asset Management Plan (2024).

culverts and floodgates (12 at $0.2 million). Maintenance costs include track maintenance and channel clearance.

23 The OWT spends an average of $780,000[5] annually to maintain it $70.5 million worth of assets. The highest value group of assets is again erosion control tree plantings (149.6km, valued at $50.1 million), followed by stopbanks (127.9km at $18.1 million), drains and grassed waterways (40.7km, at $14.3m), culverts and floodgates (36 at $0.7m) and lateral rock work (6180 tonne valued $0.4m). Maintenance costs include track maintenance and channel clearance.

24 The OPI and OWT on-the-ground works are largely undertaken by South Canterbury based staff who operate out of the Regional Council's Temuka depot, which has 15 river operation staff. Operational direction is provided by a Southern Area Engineer, Engineering Advisor, and Engineering Officer based in Timaru/Temuka. The wider team is supported by an additional ~40 regional technical rivers staff, which includes Environmental Advisors, Planning Advisors and River Engineers.

25 The Area Engineer, Engineering Advisor, Engineering Officer and Area Supervisor are responsible for setting up specific tasks through the established system and processes, with the support of the regional technical team if required. The established systems are described below, and Mr Boschen's evidence provides the practical implementation of these provisions.

Regional Council's job set-up and environmental controls

26 The Regional Council has existing controls in place to ensure potential environmental risks are avoided or mitigated and is committed to continual improvement. The Canterbury Regional Code of Practice for Defences Against Water and Drainage Schemes[6] (**COP**) was developed to enable local authorities and network utility operators to undertake those works.

27 Within OPI and OWT**,** delivering works consistent with the COP is required for the Regional Council to meet Permitted Activity rules provided within the Canterbury Regional Land and Water Regional Plan.

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[6] https://www.ecan.govt.nz/your-region/your-environment/river-and-drain-management/defences-against-water-code-of-practice/

28 The majority of trees flanking the rivers within OPI and OWT have been planted or managed by the Regional Council for decades. In acknowledging the valuable habitat these trees provide Long-Tailed Bats, prior to any maintenance and removal of trees within the BPA, the COP provides specific direction *"If the work involves tree disturbance in the long-tailed bat habitat area, the Department of Conservation is first consulted to determine if trees to be damaged or removed are known, or possible, roost trees. Locate the habitat area on Canterbury Maps"* (pp 11). Section 3.2.5 (pp 28) of the COP was drafted in collaboration with DOC (**Attachment 2**) and lists the additional requirements for any vegetation removal within the BPA. This includes protection of known roost trees, tree age/size/form habitat assessments and when trees meet the habitat criteria, an independent assessor determines if the tree is possible roost habitat. In practice, staff request a bat specialist from DOC undertake a field assessment of these tree(s).

29 The COP is further supported by a 'Rivers Section Environmental Guide', which details specific environmental risks and the required operational practices. Section 1.6, page 30-32 specifically addresses the Long-Tailed Bat Habitat, describing the what, why and where, the assessment criteria of tree age/size/form and the required actions and protocols.

30 Prior to works occurring, Job Sheets are created for work delivered internally, or Statement of Works when contractors are engaged that follow the requirements and direction of the COP and 'River Section Environmental Guide'.

31 As committed through the COP, the Regional Council prepares and engages on Annual Works Plans. These Plans discuss an overview of planned work, identification of sensitivities and appropriate mitigation to demonstrate conformance with the COP. Annual Works (overview) and Monthly works plans[7] (more detailed) are shared with Papatipu Rūnanga, the DOC, and Fish and Game with any feedback welcomed.

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[7] https://www.ecan.govt.nz/your-region/your-environment/river-and-drain-management/current-works/

Clearance of trees within Opihi Catchment Control Scheme and Orari-Waihi-Temuka Rivers Scheme

32 Mr Boschen has described the reasons why a tree may need to be removed within the BPA.

33 Ongoing maintenance, including some clearance of trees, is an unavoidable and inevitable component of delivering these flood and erosion protection schemes.

Assessment of pTDP on the Regional Council's delivery of community flood and erosion protection works:

34 The Regional Council's submission regarding the delivery of flood and erosion protection and drainage works will largely be addressed in Hearing Stream F. I will present further evidence in that hearing to support the Regional Council's submission requesting permitted activities for all earthworks and vegetation clearance associated with existing public flood and erosion protection works. If that request is granted, the requested changes to rule ECO-R4 would become redundant.

35 The balance between the Natural Hazards chapter and others is touched on in paragraph 6.3 of the s42A report:

> "*The summary of submissions and analysis set out in this report therefore does not consider ECan's requested changes to the ECO, NATC, and NFL Chapters with respect to how hazard mitigation works are managed. These will instead be considered as part of the Natural Hazards topic (scheduled for Hearing F)*."

36 Submission 183.79 was, however, categorised to be considered in Hearing C, and as such, is addressed specifically in this evidence. The part of that submission this evidence addresses is (from the summary of submissions): "*sometimes, a tree(s) within the Bat Protection Overlay may impact on the effective operation of a public flood or erosion protection scheme. If the tree(s) are not roosting habitat for bats, it should be possible to remove them in these circumstances*". The relief sought was to add:

PER-1
The trees being cleared:
1. *Were planted for timber production (plantation forest and woodlots); or*
2. *Are within a domestic garden; or*
3. *Are causing an imminent danger to human life, structures, or utilities and the clearance is undertake in accordance with advice from a suitably qualified arborist; or*
4. *Are impacting the effective operation of a public flood or erosion protection scheme administered by the Regional Council or Timaru District Council, AND agreement has been provided by a suitably qualified ecologist that the tree(s) are not currently utilised by roosting bats; or…*

Or words to that effect.

37 Under paragraph 7.10.16 of the s42A report, this request was not supported as the officer had concerns the proposed pathway does not allow a method of reviewing, scrutinising or evaluating:

(a) The ecological assessment; and

(b) The judgement as to whether a tree is *"impacting the effective operation"* of the protection schemes.

Response to s42A

38 The Bat Recovery Group (DOC), via bathandler@doc.govt.nz, provides criteria[8] for prospective bat handlers to be certified under three competencies: Catching bats, Handling bats, and 'High risk activities – Roost felling'. The certification is based on field training, experience and endorsement from an authorised trainer. Restricting the 'suitably qualified ecologist' to one who holds a DOC bat certification for high-risk activities should provide confidence that suitably qualified and experienced experts will be used. Reference to specifically qualified experts in this way, is consistent with other rules within the pTDP (see ECO-R4 PER1 re 'suitably qualified arborist', NOISE-R9 PER-1 re 'suitably qualified acoustic engineer' and DEV1-S1 re 'suitably qualified chartered professional engineer).

39 Mr Boschen has provided evidence on the competency of Regional Council River's staff in identifying which trees may pose a risk to people or infrastructure, or may be needed for erosion control and the risks of inaction.

[8] Bat handling competencies July 2022

40 If paragraph 7.10.15 of the s42A report is referring to the Regional Council's submission, the original request was to obtain the approval from DOC, not to simply 'consult'. The recommended addition to ECO-R4 PER-1 (above) required agreement to be obtained from DOC.

41 To address the concern raised by the s42A officer, I recommend this additional PER-3 to ECO-R4:

> ***PER-3***
> *Where PER-1 and PER-2 cannot be met, and:*
> *(1) The trees being cleared impact the effective operation of public flood or erosion protection administered by the Regional Council or Timaru District Council; and*
> *(2) The works are completed by the Regional Council or Timaru District Council, or an agent authorised by one of these parties; and*
> *(3) The works are certified as being consistent with the bat habitat assessment criteria within the 'Canterbury Regional Code of Practice for defences against water and drainage schemes' by a suitably qualified ecologist who holds a Department of Conservation bat certification for high-risk activities; and*
> *(4) A written record of the certification under Per-3(3), is maintained for at least three years and provided to the Timaru District Council on request.*

42 This recommended PER-3 improves certainty that the Permitted Activity is only available to Councils undertaking works to protect the community from flooding and erosion, with clause (2) using consistent wording seen elsewhere in the pTDP. Clause (3) provides two improvements to certainty: That any tree clearance work will be planned according to the bat habitat protections provided in the Regional Council's established COP, and the level of competency expected by a 'suitably qualified ecologist'.

43 In my view, a permitted activity to allow the Regional Council to maintain or clear trees within the BPA is supported by:

(a) The trees being maintained or cleared were planted, or are maintained by, the Regional Council as a tool to protect life and property. As a matter of national importance, protecting people from flood hazards should be supported where adequate environmental protections can be demonstrated (say, in comparison to the Permitted Activity provided for tree removal for timber production). It is the Regional Councils historic protection and management of these trees that has safeguarded the persistence of trees along river margins.

(b) The Regional Council has demonstrated existing environmental protections within their job planning that identify the risk to bats, and when bat habitat thresholds are met, requires independent advice from DOC prior to any tree clearance.

(c) The area of trees managed by the Regional Council is vast and there are likely to be some trees that require removal every year. Either a 'global' style Resource Consent would be required, which would rely on the information presented to you today, or individual Resource Consents would be required for each 'job'.

44 On balance, from a cost/benefit assessment, I consider my recommended approach provides confidence that bats are protected (environmental benefit), a more effective and efficient use of public money (economical benefit) and enables ongoing flood protection to the Timaru community (social and economic benefit).

CONCLUSION

45 The proposed amendments to the Timaru District Plan, specifically the inclusion of a permitted activity pathway for vegetation clearance within the Long-Tailed Bat Habitat Area, aim to enhance the efficiency of the Regional Council's community flood and erosion protection works.

46 The evidence presented highlights the necessity of these works and the established environmental planning processes that ensure the protection of Long-Tailed Bats.

47 By adopting the recommended additions to Rule ECO-R4, the pTDP would enable the ongoing protection to its community from flood and erosion hazards and provide certainty that bat habitats are protected.

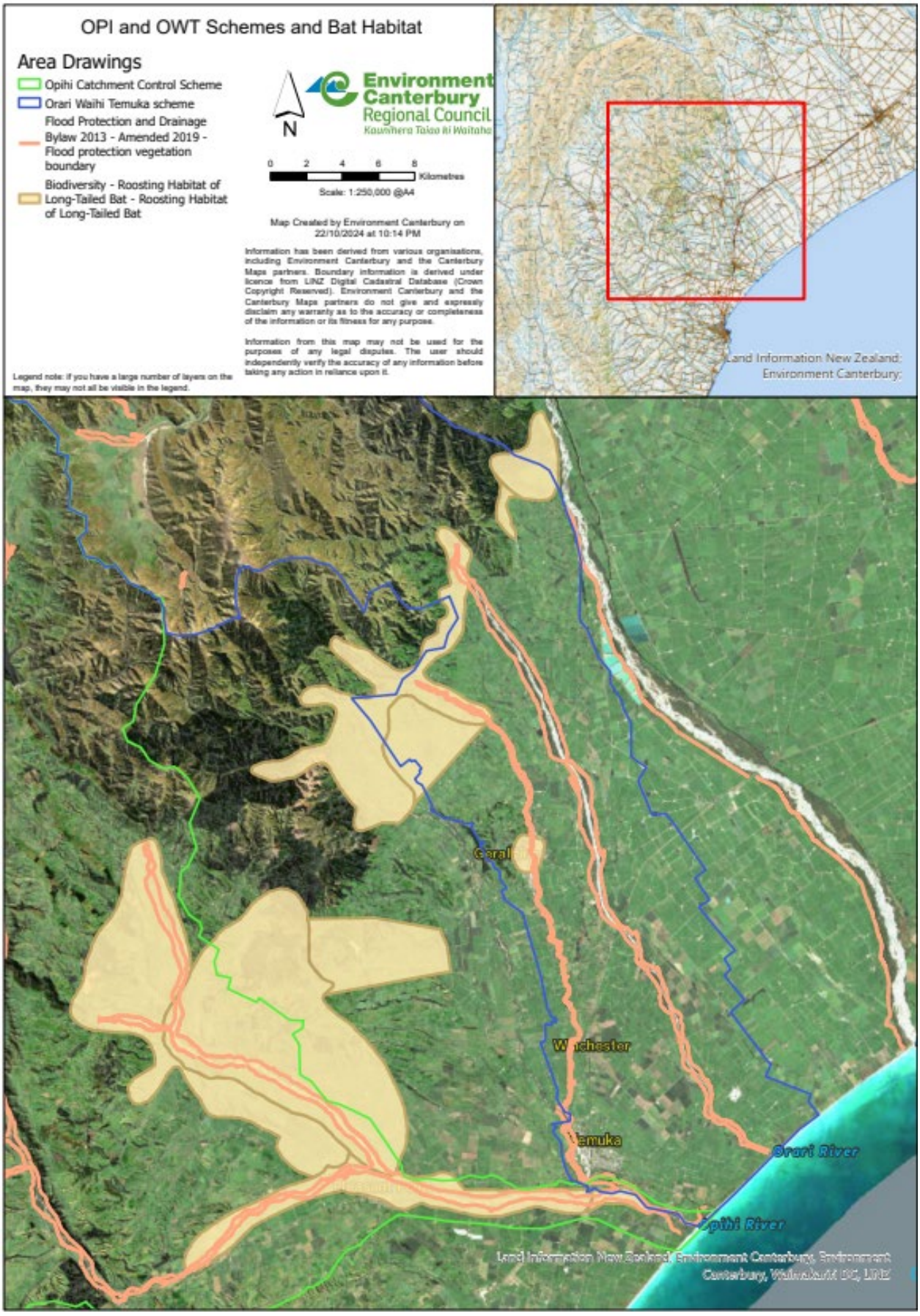
48 In my opinion, the Regional Council has established robust mechanisms to protect bat habitat in undertaking flood and erosion protection duties, and requiring this to be re-assessed through a Consent Process is superfluous given the involvement and collaboration between the Regional Council and DOC.

49 In my opinion, this approach not only safeguards lives and livelihoods but provides an effective and efficient method in achieving the desired outcomes.

Jolene Irvine

25 October 2024

Attachment 1: Overlap of Opihi Catchment Control Scheme and Orari-Waihi-Temuka River Scheme flood protection vegetation and Canterbury maps bat habitat



Attachment 2: Bat habitat requirements within the Canterbury Regional Code of Practice for defences against water and drainage schemes, April 2019.

Specific requirements in the long-tailed bat habitat areas in South Canterbury:

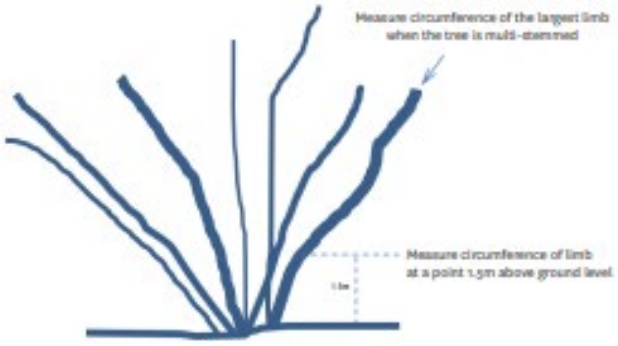
- No known roost trees may be removed for flood protection works. Known roost trees have been mapped, and many have signs and aluminium bands in place to indicate that it is a roost tree.
- Prior to being used in flood protection work, trees must be assessed for the likelihood of being a roost tree. An initial on the ground assessment using the following criteria must be carried out to determine if further assessment is required.

Criteria:

- Circumference of the trunk or largest limb of the tree is 120cm or greater (see note below for measuring multi-stemmed trees); and
- Tree is aged 15 years and older; and
- Tree has visible gnarls, nooks, holes, splits, dead wood, broken spars, and rough or peeling bark; and
- Tree is generally "misshapen"

Measuring trees – at a height 1.5m above ground level, measure the trunk or if the tree is multi-stemmed, measure the largest limb.

- If the tree meets the above criteria, an assessment will be made by an independent assessor who will determine if the tree is likely to be a roost tree. Note: In the first instance, if the tree does meet these criteria, search for alternative trees that can be used. If no other trees are available, then engage an independent assessor



- If the tree is determined by the independent assessor as a possible roost tree, then the tree must not be used for flood protection works. However, if the tree needs to be removed for safety or scheme integrity purposes (such as trees growing on or very close to stopbanks) or used in emergency flood protection work, the roost holes must be made unviable to ensure there are no bats in the roost when removal occurs. It must first be established that there are no bats within the tree before it is made unviable
- If the tree does not meet the criteria above, or the independent assessor has determined the tree is not likely to be a possible roost tree, then it may be used in flood protection work. Before removing, also establish whether or not any of the surrounding trees are possible roost trees. Care must be taken not to damage the surrounding roost trees when felling the target tree
- Prior to poplar harvests, the Geraldine/Raukapuka office of the Department of Conservation must be consulted and the likelihood of roost trees assessed. Harvesting may only progress once DOC is happy that the risk of removal of roost trees is minimal. If roost trees need to be left within the harvest area, a cluster of trees must be left in place to minimise the chance of wind throw of the roost tree
- Harvesting of poplar trees should only occur outside of the periods when bats are immobile in the trees such as when females raring young or when they are in torpor (hibernating). Harvesting should be avoided in winter and October to December when females are pregnant or when pups cannot fly
- In available berm areas where site conditions and funding allow, facilitate the planting of a mixture of native (or appropriate exotic species such as oak or macrocarpa) to provide for short-term and longer-term roost and feeding habitats. Species like cabbage tree, kanuka and houhere provide habitat in the short term (eg 10-100 years) and species like tōtara, beech and kahikatea will provide roosts in the longer term (eg 20-100+ years)