

Exemption Decision Paper

Exemption Number	EXE-00001034
Exemption Type	General Exemption
Supply Name	Defined huts and campsites supplied by the Department of Conservation
Date	4 June 2024
Submitted by	Department of Conservation Te Papa Atawhai
Exemption Team	Alice Liddell, Senior Solicitor India Eiloart, Senior Technical Advisor

Recommendation

For the reasons set out in this paper, the Exemption Team recommends that you:

1. **Grant** a general exemption to the Department of Conservation in relation to any drinking water supply or supplies at any hut or campsite that meet all of the following criteria:
 - (a) Is owned by, and is operated by or on behalf of, the Department of Conservation; and
 - (b) Is located on land that is administered by the Department of Conservation for conservation, recreational, scientific, or other related purposes, including any land administered under any of the following:
 - (i) the Conservation Act 1987;
 - (ii) the National Parks Act 1980;
 - (iii) the Reserves Act 1977; and
 - (c) Is intended to provide overnight shelter to any person who may visit and who carries their own food, bedding, clothing, and outdoor equipment; and
 - (d) Contains only basic facilities, which may include (but are not limited to) any or all of the following:
 - (i) sleeping platforms or bunks;
 - (ii) mattresses;
 - (iii) food preparation surfaces;
 - (iv) appliances for heating;
 - (v) appliances for cooking;
 - (vi) toilets; and
 - (e) Does not have mains power, or it is not reasonably practicable to maintain another source of power that is sufficient to operate a treatment plant; and
 - (f) Is not permanently staffed.

2. **Grant** the exemption **subject to the following conditions:**

For all huts or campsites with drinking water supplies to which this exemption relates, the Department of Conservation must ensure:

- (a) Adequate signage advising consumers to boil drinking water is installed in a visually prominent place at each site; and
- (b) The Department of Conservation website includes information advising consumers to boil drinking water for each hut and campsite; and
- (c) Maintenance checks are carried out and documented, annually where reasonably practicable and otherwise at a frequency of no less than every two years, for each hut and campsite to ensure the following:
 - (i) Boil water signage remains in place:
 - (ii) Tanks are secure from animal ingress:
 - (iii) Any guttering, pipes and screens that are part of the drinking water supply remain intact and functional; and
- (d) Adequate written procedures are in place along with training to ensure that Department of Conservation staff or agents can competently carry out maintenance checks; and
- (e) Any necessary maintenance or replacement work identified during maintenance checks, or that the Department of Conservation otherwise becomes aware of, is carried out as soon as reasonably practicable.

Executive summary

3. On 1 February 2024, the Department of Conservation (**DOC**) applied for a general exemption in relation to drinking water supplies located at backcountry huts and campsites where it would be impracticable to install and operate water treatment equipment. The application was made under s 57 of the Water Services Act 2021 (**WSA**).
4. The Exemption Team considers that it would be impracticable, and disproportionate to the risks involved, to operate the supplies within the scope of this exemption in a way that meets all the requirements of the WSA. The following common characteristics have informed the development of the criteria for exemption along with the Building Code definition of backcountry hut:
 - (a) Mostly remote locations
 - (b) Insufficient power supply to run water treatment systems
 - (c) Difficulty maintaining solar power equipment to operate treatment systems
 - (d) Low and seasonally variable occupancy rates
 - (e) Infrequency of attendance by staff or agents
 - (f) Consumer expectations that facilities are basic
 - (g) Balancing the public benefits of providing recreational facilities in public conservation areas with the resources and abilities of DOC to install and operate drinking water treatment systems.
5. The Exemption Team recommends that a general exemption be granted for DOC supplies that meet the criteria in recommendation (1) above, subject to conditions that require:
 - (a) Signage to be installed and maintained at each site to advise consumers to boil their water before drinking. The understanding is that signage is currently in place at all sites.

The conditions will confirm the current situation and provide for an ongoing requirement to maintain such signs.

- (b) Site-specific information to be available on the DOC website, advising potential users of DOC facilities where there is a need to boil water before drinking so they can 'know before they go'. DOC currently maintains a webpage for each site including boil water symbols and text where untreated drinking water is provided. The Exemption Team understands that some of the website information is not current and will need updating.
 - (c) Regular maintenance checks of the key components of water supplies. The Exemption Team understands that all sites are visited in accordance with maintenance schedules. Documented checks will ensure the ongoing integrity of infrastructure and mitigate the risks of large debris or pest animals like rats and possums getting into water tanks.
 - (d) Adequate written procedures to be in place to ensure any staff or agents can competently carry out maintenance checks. The Exemption Team understands that DOC are currently updating their procedures and checklists.
 - (e) Any necessary repairs, whether identified through maintenance checks or coming to DOC's attention in other ways, to be carried out as soon as reasonably practicable. The reasonably practicable element acknowledges that it may be difficult to carry out repairs immediately if materials need to be carried in or special skills are needed.
6. The Exemption Team considered the possibility of conditions requiring water testing for certain campsites identified in the application as having a high seasonal use. Through the assessment process and discussions with DOC it was determined that a testing condition for these sites would not be practicable and would be disproportionate to the risks involved, due to access difficulties, laboratory analysis requirements and associated costs.

Supply information

- 7. DOC has a substantial portfolio of assets including huts, campsites, visitor centres, villages and offices across Aotearoa New Zealand. Many of these sites include their own drinking water supply. DOC sites have a broad range of drinking water supply arrangements.
- 8. This exemption application relates to huts and campsites that have a drinking water supply, but where there is no mains power or it is not reasonably practicable to maintain another source of power such as solar in a way that is sufficient to reliably operate treatment equipment due to the location, accessibility or frequency of staff visits.
- 9. DOC has a total of 1,578 sites registered with LINZ, 759 of which have drinking water supplies that are subject to the WSA. 686 of these drinking water supplies are expected to come within the proposed general exemption criteria. This is an estimate based on current data which has not been verified.
- 10. 38 DOC drinking water supplies were previously registered with the Ministry of Health under the Health Act 1956 and therefore became registered under the WSA upon its commencement on 15 November 2021. Of those sites, 20 are intended to be covered by this exemption.

11. Registration of the remainder of DOC's drinking water supplies is required by November 2025. DOC will need to register and verify all of its drinking water supplies and record on the registration which sites are using this exemption, if granted.
12. Approximately two thirds of the 686 sites are huts. The remainder are campsites of varying sizes, but lack mains power. The population at these sites varies. Some huts and campsites require booking through the DOC website, whereas others are available on a first-come, first-served basis. DOC advised in the application that utilisation rates for huts are about 15% annually and less than 50% in peak season. Hut and campsite drinking water supplies may also be used by a larger number of people passing through in peak season.
13. Huts are not considered to be domestic self-supplies under the WSA as they are often occupied by people from more than one household unit who did not arrive together and do not know each other.
14. Due to the remote locations of backcountry huts and campsites, roof or rainwater collection is a common water supply source. Some sites are also able to use nearby surface water sources such as streams.
15. Roof or rainwater collection relies on an impervious surface, usually the roof of a structure, intercepting rainwater and channelling it through guttering and pipes to a collection tank, usually directly next to the building. In this scenario, stormwater gutters and drainpipes are commonly adapted for rainwater collection.
16. For supplies with surface water sources such as rivers or streams, the methods of water collection can vary significantly. In a non-powered water supply such as those at remote DOC sites, an intake structure such as a screened box may be installed in the bed of a water body, ensuring it is submerged and uphill of the hut or campsite. Water would then flow by gravity through the intake structure and pipework to the storage tanks for use. This would be able to continually operate if maintained well, subject to water levels in the source water body.

Information provided by applicant

17. DOC's application form was accompanied by a more detailed document which provides:
 - (a) An outline of DOC as an organisation and how the WSA applies
 - (b) A description of DOC's drinking water supplies and asset portfolio
 - (c) Analysis of the types of sites considered eligible for the proposed general exemption
 - (d) Appendices listing huts and campsites that potentially qualify for the proposed general exemption.

18. The application was originally made for three separate exemptions: one for backcountry huts, one for backcountry campsites, and one for backcountry campsites with high seasonal use. DOC provided information about the supplies in each category. After initial review, the Exemption Team considered, and DOC agreed, that the application should be treated as for one exemption. The characteristics of the huts and campsites in scope are very similar.
19. The appendices to DOC's application contained lists of huts and campsites expected to fall within the scope of the exemption criteria. DOC has advised that there are issues with data accuracy and their records will improve as site inspections are undertaken. These lists are not treated as definitive for the purpose of assessing this application. The supplies which fall within scope of the exemption will be confirmed with Taumata Arowai through the registration process.
20. Further information on the intended scope of the exemption that DOC provided at meetings and in communications with the Exemption Team has been considered.
21. All the information provided is considered relevant and has been taken into account by the Exemption Team.

Practical considerations

22. Due to the number and geographical spread of DOC's supplies, the Exemption Team can only make general comments about typical DOC facilities and the risks involved in roof water supplies. The Exemption Team has not conducted site visits as part of the assessment.
23. Through online research and discussions with DOC, the Exemption Team has found that there is variance in the level of facilities at huts and campsites served by DOC water supplies. Some may have solar powered lighting or gas cooking facilities, but generally the facilities are basic.
24. Some sites have no water supply at all, and users are expected to bring their own water or obtain water themselves from a river or stream. Some sites have a basic drinking water supply with indoor or outdoor taps but limited other facilities. Some sites are well serviced with powered campsites, hot showers, flush toilets, substantial cooking facilities and treated drinking water.
25. The exemption application did not include campsites which have a reliable source of power, high levels of occupancy and a high standard of facilities that implies an expectation that treated drinking water be supplied as well such as hot showers and powered sites.
26. The Exemption Team is not aware of any community engagement carried out by DOC in relation to its exemption application. However, the Exemption Team is aware that it is a long standing and well understood practice that untreated drinking water is supplied at certain DOC facilities.

Criteria for exemption

27. In determining the criteria for eligibility for this exemption, the Exemption Team has considered the criteria proposed in the application and relevant exclusionary provisions in other regulatory regimes.

28. The Building Code¹ provides some precedent for excluding backcountry huts from particular regulatory requirements. The Building (Building Code: Backcountry Huts) Amendment Regulations 2008 excluded requirements that would otherwise apply, such as for smoke alarms, access facilities for wheelchair users and potable water². The explanatory note to the regulations provides:

Backcountry huts, as defined, are on land that is administered by the Department of Conservation for particular purposes, and, because of their remoteness and limited facilities, are exempted by these regulations from some of the building code's performance criteria and functional requirements, such as the requirement for adequate artificial lighting.

29. The Building Code defines backcountry hut at clause A2:

backcountry hut means a building that—

- (a) is located on land that is administered by the Department of Conservation for conservation, recreational, scientific, or other related purposes, including any land administered under any of the following:
 - (i) the Conservation Act 1987;
 - (ii) the National Parks Act 1980;
 - (iii) the Reserves Act 1977; and
- (b) is intended to provide overnight shelter to any person who may visit and who carries his or her own food, bedding, clothing, and outdoor equipment; and
- (c) contains only basic facilities, which may include (but are not limited to) any or all of the following:
 - (i) sleeping platforms or bunks;
 - (ii) mattresses;
 - (iii) food preparation surfaces;
 - (iv) appliances for heating;
 - (v) appliances for cooking;
 - (vi) toilets; and
- (d) has been certified by the Director-General as being in a location that wheelchair users are unlikely to be able to visit; and
- (e) is intended to be able to sleep—
 - (i) no more than 20 people in its backcountry hut sleeping area; and
 - (ii) no more than 40 people in total; and
- (f) does not contain any connection, except by radiocommunications, to a network utility operator.

30. The list of facilities that may be considered basic facilities for the purposes of paragraph (c) of this definition is not exhaustive and covers a range of levels of facilities.

31. The level of access may also vary and can be interpreted to include access by walking, boat,

¹ Building Regulations 1992, Schedule 1, continued in force through s 415 of the Building Act 2004.

² Now defined in the Building Code as water that is 'safe to drink' and that complies with drinking water standards made under the WSA.

vehicle or other means.³ Access by foot as opposed to vehicle or vessel is not recommended as one of the criteria. Sites that have vehicle or boat access may still be considered remote.

32. The Building Code's definition of 'backcountry hut' is a useful reference in developing the criteria for DOC's exemption under the WSA. The Building Code's definition can include huts owned and operated by private entities on DOC land such as charitable trusts and tramping clubs and is limited to huts intended to sleep less than 40 people. DOC has applied only in respect of water supplies which they own, so that is a recommended prerequisite.
33. Aspects of the Building Code definition ((a)-(c)) have been used as a base for the criteria of this exemption, however (d)-(f) have not been included as some huts and campsites will likely exceed 40 people and wheelchair access and radiocommunications is not regarded as relevant to drinking water supplies or the granting of a general exemption application under the WSA.
34. The Camping-Grounds Regulations 1985⁴ also provide some regulatory comparison, by enabling remote campsites to become exempt from certain requirements. A local authority may grant a 'certificate of exemption' under reg 14(3) to an operator of a remote campsite, which could include the requirement to provide an adequate supply of potable water in accordance with Part 2 of the Schedule to the regulations. An exemption under the Camping-Grounds Regulations does not automatically result in the grant of a general exemption under the WSA. However, the availability of exemptions under another regime and logic of consistency has been considered as a factor that supports exemption under the WSA.
35. The Camping-Grounds Regulations define 'remote campsite' in reg 2:

remote camp site means a camping ground in a national park, State forest, State forest park, or public reserve, or on Crown land.
36. This definition pre-dates the Conservation Act 1987 and the establishment of DOC and does not provide a useful definition that can be referenced in the criteria for this exemption. One of the criteria for being a 'camping ground' under the Camping-Grounds Regulations as defined in reg 2, is that an area of land is used for various purposes "for rent, hire, donation, or otherwise for reward". According to the DOC website, 'Backcountry' and 'Basic' campsites are free to stay at. 'Serviced', 'Standard' and 'Great Walk' campsites have a fee. The Exemption Team understands that some but not all DOC campsites have certificates of exemption under the Camping-Grounds Regulations.
37. The Building Code definition of 'backcountry hut' provides a useful base for determining the appropriate criteria for this exemption which can be applied to both huts and campsites, with some additional criteria. The recommended additional criteria for the scope of this exemption are that drinking water supplies at backcountry huts and campsites:

³ A recent Building Code determination (Determination 2024/03) considered the interpretation of backcountry hut, specifically whether "carries" is limited to carrying on foot or includes by vehicle or other means. The huts in question are located with a campsite and accessible by foot, by boat or by four-wheel drive vehicle. The determination decision took a plain meaning of carries to include by vehicle or vessel.

⁴ Made under s 120B of the Health Act 1956.

- Are owned by and operated by or on behalf of DOC; and
 - Do not have mains power or it is not reasonably practicable to maintain another source of power that is sufficient to operate a treatment plant; and
 - Are not permanently staffed.
38. The first of these additional criteria means that the proposed exemption is not a class exemption that other suppliers can adopt. The exemption is sought solely in relation to DOC and, if granted, will only apply to sites where DOC is the drinking water supplier. DOC is considered to be the operator where its staff or agents/contractors operate the supply.
39. The second of the additional criteria reflects the importance of a reliable power supply. While it is possible to operate a drinking water treatment plant using solar power, the Exemption Team accepts that it is not reasonably practicable to run a treatment plant on solar power at most DOC sites. A reliable solar power system requires maintenance and regular cleaning, which is difficult due to the accessibility of the sites. Where a source of power is both sufficient to operate a treatment plant and where it is reasonably practicable to do so due to accessibility and regular staffing, the exemption will not apply.
40. The third of the additional criteria acknowledges the infrequency of staff visits to many of the sites. While treatment plants can be operated without a permanent or regular staff presence, compliance with water monitoring requirements and the effective operation of treatment equipment would be difficult for DOC in many cases. Some sites are regularly attended by staff, especially in peak season, however many are not visited regularly due to their remoteness and DOC's resourcing. Sites that are permanently staffed are also likely to have higher populations of consumers.

Available compliance pathways

41. Acceptable Solutions provide an alternative compliance pathway for some small drinking water supplies. The Drinking Water Acceptable Solution for Roof Water Supplies provides a compliance pathway for roof water supplies with a population of under 500 people. However, it requires end point treatment which is reliant upon a consistent power supply and must be inspected every two months. Taumata Arowai has not produced an Acceptable Solution for water supplies that use a surface water source when used primarily for human consumption, so other remote DOC sites that use surface water for water supplies do not have a suitable Acceptable Solution available.
42. Alternatively, DOC could prepare a drinking water safety plan for each supply and seek to demonstrate that they each comply with the Drinking Water Quality Assurance Rules (DWQAR). Most DOC supplies would be categorised as a Very Small Community supply, which is:

Drinking water supplies of any configuration or arrangement (excluding domestic self-supplies) that provide drinking water to a population of up to 25 people. In circumstances when the population supplied fluctuates, the population supplied may increase to up to 50 people for up to 60 days in any 12-month period.

43. Compliance against the Very Small Communities Rules would require testing the distribution system of the water supply every six months for total coliforms and *E. coli*. Due to the types of water sources and lack of disinfection, it could be reasonably anticipated that some, if not all of those results would be positive, indicating contamination of the supply and the provision of unsafe and non-compliant drinking water in breach of ss 21(1) and 22(1) of the WSA. It would also be very challenging for DOC to arrange the transport of samples for microbiological testing from many of its supplies within the appropriate timeframes and conditions for acceptance by an accredited laboratory.
44. If the actual population regularly exceeds the population limits of a Very Small Community supply, as DOC indicated might be the case in some large huts and campsites, compliance with the DWQAR's Small Supply (Level 1) Rules would be required. This would include centralised treatment and monitoring. This would rely upon frequent monitoring and continuous power supply, which many DOC sites lack.
45. Compliance with any of these options, and the statutory duties that sit behind them, is problematic for DOC. A general exemption would address this by excluding the application of the following duties (WSA references in brackets):
 - (a) to supply safe drinking water (s 21)
 - (b) to comply with drinking water standards (s 22)
 - (c) to take reasonable steps to provide aesthetically acceptable drinking water (s 24)
 - (d) to provide a sufficient quantity of drinking water to consumers at each point of supply (s 25)
 - (e) to protect against the risk of backflow (s 27)
 - (f) requirements relating to end-point treatment (s 28)
 - (g) to have a drinking water safety plan (s 30)
 - (h) to keep certain records (s 37), and
 - (i) to provide information to consumers (s 38).
46. Due to the remote locations, infrequent staff visits, and lack of mains power or equivalent sources of power, the Exemption Team considers that it is not reasonably practicable for DOC to comply with an Acceptable Solution or the DWQAR for the drinking water supplies subject to this general exemption application.

Assessment factors

47. DOC's application has been assessed against the relevant factors arising under the WSA, Taumata Arowai policy and guidance material in relation to exemption applications, and other considerations relevant to decision-making by Taumata Arowai and its staff.
48. Those factors, which shape the structure of the remainder of this paper, are:

- (a) The Treaty of Waitangi / te Tiriti o Waitangi and its principles, which are relevant considerations under s 19(1)(b) of the Taumata Arowai–the Water Services Regulator Act 2020 (**TAWSRA**).
- (b) Te Mana o te Wai, to the extent it applies to DOC’s application and the associated decision-making of Taumata Arowai.
- (c) The scale, complexity and risk profile of the drinking water supplies, which go both to the assessment of drinking water safety risks and also to the proportionality of regulation under the WSA.
- (d) Consistency with the main purpose of the WSA: i.e. to ensure that drinking water suppliers provide safe drinking water to consumers. In accordance with s 57(4)(a) of the WSA, a general exemption can only be granted if the decision-maker is satisfied that the exemption is consistent with the main purpose of the WSA.
- (e) The Taumata Arowai Compliance, Monitoring and Enforcement Strategy 2022-2025 (**CME Strategy**). This is a matter that the Taumata Arowai Chief Executive, and any delegate of the Chief Executive, must have regard to when determining exemption applications.⁵

The Treaty of Waitangi / te Tiriti o Waitangi and its principles

- 49. Taumata Arowai and its staff are required to uphold the Treaty of Waitangi (te Tiriti o Waitangi) and its principles when carrying out their functions.⁶
- 50. What this means in practice varies from situation to situation, depending on the relevance of Treaty/te Tiriti provisions and associated principles, including: partnership, self-determination, mutual benefit, honour, active protection, options, right of development, informed decisions, equity and equal treatment, and other principles that may be developed or identified as relevant from time to time. There is also some overlap between these principles and aspects of Te Mana o te Wai, which is discussed in the next section of this paper.
- 51. DOC’s initial application did not include any information about the interests of Māori in relation to DOC drinking water supplies or indicate that any engagement with Māori had occurred in relation to the exemption application. This has a bearing on the Treaty/te Tiriti principle of informed decisions.
- 52. Representatives of Taumata Arowai and DOC discussed DOC’s approach to iwi engagement on 29 April 2024, with follow up information provided by DOC on 2 May 2024. DOC have well-developed relationships with mana whenua across the motu. Given the size, scale and geographic spread of the sites, specific consultation and engagement on this exemption application is not feasible.

⁵ Water Services Act 2021, s 136(7); Taumata Arowai-the Water Services Regulator Act 2020, s 11(2)(b).

⁶ Taumata Arowai-the Water Services Regulator Act 2020, s 19(1)(b)(i).

53. DOC provided a statement that it will continue to engage and consult with iwi and hapū using existing relationships at the local level. These relationships are strong, as a result of DOC's requirement to give effect to the principles of the Treaty of Waitangi under s 4 of the Conservation Act 1987.
54. In addition to the s 4 obligation, DOC also works to any Treaty settlement legislation, relationship agreements, and co-governance and/or co-management arrangements. These provide additional opportunities for DOC to engage with Treaty partners.
55. Consistency with Treaty principles is not able to be considered in more than a generalised way for this exemption decision. This overlaps with the consideration of Te Mana o te Wai as discussed below.

Te Mana o te Wai

56. For the purposes of the WSA, Te Mana o te Wai is defined in the National Policy Statement for Freshwater Management 2020. Everyone exercising or performing a function, power, or duty under the WSA must give effect to Te Mana o te Wai when doing so, to the extent it applies to the function, power, or duty.
57. Te Mana o te Wai is a water-centric concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.
58. The framework for Te Mana o te Wai involves 6 principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater, coupled with a hierarchy of obligations that prioritises:
 - (a) first, the health and well-being of water bodies and freshwater ecosystems;
 - (b) second, the health needs of people (such as drinking water); and
 - (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.
59. Te Mana o te Wai is likely to have relatively limited application in the context of DOC's general exemption application which is largely focussed on the circumstances of the supplies and difficulties with meeting the requirements of the WSA. However, each application must be assessed on its facts and the extent of application of Te Mana o te Wai determined.
60. In this instance, DOC has not provided any information or commentary on the implications of its general exemption application specifically from the perspective of Te Mana o te Wai.
61. There is limited impact of roof water supplies on the health of water bodies, the first priority in the hierarchy of Te Mana o te Wai obligations, as water is not being abstracted from a water body such as a river, stream or lake and the rainwater interception is minor in comparison to the wider catchment.

62. Where water for DOC sites is abstracted from a surface water body, it is abstracted only for minimal human domestic needs such as consumption and hand washing, and not used in excess for activities such as cleaning, gardening or recreation.
63. Similarly, any discharges from water supply systems are likely to only be minor overflows of untreated water, which will not have any material impact on water bodies, freshwater ecosystems, or human health.
64. Relevant to the second and third priorities, the application did refer to DOC's Heritage and Visitor Strategy 2021 which provides commentary on the importance of recreation on conservation land for the physical and spiritual well-being of New Zealanders. The Exemption Team considers that the availability of drinking water supplies at DOC huts and campsites enables New Zealanders and international visitors to experience and develop respect for the environment, including in freshwater bush catchments.

Scale, complexity, and risk

65. The relative scale, complexity and risk of the supplies have been factored into the Exemption Team's assessment of DOC's application and the commentary and recommendations in this paper.
66. While the DOC drinking water supplies that are the subject of this exemption are at risk of contamination particularly due to animal activity on roofs and in surface water bodies, the overall public health risk is low due to the small numbers of visitors and short durations of stay at each site. It is also a reasonable expectation that short-term visitors will boil their water, as this is common practice currently and the consumers who visit the sites are typically aware of, and prepared for, the need to do so.
67. As discussed above, the populations using DOC huts and campsites are low, although this is replicated over many supplies across the country.
68. A significant proportion of contamination risk to a water supply occurs in the source water catchment.

Source water risk management

69. DOC sites that are remote and far from power supply are in remote areas away from industrial or agricultural activities and the contaminants they can introduce into the environment. They are however in sometimes densely bushed areas which introduce a risk of microbiological contamination from wild animals. Animal droppings or carcasses can cause microbiological contamination of source water, or water collection and storage infrastructure.
70. As rainwater collection supplies usually have limited or no power supply, consideration is needed on how to manage rainwater when the storage tank is full without electronic control. This is commonly managed with an overflow outlet, where water spills out of a tank once the water level is too high. These outlets are important to ensure the supply can continue operating without being affected by backflow or stagnancy. However, they also provide potential entry

points for animals such as possums, rats and birds. Appropriate screening of overflow outlets can protect the water supply from microbiological contamination from animal ingress.

71. Additional features such as first flush diverters and debris screens assist in reducing the amount of foreign material entering the water tank and degrading the water quality and supply. A first flush diverter works by collecting the initial wash of water from rain and diverting it away from the water collection system. The 'first flush' typically contains a high concentration of particulates and debris that will have been deposited on the roof surface in the preceding dry period. This is a low-cost improvement to significantly improve the quality of roof-collected water.
72. Operators and owners of roof water collection supplies must also be conscious of potential chemical contaminants deposited on roofs that could be collected and washed into the water supply. Roofing materials and coatings can contain chemicals with detrimental health effects if consumed over a long period of time. Chemical contaminants can be deposited by pesticide spraying, or chimney emissions from log burners.
73. Surface water sources are exposed to any contaminants present in the catchment, which can include animal or human faecal matter, decomposing organic material, naturally occurring chemicals or from pollutants in the area. Remote DOC sites are in unpopulated areas away from most pollutants and human waste. The risks of contamination of water sources are low in more remote areas, but not completely absent. The requirement to boil water from these supplies can address microbiological risks.
74. Surface water bodies do have natural water level fluctuations that can affect intake structures, and so where possible the intake structure would be installed suitably deep in the water body to ensure continuous access to water.
75. For both surface water and roof water supplies, sediment will accumulate over time at the bottom of the tank as debris and deposits wash into it from the source. Contaminants can accumulate to high levels in this sediment, which when disturbed can be suspended into the water and delivered to consumers. Sediment in the supply can be reduced through systems such as first flush diverters and settling tanks prior to water entering the tanks.
76. Chemical contaminants cannot be managed by boiling water. However, unless present in extremely high concentrations, the risk that most chemical contaminants present is through a lifetime of consumption. The typically short stays of consumers significantly reduce associated health risks. Sources of chemical contamination such as pest control carried out by DOC will need to be considered in relation to remote water supplies.⁷

⁷ The DOC website contains information on 1080 and drinking water, in relation to tramping huts, the DOC website states: "Exclusions and checks are used so that 1080 does not reach water tanks in back-country huts. We close water supplies to huts in operational areas until any risk of 1080 being present has passed." See [1080 and drinking water: 1080 and recreation and commercial activity \(doc.govt.nz\)](#).

Consistency with the main purpose of the Water Services Act 2021

77. Section 57 of the WSA states that the chief executive must not grant an exemption unless satisfied that the exemption is consistent with the main purpose of the WSA (other than the duty to have a drinking water safety plan).
78. The main purpose in s 3(1) is to ensure that drinking water suppliers provide safe drinking water to consumers.
79. Section 57 of the WSA specifically contemplates that a general exemption might be granted for huts or campsites, with reference to the following specific example:

Example

A person who supplies drinking water at backcountry huts or isolated campsites in a district, where it is impractical to provide safe drinking water and water may have to be boiled, could be exempted from requirements under a class exemption.

80. The example in the WSA does not mean that DOC's application for a general exemption must be granted. Rather, it supports the view that granting DOC's application is consistent with the main purpose of the Act.⁸
81. One of the things a general exemption excludes is the duty to supply safe drinking water, which may appear to cut across the main purpose of the WSA. However, a general exemption can still be consistent with the main purpose of the WSA. To achieve this, measures are required – including potentially the provision of information – to ensure consumers only consume safe drinking water (so they are unlikely to suffer death, injury, or illness from drinking it), even if it is unsafe when supplied. In some situations, it is considered consistent with the purpose of the WSA for drinking water to be made safe beyond the point of supply.
82. In the Exemption Team's view, many of the DOC drinking water supplies cannot reasonably be operated in accordance with the WSA without a general exemption. For a general exemption to be granted and consistent with the main purpose of the WSA, conditions would need to be imposed on the DOC that would ensure that risks are mitigated so far as practicable and water provided to consumers is able to be made safe to drink by boiling.
83. The relevant matters considered in the development of the recommended conditions to ensure consistency with the main purpose of the WSA are discussed below.

Monitoring

84. DOC provided a list of 11 campsites identified as potentially meeting the criteria for this exemption but with seasonally high populations. DOC proposed that the conditions for these sites include additional monitoring and testing as required based on a DOC risk assessment. One of the proposed ways to determine when testing should occur was a population threshold calculated on a rolling average. A population threshold and testing plan was not provided with

⁸ Sections 10 and 23 of the Legislation Act 2019 confirms that statutory examples are part of the text of legislation from which its meaning must be ascertained, although they do not limit the provisions to which they relate.

the application.

85. Standard water quality monitoring includes microbiological and chemical monitoring.
86. Microbiological monitoring usually includes analysis for *E. coli* and total coliforms as indicators of faecal contamination and organic matter respectively. Microbiological contaminants can harm those drinking untreated water soon after consumption. Due to the remote location and lack of treatment of these water supplies, many, if not all, microbiological tests would detect microbiological contamination. However, boiling water is an effective way to disinfect water and manage microbiological risk from the water.
87. It is also a minimum requirement for microbiological test samples to be delivered to laboratories within 24 hours of collection, as well as at a temperature no higher than at the time of collection. These requirements are enforced by laboratories as well as required by the DWQAR and are in place to ensure the test results are valid. These requirements for managing samples would be impractical, if not impossible, for the remote DOC sites in this exemption application.
88. Chemical monitoring is not required as frequently as microbiological tests unless there is a sudden contamination event like a chemical spill affecting the supply. The health risk of chemical contaminants tends to affect consumers over a lifetime of exposure unless in extreme circumstances, unlike the immediate health risk of microbiological contamination. It is therefore standard to conduct water quality tests for relevant chemicals in a cycle of months or years. DOC currently tests remote roof water supplies for lead on a three yearly cycle due to the risk of chemical contamination from roofing materials, a similar frequency to supplies with a permanent population of less than 100 people in the compliance rules.
89. Since DOC sites are not permanently occupied, are in remote locations with limited access and are isolated from significant chemical contaminants, boil water notices are a suitable risk management approach for these supplies without microbiological monitoring. In water supplies known to have risk of elevated chemicals, such as lead or copper roof materials consideration by DOC can be made for monitoring of these risks outside of the exemption conditions.
90. Conditions requiring microbiological monitoring and testing of water quality are not recommended.

Treatment

91. DOC's application did not include any information regarding the configuration of water supplies. Some may contain screens such as mesh so that large debris does not enter intake structures or tanks, but there is no mention of any infrastructure that would be considered 'treatment'.
92. The water supplied from taps in remote huts and at campsites can be expected to contain any contaminants that are on the roof or other collection surface or present in surface water, which are collected in the storage tank.
93. Point of use treatment or boiling of drinking water can be an effective tool for managing poor microbiological water quality in situations where centralised treatment is not practical or cost effective.

94. Any treatment of chemical and microbiological determinands requires reliable access to power and/or regular maintenance, neither of which are available to these remote DOC sites.
95. Conditions requiring treatment of drinking water by DOC are not recommended. Conditions requiring onsite signage and online information advising consumers to boil water is considered sufficient to address the risk of microbiological contamination. To meet this condition, the messaging needs to be adequately worded to convey that water is not treated and must be boiled before drinking.

Supply maintenance

96. Considering the remote location of these sites, regular maintenance and testing by DOC is not feasible. DOC does, however, have a form of maintenance schedule for their assets including remote water supplies.
97. DOC advised that it is updating its standard operating procedures, and an extract from the current site inspection checklist was provided following a further information request. These procedures include checking the water supply is in a good state of repair and carrying out any necessary maintenance.
98. The Exemption Team recommends conditions to this exemption to prescribe some minimum basic maintenance checks that must be undertaken. DOC may choose to develop more comprehensive checklists than what is required by the conditions.
99. The frequency of maintenance checks should ideally be annual. However, DOC has advised that while most sites are visited by staff in accordance with a maintenance schedule, it is not practicable to get around all sites every year due to accessibility and resourcing. Huts that are not on a main circuit are difficult to visit, and weather events may disrupt scheduled visits. A requirement of maintenance checks at least every two years where it is not reasonably practicable to conduct annual visits is consequently recommended.
100. The conditions relating to maintenance proposed by the Exemption Team include firstly a check that the boil water notice signs are in place, and in good repair so as to be readable.
101. Defects may be found during maintenance checks and the person carrying out the check may not have the capability or resources to fix them on the spot. A condition to require any identified repairs to the water supply to be carried out as soon as reasonably practicable is recommended by the Exemption Team. What is a reasonably practicable timeframe will be for DOC to determine based on the facts of each situation, including considerations about accessibility, availability of resources and scale of necessary repair work.

Human resources - capacity and competency

102. The application did not specifically address the capacity and competency of DOC staff or agent who might be involved in the maintenance or management of its drinking water supplies.
103. DOC advised that many backcountry huts and campsites are only checked by staff once per year. The level of attendance by staff (understood to be DOC Rangers but also may be external

contractors) varies according to accessibility of the location, level of facilities and frequency of use.

104. Rangers are not expected to have an in-depth understanding of drinking water supplies. The maintenance checks in the conditions are designed to be undertaken easily by any DOC staff following standard procedures.
105. A condition is recommended to require procedures and training for staff and others carrying out maintenance checks at DOC sites.

Compliance, Monitoring and Enforcement Strategy

106. The CME Strategy outlines the approach Taumata Arowai will take to exemption applications. It provides part of the backdrop for the more detailed provisions in other Taumata Arowai policy and guidance material.
107. Amongst other things, the CME Strategy provides that Taumata Arowai will be guided by the following principles when determining exemption applications:
 - consumption of safe drinking water by consumers is paramount; and
 - the scale, complexity and degree of risk associated with a drinking water supply will affect the assessment of whether an exemption would be consistent with the main purpose of the WSA, to ensure that drinking water suppliers provide safe drinking water to consumers.
108. The Exemption Team has had regard to the relevant parts of the CME Strategy when conducting its assessment and preparing this paper. The principles recorded in the CME Strategy are reflected in the discussion above.

Additional comments

109. The Exemption Team considers that it is not reasonably practicable for DOC to comply with the ordinary requirements of the WSA in respect of the huts and campsites within the scope of the proposed exemption.
110. The recommended conditions will ensure that the proposed exemption is consistent with the main purpose of the WSA.

Approval

The Exemption Team recommends that you:

- (1) **note** the Exemption Team's view that, having regard to the scale, complexity and risk profile of the Department of Conservation supplies proposed to be in scope, a general exemption is consistent with the main purpose of the Water Services Act 2021 (other than the duty to have a drinking water safety plan) and that it is otherwise impractical for the Department to comply with the statutory duties that would otherwise apply;

- (2) **agree** to grant a general exemption under s 57 of the Water Services Act 2021 for the Department of Conservation, under the following criteria:
- (a) Is owned by, and is operated by or on behalf of, the Department of Conservation; and
 - (b) Is located on land that is administered by the Department of Conservation for conservation, recreational, scientific, or other related purposes, including any land administered under any of the following:
 - (i) the Conservation Act 1987;
 - (ii) the National Parks Act 1980;
 - (iii) the Reserves Act 1977; and
 - (c) Is intended to provide overnight shelter to any person who may visit and who carries their own food, bedding, clothing, and outdoor equipment; and
 - (d) Contains only basic facilities, which may include (but are not limited to) any or all of the following:
 - (i) sleeping platforms or bunks;
 - (ii) mattresses;
 - (iii) food preparation surfaces;
 - (iv) appliances for heating;
 - (v) appliances for cooking;
 - (vi) toilets; and
 - (e) Does not have mains power or it is not reasonably practicable to maintain another source of power that is sufficient to operate a treatment plant;
 - (f) Is not permanently staffed. **Yes/No**

- (3) **agree** to grant the exemption subject to the following conditions:

For all huts or campsites with drinking water supplies to which this exemption relates, the Department of Conservation must ensure:

- (a) Adequate signage advising consumers to boil drinking water is installed in a visually prominent place at each site; and
- (b) The Department of Conservation website includes information advising consumers to boil drinking water for each hut and campsite; and
- (c) Maintenance checks are carried out and documented, annually where reasonably practicable and otherwise at a frequency of no less than every two years, for each hut and campsite to ensure the following:
 - (i) Boil water signage remains in place:

- (ii) Tanks are secure from animal ingress:
 - (iii) Any guttering, pipes and screens that are part of the drinking water supply remain intact and functional; and
 - (d) Adequate written procedures are in place along with training to ensure that Department of Conservation staff or agents can competently carry out maintenance checks; and
 - (e) Any necessary maintenance or replacement work identified during maintenance checks, or that the Department of Conservation otherwise becomes aware of, is carried out as soon as reasonably practicable.
- Yes/No**



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Date: 7 June 2024

Sara McFall
Head of Systems, Strategy and Performance